

University of New Hampshire

University of New Hampshire Scholars' Repository

Doctoral Dissertations

Student Scholarship

Spring 2002

Community and ecosystem analysis of forests recovering from landslide disturbance: White Mountain National Forest, New Hampshire

David M. Bryant

University of New Hampshire, Durham

Follow this and additional works at: <https://scholars.unh.edu/dissertation>

Recommended Citation

Bryant, David M., "Community and ecosystem analysis of forests recovering from landslide disturbance: White Mountain National Forest, New Hampshire" (2002). *Doctoral Dissertations*. 60.
<https://scholars.unh.edu/dissertation/60>

This Dissertation is brought to you for free and open access by the Student Scholarship at University of New Hampshire Scholars' Repository. It has been accepted for inclusion in Doctoral Dissertations by an authorized administrator of University of New Hampshire Scholars' Repository. For more information, please contact Scholarly.Communication@unh.edu.

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

**ProQuest Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
800-521-0600**

UMI[®]

**COMMUNITY AND ECOSYSTEM ANALYSIS OF FORESTS
RECOVERING FROM LANDSLIDE DISTURBANCE.
WHITE MOUNTAIN NATIONAL FOREST, NH.**

David M. Bryant

**B. Sc. SUNY College of Environmental
Science and Forestry, 1988**

M. A. University of Colorado, Boulder, CO, 1996

DISSERTATION

**Submitted to the University of New Hampshire
in Partial Fulfillment of
the Requirements for the Degree of**

Doctor of Philosophy

In

Natural Resources

May, 2002

UMI Number: 3045320

UMI[®]

UMI Microform 3045320

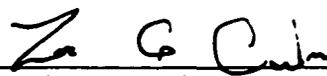
Copyright 2002 by ProQuest Information and Learning Company.
All rights reserved. This microform edition is protected against
unauthorized copying under Title 17, United States Code.

ProQuest Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

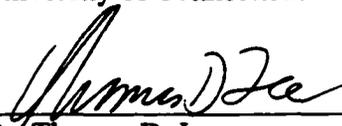
This dissertation has been examined and approved.



**Dissertation Director, Dr. John D. Aber
Professor of Natural Resources, Earth, Oceans,
and Space and Complex Systems Research Center
University of New Hampshire**



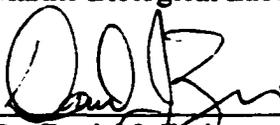
**Dr. Zoe G. Cardon
Assistant Professor
Department of Ecology and Evolutionary Biology
University of Connecticut**



**Dr. Thomas D. Lee
Associate Professor of Plant Biology(Ecology)
University of New Hampshire**



**Dr Edward B. Rastetter
Associate Scientist
The Ecosystems Center,
Marine Biological Laboratory**



**Dr. Daniel J. Zarin
Associate Professor of Tropical Forestry
School of Forest Resources and Conservation
University of Florida**

29 Jan '02
Date

Dedicated to my Mother:

C. Elinor Bryant

**For not worrying (much)
when I go out to play in the woods.**

Acknowledgements

The completion of my Ph.D. program was influenced by numerous individuals that have intersected my personal and academic life. My interest in the natural sciences was first piqued by Mrs. Helen Zuroski, my 5th grade teacher at Sunnyside Elementary School, Pullman WA. Her Camp Wooten Natural Science program introduced myself and my classmates to the wonders of the Pacific Northwest forests, and the processes through which all organisms interact. The importance of this nucleus in directing my choice of ecology as a scientific discipline cannot be overstated.

The intervening years prior to my college education diverted my attention from ecology. My good friend and coworker, Ron Farrington was responsible for my discovery of the Adirondack Mountains and rekindling my relationship with The Great North Woods. In addition he strongly encouraged, and contributed to my education in ecological science.

My parents, Dr. John M. and C. Elinor Bryant, provided strong models for education and vigorous support for my frequently ephemeral career choices. In hindsight, a large portion of my motivation for higher education was gained through the delayed recognition of their wisdom.

My wife Dr. Donna Nimec provided emotional support during both my masters and doctoral degree programs and funds for field transportation, tuition, books and lab analysis. In addition her patience, support, encouragement and friendship greatly expedited the completion of my degrees.

Dr. Sam McNaughton first introduced me to ecosystem ecology and encouraged my advancement to graduate studies. Dr. Timothy Seastedt guided my master's degree research and was instrumental in my enrollment at the University of Colorado, providing a springboard to my education and career.

Dr. Ed Rastetter has been a friend and mentor for several years. His contribution as an employer, prior to my Ph.D. program, and as a member of my graduate committee is greatly appreciated.

Dr. Mark Ducey provided hours of patient instruction in statistical analyses, with particular regard to chapter 4, and the interpretation of forest stand data.

Dr. Edward Flaccus graciously contributed the historical data, collected during his doctoral studies, that were included in chapter 2. Dr. Dan Zarin's foresight provided the historical data and field notes which were donated to this project just prior to Dr. Flaccus's death in 1996. Dan also directed my research during the first years of my Ph.D. program prior to leaving UNH for a position at the University of Florida.

I am very grateful to John Aber for taking on the role of my faculty advisor in Dan's absence. His advice and direction greatly facilitated the last years of my candidacy, and were very helpful in guiding the interpretation of the data presented in Chapter 3.

In addition I would like to thank committee members Drs. Zoe Cardon and Tom Lee for their contribution to my dissertation and my development as a scientist. Tom contributed the College Woods fixed area plot data, that he collected with Dr. Bob Eckert, and which are presented in chapter 4.

The Natural Resource Ph.D. Program Coordinator, Alison Magill facilitated many of the administrative tasks during the completion of my degree. In addition she has provided advice and encouragement through our many years of friendship.

Jim Innes provided hundreds of arduous hours in the collection of data and field samples as both field and laboratory technician for this project. In addition he contributed ideas and solutions to many field related problems and thoughtful discussion on forest mensuration and research methods. Many undergraduates assisted in field and laboratory collection and analysis, these include: Sarah Atwood, Suzanne Conrad, Kevin Hathaway, Joshua Spaulding, Klass Templeman, Sherry Davis, Ben Applegate, and Robin Jenkins.

The research was funded through grants from the Mellon Foundation, USDA McIntire-Stennis, UNH Graduate School Research Grants.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS.....	iv
LIST OF TABLES	ix
LIST OF FIGURES.....	x
ABSTRACT.....	xi
CHAPTER	
I. INTRODUCTION AND LITERATURE REVIEW.....	1
Succession	1
Nutrient Status and Cycling	5
Point-centered Quarter Method	8
References	12
II. REVGETATION OF LANDSLIDES REVISITED: COMPARISON OF RECENT AND HISTORICAL DATA ON A LANDSLIDE CHRONOSEQUENCE	22
Introduction	23
Site description	25
Methods.....	28
Results.....	29
Discussion	35
References	38
III. NUTRIENT STATUS AND CYCLING DURING FOREST ECOSYSTEM DEVELOPMENT ON LANDSLIDE DEPOSITS OF THE WHITE MOUNTAIN NATIONAL FOREST, NH	41
Introduction	42
Site Description	45
Methods.....	48
Statistics	50
Results.....	51
Discussion	63
References	67
IV. FOREST COMMUNITY ANALYSIS AND THE POINT-CENTERED QUARTER METHOD	73
Introduction	74
Methods.....	76

TABLE OF CONTENTS
(continued)

PCQ Sampling.....	77
FAP Sampling.....	77
Statistics.....	78
Results.....	80
Discussion	91
References	95
 BIBLIOGRAPHY	 97
 APPENDICES	 110
App. A: Species Codes	111
App. B: Point-centered Quarter Data (1956).....	112
App. C: Point-centered Quarter Data (1996-98).....	130
App. D: Litterbag Harvest Mass and Nutrient Data.....	154
App. E: Initial Litterbag Carbon Fraction and Nutrient Content Data.....	161
App. F: Foliage Nutrient Content of Dominant Species	162
App. G: Litterfall Nutrient Content of Selected Species	167
App. H: Fixed-area Plot Data, White Mountain Landslide Sites.....	170
App. I: Fixed-area Plot Data, College Woods	178
App. J: Point-centered Quarter, Data for College Woods	209

LIST OF TABLES

	Page
2.1 Detailed Site Information.....	27
3.1 Detailed Site Information (Chap.3)	47
3.2 Litterfall Mass	52
3.3 Percent Foliar Nutrient Concentration.....	53
3.4 Percent Litterfall Nutrient Concentration	54
3.5 Litter Nutrient Flux Regression Parameters.....	61

LIST OF FIGURES

	Page
2.1 DCA Biplots of 1956 Landslide Data.....	30
2.2 DCA Biplots of 1996 Landslide Data.....	31
2.3 Stand Basal Area vs. Site Age.....	33
2.4 Change in Basal Area vs. Site age.....	34
3.1 Percent Nutrient Concentration of Five Dominant Species	56
3.2 Molar Foliar N:nutrient Ratios.....	57
3.3 Molar Foliar N:P Ratio vs. Site Age.....	58
3.4 Seed Rain vs. Foliar P Concentration.....	59
3.5 Litter Decay Constant (k) vs. initial Lignin:N ratio	62
4.1 PCQ vs. FAP Density Estimates, NH Forest Stands.....	82
4.2 PCQ vs. FAP Density Estimates, NH Forest Stands and Published Data	83
4.3 PCQ vs. FAP Basal Area Estimates, NH Forest Stands.....	84
4.4 PCQ vs. FAP Density Estimates, NH Forest Stands and Published Data	85
4.5 Percent Difference (PCQ-FAP) vs. Spatial Index.....	86
4.6 Precision of PCQ Estimates vs. Sampling Intensity.....	88
4.7 PCQ vs. FAP Species Encountered.....	89
4.8 Similarity of PCQ and FAP Estimates of Community Structure.....	90

ABSTRACT

**COMMUNITY AND ECOSYSTEM ANALYSIS OF FORESTS
RECOVERING FROM LANDSLIDE DISTURBANCE.
WHITE MOUNTAIN NATIONAL FOREST, NH.**

By

David M. Bryant

University of New Hampshire, May, 2002

Sites recovering from landslide disturbance offer many opportunities to study ecosystem processes under extreme conditions. Landslides reset the topographic, microclimatic, parent material and vegetation state factors of ecosystem development. Water, and nutrient resources following landslides are more heterogenously distributed. Soil structure and development is disrupted. Solar insolation and diurnal temperature fluctuation exceed that of the surrounding forest. Consequently, plant colonization and community succession differ from less severely disturbed sites such as timber harvest or agricultural afforestation.

Two chapters of this dissertation address the unique conditions of landslide ecosystem development. Chapter 2 compares historical data collected in 1956 on a chronosequence of landslides in the White Mountain National Forest to data collected 40 years later. Detrended correspondence analysis is used to determine the major driving variables of succession during the two sample periods. The 1956 dataset suggests that site age was the primary driver of succession on this chronosequence. The 1996-98 data showed that elevation affected species composition more than site

age following 40 years of succession. Therefore, caution should be used when extrapolating results beyond the range of chronosequence data.

Chapter 3 addresses the patterns of nutrient status and cycling on 4 landslide sites of varying age. Foliar and litterfall nutrient content, and the ratios of the macro nutrients, P, K, Ca and Mg with N are compared to observe potential nutrient imbalances and limitation. Litter decay and nutrient dynamics illustrate relative cycling rates of these elements across the chronosequence. Significant correlations of foliage and litterfall P concentration and N:P ratios with site age imply that P may limit ecosystem development on these sites.

Chapter 4 is a methods paper that compares the equivalence of forest stand data collected with the point-centered quarter and fixed-area plot methods. Data from the landslide sites and from a mature uneven aged forest provides a range of site conditions for comparison of the two methods. Stand density, basal area, species richness and community structure measurements using the point-centered quarter method did not provide equivalent results with fixed area plot estimates.

Chapter 1

Introduction and Literature review

Succession

Forest community succession has been extensively studied and debated for most of the 20th century (Clements 1916, Gleason 1939, Whittaker 1953, Flaccus 1959, Egler 1954, Connell and Slatyer 1977, Oliver 1981, Finegan 1984, Walker et al. 1986, Whittaker et al. 1989, Leak 1991, McCook 1994, Lichter 1998). An extensive review is provided by Oliver and Larsen (1996). The authors structure the debate as a dichotomy between *initial* (Egler 1954, Drury and Nisbet 1973, Henry and Swan 1974, Oliver 1981) and *relay* floristics (Clements 1916, Oosting 1956). While Oliver and Larsen (1996) provide multiple examples for when relay floristics have *not* been observed, they admit that colonizing plants may be required to modify the microenvironment before later species can invade (Connell and Slatyer 1977, van Cleve et al. 1991). The distinction therefore seems somewhat artificial and often depends on the type of disturbance, local climate and regional flora (Connell and Slatyer 1977, Marks 1974, Oliver 1985, Chapin 1993, Chapin et al. 1994, Vitousek et al. 1993, Whittaker et al. 1989, van Cleve et al. 1991).

Previous modification of sites has been referred to as *facilitation* (Connell and Slatyer 1977). The early colonization of sites by tree species, rather than grasses and forbs has been presented as evidence that facilitation is a fallacy (Oliver et al. 1985). Tree species may, however, use strategies that provide advantages over herbaceous species when colonizing secondary successional sites. (Marks 1974) established that

pin cherry (*Prunus pensylvanica*) while short lived produces abundant fruit which persist in “seed banks” of the upper soil horizons. Following canopy opening disturbances, the seeds germinate and pin cherry rapidly dominates.

On newly exposed glacial moraine (Oliver 1985, Chapin 1993, Chapin et al. 1994), volcanic substrates (Vitousek et al. 1993, Whittaker et al. 1989), and river point bars (van Cleve et al. 1991) N fixing species relieve nutrient limitation (Sprent 1993, Walker 1993). In the case of the loess soils of the Tanana River AK N fixers decrease soil pH, salt content and osmotic matric potential, allowing later dominants to invade . Chapin (1993) states that the low nutrient demands and generally larger seed mass of pioneer tree species provide an advantage over forbs and grasses when colonizing primary substrates.

Low nutrient availability, cation exchange capacity and poor water holding characteristics are common in primary successional sites (Miles and Walton 1993, Walker 1993). In addition, microclimate is often harsh as high insolation increases temperature and evapotranspiration. These conditions limit the fundamental niche of invading plant species (Chapin 1993) and in many cases, microbial populations are first to colonize newly exposed surfaces (Vestal 1993). This observation extends the question of succession beyond the plant kingdom.

Regardless of previous debate, the “four stage” theory of stand development has been widely accepted as the likely pattern of species replacement (Oliver and Larsen 1996). As in all taxonomies, these stand development sequences have somewhat arbitrary boundaries that may be difficult to delineate.

The majority of succession studies have utilized the chronosequence and its assumption of the space-for-time substitution. While it has proven useful, this technique suffers from some limitations (Pickett 1989, Fastie 1995). Comparison of different aged sites within a common region implies that time is the primary driver of vegetation change. The SFT, however, ignores local effects of herbivory, site quality, climate, topography and site history. Population dynamics of forest species span centennial time scales, making repeated measures of forest succession impossible within a single human life span. Therefore the chronosequence is often the only practical alternative for the study of forest succession. A direct comparison of chronosequence data against long-term measurements is equally difficult, given the short history of our discipline.

Most investigations of forest succession involve secondary succession, i.e. forests recovering from a stand-clearing disturbance. Relatively few studies address the development of forest ecosystems after severe, catastrophic disturbances. Primary succession has been studied on chronosequences of exposed glacial moraine in Alaska (Reiners et al. 1971) and Washington (Oliver et al, 1985), volcanic lava flows (Whittaker et al. 1989, Kitayama et al. 1995), and landslides deposits (Flaccus 1958, Guariguata 1990). While topographically limited in distribution, landslides are common and occur over a broad geographical extent (Selby 1985).

Whether landslide deposits qualify as primary substrates has been questioned due to residual soil and organic material remaining after the disturbance (Walker et al. 1996). The relative quantity and quality of these residues, as well as the substrate itself, varies with the geography and geology (Flaccus 1958 and 1959, Hull and Scott

1982, Garaguita 1990, Zarin and Johnson 1995a and 1995b, Walker et al. 1996). On the tropical landslides studied by Zarin and Johnson (1995a and 1995b) and Walker et al. (1996) the soils were coarse grained and intermixed with rocks and residual vegetation. Lahars spawned by the melting of glaciers during the eruption of Mount St. Helens, WA are composed of even finer grained, glacier derived, silt and loess. These lahar substrates also contain the residual vegetation that the soils supported prior to disturbance. The vegetation, organic horizons and soil organic matter becomes mixed into the debris during the disturbance event (Wood and Moral 1987).

Landslides in the White Mountain National Forest Region (WMNF) are often spawned during heavy downpours (Caine 1980, [Selby, 1993 #940]) which initiate soil rupture at high elevation, the overburden is removed and carried downslope, leaving bare rock slabs similar to granite outcrops (Houle 1990) but with much greater slope (25° to 40°). The remaining substrate varies greatly along the slide (Flaccus 1958, Francescato et al. in press). Large nearly cubical joint blocks, as well as boulders, ranging in size from 1 - 3 m³ are commonly present on the slide path. At lower elevations quaternary deposits of glacial till combine in the body of the landslide and are thoroughly mixed with residual vegetation (Flaccus 1958). The regolith and underlying bedrock is composed of metamorphic minerals, primarily mica schists, often intruded with quartz monzonite and Conway granite. Erosion of mountain slopes following landslides is extensive often removing 50 – 100% of organic matter, mineral soil and the nutrient reservoirs therein (Pandey et al. 1983, Zarin, 1995).

Nutrient status and cycling

Recent studies of forest succession on landslides were performed in tropical montane systems (Guariguata 1990, Walker 1996 and Zarin and Johnson 1995a, 1995b). Zarin and Johnson (1995) measured soil and biomass on a 55 yr. chronosequence and found that production and decomposition of soil organic matter were the dominant processes controlling capture, retention and cycling of nutrients. Forest recovery in temperate latitudes may differ, compared to the tropics, as temperature and precipitation are lower, thus reducing production, decomposition and nutrient cycling rates.

As mentioned previously, plant colonization of disturbed sites will subsequently affect microenvironmental constraints on nutrient cycling as will changes in species composition during succession. In general, early successional species have high growth and nutrient uptake rates and low retranslocation leading to higher litter quality, rapid decomposition and nutrient cycling rates (Tilman 1985). Chapin (1980, 1993) states that species likely to colonize areas following severe disturbance such as landslides will have low relative growth rate, which will impart low nutrient and water uptake requirements, and low leaf area thus reducing water losses. These are likely to be tree species rather than grasses or forbs (Chapin 1993), but see (Wood and Moral 1987). Therefore, high light and low nutrient/water requirements will determine colonizing species resource ratios.

As succession advances, competition for light and nutrients favor species with slower growth, greater nutrient conservation and low litter quality (McCook 1994). These trends suggest that nutrient availability should decline with succession, however, biomass and net primary production (NPP) also increase with succession suggesting that total stand nutrient cycling may increase even as biomass carbon:nutrient ratios decline.

The plant competition strategies that govern succession along a temporal gradient of changing resources has been addressed by the resource-ratio hypothesis (Tilman 1985). The theory posits that coexistence of one or more species occurs when the supply rates of the resources match the sums of the uptake requirements for all species. Succession proceeds when the supply ratios change through time and requirements of existing plants are no longer met. Therefore, competition caused by changes in resource availability drives succession.

Following catastrophic disturbance and exposure of primary substrate, plant available nitrogen is provided mainly through precipitation and the occurrence of N fixing species (Sprent 1993, Walker 1993). Anthropogenic deposition of nitrogen has occurred for more than 30 years in New England (McNulty and Aber 1993, Likens et al. 1998) and may provide sufficient N inputs for plant colonization in lieu of biological N fixers. Plant available forms of N in precipitation (NO_3^- and NH_4^+) acidify soils (Van Miegort et al. 1992, Christ et al. 1999, Meiwes et al. 1998), soil solution and surface waters (Federer et al. 1989) thus increasing cation mobility and reducing base saturation of cation exchange sites (Lawrence et al. 1995, Likens et al. 1998, Christ et al. 1999).

Regional wet and dry deposition also adds base cations to WMNF ecosystems in the following pattern $\text{Ca}^{+2} > \text{K}^{+} > \text{Mg}^{+2}$. Although leaching outputs and vegetation uptake exceed weathering and recent precipitation inputs for these elements (Likens and Bormann 1995, Bailey et al. 1996) causing net reduction of exchangeable base cation reservoirs. Landslide processes expose new surface area for weathering and increase base cation and P release (Hewitt 1988). Weathering rate however is strongly dependent on mineral size fraction (Brady 1996, Bailey et al. 1996) and particle sorting during landslides results in large fragments at the surface while fines settle to lower depths or are washed away (Hewitt 1988).

Erosion of soil organic horizons further complicates the issue of nutrient availability by reducing CEC, thus increasing cation mobility and leaching losses (Brady 1996). Provided plants can access available cations, removal from the soil through uptake in accumulating biomass will further exacerbate acidification (Likens et al. 1998) in a region already at risk (Aber 1992, Aber et al. 1995, Driscoll et al. 2001). Furthermore phosphorus turnover and plant uptake is an order of magnitude greater in the forest floor than in mineral horizons (Yanai 1992). Occlusion of P on Al and Fe oxides in the B horizons of spodosols reduces leaching of P from developed soils in WMNF (Bormann and Likens 1979, Yanai 1992). But disruption of soil horizons and exposure of weathering surfaces during landslides (Hewitt 1988, Selby 1993) potentially increase P mobility. Also, mixing and redistribution of soil organic matter and vegetation during debris flows may form zones of high P release during decomposition.

The recovery of forest nutrient capital following catastrophic disturbance is dependent on complex feedbacks operating at community and ecosystem scales. Analysis of these feedbacks is integral to our understanding of recovery processes and forest productivity. Primary succession provides a useful model for understanding the processes by which forest productivity is established and maintained.

While forest systems are generally limited by nitrogen (N), findings from (Ingestad and Agren 1995) and (Van Den Driessche 1974) suggest that macronutrients are required in stoichiometric ratios to maximize plant production. When foliar nutrient concentration differs from these molar ratios, specific nutrient deficiencies may be observed (see also Perry 1994). Foliar measurements provide a spatially and seasonally integrated measurement of actual nutrient use, avoiding the heterogeneity inherent in soil sampling methods (Van Den Driessche 1974, Vitousek et al. 1988, Perry 1994). Prior to litterfall, essential nutrients are retranslocated from foliage to stems and roots, thus reducing concentrations in leaf litter. The abscised litter then enters the detrital food web during decomposition. The rate of mass loss and nutrient dynamics during litter decay provide indices of soil organic matter accumulation and nutrient cycling rates (Swift et al. 1979). These indices, foliar and litter nutrient content and litter nutrient dynamics provide an efficient means of determining relative nutrient availability at different aged landslide sites.

Point-centered Quarter Method

In his initial survey of WMNF landslide Flaccus (1959) used the, then newly developed, Point-Centered Quarter method (PCQ) of vegetation sampling (Cottam and Curtis 1956) during his original survey. The PCQ reduces the effort required to

sample vegetation (Lindsey 1958). For this reason it has become the most widely used of the original distance methods.

The PCQ been since extended from forests to grasslands (Dix 1961, Penfound 1963) and desert communities (Etchberger and Krausman 1997). With regard to the latter and other sparsely vegetated communities, the potential of missing plants in a given quadrant even spawned the need for bootstrap data replacement (Solow 1989) and “truncated” methods (Ward and Petranka 1981).

While favorable reviews were conducted (Dix 1961, Penfound 1963, Batcheler 1971) the use of distance methods in non-random plant distribution continued to produce skepticism. Clark and Evans (1954), Pielou (1977), Vincent et al. (1976) and Diggle (1977) explored the nature of plant distribution and observed that aggregated stem patterns are more prevalent than previously suspected. Risser and Zedler (1968) and Good and Good (1971) noted a large degree of bias in both density and basal area estimates when applying the PCQ to grassland vegetation. With regards to density, the bias was shown to be linearly related to Pielou’s (1959) Index of Spatial Randomness, underestimating aggregated stands and overestimating plants are evenly dispersed (Risser and Zedler 1968). This suggests that a correction of the bias may be possible using the slope of the relationship, however Pielou’s Index requires an independent quadrat based density estimate thus negating the utility of a PCQ estimate.

The search for a solution to the inherent bias in PCQ has produced many imaginative modifications of the original technique. These are generally referred to as *robust density estimators* implying the ability to produce unbiased estimates over

all spatial patterns (Pollard 1971, Batcheler 1971, Cox 1976, Patil et al. 1979, Byth and Ripley 1980). .

Pollard (1971) presents a simple correction factor, $n-1/n$, can be applied to remove the bias from any distance method, where n = number of stems measured. This implies that the bias is always positive and is reduced by simply increasing the sampling intensity. The assumption is curious as earlier study showed a tendency of distance methods to over estimate density when plants were evenly distributed and under estimate in aggregated stands (Risser and Zedler 1968).

Cox (1976) provides 2 estimators that are presented as unbiased although each requires prior knowledge of the stem distribution. In a companion paper (Cox and Lewis 1976) present a method for estimating the spatial pattern which, while much more computationally intense, is not found to give significantly different results from a simple index presented by Holgate (1965). The index uses the ratio of the distance from a random point to the nearest tree, with the distance from that tree to the next closest tree. The technique is essentially the combination of the closest individual and the nearest neighbor methods presented by Cottam and Curtis (1956). In fact, the authors state that for aggregated stands all distance methods except the nearest-neighbor method under estimate density. The nearest-neighbor method overestimates density requiring an ad hoc correction factor (Cottam and Curtis 1956). The nearest-neighbor is a common theme in both density estimators (Batcheler 1971, Cox and Lewis 1976, Byth and Ripley 1980) and spatial indexes (Thompson 1956, Clark and Evans 1965, Holgate 1965, Cox and Lewis 1976, Cormack 1977). All of which may simply benefit from the opposing biases in the two methods canceling out.

The major limitation to distance based density estimators and spatial pattern indices may simply be the inability to locate truly random points in a forest. Some investigators mention the problem of operator error, the obstruction of trees when locating a transect line (Cottam and Curtis 1956, Byth and Ripley 1980) and simply the ability to locate point randomly when part of the total space is taken up by stems (Pielou 1959). Obviously sample points cannot be located in space already occupied. Pielou (1959) offers the solution of numbering individual trees and using random number generators determine samples, but admits the impracticality of such a scheme. If the issue of random location produces the bias inherent in sampling methods, large quadrats would minimize the number of sample points per quantity of trees measured.

Of note is the n-tree distance method (Lessard et al. 1994). This method has been referred to as a distance method, resulting in some confusion in the literature. Rather than measuring the distance to stems from a random point, the radius of the circle that encompasses a predetermined number of stems is measured. Lessard et al. (1994) found that measuring $n = 3$ stems was the most time efficient and accurate when compared to prism plots methods. While similar to the methodology of PCQ and other distance methods, n-tree has some distinct advantages. The degree of aggregation is easily apparent simply from the variance of the areas measured at each point. If the random points are mapped, perhaps by use of a Global Positioning System of adequate precision, the pattern could be estimated over the entire scale of the survey. (Pielou 1959) cautioned that non-stationary point patterns that varied over the extent of the survey would produce inaccurate estimates when using distance

method for pattern analysis. The n-tree distance method would seem to overcome this limitation. (Delince 1986) also presented an alternative to PCQ that combined the use of distance methods with tessellation for simultaneous inventory and pattern determination. The method is much more labor intensive than the n-tree method, requiring 16 stems at each point. The ability to survey both stem density and spatial pattern is obvious as any bias could be determined and corrected for without the need of a redundant density estimate. The n-tree distance method seems to be the most promising of all modifications to date, although rigorous testing over a broad range of plant communities and spatial patterns has yet to be conducted.

References

- Aber, J. D. 1992. Nitrogen cycling and nitrogen saturation in temperate forest ecosystems. Trends in evolution and ecology 7:220-223.**
- Aber, J. D., A. Magil, S. G. McNulty, R. D. Boone, K. J. Nadelhoffer, M. Downs, and R. Hallet. 1995. Forest biogeochemistry and primary production altered by nitrogen saturation. Water, air and soil pollution 85:1665-1670.**
- Bailey, S. W., J. W. Hornbeck, C. T. Driscoll, and H. E. Gaudette. 1996. Calcium inputs and transport in a base-poor forest ecosystem as interpreted by Sr isotopes. Water Resources Research 32:707-719.**
- Batcheler, C. L. 1971. Estimation of density from a sample of joint point and nearest neighbor distances. Ecology 52:703-709.**
- Brady, N. C. 1996. Nature and Property of Soils, 12 edition. Prentice Hall, NY.**
- Byth, K., and B. D. Ripley. 1980. On sampling spatial patterns by distance methods. Biometrics 36:279-284.**
- Caine, N. 1980. The rainfall intensity-duration control of shallow landslides and debris flows. Geografiska Annaler 62A:23-27.**
- Chapin, F. S. I. 1980. The mineral nutrition of wild plants. Annual Review of Ecological Systems 11:233-226-.**
- Chapin, F. S. I. 1993. Physiological controls over plant establishment in primary succession. Pages 161-178 in J. Miles and D. W. H. Walton, editors. Primary Succession on Land. Blackwell, London.**

- Chapin, F. S. I., L. R. Walker, C. L. Fastie, and L. C. Sharman. 1994. Mechanisms of primary succession following deglaciation at Glacier Bay, Alaska. *Ecological Monographs* **64**:149-175.
- Christ, M. J., C. T. Driscoll, and G. E. Likens. 1999. Watershed and plot-scale tests of the mobile anion concept. *Biogeochemistry* **47**:335-353.
- Clark, D. F., and F. C. Evans. 1954. Distance to nearest neighbor as a measure of spatial relationships in populations. *Ecology* **35**:445-453.
- Clements, F. E. 1916. *Plant succession: an analysis of the development of vegetation*. Carnegie Institute of Washington, Washington DC.
- Connell, J. H., and R. O. Slatyer. 1977. Mechanisms of succession in natural communities and their role in community stability and organization. *The American Naturalist* **111**:1119-1144.
- Cormack, R. M. 1977. The invariance of Cox and Lewis's statistic for the analysis of spatial patterns. *Biometrika* **64**:143-144.
- Cox, T. F. 1976. The robust estimation of the density of a forest stand using a new conditioned distance method. *Biometrika* **63**:493-499.
- Cox, T. F., and T. Lewis. 1976. A conditioned distance ratio method for analyzing spatial patterns. *Biometrika* **63**:483-491.
- Delince, J. 1986. Robust density estimation through distance measures. *Ecology* **67**:1576-1581.
- Diggle, P. J. 1977. The detection of random heterogeneity in plant populations. *Biometrics* **33**:390-394.

- Dix, R. L. 1961. An application of the point-centered quarter method to the sampling of grassland vegetation. *Journal of Range Management* 14:63-69.
- Driscoll, C. T., G. B. Lawrence, A. J. Bulger, T. J. Butler, C. S. Cronan, C. Eager, K. F. Lambert, G. E. Likens, J. L. Stoddard, and K. C. Weathers. 2001. Acidic Deposition in the Northeastern United States: Sources and Inputs, Ecosystem Effects, and Management Strategies. *BioScience* 51:182-198.
- Drury, W. H., and I. C. T. Nisbet. 1973. Succession. *Journal of the Arnold Arboretum* 53:331-368.
- Egler, F. E. 1954. Vegetation science concepts: I. Initial floristic composition: A factor in old-field vegetation development. *Vegetatio* 4:412-417.
- Etchberger, P. R., and P. R. Krausman. 1997. Evaluation of five methods for measuring desert vegetation. *Wildlife Society Bulletin* 25:604-609.
- Fastie, C. L. 1995. Causes and ecosystem consequences of multiple pathways of primary succession at Glacier Bay, Alaska. *Ecology* 76:1899-1916.
- Federer, C. A., J. Hornbeck, L. M. Tritton, C. W. Martin, R. S. Pierce, and C. T. Smith. 1989. Long-term depletion of calcium and other nutrients in eastern US forests. *Environmental Management* 13:59-601.
- Finegan, B. 1984. Forest succession. *Nature* 312:109-114.
- Flaccus, E. 1958. Landslides and their revegetation in the White Mountains of New Hampshire. Ph. D. Duke University, Durham, NC.
- Flaccus, E. 1959. Revegetation of landslides in the White Mountains of New Hampshire. *Ecology* 40:692.

- Francescato, V., M. Scotton, D. J. Zarin, J. C. Innes, and D. M. Bryant. 2001. Fifty years of natural revegetation on a landslide in Franconia Notch, NH, USA. *Canadian Journal of Botany* in press.
- Gleason, H. A. 1939. The individualistic concept of the plant association. *American Midland Naturalist* 21:92-110.
- Good, R. E., and N. F. Good. 1971. Vegetation of a Minnesota prairie and a comparison of methods. *American Midland Naturalist* 85:228-231.
- Guariguata, M. R. 1990. Landslide disturbance and forest regeneration in the upper luquillo mountains of Puerto Rico. *Journal of Ecology* 78:814-832.
- Henry, J. D., and J. M. A. Swan. 1974. Reconstructing forest history from live and dead plant material - and approach to the study of forest succession in southwest New Hampshire. *Ecology* 55:772-783.
- Hewitt, k. 1988. Catastrophic landslide deposits in the Karakoram Himalaya. *Science* 242:64-67.
- Holgate, P. 1965. Some new tests of randomness. *Journal of Ecology* 53:261-266.
- Houle, G. 1990. Species-area relationship during primary succession in granite outcrop plant communities. *American Journal of Botany* 77:1433-1439.
- Hull, J. C., and R. C. Scott. 1982. Plant succession on debris avalanches of Nelson County, Virginia. *Castanea* 47:158-176.
- Ingestad, T., and G. I. Agren. 1995. Plant nutrition and growth: Basic principles. *Plant and Soil* 168-169:15-20.

- Kitayama, K., D. Mueller-Dombois, and P. M. Vitousek. 1995. Primary succession of Hawaiiian montane rain forest on a chronosequence of eight lava flows. *Journal of Vegetation Science* 6:211-222.
- Lawrence, G. B., M. B. David, and W. C. Shortle. 1995. A new mechanism for calcium loss in forest-floor soils. *Nature* 378:162-165.
- Leak, W. B. 1991. Secondary forest succession in New Hampshire, USA. *Forest Ecology and Management* 43:69-86.
- Lessard, V., D. D. Reed, and N. Monkevich. 1994. Comparing N-tree distance sampling with point and plot sampling in northern Michigan forest types. *Northern Journal of Applied Forestry* 11:12-16.
- Lichter, J. 1998. Primary succession and forest development on coastal Lake Michigan dunes. *Ecological Monographs* 64:487-510.
- Likens, G. E., and F. H. Bormann. 1995. *Biogeochemistry of a Forested Ecosystem*. Springer-Verlag, New York.
- Likens, G. E., C. T. Driscoll, D. C. Buso, T. G. Siccama, C. E. Johnson, G. M. Lovett, T. J. Fahey, W. A. Reiners, D. F. Ryan, C. W. Martin, and S. W. Bailey. 1998. The biogeochemistry of calcium at Hubbard Brook. *Biogeochemistry* 41:89-173.
- Marks, P. L. 1974. The role of pin cherry (*Prunus pensylvanica* L.) in the maintenance of stability in the northern hardwood ecosystems. *Ecological Monographs* 44:73-88.
- McCook, L. J. 1994. Understanding ecological community succession: Causal models and theories, a review. *Vegetatio* 110:115-147.

- McNulty, S., and J. D. Aber. 1993. Effects of chronic nitrogen additions on nitrogen cycling in a high elevation spruce-fir stand. *Canadian Journal of Forest Research* **23**:1252-1263.
- Meiwes, K. J., A. Merino, and F. O. Beese. 1998. Chemical composition of throughfall, soil water, leaves and leaf litter in a beech forest receiving long term application of ammonium sulphate. *Plant and Soil* **210**:217-230.
- Miles, J., and D. W. H. Walton. 1993. *Primary Succession on Land*. Blackwell Scientific, Oxford.
- Oliver, C. D. 1981. Forest development in North America following major disturbances. *Forest Ecology and Management* **3**:153-168.
- Oliver, C. D., A. B. Adams, and R. J. Zasoski. 1985. Disturbance patterns and forest development in a recently deglaciated valley in the northwest Cascade Range of Washington, USA. *Canadian Journal of Forest Research* **15**:221-232.
- Oliver, C. D., and B. C. Larsen. 1996. *Forest Stand Dynamics*. Academic Press, NY.
- Oosting, H. J. 1956. *The study of plant communities*. W. H. Freeman, San Francisco.
- Pandey, A. N., P. C. Pathack, and J. S. Singh. 1983. Water, sediment and nutrient movements in forested and non-forested catchments in Kuman Himalaya. *Forest Ecology and Management* **7**:19-29.
- Penfound, W. T. 1963. A modification of the point-centered quarter method for grassland. *Ecology* **44**:175-176.
- Perry, D. A. 1994. *Forest Ecosystems*. Johns Hopkins University Press, Baltimore.

- Pickett, S. T. A. 1989. Space-for-time Substitution as an alternative to long-term studies. *in* G. Likens, editor. Long-term studies in ecology. Springer-Verlag, New York.
- Pielou, E. C. 1959. The use of point-to-plant distances in the study of the pattern of plant populations. *Journal of Ecology* 47:607-613.
- Reiners, W. A., I. A. Worley, and D. B. Lawrence. 1971. Plant diversity in a chronosequence at Glacier Bay, Alaska. *Ecology* 52:55-69.
- Risser, P. G., and P. H. Zedler. 1968. An evaluation of the grassland quarter method. *Ecology* 49:1006-1009.
- Solow, A. R. 1989. Bootstrapping sparsely sampled spatial point patterns. *Ecology* 70:379-382.
- Sprent, J. I. 1993. The role of nitrogen fixation in primary succession. Pages 209-220 *in* J. Miles and D. W. H. Walton, editors. Primary succession on land. Blackwell Scientific, Oxford.
- Swift, M. J., O. W. Heal, and J. M. Anderson. 1979. Decomposition in terrestrial ecosystems. Blackwell scientific publications, Oxford.
- Tilman, D. 1985. The resource-ratio hypothesis of plant succession. *The American Naturalist* 125:827-852.
- van Cleve, K., F. S. C. III, C. T. Dyrness, and L. A. Viereck. 1991. Element cycling in taiga forest: state factor control. *BioScience* 41:78-88.
- Van Den Driessche, R. 1974. Prediction of mineral nutrient status of trees by foliar analysis. *The Botanical Review* 40:347-389.

- Van Miegort, H., D. W. Cole, and N. W. Foster. 1992. Nitrogen distribution and cycling. Pages 178-195 in D. W. Johnson and S. E. Lindberg, editors. Atmospheric Deposition and Forest Nutrient Cycling. Springer-Verlag, New York.**
- Vestal, J. R. 1993. Cryptoendolithic communities from hot and cold deserts: Speculation on microbial colonization and succession. Pages 5-16 in J. Miles and D. W. H. Walton, editors. Primary Succession on Land. Blackwell Scientific, Oxford.**
- Vincent, P. J., J. M. Haworth, J. G. Griffith, and R. Collins. 1976. The detection of randomness in plant patterns. Journal of Biogeography 3:373-380.**
- Vitousek, P. M., P. A. Matson, and D. R. Turner. 1988. Elevational and age gradients in hawaiian montane rainforest: foliar and soil nutrients. Oecologia 77:565-570.**
- Vitousek, P. M., L. R. Walker, L. D. Whiteaker, and P. A. Matson. 1993. Nutrient limitations to plant growth during primary succession in Hawaii Volcanoes National Park. Biogeochemistry 23:197-215.**
- Walker, L. R. 1993. Nitrogen fixers and species replacements in primary succession. Pages 249-272 in J. Miles and D. W. H. Walton, editors. Primary Succession on Land. Blackwell Scientific, Oxford.**
- Walker, L. R., D. J. Zarin, N. Fetcher, R. W. Myster, and A. H. Johnson. 1996. Ecosystem development and plant succession on landslide in the Caribbean. Biotropica 28:566-576.**

- Walker, L. R., J. C. Zasada, and F. S. C. III. 1986. The role of life history processes in primary succession on an Alaskan floodplain. *Ecology* **67**:1243-1253.
- Ward, W., and J. W. Petranka. 1981. A correction factor for missing point-center quarter data. *Ecology* **62**:491-494.
- Whittaker, R. H. 1953. A consideration of climax theory: the climax as a population and pattern. *Ecological Monographs* **23**:41-78.
- Whittaker, R. J., M. B. Bush, and K. Richards. 1989. Plant recolonization and vegetation succession on the Krakatau Islands, Indonesia. *Ecological Monographs* **59**:59-123.
- Wood, D. M., and R. d. Moral. 1987. Mechanisms of early primary succession in subalpine habits on Mount St. Helens. *Ecology* **68**:780-790.
- Yanai, R. D. 1992. Phosphorus budget of a 70-year-old northern hardwood forest. *Biogeochemistry* **17**:1-22.
- Zarin, D. J., and A. H. Johnson. 1995a. Base saturation, nutrient cation, and organic matter increases during early pedogenesis on landslide scars in the Luquillo Experimental Forest, Puerto Rico. *Geoderma* **65**:317-330.
- Zarin, D. J., and A. H. Johnson. 1995b. Nutrient Accumulation during primary succession in a montane tropical forest. *Soil Science Society of America Journal* **59**:1444-1452.

Chapter 2

Revegetation of Landslides Revisited: Comparison of Recent and Historical Data on a Landslide Chronosequence.

Introduction

Most studies of forest succession have relied upon the chronosequence and the assumption of the space-for-time substitution (SFT). While generally useful, this technique has some limitations (Pickett 1989, Fastie 1995). Forest population dynamics however, operate on multi-decadal time scales, making the chronosequence approach the only alternative to long-term investigations. Long-term data sets (> 50 years) of repeated measurements are generally lacking but historical chronosequence data sets offer opportunities for comparison of successional trajectories across long time scales. Foster and Tilman (2000) recently compared an old-field chronosequence by resampling after a period of 14 years. The authors found that the pattern of succession predicted by the space-for-time substitution in the original data was consistent with recent measurements. Relatively few studies provide long-term data that addresses the development of forest ecosystems following severe, catastrophic disturbances that expose primary substrate. Primary succession has been studied on chronosequences of exposed glacial moraine in Alaska (Reiners et al., 1971) and Washington (Oliver et al., 1985), volcanic lava flows (Whittaker et al., 1989, Kitayama et al. 1995) and landslide deposits (Flaccus 1958, 1959, Guariguata 1990, Dalling 1994, Dalling and Tanner 1995). While topographically limited in distribution, landslides are common and occur over a broad geographic extent (Selby 1985, Selby 1993).

Previous studies suggest that landslide disturbance provides reciprocal interaction of geomorphology with vegetation which maintains landscape

heterogeneity (Moss & Rosenfeld, 1978). Steep, high elevation slopes may be bare slabs of bedrock, while down-slope remnants of glacial till, scree and talus may occur. Along side of the gully, recently scoured out of the valley, the slide may cast off bars of rubble in deposits similar to point bars along rivers. Landslides, often follow previously established streambeds that are subsequently chanelized and sometimes redirected as a result of the slide. The adjacent deposits left at the margins of the slide path may or may not be deposited in the new basin. As the slope of the slide course declines, the majority of the material is left as a terminal deposit at the toe-slope. This diversity of surfaces creates different substrates for revegetation (Hewitt 1988). The producing habitat variation within landslide deposits may transfer through to community structure at the stand level (Francescato et al. 2000).

Flaccus (1958, 1959) investigated vegetation recovery on a chronosequence of landslide deposits in the White Mountain National Forest (WMNF) of New Hampshire, USA. His work represents the only published analysis of forest community development on barren substrates in the White Mountain region. The Flaccus landslide data has been preserved and, combined with the data presented here, provides a unique opportunity to compare original measurements with those taken 40 years later. A major utility of combining historical and current chronosequence data set is that differences in community structure between the two measurements can be observed directly.

Detrended correspondence analysis (DCA) was used to evaluate change in species composition site age and other variables that represent the major environmental complex gradients, i.e. elevation, slope and aspect. This application of

ordination to successional studies has been evaluated favorably elsewhere (Austin, 1985, Kitayama, 1995, Foster and Tilman 2000). The DCA was used to test the hypothesis that differences in community structure among sites are related to differences in site age (sensu Foster and Tilman (2000).

Site Description

Flaccus (1958) surveyed 14 stands on the six sites presented here. The disturbances occurred between 1885 and 1948 in the WMNF (Table 1.1). These sites provide a chronosequence of 18 - 71 years at the time of the original survey and from 60 – 113 years when measured in 1998. All of the landslides originated at > 900 m following periods of intense rainfall (> 17.2 cm in 24 hrs.). The mechanisms of genesis and geomorphology of these debris slides are described at length elsewhere (Flaccus 1958, 1959).

The regional vegetation is typical of the Eastern Hardwood Forest type (Bormann and Likens 1979). Surrounding vegetation is secondary forest of varying age. Extensive logging occurred in the region during the early 1900's. Additionally large volumes of timber were removed from the WMNF in salvage operations following 1938 hurricane (Foster & Boose, 1995).

Underlying parent material consists of metamorphic minerals, primarily mica schist, intruded with quartz monzonite and Conway granite. The parent material is acidic, with high concentrations of aluminum and silica and a low base cations content (Ca, Mg, and K) (Likens & Bormann, 1995). Microtopography is similar to the "pit and mound" pattern typical of old growth forests of the region (Bormann and Likens 1979, Beatty 1984). While pit and mound microtopography generally results

from wind-throw (Bormann and Likens 1979, Foster 1988) on landslides the pattern is caused by the varying size and particle sorting of debris deposited during the landslide. The result is a very coarse, highly permeable rooting substrate, with little to no soil development.

Table 1.1
Detailed Site Information for a Chronosequence of
Landslide Research Sites in the
White Mountain National Forest

Site	Occurrence	Number of sites	Aspect	Elevation (m)	Dates surveyed	Location
Pinkham Notch	1927	2	102-129	500 – 750	1956/1997	44° 13' 41'' N 71° 15' 27'' E
Big Coolidge Mt.	1938	3	174	450 - 500	1956/1996	44° 9' 38'' N 71° 40' 21'' E
Webster Scout Trail	1938	4	49-117	820 – 980	1956/1996	44° 11' 30'' N 71° 40' 12'' E
Franconia Notch	1948	6	267-247	625 - 980	1997	44° 9' 38'' N 71° 40' 29'' E
Osceola Mt. E.	1897	2	90	700 - 750	1956/1997	44° 0' 55'' N 71° 38' 05'' E
Cherry Mt.	1885	1	263	590	1956/1997	44° 19' 16'' N 71° 31' 05'' E
Tripyramid Mt. N.	1885	2	268	760 - 825	1956/1997	43° 58' 35'' N 71° 27' 38'' E

Methods

The sampling regime described in Flaccus (1958) was duplicated as closely as possible. Point-centered quarter measurements (see Cottam and Curtis 1956) of stems > 2.5 cm dbh was conducted at randomly located points along evenly spaced transects, parallel to the slope contours. The number of sample points varied with the size of each stand to maintain equality of sampling intensity among stands. Only the geographic site variables, slope, aspect, elevation were recorded in 1956 therefore no additional environmental variables, with the exception of site age was included in the analysis.

Detrended correspondence analysis (DCA) was used to investigate patterns of species composition across these sites. The first ordination involved data measured in 1956, when the sites ranged in age from 18 –71 years. The second ordination of these same stands ranged from 58 – 113 years of age when re-measured in 1996-98. The DCA method was chosen as superior to other forms of ordination for monotonic species response curves (Jongman et al., 1995). All ordinations were performed using the PC-ORD software package ver. 4.01 (Copyright 1999, MjM software co. Glenden Beach, OR). The axes were re-scaled to the s.d. of the data sets and rare species were down-weighted as described in Hill and Gauch (1980). Linear least-squares regressions of axis scores vs. each environmental variable were performed. Significance of the regression slopes was determined by single factor ANOVA.

Results

The results of the DCA ordination of the 1956 data are shown in Figure 1. Site age exhibited a strong significant correlation ($r^2 = 0.88$, $p < 0.001$) with axis 1 scores. The highly significant correlation of DCA axis scores supports the hypothesis that community structure is related to site age in the 1956 data. The trend of site age with stand position on the 1st axis is visible in Figure 1a. In addition the 71 year-old sites are tightly grouped in species space, suggesting close similarity in species composition. The lengths of axes 1 and 2 in this ordination were 1.93 s.d. and 1.73 s.d. respectively, suggesting little variation in the axis scores and, therefore, species composition across the chronosequence.

The species occurrence across the sample space is shown in figure 1b. The successional pattern across the chronosequence is consistent with that observed by other successional studies in the WMNF (Leak 1991, Bormann and Likens 1979). Early successional, shade intolerant species (Burns & Honkala, 1991) mountain ash (*Sorbus americana*), big-toothed aspen (*Populus grandidentata*), and pin cherry (*Prunus pensylvanicum*) occur at the right-handed end of axis 1 (young sites). Late successional species red spruce (*Picea rubra*), and balsam fir (*Abies balsamea*) occur on the left-hand side of figure 1b.

The results from ordination of the 1996-98 data show a much different pattern (Figure 1.2) from that in Figure 1.1. Chronosequence sites are distributed by elevation along axis 1 rather than stand age. Stand elevation correlates highly significantly with the axis 1 scores ($r^2 = 0.61$, $p < 0.001$).

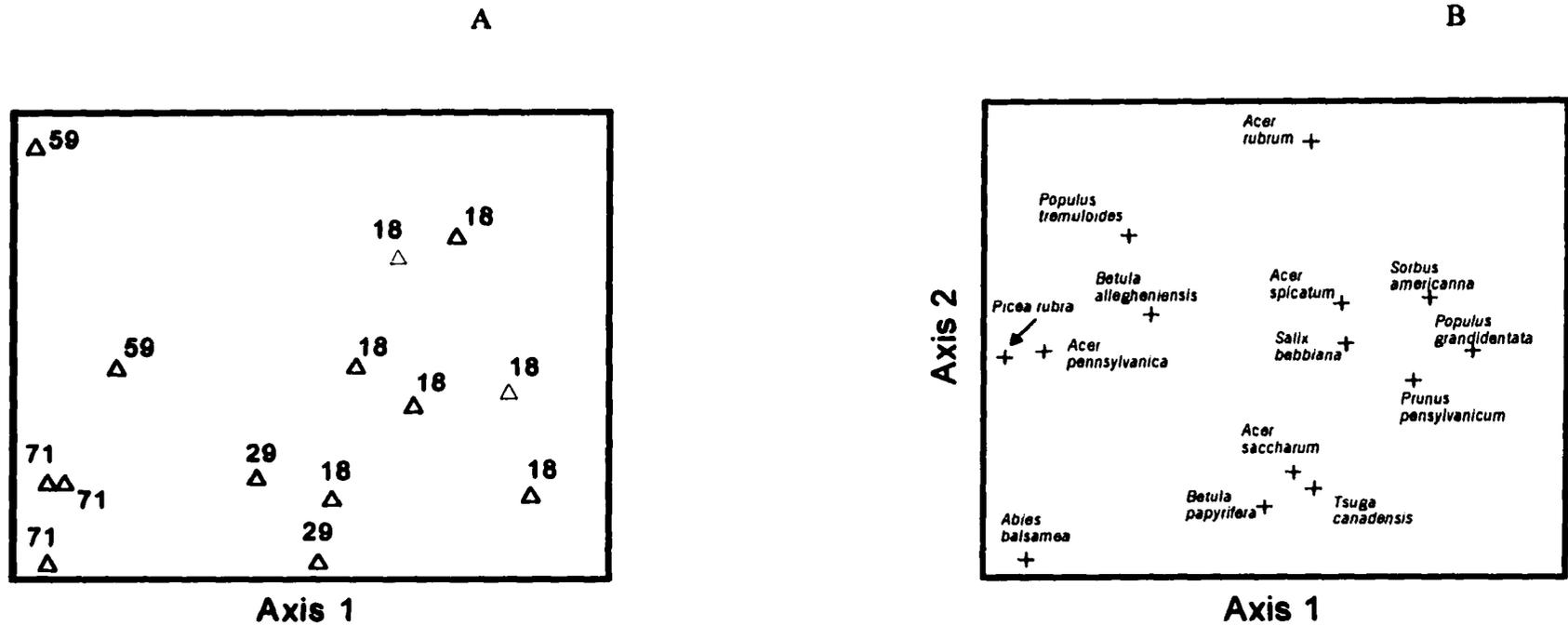


Figure 1.1 Results of detrended correspondence analysis on a chronosequence landslide sites in the White Mountains of New Hampshire measured in 1956. Graph A shows samples in species space, axis 1 and 2, labels denote site age (years) at time of sampling. Graph B shows species in sample space, axis 1 and 2.

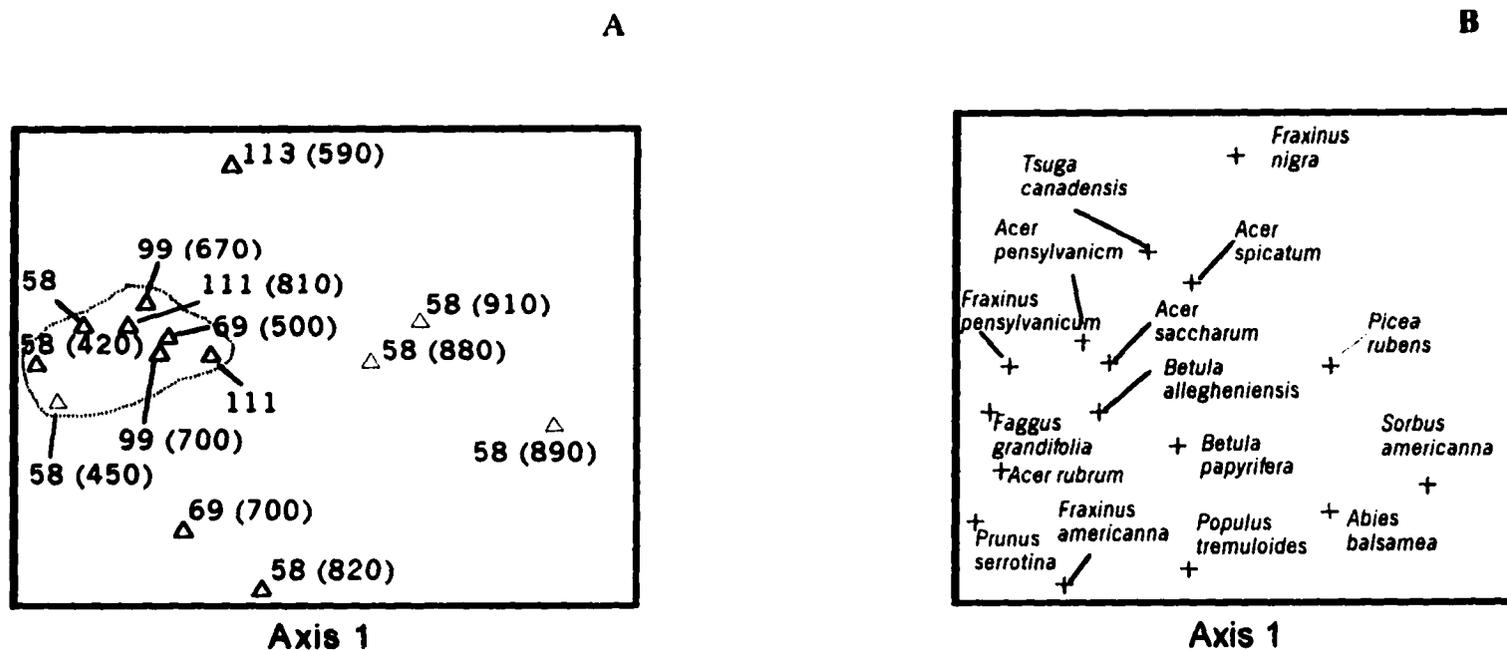


Figure 1.2 Results of detrended correspondence analysis on a chronosequence landslide sites in the White Mountains of New Hampshire measured in 1996. Graph A shows samples in species space, axis 1 and 2, labels denote site age (years) at time of sampling and sample elevation (m) in parenthesis. Graph B shows species in sample space, axis 1 and 2.

This relationship is apparent by a visible trend of stand elevation from left to right in Figure 1.2a. The lack of any relationship between site scores and site age in the second ordination (Figure 1.2) prevents us from rejecting the null hypotheses that site age has no relation to species composition in the 1996-98 data.

As Pickett (1989) points out, a lack of consistent pattern in a chronosequence does not reduce the usefulness of the technique, indeed it may serve to elucidate important processes occurring on the study sites. With this in mind we combined total stand basal area data from above with that from an additional 14 stands collected at Franconia Notch on a 48 year old landslide site. These data were analyzed *a priori* to illustrate pattern of stand development.

Stand basal area was graphed against site age (Figure 1.3). Change in basal area of each site (e.g. Δ basal area = 1996–1956 basal areas) was regressed against site age (Figure 1.4) producing a highly significant linear correlation ($r^2 = 0.72$ $p > 0.001$). These results indicate that basal area of many sites has declined in the last 40 years and suggests that the level of the decline may be related to stand age.

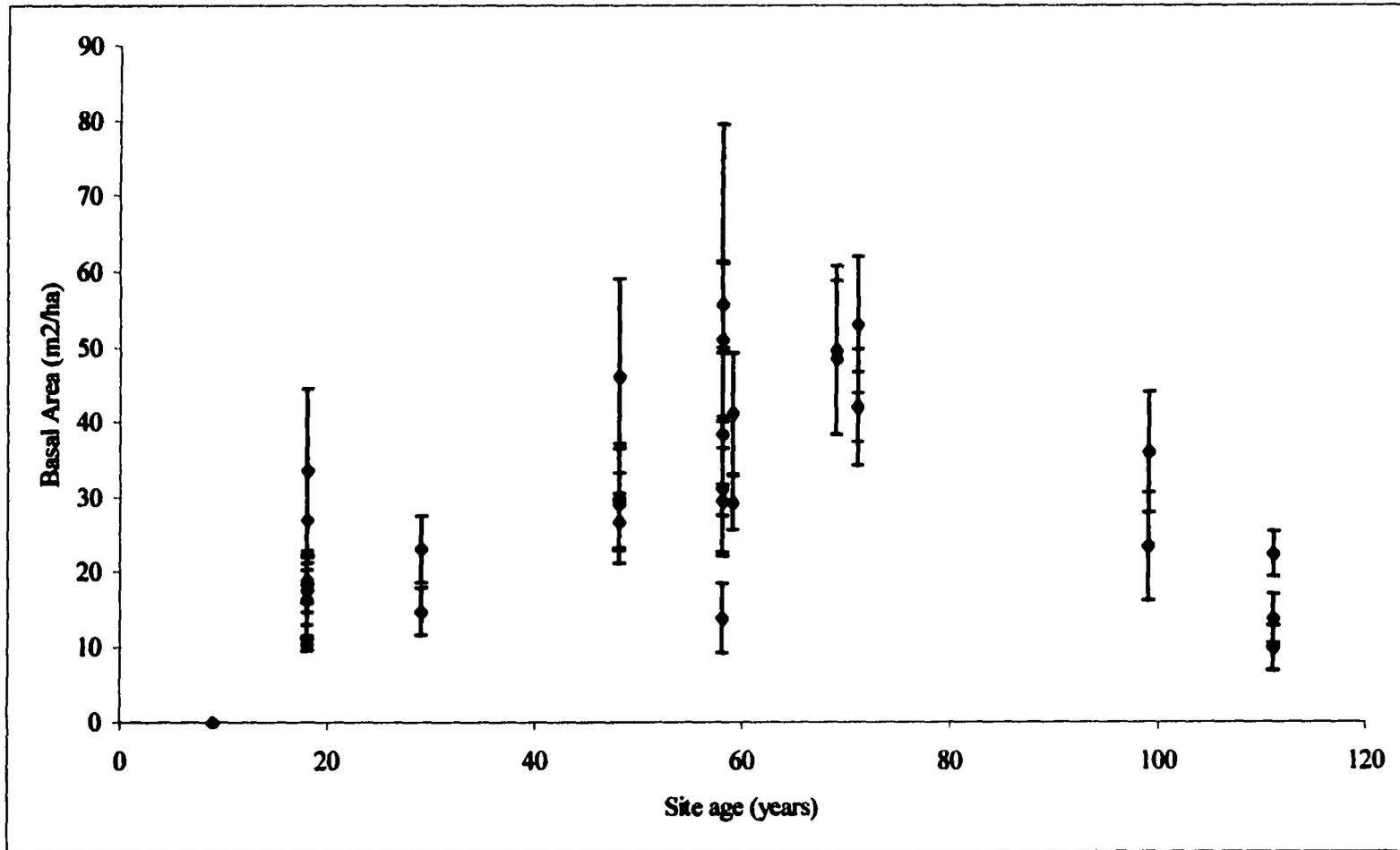


Figure 1.3. Stand basal area vs. site age for an aggregated chronosequence of landslide sites measured in 1956 and 1996. Error bars are bootstrapped standard errors of the mean.

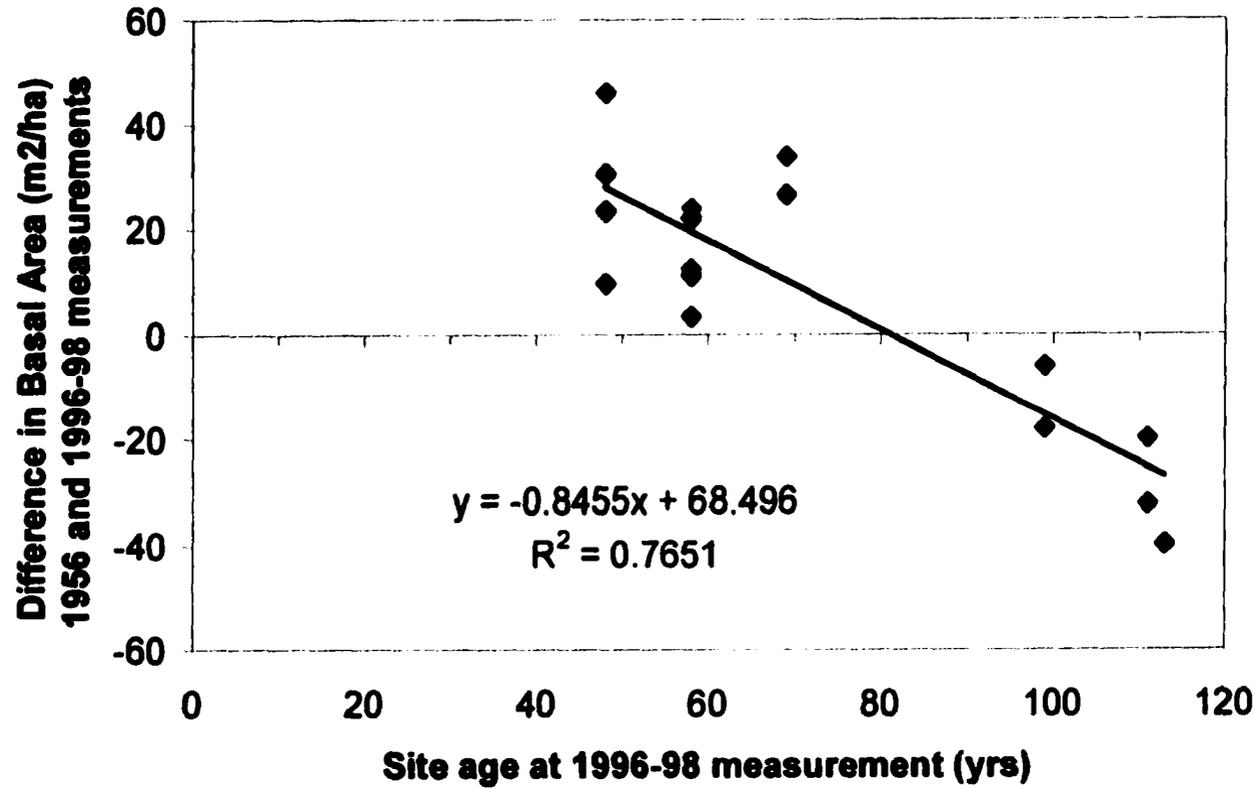


Figure 1.4 Regression of the change in total stand basal area of landslide sites measured in 1956 and 1996-98. Slope was significantly different from zero at $\alpha = 0.05$.

Discussion

Results of the DCA suggest that age was a primary driver of community structure on these landslide sites from time of disturbance to the 1956 measurement (Figure 1.1). The presence this supports the inference of directional change in these communities over time, as suggested by Flaccus (1958, 1959). Kitayama et al (1995) also found a strong relationship with age and DCA scores on a primary forest chronosequence of lava flows in Hawaii'.

The grouping of 71 year-old sites in figure 1.1a suggest similarity in species composition. This is consistent with the (Christensen and Peet 1984) hypothesis that regional communities converge in species composition during succession. A grouping of sites of differing age and elevation (dashed polygon) is apparent in Figure 1.2a. This suggests that these sites, while differing in age, have become more similar in species composition since the 1956 measurement. Furthermore, an elevational pattern is apparent even across this small portion of the first DCA axis. The ability of the DCA to differentiate among other spatial variables is also apparent from these ordination results

Which show that aspect and slope appear to have minor effects on community composition.

The mean basal area at landslide sites > 55 and < 70 years of age (Figure 1.3) ranged between 27 m²/ha and 54 m²/ha. Surprisingly, stand basal area showed a consistent decline following a peak at ~70 years (Figure 1.3). The high occurrence of shade intolerant species such as white birch (*Betula papyrifera*) and trembling aspen (*Populus tremuloides*) (> 50% combined basal area) on stands > 69 years of age

suggests the possibility of a canopy-opening disturbance at these sites within the last 40 years. The decline in basal area across site age suggests that these stands may become more susceptible to disturbance with increasing time. Disturbance may also explain the convergence of compositional similarity among sites of varying age as canopy opening allow invasion of intolerant early successional species. Yellow and white birch occur in the center of the first DCA axis in figure 1.2 suggesting a common occurrence of these species among sites (Jongman et 1995).

Coarse substrate is endemic to landslides and soils in the White Mountain region are poorly developed even on second growth sites (Bormann and Likens, 1979). During landslide events large boulders and joint blocks mix with the finer particles, which ultimately form coarse, and thus very poor, rooting substrates.

Moreover,

wind-throw disturbances are common in this area. Dominant canopy trees provide greater crown area for wind capture. Furthermore, torque created at the base of trees during high wind increases with the length of the bole (Foster and Boose, 1991).

Virtually all of the species exhibiting basal area decline in 1996 were dominant species in 1956. Therefore as landslide stands increase in age, greater tree height, combined with poor rooting substrate, may result in higher susceptibility to wind-throw. Testing of this hypothesis explicitly however would require additional investigation.

References

- Austin, M. P. 1985. Continuum concept ordination methods and niche theory. *Annual Review of Systematics* 16:39-61.
- Beatty, S. W. 1984. Influence of microtopography and canopy species on spatial patterns of forest understory plants. *Ecology* 65:1406-1419.
- Bormann, F. H., and M. F. Buell. 1964. Old-age stands of hemlock northern hardwood forest in central Vermont. *Bulletin of the Torrey Botanical Club* 91:451-465.
- Bormann, F. H., and G. E. Likens. 1979. *Pattern and Process in a Forested Ecosystem*. Springer-Verlag, NY.
- Bormann, F. H., T. G. Siccama, G. E. Likens, and R. H. Whittaker. 1970. The Hubbard Brook ecosystem study: composition and dynamics of the tree stratum. *Ecological Monographs* 40:373-388.
- Burns, R. M., and B. H. Honkala. 1991. *Silvics of North America*. USDA Forest Service, Washington DC.
- Christensen, N. L., and R. K. Peet. 1984. Convergence during secondary succession. *Journal of Ecology* 72:25-36.
- Cottam, G., and J. T. Curtis. 1956. The use of distance measures in phytosociological sampling. *Ecology* 37:451-460.
- Cowles, H. C. 1899. The ecological relations of the vegetation on the sand dunes Lake Michigan. *Botanical May*:95-391.
- Efron, B., and R. J. Tibshirani. 1993. *An Introduction to the Bootstrap*. Chapman and Hall, New York.

- Fastie, C. L. 1995. Causes and ecosystem consequences of multiple pathways of primary succession at Glacier Bay, Alaska. *Ecology* 76:1899-1916.**
- Flaccus, E. 1958. Landslides and their revegetation in the White Mountains of New Hampshire. Ph. D. Duke University, Durham, NC.**
- Flaccus, E. 1959. Revegetation of landslides in the White Mountains of New Hampshire. *Ecology* 40:692.**
- Foster, B. L., and D. Tilman. 2000. Dynamics and static views of succession: Testing the descriptive power of the chronosequence approach. *Plant Ecology* 146:1-10.**
- Foster, D. R. 1988. Disturbance history, community organization and vegetation dynamics of the old-growth Pisgah Forest, southwestern New Hampshire. *Journal of Ecology* 76:105-134.**
- Foster, D. R., and E. R. Boose. 1995. Hurricane disturbance regimes in temperate and tropical forest ecosystems. *in* W. P. Coutts and J. Grace, editors. *Wind and Trees*. Cambridge University Press, Cambridge. UK.**
- Gauch, H. G. 1982. *Multivariate Analysis in Community Ecology*. Cambridge University Press, Cambridge.**
- Guariguata, M. R. 1990. Landslide disturbance and forest regeneration in the upper Luquillo mountains of Puerto Rico. *Journal of Ecology* 78:814-832.**
- Hill, J. D. 1989. Mountain paper birch (*Betula cordifolia* Regel.) regeneration in an old-growth spruce-fir forest, White Mountains, New Hampshire. Master of Science. University of New Hampshire, Durham, NH.**

- Hill, M. O., and J. H. G. Gauch. 1980. Detrended correspondence analysis: an improved ordination technique. *Vegetatio* 42:47-58.
- Jongman, R. H. G., C. J. F. t. Braak, and O. F. R. v. Tongeren. 1995. *Data Analysis in Community and Landscape Ecology*, 2nd edition. Cambridge University Press, Cambridge.
- Kitayama, K., D. Mueller-Dombois, and P. M. Vitousek. 1995. Primary succession of Hawaiian montane rain forest on a chronosequence of eight lava flows. *Journal of Vegetation Science* 6:211-222.
- Leak, W. B. 1991. Secondary forest succession in New Hampshire, USA. *Forest Ecology and Management* 43:69-86.
- Leak, W. B., and M. L. Smith. 1996. Sixty years of management and natural disturbance in a New England forested landscape. *Forest Ecology and Management* 81:63-73.
- Lichter, J. 1998. Primary succession and forest development on coastal Lake Michigan dunes. *Ecological Monographs* 64:487-510.
- Likens, G. E., and F. H. Bormann. 1995. *Biogeochemistry of a Forested Ecosystem*. Springer-Verlag, New York.
- Moss, M. R., and C. L. Rosenfeld. 1978. Morphology, mass wasting and forest ecology of a postglacial re-entrant valley in the Niagara Escarpment. *Geografiska annaler* 60:161-174.
- Oliver, C. D., A. B. Adams, and R. J. Zasoski. 1985. Disturbance patterns and forest development in a recently deglaciated valley in the northwest Cascade Range of Washington, USA. *Canadian Journal of Forest Research* 15:221-232.

- Olson, J. S. 1958. Rates of succession and soil changes on southern Lake Michigan sand dunes. *Botanical Gazette* 119:125-170.**
- Pickett, S. T. A. 1989. Space-for-time Substitution as an alternative to long-term studies. *in* G. Likens, editor. *Long-term studies in ecology*. Springer-Verlag, New York.**
- Reiners, W. A., I. A. Worley, and D. B. Lawrence. 1971. Plant diversity in a chronosequence at Glacier Bay, Alaska. *Ecology* 52:55-69.**
- Selby, M. J. 1985. *Earth's Changing Surface*. Clarendon Press, Oxford.**
- Whittaker, R. J., M. B. Bush, and K. Richards. 1989. Plant recolonization and vegetation succession on the Krakatau Islands, Indonesia. *Ecological Monographs* 59:59-123.**

Chapter 3

Nutrient Status and Cycling During Forest Ecosystem Development on Landslide Deposits of the White Mountain National Forest, NH

Introduction

Landslide is the common term for mass wasting that includes soil slumps, rock falls, debris avalanches and debris flows (Selby 1993). The majority of the landslides occurring in the White Mountain National Forest (WMNF) USA are of the latter type (Flaccus 1959). These violent disturbances are initiated by heavy rain (Caine 1980, Selby 1993) that saturates thin soils on steep high elevation slopes. The soil mass increases beyond the ability of friction to hold it against the force of gravity, resulting in soil rupture. The debris flow mass disrupts soil structure by mixing soil organic matter and mineral fines with large joint blocks, boulders and glacial till. The body of the flow pulverizes vegetation and channels primary stream drainages. Erosion of mountain slopes following landslides is extensive often removing 50 – 100% of organic matter, mineral soil and the nutrient reservoirs therein (Pandey et al. 1983, Zarin, 1995).

Flaccus (1959) described the revegetation of these sites previously and his successional investigation was augmented earlier in this volume (Chapter 1). The current status and accumulation of macronutrients (N, P, K, Ca and Mg) have yet to be characterized for landslide seres in North America as has been done elsewhere (Guariguata 1990, Zarin and Johnson 1995, Zarin and Johnson 1995b, Walker et al. 1996, Dalling 1994).

Following catastrophic disturbance and exposure of primary substrate, plant available nitrogen is provided mainly through precipitation and the occurrence of N fixing species (Sprent 1993, Walker 1993). Anthropogenic deposition of nitrogen has occurred for more than 30 years in New England (McNulty and Aber 1993, Likens et

al. 1998) and may provide sufficient N inputs for plant colonization in lieu of biological N fixers. However, N in precipitation (NO_3^- and NH_4^+) acidifies soils (Van Miegort et al. 1992, Christ et al. 1999, Meiwes et al. 1998), soil solution and surface waters (Federer et al. 1989) thus increasing cation mobility and reducing base saturation of cation exchange sites (Lawrence et al 1995, Likens et al 1998, Christ et al. 1999).

Vitousek et al. (1993, 1997) found that nitrogen limits production early in the colonization and succession of lava flows, and that P limitation occurred only on highly weathered substrates of these sites. Guariguata (1990) found greater total P on fresh landslide scars in Puerto Rico than in adjacent mature forest, however plant available P was much lower on scars. Fresh weathering surfaces created during debris flows (Hewitt 1988) suggest the availability of P and other rock-derived nutrients will be higher than in developed spodosols of the WMNF region (Bailey et al 1996, 2001). These studies confirm an earlier review of the relative P fractions availability during pedogenesis (Walker and Syers 1976). Inorganic P (soluble in 0.5 M H_2SO_4) was found to be high on recently exposed substrates, then decreased with age across the chronosequences. Vitousek and Farrington (1997) tested the hypothesis posited by Walker and Syers (1976) in a fertilizer study on soils ranging from 300 to 4.1 million year of age. Nitrogen was limiting to production on young soils and P only on the very oldest. On intermediate sites, N and P were co-limiting.

Regional wet and dry deposition also adds base cations to WMNF ecosystems in the relative proportions of $\text{Ca}^{+2} > \text{K}^+ > \text{Mg}^{+2}$. But leaching outputs and vegetation uptake exceed current weathering and precipitation inputs for these elements (Likens

and Bormann 1995, Bailey et al. 1996) resulting in reduction of exchangeable base cation soil reservoirs. While unweathered surface area is exposed during debris flows (Hewitt 1988), weathering rate of cations and P is strongly dependent on particle size (Brady 1992, Bailey et al 1996).

Erosion of soil organic horizons during and after debris flows further complicates the issue of nutrient availability by reducing CEC, thus increasing cation mobility and leaching losses (Brady 1996). Provided that plants can access available cations, removal from the soil and transfer to accumulating biomass will further exacerbate acidification (Likens et al. 1998) in a region already at risk (Aber 1992, Aber et al. 1995, Driscoll et al. 2001). Furthermore phosphorus turnover and plant uptake is an order of magnitude greater in the forest floor than in mineral horizons (Yanai 1992). Occlusion of P on Al and Fe oxides in the B horizons of spodosols reduces leaching of P from developed soils (Likens and Bormann 1979, Yanai 1992), but mixing and erosion of soil horizons may reduce Al and Fe oxides for P adsorption, potentially increasing P mobility on landslide deposits.

Interactions and feedbacks among these nutrient cycles, combined with the process of anthropogenic deposition makes the recovery of stable nutrient cycles following landslides difficult to predict. Overall these investigations suggest that rock derived nutrients (P, Ca, Mg, and K) availability will be greater on recent landslide deposits than on older sites.

Plant growth on young landslides is sparse, forming isolated patches during colonization (Francescato et al. 2001) . It is expected then that plant growth will be limited by N inputs from precipitation. Therefore N availability will drive the biotic

uptake of other nutrients their cycling rates through litterfall accumulation and forest floor decomposition (Vitousek et al. 1993, 1997).

Plant physiological processes for maintenance and production require nutrients in narrow stoichiometric ratios (Van Den Driessche 1974, Vitousek et al. 1988). Therefore, relative concentrations of nutrient in foliage reflect differences in the availability of nutrients, as has been confirmed by previous fertilizer treatments (Timmer and Stone 1978, Vitousek et al. 1988, Valentine and Allen 1990, Velazquez-Martinez et al. 1992). But plants differ among species and growth form in nutrient uptake and allocation. Furthermore, limitation by one element may inhibit the biotic sink for other elements with negative effects for their respective biogeochemical cycles and potential loss from the developing ecosystem (Vitousek et al. 1988).

This investigation seeks to characterize nutrient status and cycling dynamics during ecosystem development on four WMNF landslide sites varying in age from 40 to 113 years. Fresh foliar and senesced litter nutrient content was measured for the five macronutrients (N, P, K, Ca and Mg) as well as the litter decomposition and nutrient dynamics of the 4 dominant species on each site. The hypotheses tested were: I) foliar N concentration will increase with site age, II) foliar content of P and rock derived nutrients will be high initially then decline with site age. III) cycling rates of macronutrients through litterfall and release from decaying litter increase with site age.

Site description

Details of the research sites are provided in Table 3.1. The regional vegetation is typical of the Northern Hardwood Forest type (Bormann and Likens

1979). Vegetation surrounding the study sites is secondary forest of varying age. Extensive regional logging occurred on surrounding sites during the early 1900's and salvage operations removed timber from a broad area of the WMNF following the 1938 hurricane (Foster & Boose, 1995) The Tripyramid N. Mt. and Pinkham Notch sites however were too young to be harvested in 1938. In the case of Franconia Notch, harvests took place prior to the 1948 landslide event. The no harvest occurred on the Big Coolidge Mt site following the 1938 hurricane that caused the landslide.

Underlying parent material consists of metamorphic minerals, primarily mica schist, intruded with quartz monzonite and Conway granite. This parent material is considered to be acidic, with high concentrations of aluminum and silica and is low in base cations (Ca, Mg, and K) (Likens & Bormann, 1995). Microtopography is similar to the "pit and mound" pattern typical of old growth forests of the region (Bormann and Likens 1979, Beatty 1984). While pit and mound microtopography generally results from wind-throw (Bormann and Likens 1979), the pattern on landslides is caused by random sized debris deposited during the event. The result is a coarse, highly permeable rooting substrate, with little to no soil development.

Table 3.1
Detailed Site Information for a Chronosequence of
Landslide Research Sites in the
White Mountain National Forest, NH

Site	Occurrence	Aspect (° azimuth)	Stand Elevation (m)	Location (longitude N, latitude E)
Franconia Notch	1948	267	610 & 690	44° 9' 38'' N, 71° 40'29''E
Big Coolidge Mt.	1938	174	450 & 690	44° 9' 38'' N, 71° 40'21''E
Pinkham Notch	1927	102	500 & 740	44° 13' 41'' N, 71° 15'27''E
Tripyramid Mt. N.	1885	268	610 & 830	43° 58' 35'' N, 71° 27'38''E

Methods

Foliage samples were collected by shooting branches from high- and mid-canopy positions of five individuals of; sugar maple (*Acer saccharum* Marsh.), yellow birch (*Betula alleghaniensis*), white birch (*Betula cordifolia*), balsam fir (*Abies balsamea*) and red spruce (*Picea rubens*) in five of the eight stands . Some species however were substituted at the high elevation stands of Big Coolidge Mt and Pinkham Notch, and the low elevation stand at Tripyramid North Mt. Sugar maple was not found at the Big Coolidge Mt site therefore striped maple (*Acer pensylvanicum*) was substituted. Red maple was substituted at the Tripyramid North Mt low elevation stand and no *Acer* species were found at Pinkham Notch high elevation stand.

Litter was collected by placing 10 plastic laundry baskets (0.20 m²) on the ground at random intervals along a 100m transect in the middle of each stand. Baskets were emptied weekly from September 1, 1998 through October 31, 1998. Conifer litter was also collected in the spring and early September of 1999. Samples were placed in paper bags and dried at 65° C to constant weight within 24 hrs of collection. Litter was sorted to species then ground in a Wiley Mill to pass a 40 mesh screen then analyzed by the same procedures as foliage samples. Foliage was dried at 65° C to constant weight and ground in an electric coffee mill (Mr. Coffee™ inc. model IDS-50). The Spaulding Analytical Lab, University of New Hampshire Durham NH, performed nutrient analysis. Samples were analyzed for N by a Perkin-Elmer 2410 Nitrogen analyzer. Cation concentrations (P, K, Ca and Mg) were measured by digestion of ground samples in 10ml HNO₃ at 170° for 15 min. followed

by dilution to 40 ml and analysis by a Varian Instruments, model Vista AXCCD, Inter-coupled Plasma Analyzer (Walnut Creek, CA).

Litterbags were constructed of fiberglass window screen (1 mm² mesh) on top and polyester sheer fabric (0.1 mm² mesh) on the bottom. The bags were sewn on three sides forming a 15 x 15 cm pocket. Litter for litterbags was collected from the Franconia Notch site in fall of 1997 and treated in the same manner as the 1998 collections. Using litter from a single site avoided cross-site interactions when comparing decay dynamics. Three grams of litter were placed into separate litter bags of four species (sugar maple, yellow birch, white birch and balsam fir). The opening of each bag was folded and stapled closed. Litter bags were numbered and tied to 20 m lengths of nylon mason's line at random distances. Twelve replicates of each species were randomized across three lines at each stand. Lines were placed in the field at random locations in each stand, parallel to the contours and tied to the base of nearby trees. Ideally, random selection of 3 replicates of each species were to be collected at four intervals, time-zero (i.e. fall 1998), spring 1999, fall 1999 and fall 2000. Unfortunately, the nylon mason's line did not prove strong enough to hold the litter bags against the flow of spring floods resulting in losses of litter bags at some sites. In addition damage by bears, moose and small mammals caused litter loss, thus voiding the data for some samples. These occurrences necessarily affected the treatment of the litterbag data as described in the statistical methods section below.

Time-zero litterbag samples were analyzed for proximate carbon fraction by near-infrared spectrophotometry following Newman et al. (1995).

Following collection, litterbags were stored in coolers, transported to the lab and oven dried at 65° C to constant weight. Contents were weighed, ground in a coffee mill and analyzed for nutrients as described previously. Ash-free organic matter was measured, by combusting subsamples in a muffle furnace for 24 hrs at 500° C.

Statistics

Differences between means of all variables were compared using the students t-test for unequal variance, significance was determined at $\alpha = 0.05$ (Sokal and Rohlf 1995). Foliar nutrient concentration was linearly scaled to the stand level weighting the mean foliar species concentration of each element by the mean litterfall mass for that species then averaging over the total foliar litter fall of all measured species. This represents a conservative weighted mean estimate of the nutrient content, as leaf weight is reduced by increased net respiration during senescence (Ostman and Weaver 1982, Chapin and Kedrowski 1983). The same procedure was applied to the litterfall nutrient content data for these sites. Elemental ratios of stand level nutrient content were calculated using molar atomic weight for all elements measured.

Litterbag decay constants (k value) were calculated using the exponential decay model of (Jenny 1980) Individual litterbag k values were calculated by the equation:

$$k = \frac{-\ln(\% \text{ ash free mass})}{\text{years in the field}}$$

Each litterbag, therefore, represents a single annualized measurement of k, these were pooled for each species by stand to provide means and standard errors for statistical analysis.

Nutrient flux in litterbags is shown as the absolute change in nutrient mass in milligrams, per gram of original litter mass, per year of incubation in the field. This is an annual nutrient flux estimate relative to the original nutrient concentration. Therefore, positive values reflect annual rate of net nutrient immobilization in the litter sample and negative values show net nutrient release.

Results

Yellow and white birch combined represented greater than 50% of litterfall mass per m² in all eight stands (Table 3.2). In general white birch litterfall exceeded that of yellow birch in all stands with the exception of the 610 m stands at Franconia Notch and Tripyramid N. Mt. The mass of white birch litter fall was greater at high elevation stands compared to lower stands for all sites except for Big Coolidge Mt. One of three maple species, red, striped or sugar contributes modestly to litterfall at low elevation sites. Other hardwood species were collected but in small quantities. The nature of litterfall collection and handling during identification results in fragments that cannot be recognized. This class of material, consisting entirely of hardwood foliage, supplied from 5.1 g/m² to more than 21 g/m² of litterfall mass. The two species of conifer litter, red spruce and balsam fir were collected at most sites but never contributed more than 10 g/m².

Table 3.2
Litterfall Collected on Eight Landslide
Sites of Varying Age and Elevation in the
White Mountain National Forest.

Litterfall by species (g/m ²)	Franconia Notch		Big Coolidge Mt.		Pinkham Notch		Tripyramid N. Mt.	
	610 m	690 m	455 m	690 m	500 m	740 m	610 m	830 m
<i>Abies balsamea</i>	3.6 (1.43)	0	0.7 (1.22)	8.1 (3.2)	1.0 (0.2)	8.0 (1.9)	2.1 (1.3)	9.3 (3.2)
<i>Acer pensylvanicum</i>	3.7 (2.36)	0.25 (0)	5.8 (5.0)	28.3 (8.8)	8.2 (3.3)	0	4.5 (1.7)	4.1 (1.9)
<i>Acer rubrum</i>	1.2 (0.8)	0.3 (0)	93.2 (32.0)	5.1 (1.5)	5.9 (1.1)	5.7 (1.3)	43.9 (12.5)	2.5 (1.7)
<i>Acer saccharum</i>	50.1 (7.5)	0	15.0 (10.5)	0	12.8 (2.5)	3.4 (2.3)	18.2 (5.7)	16.1 (2.5)
<i>Betula alleghaniensis</i>	102.9 (6.5)	44.6 (8.5)	20.9 (13.2)	38.9 (9.8)	43.9 (6.9)	85.2 (9.2)	134.6 (16.8)	77.2 (19.0)
<i>Betula cordifolia</i>	17.5 (10.2)	111.9 (8.0)	100.6 (25.1)	90.6 (11.3)	70.0 (9.5)	116 (14.9)	22.5 (7.5)	108.7 (12.3)
<i>Fagus grandifolia</i>	25.9 (3.1)	0.1 (0)	2.2 (2.4)	3.1 (1.7)	15.5 (4.5)	0.9 (0.6)	0.2 (3.9)	0.8 (0.2)
<i>Picea rubens</i>	0	0.8 (0.1)	1.3 (8.4)	1.7 (0.6)	1.0 (0.2)	7.2 (3.3)	0.4 (0.1)	1.7 (0.8)
<i>Populus grandidentata</i>	0	0.3 (7.7)	5.4 (7.7)	0	0.1 (0.1)	0.3 (1.3)	0	0
<i>Populus tremuloides</i>	3.1 (1.3)	0	0	0	1.4 (0.8)	5.6 (1.5)	0.2 (.4)	10.0 (3.1)
<i>Prunus pensylvanica</i>	0	0.8 (0.3)	1.1 (1.9)	0	0.1 (0.1)	0.1 (0.1)	0	0
Unidentifiable foliage	20.2 (4.9)	12.2 (2.1)	12.5 (6.4)	5.1 (0.9)	21.5 (3.8)	18.2 (2.3)	9.3 (1.7)	7.4 (1.1)
Fine woody debris	21.2 (3.5)	14.4 (11.8)	3.1 (2.9)	9.2 (4.3)	88.4 (40.2)	131.6 (86.4)	8.8 (7.8)	75.6 (64.5)
Seeds	9.7 (2.7)	17.5 (1.2)	6.29 (3.7)	4.5 (1.2)	10.5 (1.6)	12.4 (1.5)	14.2 (2.7)	30.2 (6.0)
Total	256 (10.5)	207 (31.1)	270 (40.1)	195 (41.3)	285 (79.6)	395 (77.2)	263 (19.3)	344.2 (54)

Table 3.3.
Percent (S.E.) Foliar Nutrient Concentration
For Select Species on Four Landslide
Sites in the White Mountain National Forest, NH

Landslide Site	Nitrogen	Phosphorus	Calcium	Magnesium	Potassium
Franconia Notch (610 m)					
<i>Abies balsamea</i>	1.86 (0.31)	0.16 (0.04)	0.41 (0.12)	0.06 (0.00)	0.95 (0.13)
<i>Acer saccharum</i>	2.67 (0.11)	0.14 (0.03)	0.54 (0.06)	0.07 (0.01)	0.98 (0.16)
<i>Betula alleghaniensis</i>	2.82 (0.29)	0.13 (0.02)	0.61 (0.15)	0.12 (0.03)	1.33 (0.41)
<i>Betula cordifolia</i>	2.95 (0.50)	0.13 (0.03)	0.48 (0.05)	0.07 (0.01)	1.09 (0.14)
<i>Picea rubens</i>	1.90 (0.36)	0.10 (0.01)	0.22 (0.00)	0.05 (0.0)	0.69 (0.07)
Franconia Notch (690 m)					
<i>Abies balsamea</i>	2.03 (0.36)	0.10 (0.0)	0.52 (0.10)	0.07 (0.01)	0.73 (0.20)
<i>Betula alleghaniensis</i>	2.80 (0.36)	0.10 (0.03)	0.62 (0.0)	0.14 (0.04)	0.81 (0.26)
<i>Betula cordifolia</i>	2.42 (0.42)	0.09 (0.01)	0.30 (0.05)	0.05 (0.01)	1.00 (0.24)
<i>Picea rubens</i>	1.95 (0.69)	0.09 (0.01)	0.18 (0.0)	0.05 (0.01)	0.73 (0.20)
Big Coolidge Mt. (455 m)					
<i>Abies balsamea</i>	1.56 (0.14)	0.11 (0.02)	0.57 (0.16)	0.07 (0.02)	0.64 (0.09)
<i>Acer saccharum</i>	2.23 (0.15)	0.10 (0.02)	0.54 (0.17)	0.09 (0.02)	0.89 (0.19)
<i>Betula alleghaniensis</i>	2.62 (0.24)	0.10 (0.01)	0.70 (0.18)	0.11 (0.02)	1.31 (0.5)
<i>Betula cordifolia</i>	2.47 (0.32)	0.07 (0.02)	0.50 (0.05)	0.09 (0.02)	1.24 (0.12)
<i>Picea rubens</i>	1.21 (0.13)	0.06 (0.0)	0.20 (0.04)	0.04 (0.01)	0.62 (0.06)
Big Coolidge Mt. (690 m)					
<i>Abies balsamea</i>	1.43 (0.29)	0.07 (0.01)	0.41 (0.12)	0.05 (0.01)	0.60 (0.17)
<i>Acer pensylvanicum</i>	2.35 (0.34)	0.11 (0.01)	0.41 (0.08)	0.05 (0.01)	1.64 (0.20)
<i>Betula alleghaniensis</i>	2.25 (0.10)	0.07 (0.01)	0.29 (0.12)	0.04 (0.01)	1.04 (0.10)
<i>Betula cordifolia</i>	2.04 (0.25)	0.07 (0.01)	0.29 (0.12)	0.04 (0.01)	1.31 (0.29)
<i>Picea rubens</i>	1.05 (0.09)	0.05 (0.01)	0.18 (0.09)	0.03 (0.01)	0.58 (0.09)
Pinkham Notch (500 m)					
<i>Abies balsamea</i>	1.48 (0.34)	0.10 (0.01)	0.75 (0.21)	0.08 (0.01)	0.49 (0.19)
<i>Acer saccharum</i>	1.91 (0.21)	0.09 (0.01)	0.90 (0.18)	0.16 (0.02)	0.62 (0.09)
<i>Betula alleghaniensis</i>	2.17 (0.19)	0.13 (0.01)	1.26 (0.14)	0.33 (0.02)	0.96 (0.20)
<i>Betula cordifolia</i>	1.96 (0.38)	0.10 (0.02)	0.86 (0.16)	0.18 (0.04)	1.02 (0.09)
<i>Picea rubens</i>	1.07 (0.11)	0.08 (0.01)	0.22 (0.04)	0.06 (0.01)	0.48 (0.09)
Pinkham Notch (740 m)					
<i>Abies balsamea</i>	1.52 (0.22)	0.10 (0.01)	0.76 (0.08)	0.11 (0.01)	0.52 (0.09)
<i>Betula alleghaniensis</i>	2.36 (0.52)	0.11 (0.02)	0.90 (0.20)	0.25 (0.08)	0.93 (0.33)
<i>Betula cordifolia</i>	2.21 (0.21)	0.11 (0.02)	0.77 (0.37)	0.19 (0.04)	1.02 (0.14)
<i>Picea rubens</i>	1.11 (0.09)	0.08 (0.01)	0.26 (0.05)	0.07 (0.01)	0.60 (0.14)
Tripyramid N. Mt. (610 m)					
<i>Abies balsamea</i>	1.49 (0.32)	0.11 (0.04)	0.70 (0.24)	0.08 (0.02)	0.57 (0.17)
<i>Acer rubra</i>	1.56 (0.46)	0.15 (0.05)	0.60 (0.39)	0.14 (0.10)	0.55 (0.08)
<i>Acer saccharum</i>	1.84 (0.40)	0.15 (0.06)	0.96 (0.20)	0.13 (0.07)	0.76 (0.06)
<i>Betula alleghaniensis</i>	2.26 (0.11)	0.17 (0.02)	1.10 (0.16)	0.24 (0.05)	0.85 (0.14)
<i>Picea rubens</i>	1.17 (0.11)	0.09 (0.01)	0.25 (0.05)	0.06 (0.02)	0.60 (0.09)
Tripyramid N. Mt. (830 m)					
<i>Abies balsamea</i>	1.68 (0.06)	0.11 (0.01)	0.64 (0.08)	0.09 (0.01)	0.56 (0.06)
<i>Acer saccharum</i>	2.22 (0.27)	0.18 (0.04)	0.84 (0.12)	0.09 (0.04)	0.65 (0.12)
<i>Betula alleghaniensis</i>	2.32 (0.26)	0.24 (0.05)	0.93 (0.17)	0.21 (0.06)	0.56 (0.16)
<i>Betula cordifolia</i>	1.99 (0.18)	0.21 (0.03)	0.40 (0.05)	0.09 (0.01)	0.70 (0.06)
<i>Picea rubens</i>	1.17 (0.18)	0.11 (0.01)	0.28 (0.04)	0.06 (0.01)	0.37 (0.09)

Table 3.4.
Percent (S.E.) Litterfall Nutrient Concentration
For Dominant Species on Four Landslide
Sites in the White Mountain National Forest, NH

Landslide Site	Nitrogen	Phosphorus	Calcium	Magnesium	Potassium
Franconia Notch (610 m)					
<i>Acer saccharum</i>	1.17 (0.15)	0.045 (0.01)	0.88 (0.01)	0.09 (0.007)	0.43 (0.04)
<i>Betula alleghaniensis</i>	1.6 (0.1)	0.065 (0.006)	0.97 (0.006)	0.11 (0.002)	0.42 (0.04)
<i>Betula cordifolia</i>	1.37 (0.15)	0.059 (0.007)	0.97 (0.007)	0.11 (0.007)	0.39 (0.05)
Franconia Notch (690 m)					
<i>Abies balsamea</i>	0.8 (0)	0.058 (0)	0.7 (0)	0.05 (0)	0.19 (0)
<i>Betula alleghaniensis</i>	1.3 (0.17)	0.04 (0.002)	0.83 (0.81)	0.082 (0.006)	0.27 (0.03)
<i>Betula cordifolia</i>	1.23 (0.15)	0.045 (0.002)	0.66 (0.07)	0.058 (0.005)	0.29 (0.02)
Big Coolidge Mt. (455 m)					
<i>Acer saccharum</i>	1.03 (0.06)	0.024 (0.002)	0.77 (0.08)	0.074 (0.006)	0.29 (0.05)
<i>Acer rubrum</i>	0.83 (0.06)	0.028 (0.002)	0.74 (0.02)	0.086 (0.004)	0.25 (0.006)
<i>Betula alleghaniensis</i>	1.53 (0.06)	0.038 (0.003)	0.81 (0.09)	0.091 (0.02)	0.35 (0.06)
<i>Betula cordifolia</i>	1.23 (0.29)	0.035 (0.001)	0.80 (0.04)	0.096 (0.01)	0.40 (0.05)
<i>Picea rubens</i>	1.07 (0.06)	0.05 (0.01)	0.55 (0.15)	0.042 (0.009)	0.067 (0.05)
Big Coolidge Mt. (690 m)					
<i>Abies balsamea</i>	1.37 (0.49)	0.074 (0.02)	0.82 (0.16)	0.037 (0.008)	0.15 (0.09)
<i>Acer pensylvanicum</i>	1.1 (0)	0.044 (0)	0.98 (0)	0.08 (0)	0.41 (0)
<i>Betula alleghaniensis</i>	1.3 (0.1)	0.03 (0.002)	0.59 (0.1)	0.05 (0.001)	0.34 (0.04)
<i>Betula cordifolia</i>	1.2 (0.3)	0.03 (0.03)	0.56 (0.04)	0.045 (0.004)	0.37 (0.04)
<i>Picea rubens</i>	0.8 (0.14)	0.044 (0.01)	0.49 (0.08)	0.03 (0.01)	0.14 (0.02)
Pinkham Notch (500 m)					
<i>Abies balsamea</i>	1.05 (0.21)	0.05 (0.02)	0.078 (0.09)	0.096 (0.01)	0.21 (0.06)
<i>Acer saccharum</i>	1.27 (0.15)	0.05 (0.01)	1.22 (0.10)	0.14 (0.004)	0.23 (0.03)
<i>Betula alleghaniensis</i>	1.43 (0.06)	0.074 (0.009)	1.26 (0.05)	0.23 (0.01)	0.42 (0.08)
<i>Betula cordifolia</i>	1.5 (0.26)	0.08 (0.01)	1.17 (0.08)	0.18 (0.02)	0.49 (0.13)
<i>Picea rubens</i>	1 (0)	0.06 (0)	0.5 (0)	0.043 (0)	0.09 (0)
Pinkham Notch (740 m)					
<i>Abies balsamea</i>	1.65 (0.21)	0.11 (0.004)	0.77 (0.06)	0.065 (0.00)	0.095 (0.02)
<i>Betula alleghaniensis</i>	1.13 (0.06)	0.05 (0.003)	1.25 (0.12)	0.27 (0.02)	0.43 (0.07)
<i>Betula cordifolia</i>	1.13 (0.06)	0.05 (0.002)	0.88 (0.02)	0.16 (0.006)	0.40 (0.05)
<i>Picea rubens</i>	1.15 (0.2)	0.08 (0.006)	0.55 (0.09)	0.08 (0.02)	0.17 (0.006)
Tripyramid N. Mt. (610 m)					
<i>Abies balsamea</i>	0.9 (0.1)	0.08 (0.01)	1.06 (0.09)	0.08 (0.005)	0.17 (0.006)
<i>Acer rubra</i>	0.83 (0.25)	0.09 (0.01)	1.17 (0.20)	0.17 (0.01)	0.23 (0.03)
<i>Betula alleghaniensis</i>	1.27 (0.15)	0.13 (0.01)	1.62 (0.16)	0.24 (0.01)	0.24 (0.04)
<i>Picea rubens</i>	0.8 (0.07)	0.064 (0.001)	0.56 (0.028)	0.048 (0.001)	0.17 (0.03)
Tripyramid N. Mt. (830 m)					
<i>Abies balsamea</i>	1.43 (0.55)	0.11 (0.03)	0.91 (0.19)	0.06 (0.02)	0.12 (0.04)
<i>Acer saccharum</i>	1.13 (0.06)	0.10 (0.01)	0.01 (1.13)	0.12 (0.009)	0.28 (0.05)
<i>Betula alleghaniensis</i>	1.2 (0.1)	0.12 (0.02)	1.18 (0.1)	0.16 (0.02)	0.27 (0.06)
<i>Betula cordifolia</i>	1.3 (0.1)	0.13 (0.01)	0.81 (0.12)	0.11 (0.006)	0.31 (0.06)
<i>Picea rubens</i>	0.93 (0.25)	0.07 (0.02)	0.51 (0.11)	0.05 (0.002)	0.1 (0.03)

Fine woody litter fall (branches and twigs < 5 cm) varied widely across sites from 3.1 g/m² to 131 g/m² but exhibited no pattern with age or elevation. Seed rain was expected to increase with site age as trees matured, but no significant correlation was found .

Foliar nitrogen concentrations did not vary significantly among hardwood or conifer species measured. (Table 3.3). Conifer N concentration was consistently lower than hardwood foliage in all stands. While conifers needles showed lower concentration than hardwood foliage for all nutrients, balsam fir needles showed significantly greater concentrations of Ca than did red spruce needles at all sites. The pattern was similar for P but the difference was not significant at the oldest site (Tripyramid N. Mt. 113 yr).

Patterns found in foliar nutrient concentration were similar for litterfall (Table 3.4) but the trends were less apparent. In most cases differences in retranslocation of N and P among species resulted in close similarity in the concentrations among hardwood and conifer species. Potassium concentration also decreased in litter but this was likely the result of leaching rather than retranslocation (Ryan and Bormann 1982). In every species, and at every site, Ca and Mg increased in concentration of litter versus foliage measurements. This can be explained by the differential mass loss from increased net respiration during retranslocation (Ostman and Weaver 1981, Chapin and Kedrowski 1983). No distinct pattern of nutrient retranslocation within or across species was found however, nor was any pattern evident across stand age or elevation.

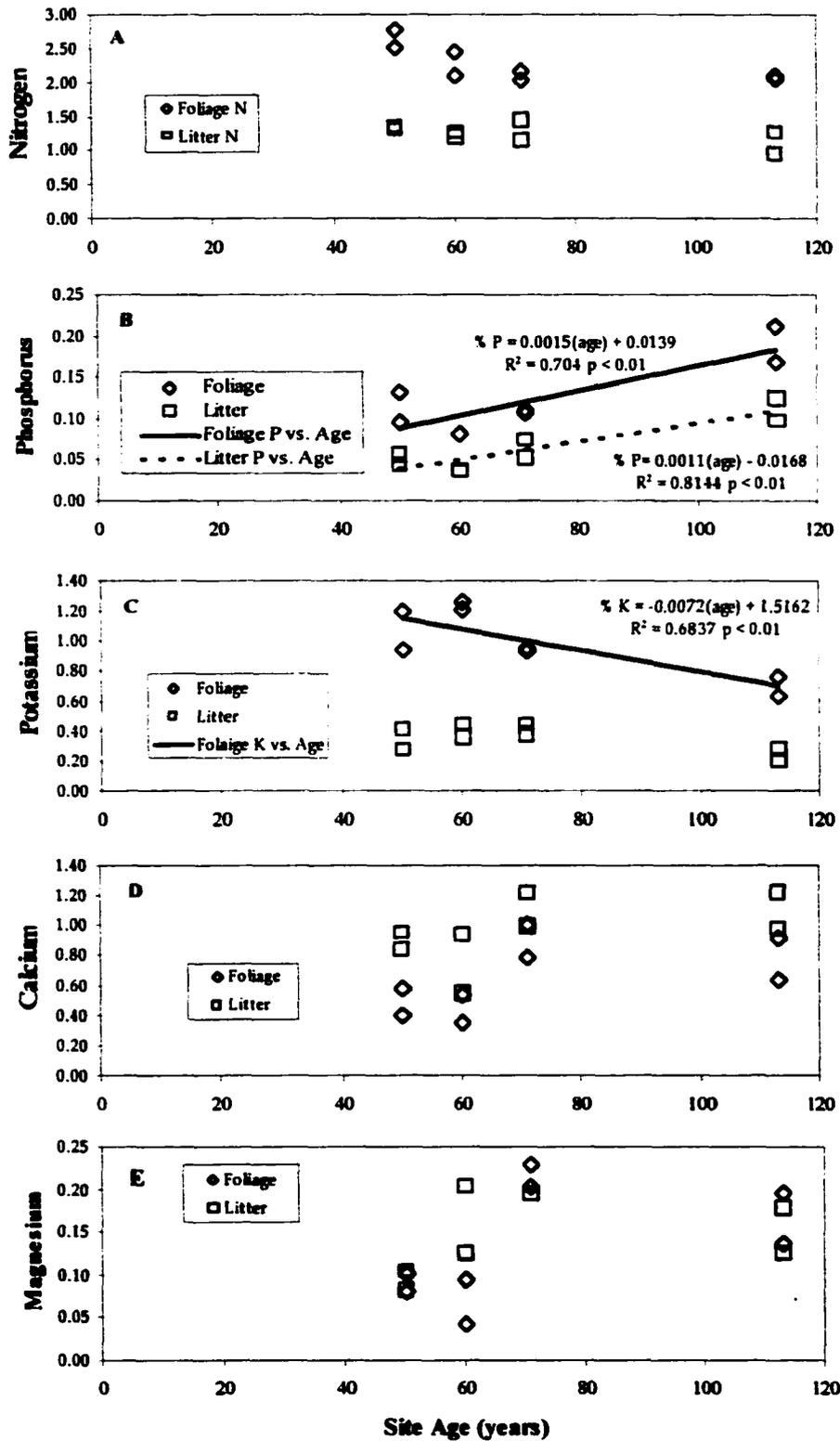


Figure 3.1. Percent nutrient concentration of five dominant tree species on eight landslide sites differing age in the White Mountain National Forest, NH.

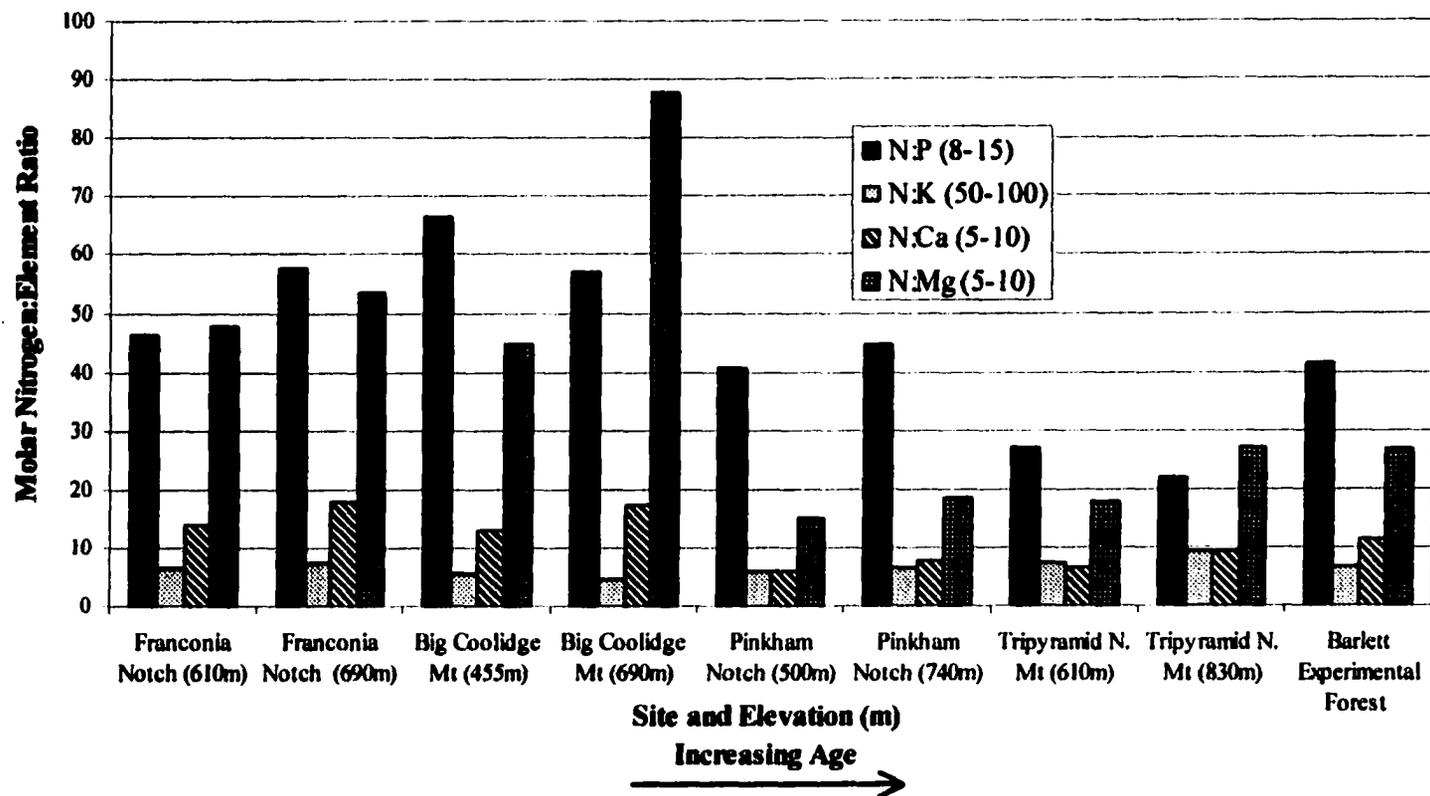


Figure 3.2. Molar foliar nitrogen to nutrient ratios of the dominant canopy species on eight landslide stands of differing age and elevation in the White Mountain National Forest, NH. For comparison, data representing the mean foliar concentrations for yellow and white birch foliage collected at mature and secondary forests of WMNF (elevation pooled) is shown on the left (M. L. Smith and R. Hallet unpublished data). Optimum foliar ratios for tree species (Van den Driessche 1974) shown in legend parenthesis.

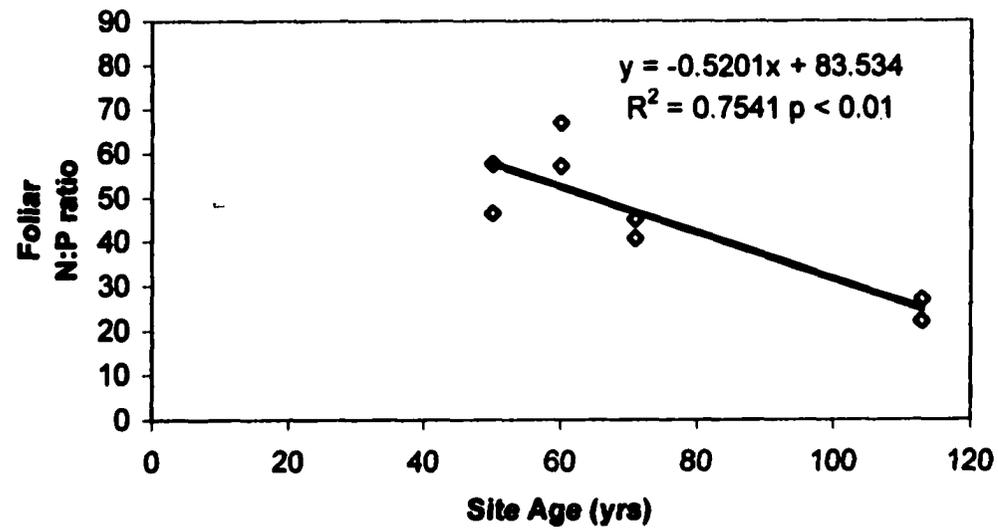


Figure 3.3. Ratio of total molar N and P status in foliage vs. site age for eight forest stands on four landslide sites, White Mountain National Forest, NH.

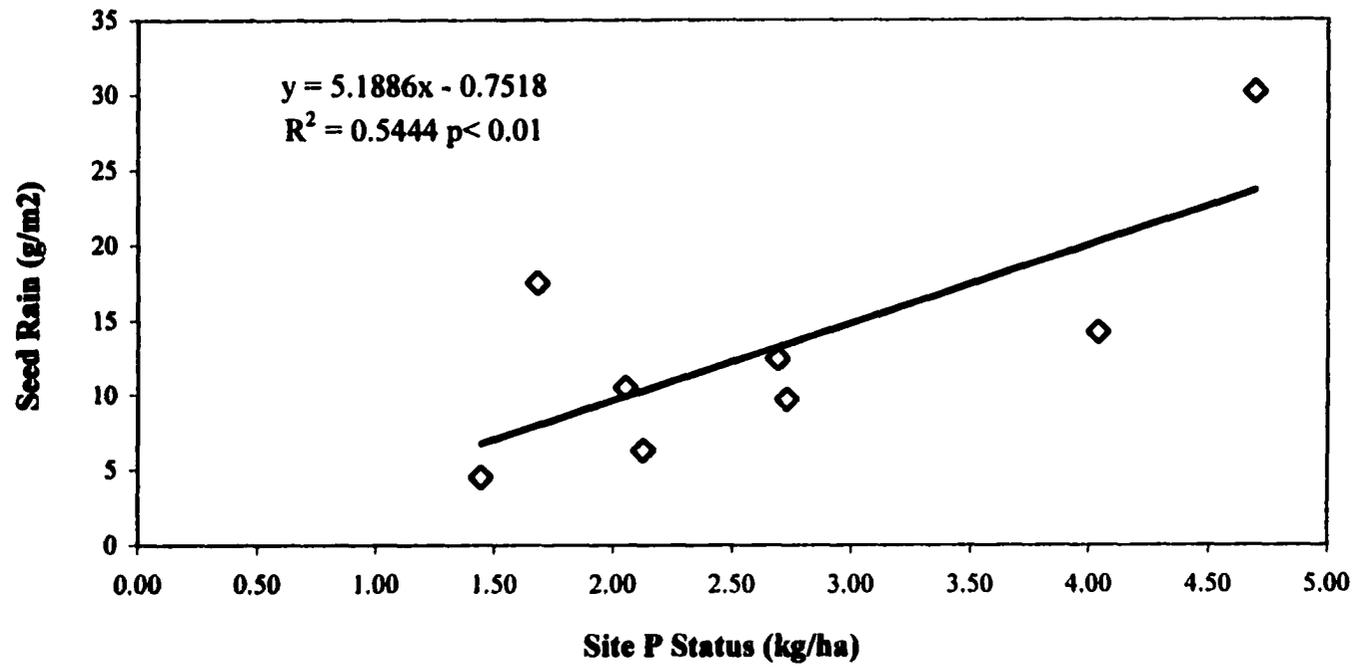


Figure 3.4. Seed rain in litterfall (g/m^2) vs. total stand P status on landslide sites, White Mountain National Forest, NH.

In all but two stands, the five major species measured for nutrient concentration represented >85 % of the total foliar litterfall. No significant pattern in weighted mean foliar content was found across site age or elevation (Figure 3.1) for N, Ca or Mg. Foliar P and K, however, showed moderately strong correlations with site age (Figure 3.1). Note that P in Figure 3.2.1 has been graphed on a secondary axis to illustrate the trend across site age. Weighted mean P concentration increased with site age while K declined.

Foliar N:nutrient ratios are shown in Figure 3.2. Van den Driessche (1974) provides molar N:P, K, Ca and Mg ratios as guidelines for determining nutrient requirements of forest trees (see Figure 3.2 legend). Ratios exceeded these guidelines for every nutrient except K. Only N:P ratios showed a strong significant relationship with site age (Figure 3.4) although this is driven primarily by P content (Figure 3.1). Calcium nutrient content appears to show a slight increase with age, as does Mg, but the trend is not significant. Weighted mean nutrient concentrations in litterfall (Figure 3.2) are similar to foliage (P graphed on secondary axis) across all stands, although retranslocation has reduced the relative quantities of N and P. Weighted mean litter phosphorus concentration shows a slightly stronger relationship with site age than was found in foliage. Conversely, the site age correlation observed in foliage K content was not seen in litter. No correlation was found between site age and weighted mean concentrations of Ca or Mg in litterfall.

Seed rain mass was found to be moderately but significantly correlated with foliar P content (Figure 3.4).

Table 3.5
Regression Parameters and Statistics for
Linear Models of Initial Litterbag Nutrient Concentration vs.
Mean Annual Nutrient Flux per Gram of Original Litter Mass (mg/g/yr).
Results of Four Species of Litter, incubated in
Eight Landslide Stands of Varying Age and Elevation.

Nutrient	Slope	Intercept	R ²	F Statistic	p Value
Nitrogen	-8.33	11.05	0.4031	20.26	0.0001
Phosphorus	- 7.48	0.362	0.8987	266.16	<0.0001
Potassium	-11.09	1.15	0.8775	214.95	<0.0001
Calcium	-8.64	4.35	0.4624	25.80	0.0001
Magnesium	-9.12	0.573	0.5639	38.8	0.0001

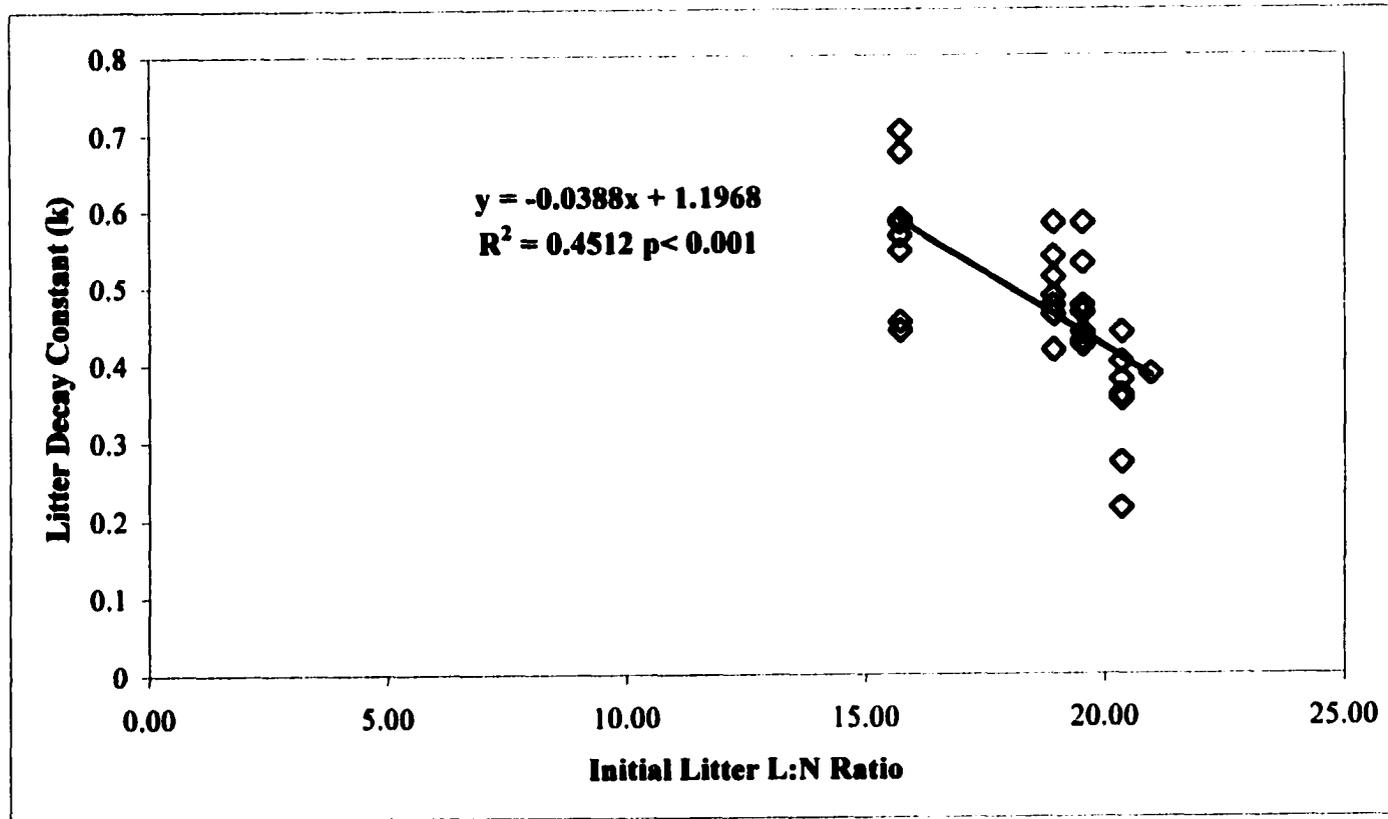


Figure 3.5. Regression of litter decay constant (k) vs. lignin:nitrogen ratio of 4 selected species of litter incubated on 8 landslide stands of varying age and elevation in the White Mountain National Forest, NH.

Litter decay did not vary significantly among sites, within species. Hardwood species of litter combined (mean $k = 0.52$ s.d. = 0.07) varied significantly from balsam fir litter (mean $k = 0.35$, s.d. = 0.08) at the level $\alpha < 0.01$. Litter decay was significantly, and negatively, related to the ratio of initial litter lignin to nitrogen concentration (Figure 3.5), consistent with previous findings (Aber and Melillo 1982, Berendse et al 1987).

Annual nutrient flux from decaying litter was significantly, and in the case of P and K, strongly correlated with the initial litter content of all measured nutrients (Table 6). No relationship was found between annual litter nutrient flux and any measured site variable.

Discussion

Foliar N concentrations are equal to or higher than the same species at other northern forest sites (Whittaker et al. 1979, Lang et al. 1982, Bockheim and Leide 1991, McNulty and Aber 1992, Wang et al. 1999). The difference in cation content is much smaller and may be explained by recent decreases in precipitation inputs (Likens and Bormann 1995, Likens et al 1994, Likens et al. 1998). Phosphorus concentrations measured in a mature forest at nearby Hubbard Brook Experimental Forest (HBEF) (Whittaker 1979) were 40 – 100% higher than those from all but the oldest landslide sites. Recent measurements at Bartlett Experimental Forest were only slightly lower than P concentration presented in Table 3.3. Weathering of mineral substrates, not precipitation is the major source of P in the WMNF region (Yanai 1992, Likens and Bormann 1995). Yanai (1992) estimates that 61% of the P taken up

by vegetation at HBEF is released from the forest floor. Therefore P availability could be expected to be linked to litterfall and forest floor accumulation on these sites. While neither forest floor mass nor forest floor P was measured one could infer from the correlations of foliar P concentration, stand level P status, and N:P ratio with site age that this pool increases with the age of these stands. The data reviewed by Walker and Syers (1976) showed greater inorganic availability of P on young substrates, although organic fractions were much lower and increased with site age. Leaching of inorganic P is reported as a significant export which may preclude significant incorporation of P into biotic cycles by plant communities. Other plausible explanations exist for the observed patterns in P dynamics. For instance, site differences in parent material or, root growth over time and subsequent increase in plant soil exploration during stand development.

Foliar N:P ratios in WMNF in general were found to exceed the Van Den Driessche (1974). empirical ratios and are higher than the oldest landslide site shown (Figure 3.2). Perhaps low P availability is low for this region in general and results from P poor parent materials. Increased soil acidity may reduce P availability by providing greater Al and Fe oxides resulting in increased adsorption and occlusion of illuvial horizons.

Only the N:K ratio falls below the upper bounds of the guidelines published by Van den Driessche (1974). This ratio however is *below* the minimum recommendations suggesting an imbalance among K and other nutrients. The N:P and N:Mg ratios at the youngest sites are 5x greater, and twice the recommendations at the oldest site (Figure 3.5). Although lower N:element ratios at the 113 year stands

may result from the lower N content (figure 1). Granted the recommendations are broad and ratios probably vary among, and within, species and regional ecotypes. Regardless of whether these patterns in foliar concentrations, nutrient status, and litterfall transfers relate to spatial or temporal patterns, the N:element ratios suggest either limitation or deficiency in P and Mg at WMNF landslide sites. The linear relationship of seed rain with P status further supports P limitation at these sites that may affect onsite regeneration.

Phosphorus limitation is rare in aggrading terrestrial ecosystems (Aber and Mellillo 2001) as P generally increases parallel with N accumulation in biomass and organic matter. Magnesium is a critical cation in the structure of chlorophyll and may thereby limit ecosystem development through reduced net photosynthesis and production. While base cations have been observed to decline in nearby mature forests (Likens and Bormann 1995, Likens et al 1994, Bailey 1996, Likens et al. 1998, Yanai et al 1999), their forest floor, SOM and CEC reservoirs are more developed on mature sites and may be resilient to rapid depletion (Federer et al 1989). Aggrading forest stands on landslide disturbed sites may depend largely on mineral weathering and precipitation for base cations and thus may already be responding to the affects of greater cation mobility and export.

Litter chemistry is important in the turnover of litter organic material and nutrients. The ratio of lignin to N in litter predicts decay rates (Figure 3.5), although not N dynamics, as has been observed previously (Aber and Mellilo 1982, Berendse and Bosatta 1987). The lignin:N ratio may be more closely related to the upper limit of N immobilization rather than annual N flux of decaying litter (Aber et al. 1990).

Nutrient dynamics appear to be closely related to initial litter concentration, rather than decay rate, as has been found with Ca and Mg (Gosz et al. 1973). Potassium has no organic form in biomass and the resulting high solubility explains the rapid release of this element from litter. Litter P dynamics are controlled by microbes and mycorrhizae (Sanyal and De Datta 1991) suggesting tight cycling of P on these sites.

In summary, the relationship of P, with site age in foliar and litter concentrations, and seed rain suggest low P availability and possible limitation of forest growth and reproduction. Phosphorus, and perhaps cation cycling, appears to be tightly linked to litterfall content and litter decay. Nitrogen availability does not appear to be singularly limiting and in lieu of possible co-limitation by other nutrients, plant demands for N may be met by precipitation inputs and litter decay. Additional investigation of soil nutrient content, root biomass and controlled fertilizer experiments are required to determine relative nutrient availability and limitation, respectively. In particular, regionally low N:P ratios are disturbing and strongly suggest additional investigation into P cycling dynamics and plant availability in WMNF ecosystems

References

- Aber, J. D. 1992. Nitrogen cycling and nitrogen saturation in temperate forest ecosystems. *Trends in evolution and ecology* 7:220-223.**
- Aber, J. D., A. Magill, S. G. McNulty, R. D. Boone, K. J. Nadelhoffer, M. Downs, and R. Hallett. 1995. Forest biogeochemistry and primary production altered by nitrogen saturation. *Water, air and soil pollution* 85:1665-1670.**
- Aber, J. D., J. M. Melillo, and C. A. McClaugherty. 1990. Predicting long term patterns of mass loss, nitrogen dynamics and soil organic matter formation from initial fine litter chemistry in temperate forest ecosystems. *Canadian Journal of Botany* 68:2201-2208.**
- Bailey, S. W., J. W. Hornbeck, C. T. Driscoll, and H. E. Gaudette. 1996. Calcium inputs and transport in a base-poor forest ecosystem as interpreted by Sr isotopes. *Water Resources Research* 32:707-719.**
- Beatty, S. W. 1984. Influence of microtopography and canopy species on spatial patterns of forest understory plants. *Ecology* 65:1406-1419.**
- Bockheim, J. G., and J. E. Leide. 1991. Foliar nutrient dynamics and nutrient-use efficiency of oak and pine on a low fertility soil in Wisconsin. *Canadian Journal of Forest Research* 21:925-934.**
- Brady, N. C. 1996. Nature and Property of Soils, 12 edition. Prentice Hall, NY.**
- Caine, N. 1980. The rainfall intensity-duration control of shallow landslides and debris flows. *Geografiska Annaler* 62A:23-27.**

- Chapin, F. S. I., and R. A. Kedrowski. 1983. Seasonal changes in nitrogen and phosphorus fractions and autumn retranslocation in evergreen and deciduous taiga trees. *Ecology* **64**:376-391.
- Christ, M. J., C. T. Driscoll, and G. E. Likens. 1999. Watershed and plot-scale tests of the mobile anion concept. *Biogeochemistry* **47**:335-353.
- Dalling, J. W. 1994. Vegetation colonization of landslides in the Blue Mountains, Jamaica. *Biotropica* **26**:392-399.
- Driscoll, C. T., G. B. Lawrence, A. J. Bulger, T. J. Butler, C. S. Cronan, C. Eager, K. F. Lambert, G. E. Likens, J. L. Stoddard, and K. C. Weathers. 2001. Acidic Deposition in the Northeastern United States: Sources and Inputs, Ecosystem Effects, and Management Strategies. *BioScience* **51**:182-198.
- Federer, C. A., J. Hornbeck, L. M. Tritton, C. W. Martin, R. S. Pierce, and C. T. Smith. 1989. Long-term depletion of calcium and other nutrients in eastern US forests. *Environmental Management* **13**:59-601.
- Flaccus, E. 1959. Revegetation of landslides in the White Mountains of New Hampshire. *Ecology* **40**:692.
- Gosz, J. R., G. E. Likens, and F. H. Bormann. 1973. Nutrient release from decomposing leaf and branch litter in the Hubbard Brook Forest New Hampshire. *Ecological Monographs* **43**:173-191.
- Guariguata, M. R. 1990. Landslide disturbance and forest regeneration in the upper luquillo mountains of Puerto Rico. *Journal of Ecology* **78**:814-832.
- Hewitt, k. 1988. Catastrophic landslide deposits in the Karakoram Himalaya. *Science* **242**:64-67.

- Jenny, H. 1980. *The Soil Resource: Origin and Behavior*. Springer-Verlag, New York.
- Lang, G. E., W. A. Rieners, and G. A. Shellito. 1982. Tissue chemistry of *Abies balsamea* and *Betula papyrifera* var. *cordifolia* from subalpine forests of the northeastern United States. *Canadian Journal of Forest Research* 12:311-318.
- Likens, G. E., and F. H. Bormann. 1995. *Biogeochemistry of a Forested Ecosystem*. Springer-Verlag, New York.
- Likens, G. E., C. T. Driscoll, D. C. Buso, T. G. Siccama, C. E. Johnson, G. M. Lovett, T. J. Fahey, W. A. Reiners, D. F. Ryan, C. W. Martin, and S. W. Bailey. 1998. The biogeochemistry of calcium at Hubbard Brook. *Biogeochemistry* 41:89-173.
- McNulty, S., and J. D. Aber. 1993. Effects of chronic nitrogen additions on nitrogen cycling in a high elevation spruce-fir stand. *Canadian Journal of Forest Research* 23:1252-1263.
- Meiwes, K. J., A. Merino, and F. O. Beese. 1998. Chemical composition of throughfall, soil water, leaves and leaf litter in a beech forest receiving long term application of ammonium sulphate. *Plant and Soil* 210:217-230.
- Newman, S. D., M. G. Soulia and J. D. Aber. 1995. Analysis of forest foliage I: laboratory procedures for proximate carbon fraction and nitrogen determination. *Journal of Near Infrared Spectroscopy* 21:398-412.
- Ostman, N. L., and G. T. Weaver. 1982. Autumnal nutrient transfer by retranslocation, leaching, and litter fall in a chestnut oak forest in southern Illinois. *Canadian Journal of Forest Research* 12:40-51.

- Pandey, A. N., P. C. Pathack, and J. S. Singh. 1983. Water, sediment and nutrient movements in forested and non-forested catchments in Kuman Himalaya. *Forest Ecology and Management* 7:19-29.
- Ryan, D. F., and F. H. Bormann. 1982. Nutrient resorption in northern hardwood forests. *BioScience* 32:29-32.
- Sanyal, S. K., and S. K. De Datta. 1991. Chemistry of phosphorus transformations in soil. Pages 1-120 in B. A. Stewart, editor. *Advances in Soil Science*. Springer-Verlag, New York.
- Selby, M. J. 1993. *Hillslope Materials and Processes*, 2nd edition. Oxford University Press, New York.
- Sokal, R. R., and F. J. Rohlf. 1995. *Biometry: The principles and practice of statistics in biological research*, 3rd edition. W. H. Freeman and Co., New York.
- Sprent, J. I. 1993. The role of nitrogen fixation in primary succession. Pages 209-220 in J. Miles and D. W. H. Walton, editors. *Primary succession on land*. Blackwell Scientific, Oxford.
- Van Den Driessche, R. 1974. Prediction of mineral nutrient status of trees by foliar analysis. *The Botanical Review* 40:347-389.
- Van Miegort, H., D. W. Cole, and N. W. Foster. 1992. Nitrogen distribution and cycling. Pages 178-195 in D. W. Johnson and S. E. Lindberg, editors. *Atmospheric Deposition and Forest Nutrient Cycling*. Springer-Verlag, New York.

- Vitousek, P. M., T. Fahey, D. W. Johnson, and M. J. Swift. 1988. Element interactions in forest ecosystems: succession, allometry and input-output budgets. *Biogeochemistry* 5:7-34.
- Vitousek, P. M., L. R. Walker, L. D. Whiteaker, and P. A. Matson. 1993. Nutrient limitations to plant growth during primary succession in Hawaii Volcanoes National Park. *Biogeochemistry* 23:197-215.
- Walker, L. R. 1993. Nitrogen fixers and species replacements in primary succession. Pages 249-272 in J. Miles and D. W. H. Walton, editors. *Primary Succession on Land*. Blackwell Scientific, Oxford.
- Walker, L. R., and J. K. Syers. 1976. The fate of phosphorus during pedogenesis. *Geoderma* 15:1-19.
- Walker, L. R., D. J. Zarin, N. Fetcher, R. W. Myster, and A. H. Johnson. 1996. Ecosystem development and plant succession on landslide in the Caribbean. *Biotropica* 28:566-576.
- Wang, J. R., T. Lecthford, P. Comeau, and J. P. Kimmins. 1999. Above- and below-ground biomass and nutrient distribution of a paper birch and subalpine fir mixed-species stand in the sub-boreal zone of British Columbia. *Forest Ecology and Management* 130:17-26.
- Whittaker, R. H., F. H. Bormann, J. S. Eaton, and T. G. Siccama. 1979. The Hubbard Brook ecosystem study: Forest nutrient cycling and element behavior. *Ecology* 60:203-220.
- Yanai, R. D. 1992. Phosphorus budget of a 70-year-old northern hardwood forest. *Biogeochemistry* 17:1-22.

**Zarin, D. J., and A. H. Johnson. 1995. Nutrient Accumulation during primary
succession in a montane tropical forest. Soil Science Society of America
Journal 59:1444-1452.**

Chapter 4

Forest Community Analysis and the Point-centered Quarter Method.

Introduction

Distance methods of vegetation sampling gained wide acceptance following their introduction to the ecological literature by Cottam and Curtis (1956). As the name suggests, these methods estimate vegetation parameters using the distance either between individual plants or random points and plants. Point-centered-quarter (PCQ) is most time efficient and is easily performed by one or two person teams (Cottam and Curtis 1956, Lindsey et al. 1958). The method converts the linear distance to a two dimensional areal parameter by squaring of the average distance of stems from randomly located points. Therefore, converse to quadrat sampling methods, the mean area per individual is sampled rather than the number per unit area. For this reason it has become the most widely used of the original distance methods.

The theoretical basis for distance methods was addressed by Pielou (1959, 1977) and found to be biased when the spatial pattern of plant distribution deviates from random. This bias was known to Cottam and Curtis (1956) but was considered to be of minimal effect, as stated in the original text: "...aggregation in forest stands is usually so slight that it does not present a serious problem."

Clark and Evans (1954), Pielou (1977), Vincent et al. (1976) and Diggle (1977) have since explored the nature of plant distribution and observed that aggregated stem patterns are more prevalent than previously suspected. Risser and Zedler (1968) and Good and Good (1971) found a large degree of bias in both density and basal area estimates when applying the PCQ to grassland vegetation. With

regards to density, the bias was shown to be linearly related to Pielou's (1959) Index of Spatial Randomness, underestimating in aggregated stands and overestimating when evenly dispersed (Risser and Zedler 1968). This suggests that a correction of the bias may be possible using the slope of the relationship, however Pielou's Index requires an independent quadrat based density estimate thus negating the utility of a PCQ estimate.

For a method to be widely accepted and utilized the results should be compared with values from a standard, well established sampling procedure as is done when calibrating laboratory instruments. Risser and Zedler (1968) and Cottam and Curtis (1956) compared PCQ with Fixed-area Plot (FAP) estimates for plant density, forest basal area (Cottam and Curtis 1956) and forb biomass (Risser and Zedler 1968). FAP methods are limited by the same sampling errors inherent in any procedure. However, this method provides unbiased, repeatable results for density, abundance and specie composition when used with appropriate consideration of the size of individuals, random placement sampling intensity (Bormann 1953) (Barbour et al. 1987). To determine the accuracy of general application, comparison with the standard FAP method should extend across a broad range of conditions and communities to fully characterize any bias for these and other parameters that investigators may estimate.

While the handful of investigations mentioned previously provide a solid basis for such an examination, they do not represent a broad range of community types or spatial patterns. Therefore additional data is required to test the general accuracy and precision of the PCQ estimates. Nonetheless PCQ is widely used, as evidenced by a

search of the JSTOR on-line journal archive (www.jstor.com) using the key-words “point-centered quarter method” that returned references to 75 publications between the years 1960 and 2000. Many of these investigations involved analysis and comparison among communities for species richness, community structure, habitat suitability and successional trajectory. To our knowledge, no published study has compared PCQ or any other distance method, with FAP estimates of these parameters. Moreover, many commonly used texts of plant community ecology include reference to the distance methods and only one (Mueller-Dombois and Ellenberg 1986) provides a discussion of the limitations.

With these considerations in mind the PCQ with FAP estimates of stand density, basal area, species richness and community structure were compared with data collected in 14 forest stands in New Hampshire and include previously published data where appropriate. I provide data on the relationship of density and basal area with Pielou’s spatial index, and conduct a comparison of PCQ and FAP estimates of species richness and community structure. Sampling was conducted in stands of varying age, elevation, and disturbance regime to provide diversity of stand structure and community composition.

Methods

Eight stands in the White Mountain National Forest (WMNF) of New Hampshire that were previously disturbed by landslides between 1885 and 1948 were sampled. This topo-chronosequence of stands varies in age from 50 to 111 years (at time of sampling) and from 450 to 740 m in elevation. Additionally, mature uneven-aged mixed conifer-hardwood stands were measured at 3 sites surrounding the

landslides at Franconia Notch (450 and 600 m) and Pinkham Notch (400m) and six stands within the College Woods research and educational forest on the campus of the University of New Hampshire, Durham NH.

PCQ Sampling

Measurements using the PCQ method followed Cottam and Curtis (1956) and were conducted during the 1996-1998 growing seasons at the WMNF stands.

Transects were spaced at 5m intervals running parallel to the slope contours at all landslide stands. Minimum measured stem size was 2.5 cm on WMNF stands.

Transects in the College Woods stands were located by pacing random distances along the trail-borders of each stand and an additional random number of paces into the stand along a north-south compass bearing. Sampling points were located at random distances along the transects for all sites. Minimum stem size 2.0 cm for College Woods stands. The number of points measured varied by the size of each stand. Sampling was conducted in the spring of 2001.

FAP Sampling

Three rectangular. 0.01 ha plots were measured on each of the WMNF sites. The plots were located at random spacing along the center of the stand, perpendicular to the slope contour. A nested plot design was used for three stem size classes with plot size decreasing with by $\frac{1}{2}$ of the next larger plot. Stems greater than 10 cm dbh were measured in the entire 5 x 20 m plot, stems > 5 cm and < 10 cm were measured in the down slope half of the plot (5 x 10 m section), stems > 2.5 and < 5 cm were measured in the down slope half of the previous section (5 x 5 m). The rectangular

plot design, when placed orthogonal to slope contour has been shown to minimize variance when sampling a toposequence (Bormann 1953).

College Woods stands were measured with randomly located, nested, concentric circular plots 8 m in diameter (50.3 m²) for stems > 8 cm, and 5.5 m diameter (23.75 m²) for stems > 2.0 and < 8 cm. The FAP measurements for College Woods stands were performed in autumn of 1998. While circular plots produce greater sample variance, higher sampling intensity relative the WMNF sites was expected to offset the edge effect and provide greater efficiency.

Statistics

The traditional methods of calculating PCQ estimates integrates the data over the entire stand provide and thus do not provide an estimate of sampling error. Without such error estimates no statistical tests can be made between parameter estimates. The means and standard error (S.E.) of PCQ estimates were bootstrapped (N = 500 with replacement) for each stand. These bootstrapped PCQ values were compared to the FAP mean plot values by the student's t-test for unequal variance (Davis 1986).

The equivalence of the two methods for stem density and basal area estimates was compared by three separate methods; I) type II regression of the FAP estimates onto the PCQ estimates testing the hypothesis that $\beta = 1$ and intercept = 0. This method determines the general trend in the data with regard to a 1:1 relationship between the two methods and highlights any consistent bias over the range of estimates measured. The difference between PCQ and FAP estimates within stands

and bias across stands was determined by 2 factor ANOVA, followed by *a posteriori* testing of the within stand differences using the least-significant difference (LSD).

The presence of a bias relating to spatial pattern was tested by calculating Pielou's Spatial Index (Pielou 1977), using the distance of the closest stem from each of the sample points and the FAP density estimate for each stand.

Precision of the PCQ method was estimated using an iterative bootstrap procedure (Efron and Tibshirani 1993) of random subsets for the largest PCQ data set from College Woods. Thus, mean density estimates from random subsets of 5 – 55 PCQ sample points illustrate the effect of sampling intensity on the precision of the sample means by the % S.E. of the estimate (% S.E. = estimate/S.E.(100)).

The ability of the two methods to determine community structure was compared using the Czekanowski Similarity Index (Jongman et al. 1995) with species basal area as the measure of abundance. Similarity indices provide a single percentage value relating to the proportional abundance of species in common for both communities. Bootstrap resampling of the sample sets of each method (PCQ and FAP) was performed. Exhaustively comparison of each resample produced a mean SI value and S.E. for statistical comparison.

Variation of species abundance among samples in each stand, precludes the possibility of obtaining a 100% similarity for independent samples of the *same* stands. (Whittaker 1982) used the phrase “internal association (IA)” for this phenomenon and suggested that an acceptable value for IA, representing the highest obtainable degree of similarity between communities, be left to the subjective determination of the investigator. A quantitative value for IA could be calculated by

resampling the stand, or through a subset of existing samples. Two separate bootstrap resamplings of random individual stems from the combined data were performed, using the number of stems measured with each method. Therefore two sets 400 bootstrapped resampled datasets were produced for each stand, one with the PCQ sampling intensity and one with the FAP sample intensity. The basal area of each stem was summed by species but *relative* basal area, not ground areal units were used. The relative basal area estimates of community structure were exhaustively compared ($n = 160,000$) across each of the resampled datasets producing a mean SI value representing the IA value for each stand.

The difference between the estimated IA and SI values of each stand determined the similarity of the PCQ and FAP estimates. Natural log transforms were applied to SI and IA values prior to statistical comparison to reduce heteroscedasticity. Degrees of freedom were determined by $N_{FAP} + N_{PCQ} - 2$. An overall test of the community structure across stands was conducted by combining the probabilities of all individual tests between SI and IA for each stand (cf. Sokal and Rohlf 1995 p. 795).

Results

The PCQ and FAP density estimates for the WMNF and College Woods stands are compared in Figure 4.3.1. Orthogonal regression produced a significant regression but with large residuals. The S.E. of the means, as shown by the errors bars, are large for both estimates suggesting a high degree of variability within the sample sets of each site. Density estimates of the two methods were significantly different in all but one of the College Woods stands (see ellipse Figure 4.3.1). No

significant difference in the density estimates of the two methods was found, using the t-test, in any of the WMNF landslide stands. A two-factor ANOVA showed a significant source of variation among estimates across stands. Using the MS value among stands the LSD showed a significant difference ($p < 0.01$) among PCQ and FAP estimates for all stands.

Combining the previously published data (Cottam and Curtis 1956, Risser and Zedler 1968) in Figure 4.3.2 results in a significant relationship between the estimates of both methods although, while reduced, the residuals were high.

Regression of the basal area estimates for the WMNF and College Woods produced a weak relationship although the slope was not significantly different from 1. The orthogonal regression was weak but significant, although with high residuals (Figure 4.3). The t-test showed no significant difference between individual stand basal area estimates of the two methods. The S.E values however are large suggesting the possibility of a type I error. The comparison of basal area measurements is also improved by the addition of data from Cottam and Curtis (1956) (Figure 4.4). Orthogonal regression was significant but again with large residuals.

While no general systematic bias was found in the above regression analyses, Figure 4.5a shows a weak, although significant, relationship between Pielou's spatial index and the difference between PCQ and FAP density estimates. Surprisingly, the difference between basal area estimates of the two methods showed no such relationship (Figure 4.5b).

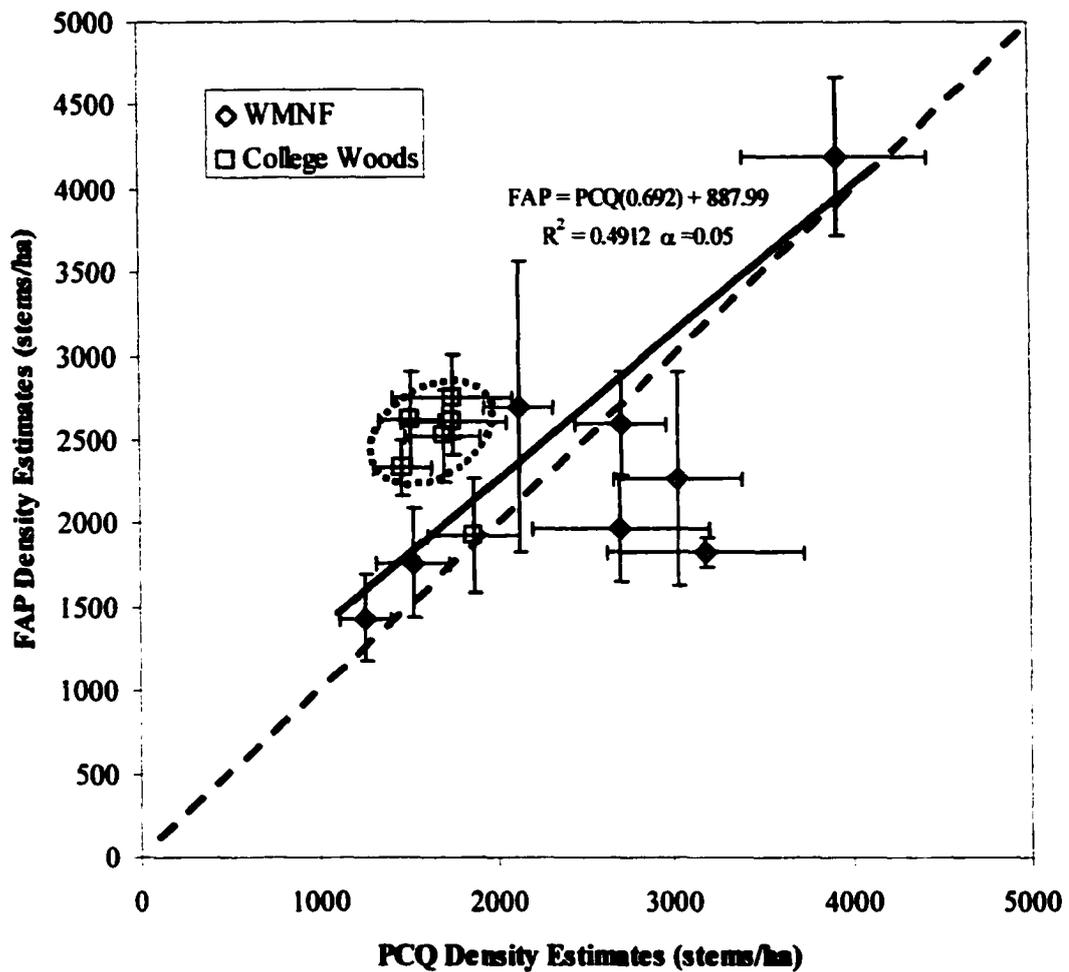


Figure 4.1. Comparison of Point-centered Quarter (PCQ) and Fixed-area Plot (FAP) density estimates for 14 forest sites in New Hampshire. Orthogonal regression was significantly at $\alpha = 0.05$. Error bars are standard error of the mean. Estimates within the dotted ellipse are significantly different between methods at $\alpha = 0.05$

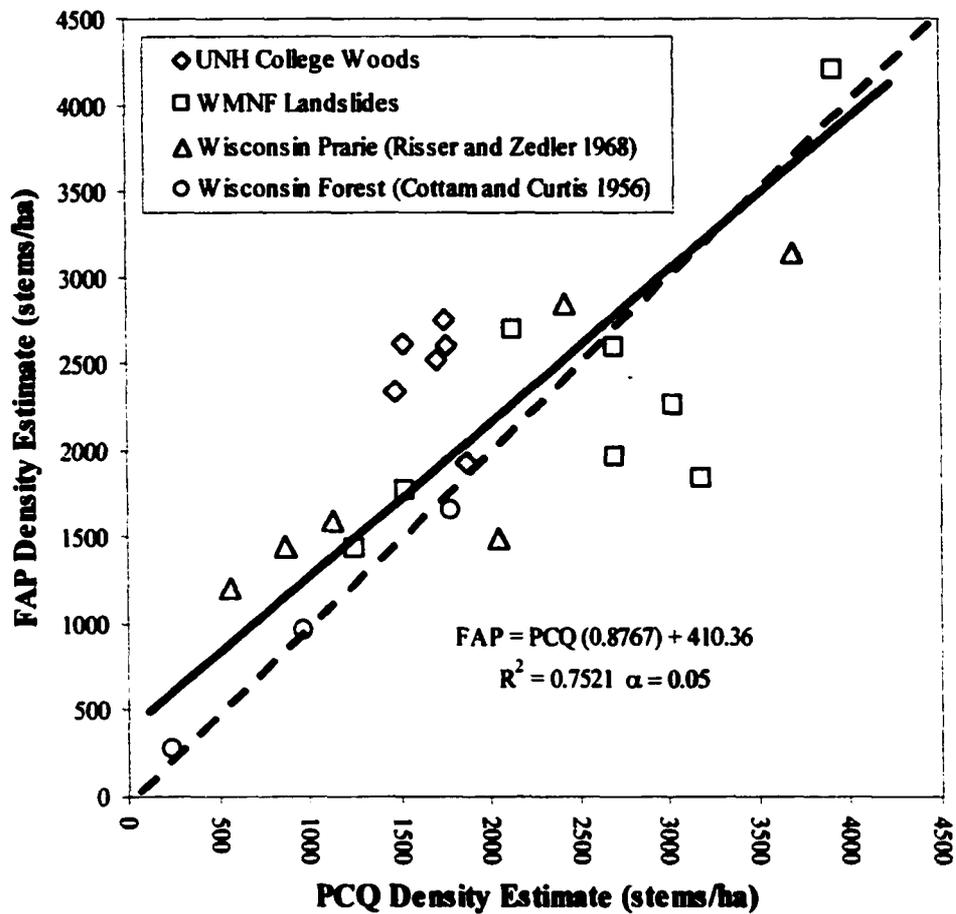


Figure 4.2. Comparison of Point-centered Quarter (PCQ) and Fixed-area Plot (FAP) density estimates for New Hampshire forest and previously published data. Orthogonal regression was significantly at $\alpha = 0.05$. Dashed line represents 1:1 relationship between estimates.

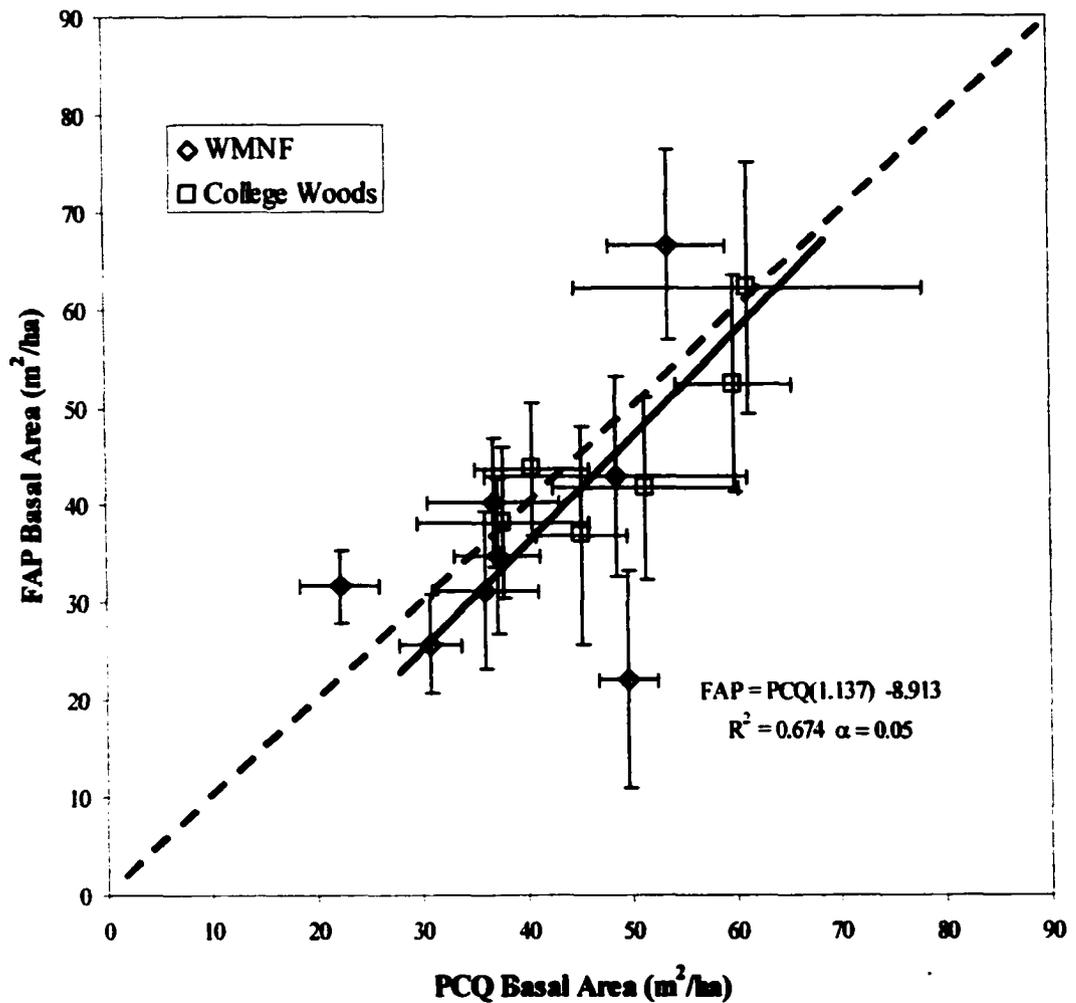


Figure 4.3. Comparison of Point-centered Quarter (PCQ) and Fixed-area Plot (FAP) basal area estimates. Orthogonal regression was significant at $\alpha = 0.05$. Error bars are standard error of the mean. Individual estimates were not significantly different at $\alpha = 0.05$. Dashed line represents 1:1 relationship between estimates.

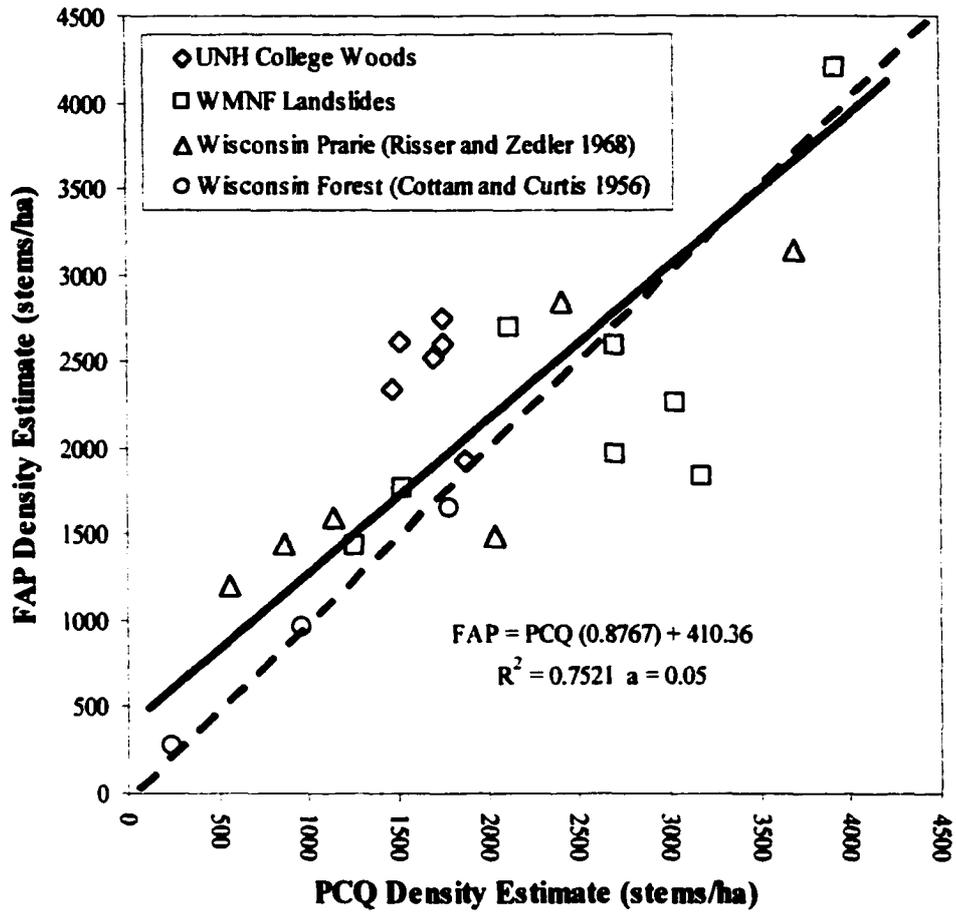


Figure 4.4. Comparison of basal area estimates for Point-centered Quarter (PCQ) and Fixed-area Plots (FAP) methods in New Hampshire forests and previously published data. Orthogonal regression was significantly at $\alpha = 0.05$. Dashed line represents 1:1 relationship between estimates

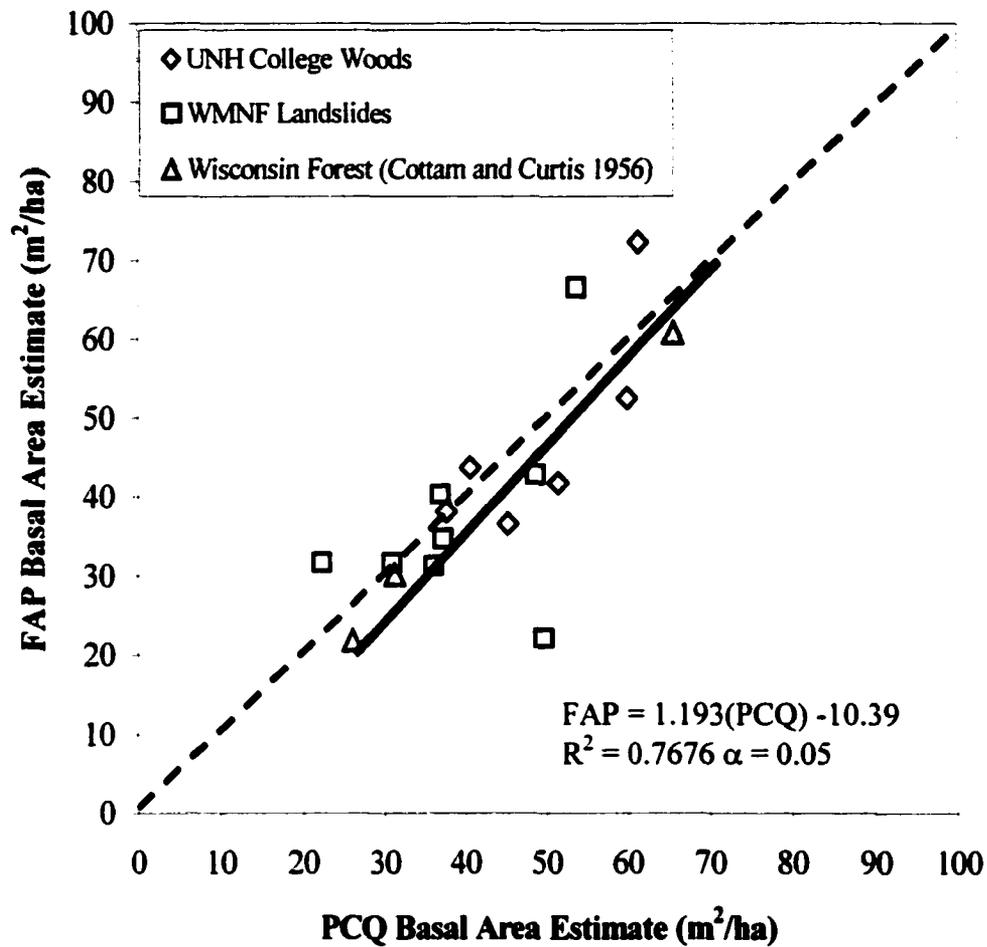


Figure 4.4. Comparison of basal area estimates for Point-centered Quarter (PCQ) and Fixed-area Plots (FAP) methods in New Hampshire forests and previously published data. Orthogonal regression was significantly at $\alpha = 0.05$. Dashed line represents 1:1 relationship between estimates

Increasing the number of sample points for the PCQ estimate affected both the magnitude and the precision of the density estimate, but only the precision of the basal area estimate (Figure 4.6). The % S.E. follows an asymptotic function, decreasing with increasing number of PCQ sample points for both parameter estimates. Using the original recommendation by Cottam and Curtis (1956) a sample set of 20 points would yield a % S.E of the density estimate of 16% and 24% for basal area.

The PCQ captured fewer species than the FAP in both College Woods stands and WI prairie as shown in Figure 4.7, although PCQ captured more species than FAP in the WMNF stands. The ability of the two methods to reproduce estimates of community structure, is shown by the comparison of SI and IA in Figure 4.8. Significant differences between SI and IA estimates were found at five stands while nine stands did not. Therefore, taking into account within stand variability, PCQ and FAP methods failed to capture similar community structure in 45 % of the stands. Overall, the combined probabilities of the t-test comparisons of SI and IA showed highly significant differences ($p < 0.001$).

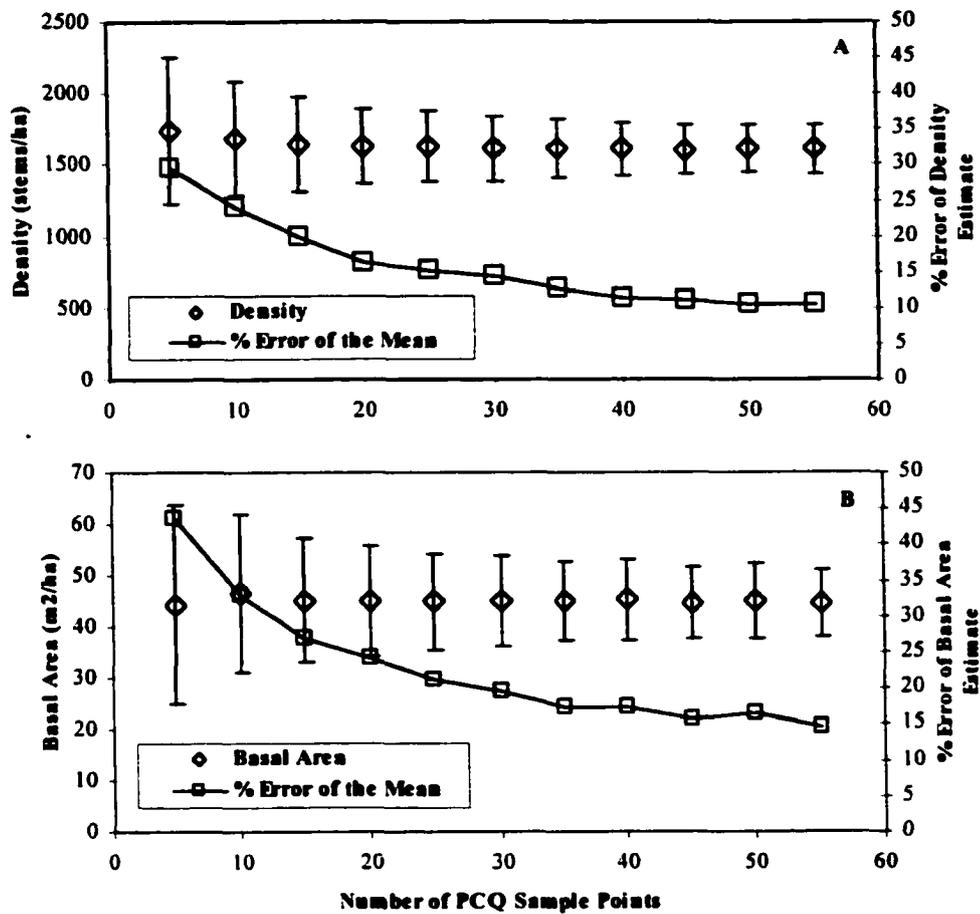


Figure 4.6. Precision of Point-centered Quarter (PCQ) density (A) and basal area (B) estimates with increasing number of randomly chosen sample points from selected stand in College Woods, University of New Hampshire Durham, NH. Precision shown by % S.E of the estimate (S.E./estimate x 100).

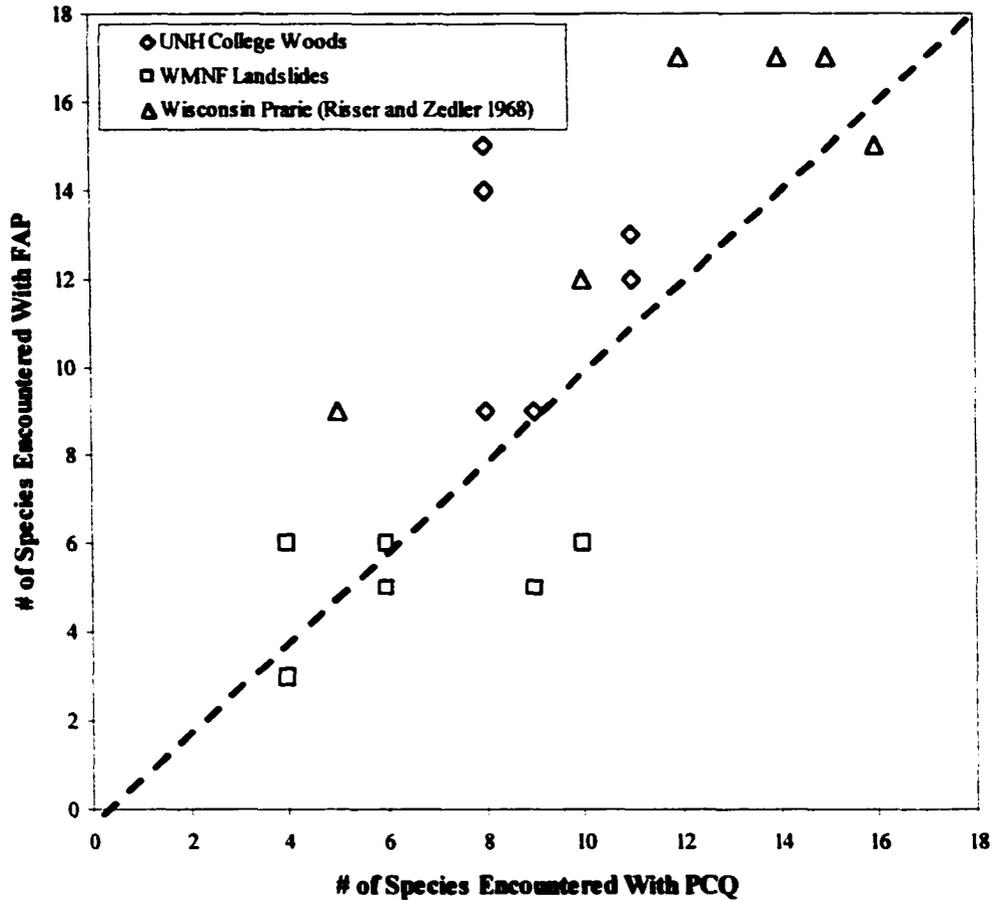


Figure 4.7. The number of species encountered using Point-centered Quarter (PCQ) and Fixed-area Plot method (FAP) in 14 New Hampshire forest stands and three Wisconsin grassland sites. Dashed line represents equal number of species for both methods.

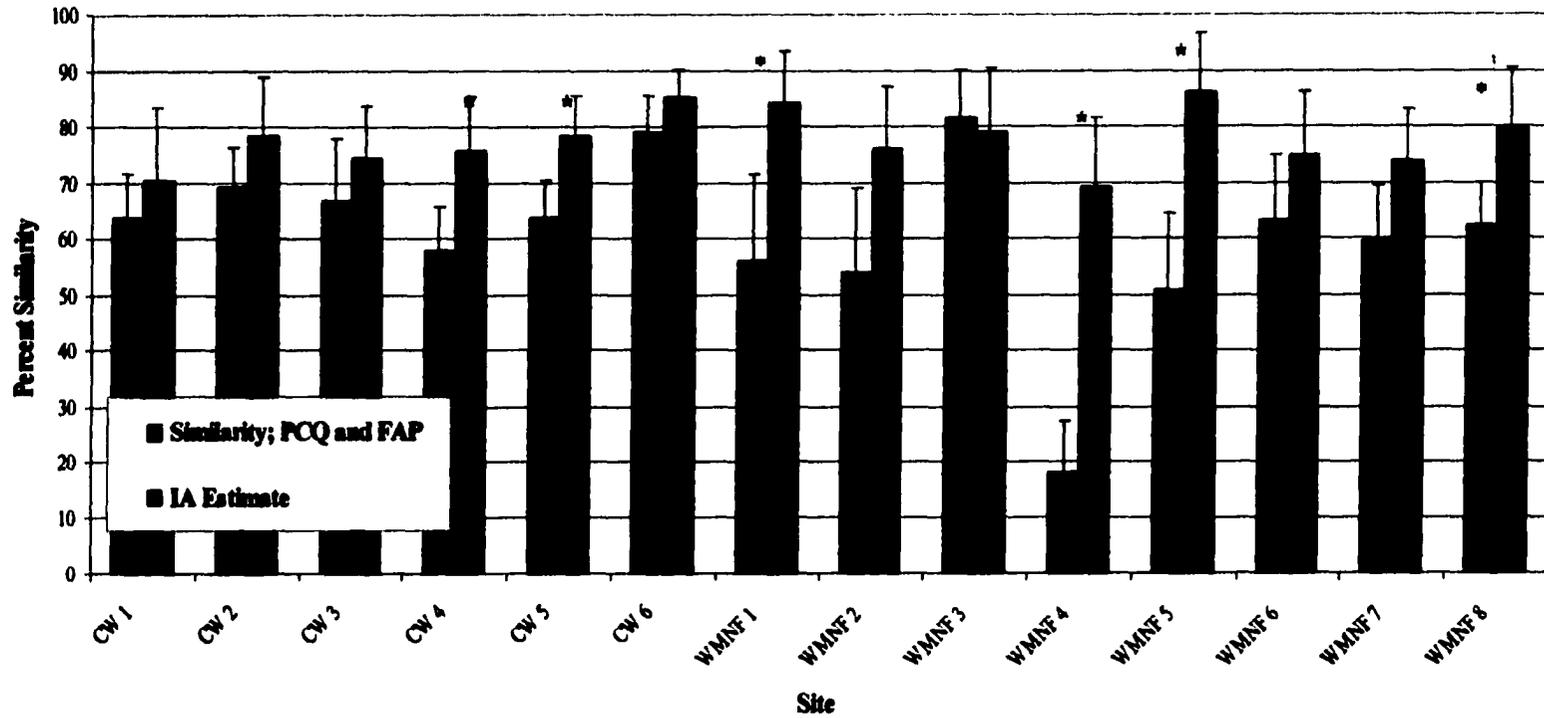


Figure 4.8. Czekanowski's Similarity Index comparing estimate of community structure as measured by Point-centered Quarter and Fixed-area Plot methods in 6 stands at College Woods, Durham NH (CW) and 8 stands in the White Mountain National Forest (WMNF) of northern New Hampshire. Species level basal area determines abundance. Error bars are bootstrapped S.E. Columns marked: * = significant difference between SI and IA at $\alpha = 0.05$.

Discussion

The variation between the PCQ and FAP density estimates was surprisingly high (Figure 4.1). While the boot-strapped S.E. values of the PCQ density estimates were large, they were generally on the same order as the S.E. of the FAP density estimates, suggesting that the sampling error was approximately equal for both methods. No sampling procedure provides absolute accuracy, including FAP. The rectangular plots used in WMNF stands were small and therefore have a large perimeter:area ratio affecting the probability of including boundary stems in the plot. Circular plots have greater perimeter than rectangular plots of equal area, so this problem exists for the College Woods stands also. High S.E. values of the estimates suggest large within stand variability and the potential type II errors. However, density estimates for 5 of the 6 College Woods stands differed significantly regardless of large S.E. of both methods. Pielou's spatial index for these stands exceeded 1 indicating aggregation of stems. Figure 4.5 shows that PCQ underestimates density when Pielou's index > 1 which is consistent with previous observations (Risser and Zedler 1968). The estimates for the remaining College Woods stand differed by $< 2\%$. On the other hand, density estimates did not differ significantly for the WMNF landslide sites between PCQ and FAP methods. Even for the two stands where the density estimates of the methods differed by 37% and 76%. While estimates for the College Woods stands appear to have been adequately differentiated by the student's t-test, the results of at least two of the WMNF stands suggest the possibility of a type II error. Regardless, the S.E. of the FAP density was large indicating that the lack of

significance may result from a high degree of spatial heterogeneity, rather than low sampling intensity.

The difference between the mean density estimates of the two methods are on the same order (15-53 %) for both the Wisconsin prairie (Risser and Zedler 1968) and New Hampshire forest measurements (Figure 4.2). Risser and Zedler (1968) found a much stronger relationship between plant spatial distribution and the difference between the PCQ and FAP density estimates than that shown in Figure 4.5a. The two data points that lie away from the regression line are WMNF landslide sites and all but 2 of the landslide sites show evenly distributed stems using Pielou's index. Pielou cautions in her original paper (Pielou 1959) that the index is appropriate only when patterns of dispersal are stationary across spatial scales. Two points do not fit the pattern in Figure 4.5a suggesting that the stem distribution patterns on these sites may be non-stationary resulting in inaccurate spatial indices.

The Wisconsin forest density and basal area estimates compare much better than those for either the NH Forest or WI prairie. However, Cottam and Curtis (1956) inferred that the spatial distribution of the WI stands was very near random. Inclusion of previously published data greatly improved the regression statistics of the comparison however the high residuals of the means from the regression line do not provide confidence in the ability of PCQ to reproduce FAP estimates of stem density.

Regression of the basal area estimates for the NH sites provides a better linear fit than the density data although the relationship was weak (Figure 4.3). The S.E. for all stands was large for both measurements but no significant difference was found

between basal area estimates of either method from any of the NH forest stands. The percent difference between basal area estimates are generally better than that of the density estimates although one stand shows a PCQ estimate $124\% > \text{FAP}$. The difference of basal area estimates between methods shows no relationship with the spatial index (Figure 4.5b). Moreover, no relationship was found between the percent difference of the density and basal area estimates of these methods in the *same* stands (data not shown). I found this observation surprising given the direct mathematical relationship between these two parameters in the PCQ calculations. Perhaps aspects of stand structure, such as the stem diameter frequency or the spatial distribution of stem classes creates a bias in the mean basal area estimate that is not apparent in this analysis.

The difference in the number of species encountered separate distinctly between the College Woods and WMNF stands. The PCQ method finds more species on the WMNF sites and fewer species than FAP on the College Woods sites. No relationship was observed between this difference and stem spatial distribution (data not shown), although any bias for species encountered would require measurement of the stem distribution of individual species (Dale 1999) and is beyond the scope of this study. The fact that 86% of the NH forest stands differed significantly in density estimates between the two methods is problematic. All of the PCQ estimates for these stands were in excess of 30% lower than FAP estimates. This difference translates to $> 50\%$ of the PCQ density estimate. While this disparity can be attributed to the spatial distribution of stems (Figure 4.5a), no *a priori* knowledge of the magnitude of the bias can be applied to the PCQ estimate. Thus no correction

can be applied without knowledge of the spatial pattern. Indeed the FAP density estimate required for Pielou's spatial index negates the need for a PCQ estimate entirely. Moreover, the requirement of a stationary spatial pattern for Pielou's method reduces the confidence in a strong relationship between this index and the PCQ bias.

In their original paper Cottam and Curtis (1956) note that the bias inherent in the random point-stem distance may be offset by the converse bias of the random stem-to-stem distance. This concept was applied in a modification of the Nearest Neighbor method by Cox (1976) combining the method of closest individual wherein these opposing biases theoretically cancel. This and other "robust density estimators" (RDE) are reviewed by (Clayton and Cox 1986) and while improving the accuracy of the density estimate, greatly increased the variance, thus reducing the applicability to empirical research. One recently developed estimator combines the PCQ concept (i.e. angle-order measurement) with the Nearest Neighbor method, while including a measure of spatial pattern through tessellation of the measured stems at each point (Delince 1986) However as implied by the term RDE, these methods have only been tested for density estimates. While these efforts provide hope that an efficient distance method may be developed to complement the FAP, many more comparisons are required to provide the confidence needed for wide application in ecological research.

Taking into account the disparity between density, basal area, species richness and community structure results provided by the PCQ and FAP methods we would advise caution is using the PCQ method for community level analysis.

References

- Barbour, M. G., J. H. Burk, and W. D. Pitts. 1987. *Terrestrial Plant Ecology*, 2nd edition. Benjamin/Cummings, Menlo Park, CA.
- Bormann, F. H. 1953. The statistical efficiency of sample plot size and shape in forest ecology. *Ecology* **34**:474-487.
- Clark, D. F., and F. C. Evans. 1954. Distance to nearest neighbor as a measure of spatial relationships in populations. *Ecology* **35**:445-453.
- Clayton, G., and T. F. Cox. 1986. Some robust density estimators for spatial point processes. *Biometrics* **42**:753-767.
- Cottam, G., and J. T. Curtis. 1956. The use of distance measures in phytosociological sampling. *Ecology* **37**:451-460.
- Cox, T. F. 1976. The robust estimation of the density of a forest stand using a new conditioned distance method. *Biometrika* **63**:493-499.
- Dale, M. R. T. 1999. *Spatial Pattern Analysis in plant ecology*. Cambridge Univ. Press, Cambridge.
- Delince, J. 1986. Robust density estimation through distance measures. *Ecology* **67**:1576-1581.
- Diggle, P. J. 1977. The detection of random heterogeneity in plant populations. *Biometrics* **33**:390-394.
- Efron, B., and R. J. Tibshirani. 1993. *An Introduction to the Bootstrap*. Chapman and Hall, New York.
- Good, R. E., and N. F. Good. 1971. Vegetation of a Minnesota prairie and a comparison of methods. *American Midland Naturalist* **85**:228-231.

- Jongman, R. H. G., C. J. F. t. Braak, and O. F. R. v. Tongeren. 1995. Data Analysis in Community and Landscape Ecology, 2nd edition. Cambridge University Press, Cambridge.**
- Lindsey, A. A., J. D. Barton, and S. R. Miles. 1958. Field efficiencies of forest sampling methods. Ecology 39:428-444.**
- Mueller-Dombois, D., and H. Ellenberg. 1986. Aims & Methods of Vegetation Ecology, 2nd edition. Wiley and Sons., New York.**
- Pielou, E. C. 1959. The use of point-to-plant distances in the study of the pattern of plant populations. Journal of Ecology 47:607-613.**
- Pielou, E. C. 1977. An Introduction to Mathematical Ecology. Wiley-Interscience, New York.**
- Risser, P. G., and P. H. Zedler. 1968. An evaluation of the grassland quarter method. Ecology 49:1006-1009.**
- Sokal, R. R., and F. J. Rohlf. 1995. Biometry: The principles and practice of statistics in biological research, 3rd edition. W. H. Freeman and Co., New York.**
- Vincent, P. J., J. M. Haworth, J. G. Griffith, and R. Collins. 1976. The detection of randomness in plant patterns. Journal of Biogeography 3:373-380.**
- Whittaker, R. H. 1982. Ordination of Plant Communities. Dr. W. Junk, Boston.**

BIBLIOGRAPHY

- Aber, J. D. 1992. Nitrogen cycling and nitrogen saturation in temperate forest ecosystems. *Trends in evolution and ecology* 7:220-223.
- Aber, J. D., A. Magill, S. G. McNulty, R. D. Boone, K. J. Nadelhoffer, M. Downs, and R. Hallett. 1995. Forest biogeochemistry and primary production altered by nitrogen saturation. *Water, air and soil pollution* 85:1665-1670.
- Aber, J. D., and J. M. Melillo. 1982. Nitrogen immobilization in decaying hardwood leaf litter as a function of initial nitrogen and lignin content. *Canadian Journal of Botany* 60:2263-2269.
- Bailey, S. W., J. W. Hornbeck, C. T. Driscoll, and H. E. Gaudette. 1996. Calcium inputs and transport in a base-poor forest ecosystem as interpreted by Sr isotopes. *Water Resources Research* 32:707-719.
- Batcheler, C. L. 1971. Estimation of density from a sample of joint point and nearest neighbor distances. *Ecology* 52:703-709.
- Beatty, S. W. 1984. Influence of microtopography and canopy species on spatial patterns of forest understory plants. *Ecology* 65:1406-1419.
- Berendse, F., B. Berg, and E. Bosatta. 1987. The effect of lignin and nitrogen on the decomposition of litter in nutrient-poor ecosystems: a theoretical approach. *Canadian Journal of Botany*.
- Bockheim, J. G., and J. E. Leide. 1991. Foliar nutrient dynamics and nutrient-use efficiency of oak and pine on a low fertility soil in Wisconsin. *Canadian Journal of Forest Research* 21:925-934.

- Bormann, F. H., and G. E. Likens. 1979. Pattern and Process in a Forested Ecosystem. Springer-Verlag, NY.**
- Brady, N. C. 1996. Nature and Property of Soils, 12 edition. Prentice Hall, NY.**
- Burns, R. M., and B. H. Honkala. 1991. Silvics of North America. USDA Forest Service, Washington DC.**
- Byth, K., and B. D. Ripley. 1980. On sampling spatial patterns by distance methods. Biometrics 36:279-284.**
- Caine, N. 1980. The rainfall intensity-duration control of shallow landslides and debris flows. Geografiska Annaler 62A:23-27.**
- Chapin, F. S. I. 1993. Physiological controls over plant establishment in primary succession. Pages 161-178 in J. Miles and D. W. H. Walton, editors. Primary Succession on Land. Blackwell, London.**
- Chapin, F. S. I., and R. A. Kedrowski. 1983. Seasonal changes in nitrogen and phosphorus fractions and autumn retranslocation in evergreen and deciduous taiga trees. Ecology 64:376-391.**
- Chapin, F. S. I., L. R. Walker, C. L. Fastie, and L. C. Sharman. 1994. Mechanisms of primary succession following deglaciation at Glacier Bay, Alaska. Ecological Monographs 64:149-175.**
- Christ, M. J., C. T. Driscoll, and G. E. Likens. 1999. Watershed and plot-scale tests of the mobile anion concept. Biogeochemistry 47:335-353.**
- Christensen, N. L., and R. K. Peet. 1984. Convergence during secondary forest succession. Journal of Ecology 72:25-36.**

- Clark, D. F., and F. C. Evans. 1954. Distance to nearest neighbor as a measure of spatial relationships in populations. *Ecology* 35:445-453.
- Clark, S. J. 1991. Disturbance and population structure on the shifting mosaic landscape. *Ecology* 72:1119-1137.
- Clayton, G., and T. F. Cox. 1986. Some robust density estimators for spatial point processes. *Biometrics* 42:753-767.
- Clements, F. E. 1916. Plant succession: an analysis of the development of vegetation. Carnegie Institute of Washington, Washington DC.
- Connell, J. H., and R. O. Slatyer. 1977. Mechanisms of succession in natural communities and their role in community stability and organization. *The American Naturalist* 111:1119-1144.
- Cormack, R. M. 1977. The invariance of Cox and Lewis's statistic for the analysis of spatial patterns. *Biometrika* 64:143-144.
- Cox, T. F. 1976. The robust estimation of the density of a forest stand using a new conditioned distance method. *Biometrika* 63:493-499.
- Cox, T. F., and T. Lewis. 1976. A conditioned distance ratio method for analyzing spatial patterns. *Biometrika* 63:483-491.
- Dale, M. R. T. 1999. *Spatial Pattern Analysis in plant ecology*. Cambridge Univ. Press, Cambridge.
- Dalling, J. W. 1994. Vegetation colonization of landslides in the Blue Mountains, Jamaica. *Biotropica* 26:392-399.
- Dalling, J. W., and E. V. J. Tanner. 1995. An experimental study of regeneration on landslides in montane rain forest in Jamaica. *Journal of Ecology* 83:55-64.

- Delince, J. 1986. Robust density estimation through distance measures. *Ecology* **67**:1576-1581.
- Diggle, P. J. 1977. The detection of random heterogeneity in plant populations. *Biometrics* **33**:390-394.
- Dix, R. L. 1961. An application of the point-centered quarter method to the sampling of grassland vegetation. *Journal of Range Management* **14**:63-69.
- Driscoll, C. T., G. B. Lawrence, A. J. Bulger, T. J. Butler, C. S. Cronan, C. Eager, K. F. Lambert, G. E. Likens, J. L. Stoddard, and K. C. Weathers. 2001. Acidic Deposition in the Northeastern United States: Sources and Inputs, Ecosystem Effects, and Management Strategies. *BioScience* **51**:182-198.
- Drury, W. H., and I. C. T. Nisbet. 1973. Succession. *Journal of the Arnold Arboretum* **53**:331-368.
- Egler, F. E. 1954. Vegetation science concepts: I. Initial floristic composition: A factor in old-field vegetation development. *Vegetatio* **4**:412-417.
- Etchberger, P. R., and P. R. Krausman. 1997. Evaluation of five methods for measuring desert vegetation. *Wildlife Society Bulletin* **25**:604-609.
- Fastie, C. L. 1995. Causes and ecosystem consequences of multiple pathways of primary succession at Glacier Bay, Alaska. *Ecology* **76**:1899-1916.
- Federer, C. A., J. Hornbeck, L. M. Tritton, C. W. Martin, R. S. Pierce, and C. T. Smith. 1989. Long-term depletion of calcium and other nutrients in eastern US forests. *Environmental Management* **13**:59-601.
- Finegan, B. 1984. Forest succession. *Nature* **312**:109-114.

- Flaccus, E. 1958. Landslides and their revegetation in the White Mountains of New Hampshire. Ph. D. Duke University, Durham, NC.
- Flaccus, E. 1959. Revegetation of landslides in the White Mountains of New Hampshire. *Ecology* **40**:692.
- Foster, B. L., and D. Tilman. 2000. Dynamics and static views of succession: Testing the descriptive power of the chronosequence approach. *Plant Ecology* **146**:1-10.
- Foster, D. R., and E. R. Boose. 1995. Hurricane disturbance regimes in temperate and tropical forest ecosystems. *in* W. P. Coutts and J. Grace, editors. *Wind and Trees*. Cambridge University Press, Cambridge. UK.
- Francescato, V., M. Scotton, D. J. Zarin, J. C. Innes, and D. M. Bryant. 2001. Fifty years of natural revegetation on a landslide in Franconia Notch, NH, USA. *Canadian Journal of Botany* **79**:1477-1485.
- Gleason, H. A. 1939. The individualistic concept of the plant association. *American Midland Naturalist* **21**:92-110.
- Good, R. E., and N. F. Good. 1971. Vegetation of a Minnesota prairie and a comparison of methods. *American Midland Naturalist* **85**:228-231.
- Gosz, J. R., G. E. Likens, and F. H. Bormann. 1973. Nutrient release from decomposing leaf and branch litter in the Hubbard Brook Forest New Hampshire. *Ecological Monographs* **43**:173-191.
- Guariguata, M. R. 1990. Landslide disturbance and forest regeneration in the upper luquillo mountains of Puerto Rico. *Journal of Ecology* **78**:814-832.

- Henry, J. D., and J. M. A. Swan. 1974. Reconstructing forest history from live and dead plant material - and approach to the study of forest succession in southwest New Hampshire. *Ecology* **55**:772-783.
- Hill, M. O., and J. H. G. Gauch. 1980. Detrended correspondence analysis: an improved ordination technique. *Vegetatio* **42**:47-58.
- Holgate, P. 1965. Some new tests of randomness. *Journal of Ecology* **53**:261-266.
- Houle, G. 1990. Species-area relationship during primary succession in granite outcrop plant communities. *American Journal of Botany* **77**:1433-1439.
- Hull, J. C., and R. C. Scott. 1982. Plant succession on debris avalanches of Nelson County, Virginia. *Castanea* **47**:158-176.
- Ingestad, T., and G. I. Agren. 1995. Plant nutrition and growth: Basic principles. *Plant and Soil* **168-169**:15-20.
- Jenny, H. 1980. *The Soil Resource: Origin and Behavior*. Springer-Verlag, New York.
- Jongman, R. H. G., C. J. F. t. Braak, and O. F. R. v. Tongeren. 1995. *Data Analysis in Community and Landscape Ecology*, 2nd edition. Cambridge University Press, Cambridge.
- Kitayama, K., D. Mueller-Dombois, and P. M. Vitousek. 1995. Primary succession of Hawaiiin montane rain forest on a chronosequence of eight lava flows. *Journal of Vegetation Science* **6**:211-222.
- Lang, G. E., W. A. Rieners, and G. A. Shellito. 1982. Tissue chemistry of *Abies balsamea* and *Betula papyrifera* var. *cordifolia* from subalpine forests of the northeastern United States. *Canadian Journal of Forest Research* **12**:311-318.

- Lawrence, G. B., M. B. David, and W. C. Shortle. 1995. A new mechanism for calcium loss in forest-floor soils. *Nature* **378**:162-165.
- Leak, W. B. 1991. Secondary forest succession in New Hampshire, USA. *Forest Ecology and Management* **43**:69-86.
- Lessard, V., D. D. Reed, and N. Monkevich. 1994. Comparing N-tree distance sampling with point and plot sampling in northern Michigan forest types. *Northern Journal of Applied Forestry* **11**:12-16.
- Lichter, J. 1998. Primary succession and forest development on coastal Lake Michigan dunes. *Ecological Monographs* **64**:487-510.
- Likens, G. E., and F. H. Bormann. 1995. *Biogeochemistry of a Forested Ecosystem*. Springer-Verlag, New York.
- Likens, G. E., C. T. Driscoll, D. C. Buso, T. G. Siccama, C. E. Johnson, G. M. Lovett, T. J. Fahey, W. A. Reiners, D. F. Ryan, C. W. Martin, and S. W. Bailey. 1998. The biogeochemistry of calcium at Hubbard Brook. *Biogeochemistry* **41**:89-173.
- Lindsey, A. A., J. D. Barton, and S. R. Miles. 1958. Field efficiencies of forest sampling methods. *Ecology* **39**:428-444.
- Marks, P. L. 1974. The role of pin cherry (*Prunus pensylvanica* L.) in the maintenance of stability in the northern hardwood ecosystems. *Ecological Monographs* **44**:73-88.
- McCook, L. J. 1994. Understanding ecological community succession: Causal models and theories, a review. *Vegetatio* **110**:115-147.
- McNulty, S., and J. D. Aber. 1993. Effects of chronic nitrogen additions on nitrogen cycling in a high elevation spruce-fir stand. *Canadian Journal of Forest Research* **23**:1252-1263.

- Meiwes, K. J., A. Merino, and F. O. Beese. 1998. Chemical composition of throughfall, soil water, leaves and leaf litter in a beech forest receiving long term application of ammonium sulphate. *Plant and Soil* **210**:217-230.
- Miles, J., and D. W. H. Walton. 1993. *Primary Succession on Land*. Blackwell Scientific, Oxford.
- Moss, M. R., and C. L. Rosenfeld. 1978. Morphology, mass wasting and forest ecology of a post glacial re-entrant valley in the Niagara Escarpment. *Geografiska annaler* **60**:161-174.
- Newman, S. D., M. G. Soulia, and J. D. Aber. 1995. Analysis of forest foliage I: laboratory procedures for proximate carbon fraction and nitrogen determination. *Journal of Near Infrared Spectroscopy* **21**:398-412.
- Oliver, C. D. 1981. Forest development in North America following major disturbances. *Forest Ecology and Management* **3**:153-168.
- Oliver, C. D., A. B. Adams, and R. J. Zasoski. 1985. Disturbance patterns and forest development in a recently deglaciated valley in the northwest Cascade Range of Washington, USA. *Canadian Journal of Forest Research* **15**:221-232.
- Oliver, C. D., and B. C. Larsen. 1996. *Forest Stand Dynamics*. Academic Press, NY.
- Oosting, H. J. 1956. *The study of plant communities*. W. H. Freeman, San Francisco.
- Ostman, N. L., and G. T. Weaver. 1982. Autumnal nutrient transfer by retranslocation, leaching, and litter fall in a chestnut oak forest in southern Illinois. *Canadian Journal of Forest Research* **12**:40-51.

- Pandey, A. N., P. C. Pathack, and J. S. Singh. 1983. Water, sediment and nutrient movements in forested and non-forested catchments in Kuman Himalaya. *Forest Ecology and Management* 7:19-29.
- Patil, S. A., K. P. Burnham, and J. L. Kovner. 1979. Nonparametric estimation of plant density by the distance method. *Biometrics* 35:597-604.
- Penfound, W. T. 1963. A modification of the point-centered quarter method for grassland. *Ecology* 44:175-176.
- Perry, D. A. 1994. *Forest Ecosystems*. Johns Hopkins University Press, Baltimore.
- Pickett, S. T. A. 1989. Space-for-time Substitution as an alternative to long-term studies. *in* G. Likens, editor. *Long-term studies in ecology*. Springer-Verlag, New York.
- Pielou, E. C. 1959. The use of point-to-plant distances in the study of the pattern of plant populations. *Journal of Ecology* 47:607-613.
- Pielou, E. C. 1977. *An Introduction to Mathematical Ecology*. Wiley-Interscience, New York.
- Pollard, J. H. 1971. On distance estimators of density in randomly distributed forests. *Biometrics* 27:991-1002.
- Reiners, W. A., I. A. Worley, and D. B. Lawrence. 1971. Plant diversity in a chronosequence at Glacier Bay, Alaska. *Ecology* 52:55-69.
- Risser, P. G., and P. H. Zedler. 1968. An evaluation of the grassland quarter method. *Ecology* 49:1006-1009.
- Ryan, D. F., and F. H. Bormann. 1982. Nutrient resorption in northern hardwood forests. *BioScience* 32:29-32.

- Sanyal, S. K., and S. K. De Datta. 1991. Chemistry of phosphorus transformations in soil. Pages 1-120 in B. A. Stewart, editor. *Advances in Soil Science*. Springer-Verlag, New York.
- Selby, M. J. 1985. *Earth's Changing Surface*. Clarendon Press, Oxford.
- Sokal, R. R., and F. J. Rohlf. 1995. *Biometry: The principles and practice of statistics in biological research*, 3rd edition. W. H. Freeman and Co., New York.
- Solow, A. R. 1989. Bootstrapping sparsely sampled spatial point patterns. *Ecology* **70**:379-382.
- Sprent, J. I. 1993. The role of nitrogen fixation in primary succession. Pages 209-220 in J. Miles and D. W. H. Walton, editors. *Primary succession on land*. Blackwell Scientific, Oxford.
- Swift, M. J., O. W. Heal, and J. M. Anderson. 1979. *Decomposition in terrestrial ecosystems*. Blackwell scientific publications, Oxford.
- Thompson, H. R. 1956. Distribution of distance to Nth neighbor in a population of randomly distributed individuals. *Ecology* **37**:391-394.
- Tilman, D. 1985. The resource-ratio hypothesis of plant succession. *The American Naturalist* **125**:827-852.
- Timmer, V. R., and E. L. Stone. 1978. Comparative foliar analysis of young balsam fir fertilized with nitrogen, phosphorus, potassium, and lime. *Soil Science Society of America Journal* **42**:1978.
- Valentine, D. W., and H. L. Allen. 1990. Foliar responses to fertilization identify nutrient limitation in loblolly pine. *Canadian Journal of Forest Research* **20**:144-151.

- Valentine, D. W., E. A. Holland, and D. S. Schimel. 1994. Ecosystem and physiological controls over methane production in northern wetlands. *Journal of Geophysical Research* **99**:1563-1571.
- van Cleve, K., F. S. C. III, C. T. Dyrness, and L. A. Viereck. 1991. Element cycling in taiga forest: state factor control. *BioScience* **41**:78-88.
- Van Den Driessche, R. 1974. Prediction of mineral nutrient status of trees by foliar analysis. *The Botanical Review* **40**:347-389.
- Van Miegort, H., D. W. Cole, and N. W. Foster. 1992. Nitrogen distribution and cycling. Pages 178-195 in D. W. Johnson and S. E. Lindberg, editors. *Atmospheric Deposition and Forest Nutrient Cycling*. Springer-Verlag, New York.
- Velazquez-Martinez, A., D. A. Perry, and T. E. Bell. 1992. Response of aboveground biomass increment, growth efficiency and foliar nutrient to thinning, fertilization, and pruning in young Douglas-fir plantations in the central Oregon Cascade. *Canadian Journal of Forest Research* **22**:1278-1289.
- Vestal, J. R. 1993. Cryptoendolithic communities from hot and cold deserts: Speculation on microbial colonization and succession. Pages 5-16 in J. Miles and D. W. H. Walton, editors. *Primary Succession on Land*. Blackwell Scientific, Oxford.
- Vincent, P. J., J. M. Haworth, J. G. Griffith, and R. Collins. 1976. The detection of randomness in plant patterns. *Journal of Biogeography* **3**:373-380.
- Vitousek, P. M., and H. Farrington. 1997. Nutrient limitation and soil development: experimental test of a biogeochemical theory. *Biogeochemistry* **37**:63-75.
- Vitousek, P. M., P. A. Matson, and D. R. Turner. 1988. Elevational and age gradients in hawaiian montane rainforest: foliar and soil nutrients. *Oecologia* **77**:565-570.

- Vitousek, P. M., L. R. Walker, L. D. Whiteaker, and P. A. Matson. 1993. Nutrient limitations to plant growth during primary succession in Hawaii Volcanoes National Park. *Biogeochemistry* 23:197-215.
- Walker, L. R. 1993. Nitrogen fixers and species replacements in primary succession. Pages 249-272 in J. Miles and D. W. H. Walton, editors. *Primary Succession on Land*. Blackwell Scientific, Oxford.
- Walker, L. R., and F. S. C. III. 1986. Physiological controls over seedling growth in primary succession on an Alaskan floodplain. *Ecology* 67:1508-1523.
- Walker, L. R., and J. K. Syers. 1976. The fate of phosphorus during pedogenesis. *Geoderma* 15:1-19.
- Walker, L. R., D. J. Zarin, N. Fetcher, R. W. Myster, and A. H. Johnson. 1996. Ecosystem development and plant succession on landslide in the Caribbean. *Biotropica* 28:566-576.
- Wang, J. R., T. Lecthford, P. Comeau, and J. P. Kimmins. 1999. Above- and below-ground biomass and nutrient distribution of a paper birch and subalpine fir mixed-species stand in the sub-boreal zone of British Columbia. *Forest Ecology and Management* 130:17-26.
- Ward, W., and J. W. Petranka. 1981. A correction factor for missing point-center quarter data. *Ecology* 62:491-494.
- Whittaker, R. H. 1953. A consideration of climax theory: the climax as a population and pattern. *Ecological Monographs* 23:41-78.
- Whittaker, R. H. 1982. *Ordination of Plant Communities*. Dr. W. Junk, Boston.

- Whittaker, R. J., M. B. Bush, and K. Richards. 1989. Plant recolonization and vegetation succession on the Krakatau Islands, Indonesia. *Ecological Monographs* 59:59-123.**
- Wood, D. M., and R. d. Moral. 1987. Mechanisms of early primary succession in subalpine habits on Mount St. Helens. *Ecology* 68:780-790.**
- Yanai, R. D. 1992. Phosphorus budget of a 70-year-old northern hardwood forest. *Biogeochemistry* 17:1-22.**
- Zarin, D. J., and A. H. Johnson. 1995a. Base saturation, nutrient cation, and organic matter increases during early pedogenesis on landslide scars in the Luquiullo Experimental Forest, Puerto Rico. *Geoderma* 65:317-330.**
- Zarin, D. J., and A. H. Johnson. 1995b. Nutrient Accumulation during primary succession in a montane tropical forest. *Soil Science Society of America Journal* 59:1444-1452.**

APPENDICES

Appendix A
Species Codes For Appendices

Code	Species	Code	Species
ABIBAL	<i>Abies balsamea</i> (L.) Miller	FRAPEN	<i>Fraxinus pennsylvanica</i> Marsh.
ACERUB	<i>Acer rubrum</i> L.	FRANIG	<i>Fraxinus nigra</i> Marsh.
ACESAC	<i>Acer saccharum</i> Marsh	OSTVIR	<i>Ostrya virginiana</i>
ACESPI	<i>Acer spicatum</i> Lam.	PICRUB	<i>Picea rubens</i> Sarg.
ACEPEN	<i>Acer pensylvanicum</i> L.	PINSTR	<i>Pinus Stobus</i>
AMEARB	<i>Amelanchier arborea</i>	POPTRE	<i>Populus tremuloides</i> Michx.
BETALL	<i>Betula alleghaniensis</i> (Britton)	PRUPEN	<i>Prunus pennsylvanica</i> L. f.
BETLEN	<i>Betula lenta</i>	PRUSER	<i>Prunus serotina</i> Ehrh.
BETPAP	<i>Betula papyrifera</i> (Marsh)	QUENIG	<i>Quercus nigra</i>
BETPPC	<i>Betula cordifolia</i> (Marsh.)	QUERUB	<i>Quercus rubra</i>
CARCAR	<i>Carpinus caroliniana</i>	SALBEB	<i>Suix bebbiana</i> Sarg.
CAROVA	<i>Carya ovata</i>	SORAME	<i>Sorbus americna</i> Marsh.
FAGGRA	<i>Fagus grandifolia</i> (Ehrh.)	TILAME	<i>Tilia americana</i>
FRAAME	<i>Fraxinus americana</i> L.	TSUCAN	<i>Tsuga canadensis</i> (L.) Carr.

Appendix B
Chapter 1
Landslide Point-centered Quarter Data
Collected by Dr Edward Flaccus 1957
White Mountain National Forest, NH

Site Name	Slide Date	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Cherry Mt	1885	Sep-57	Deposit	590	A1/1	BETPPC	23.622	0.73
Cherry Mt	1885	Sep-57	Deposit	590	A1/2	PICRUB	3.81	0.67
Cherry Mt	1885	Sep-57	Deposit	590	A1/3	ACESPI	7.874	2.88
Cherry Mt	1885	Sep-57	Deposit	590	A1/4	PICRUB	4.064	1.02
Cherry Mt	1885	Sep-57	Deposit	590	A2/1	PICRUB	4.318	0.75
Cherry Mt	1885	Sep-57	Deposit	590	A2/2	PICRUB	9.652	0.98
Cherry Mt	1885	Sep-57	Deposit	590	A2/3	ABIBAL	5.842	1.84
Cherry Mt	1885	Sep-57	Deposit	590	A2/4	PICRUB	12.7	1.89
Cherry Mt	1885	Sep-57	Deposit	590	A3/1	ACEPEN	14.986	0.21
Cherry Mt	1885	Sep-57	Deposit	590	A3/2	BETPAP	19.05	0.29
Cherry Mt	1885	Sep-57	Deposit	590	A3/3	ABIBAL	6.35	0.2
Cherry Mt	1885	Sep-57	Deposit	590	A3/4	PICRUB	6.604	2.7
Cherry Mt	1885	Sep-57	Deposit	590	A4/1	BETPAP	25.4	0.95
Cherry Mt	1885	Sep-57	Deposit	590	A4/2	BETPAP	14.732	2.25
Cherry Mt	1885	Sep-57	Deposit	590	A4/3	BETALL	4.064	1.38
Cherry Mt	1885	Sep-57	Deposit	590	A4/4	PICRUB	5.588	2.13
Cherry Mt	1885	Sep-57	Deposit	590	A5/1	BETPAP	18.288	0.72
Cherry Mt	1885	Sep-57	Deposit	590	A5/2	ABIBAL	10.922	1.45
Cherry Mt	1885	Sep-57	Deposit	590	A5/3	ABIBAL	5.08	1.42
Cherry Mt	1885	Sep-57	Deposit	590	A5/4	PICRUB	6.858	1.91
Cherry Mt	1885	Sep-57	Deposit	590	A6/1	ACEPEN	7.62	0.57
Cherry Mt	1885	Sep-57	Deposit	590	A6/2	ABIBAL	3.81	1.98
Cherry Mt	1885	Sep-57	Deposit	590	A6/3	ABIBAL	4.064	1.2
Cherry Mt	1885	Sep-57	Deposit	590	A6/4	PICRUB	7.366	1.71
Cherry Mt	1885	Sep-57	Deposit	590	B1/1	PICRUB	8.128	0.79
Cherry Mt	1885	Sep-57	Deposit	590	B1/2	PICRUB	5.08	1.22
Cherry Mt	1885	Sep-57	Deposit	590	B1/3	ACESPI	5.08	2.11
Cherry Mt	1885	Sep-57	Deposit	590	B1/4	ACEPEN	11.43	4.85
Cherry Mt	1885	Sep-57	Deposit	590	B2/1	ABIBAL	15.24	0.55
Cherry Mt	1885	Sep-57	Deposit	590	B2/2	ACEPEN	11.43	3.7
Cherry Mt	1885	Sep-57	Deposit	590	B2/3	ABIBAL	7.874	1.1
Cherry Mt	1885	Sep-57	Deposit	590	B2/4	PICRUB	8.128	3.05
Cherry Mt	1885	Sep-57	Deposit	590	B3/1	PICRUB	9.144	0.51
Cherry Mt	1885	Sep-57	Deposit	590	B3/2	BETPAP	27.94	1.86
Cherry Mt	1885	Sep-57	Deposit	590	B3/3	PICRUB	5.588	1.04
Cherry Mt	1885	Sep-57	Deposit	590	B3/4	PICRUB	2.794	1.52
Cherry Mt	1885	Sep-57	Deposit	590	B4/1	PICRUB	11.938	1.41
Cherry Mt	1885	Sep-57	Deposit	590	B4/2	ACESPI	4.318	2.65
Cherry Mt	1885	Sep-57	Deposit	590	B4/3	BETPAP	13.716	0.88
Cherry Mt	1885	Sep-57	Deposit	590	B4/4	PICRUB	10.16	1.63

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Cherry Mt	1885	Sep-57	Deposit	590	B5/1	PICRUB	3.56	0.42
Cherry Mt	1885	Sep-57	Deposit	590	B5/2	PICRUB	6.10	0.35
Cherry Mt	1885	Sep-57	Deposit	590	B5/3	PICRUB	4.06	1.10
Cherry Mt	1885	Sep-57	Deposit	590	B5/4	ACEPEN	13.46	1.44
Cherry Mt	1885	Sep-57	Deposit	590	B6/1	ABIBAL	7.87	0.88
Cherry Mt	1885	Sep-57	Deposit	590	B6/2	PICRUB	3.05	2.71
Cherry Mt	1885	Sep-57	Deposit	590	B6/3	PICRUB	6.35	1.73
Cherry Mt	1885	Sep-57	Deposit	590	B6/4	PICRUB	3.05	1.04
Cherry Mt	1885	Sep-57	Deposit	590	C1/1	ABIBAL	25.40	2.00
Cherry Mt	1885	Sep-57	Deposit	590	C1/2	PICRUB	15.24	0.93
Cherry Mt	1885	Sep-57	Deposit	590	C1/3	PICRUB	3.05	2.08
Cherry Mt	1885	Sep-57	Deposit	590	C1/4	PICRUB	10.41	3.86
Cherry Mt	1885	Sep-57	Deposit	590	C2/1	ACESPI	9.91	0.70
Cherry Mt	1885	Sep-57	Deposit	590	C2/2	ACESPI	5.08	0.78
Cherry Mt	1885	Sep-57	Deposit	590	C2/3	ACEPEN	3.05	0.55
Cherry Mt	1885	Sep-57	Deposit	590	C2/4	PICRUB	2.54	2.26
Cherry Mt	1885	Sep-57	Deposit	590	C3/1	BETPAP	11.68	0.42
Cherry Mt	1885	Sep-57	Deposit	590	C3/2	PICRUB	6.60	0.90
Cherry Mt	1885	Sep-57	Deposit	590	C3/3	BETPAP	19.56	0.90
Cherry Mt	1885	Sep-57	Deposit	590	C3/4	PICRUB	4.83	1.05
Cherry Mt	1885	Sep-57	Deposit	590	C4/1	ABIBAL	5.33	0.74
Cherry Mt	1885	Sep-57	Deposit	590	C4/2	BETPAP	17.78	2.05
Cherry Mt	1885	Sep-57	Deposit	590	C4/3	PICRUB	8.38	1.63
Cherry Mt	1885	Sep-57	Deposit	590	C4/4	BETALL	5.08	2.04
Cherry Mt	1885	Sep-57	Deposit	590	C5/1	ACEPEN	12.19	1.45
Cherry Mt	1885	Sep-57	Deposit	590	C5/2	PICRUB	4.83	1.93
Cherry Mt	1885	Sep-57	Deposit	590	C5/3	ABIBAL	5.84	2.60
Cherry Mt	1885	Sep-57	Deposit	590	C5/4	ACEPEN	7.87	2.99
Cherry Mt	1885	Sep-57	Deposit	590	D1/1	ABIBAL	6.10	0.55
Cherry Mt	1885	Sep-57	Deposit	590	D1/2	PICRUB	3.05	1.50
Cherry Mt	1885	Sep-57	Deposit	590	D1/3	PICRUB	2.54	1.56
Cherry Mt	1885	Sep-57	Deposit	590	D1/4	BETPPC	16.76	2.31
Cherry Mt	1885	Sep-57	Deposit	590	D2/1	POPTRE	22.86	0.50
Cherry Mt	1885	Sep-57	Deposit	590	D2/2	ABIBAL	18.29	1.55
Cherry Mt	1885	Sep-57	Deposit	590	D2/3	PICRUB	7.62	1.79
Cherry Mt	1885	Sep-57	Deposit	590	D2/4	PICRUB	8.38	0.88
Cherry Mt	1885	Sep-57	Deposit	590	D3/1	BETALL	5.33	0.21
Cherry Mt	1885	Sep-57	Deposit	590	D3/2	ACEPEN	12.70	1.73
Cherry Mt	1885	Sep-57	Deposit	590	D3/3	ABIBAL	5.08	2.00
Cherry Mt	1885	Sep-57	Deposit	590	D3/4	BETPAP	20.83	1.62
Big Coolidge Mt	1938	Sep-57	Deposit 1	500	A1/1	ACERUB	3.81	0.23
Big Coolidge Mt	1938	Sep-57	Deposit 1	500	A1/2	BETPAP	3.81	2.60
Big Coolidge Mt	1938	Sep-57	Deposit 1	500	A1/3	BETPAP	2.79	0.89
Big Coolidge Mt	1938	Sep-57	Deposit 1	500	A1/4	PRUPEN	3.56	1.95
Big Coolidge Mt	1938	Sep-57	Deposit 1	500	A2/1	PRUPEN	4.57	0.30
Big Coolidge Mt	1938	Sep-57	Deposit 1	500	A2/2	PRUPEN	2.79	1.80
Big Coolidge Mt	1938	Sep-57	Deposit 1	500	A2/3	BETPAP	3.81	0.96
Big Coolidge Mt	1938	Sep-57	Deposit 1	500	A2/4	PRUPEN	5.59	0.42
Big Coolidge Mt	1938	Sep-57	Deposit 1	500	A3/1	BETPAP	3.56	0.69

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbb (cm)	Distance (m)
Big Coolidge Mt	1938	Sep-57	Deposit I	500	A3/2	ACEPEN	2.54	1.82
Big Coolidge Mt	1938	Sep-57	Deposit I	500	A3/3	ACERUB	5.08	1.75
Big Coolidge Mt	1938	Sep-57	Deposit I	500	A3/4	BETALL	3.30	1.25
Big Coolidge Mt	1938	Sep-57	Deposit I	500	A4/1	ACERUB	4.57	0.49
Big Coolidge Mt	1938	Sep-57	Deposit I	500	A4/2	ACERUB	5.84	1.08
Big Coolidge Mt	1938	Sep-57	Deposit I	500	A4/3	ACERUB	4.57	1.74
Big Coolidge Mt	1938	Sep-57	Deposit I	500	A4/4	BETPAP	3.81	2.60
Big Coolidge Mt	1938	Sep-57	Deposit I	500	A5/1	PRUPEN	5.33	0.21
Big Coolidge Mt	1938	Sep-57	Deposit I	500	A5/2	PRUPEN	5.33	0.70
Big Coolidge Mt	1938	Sep-57	Deposit I	500	A5/3	PRUPEN	2.54	1.85
Big Coolidge Mt	1938	Sep-57	Deposit I	500	A5/4	ACERUB	2.79	0.65
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B1/1	ACERUB	3.30	0.49
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B1/2	PRUPEN	7.87	1.25
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B1/3	ACERUB	3.05	1.84
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B1/4	BETPAP	5.33	1.38
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B2/1	PRUPEN	6.10	0.32
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B2/2	ACERUB	3.30	0.47
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B2/3	BETPAP	5.08	0.42
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B2/4	BETPAP	8.38	0.99
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B3/1	BETPAP	8.13	0.64
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B3/2	PRUPEN	4.57	0.38
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B3/3	PRUPEN	7.11	1.44
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B3/4	PRUPEN	4.32	1.85
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B4/1	PRUPEN	3.30	0.35
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B4/2	BETPAP	6.10	0.38
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B4/3	BETALL	2.79	0.68
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B4/4	BETALL	3.05	0.70
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B5/1	ACERUB	5.08	0.51
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B5/2	BETPAP	2.79	0.83
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B5/3	ACESAC	2.54	0.52
Big Coolidge Mt	1938	Sep-57	Deposit I	500	B5/4	ACERUB	3.05	1.31
Big Coolidge Mt	1938	Sep-57	Deposit I	500	C1/1	BETPAP	3.05	0.72
Big Coolidge Mt	1938	Sep-57	Deposit I	500	C1/2	PRUPEN	3.81	1.29
Big Coolidge Mt	1938	Sep-57	Deposit I	500	C1/3	BETALL	3.05	0.53
Big Coolidge Mt	1938	Sep-57	Deposit I	500	C1/4	BETPAP	3.05	0.90
Big Coolidge Mt	1938	Sep-57	Deposit I	500	C2/1	BETALL	4.06	0.33
Big Coolidge Mt	1938	Sep-57	Deposit I	500	C2/2	BETALL	5.08	0.75
Big Coolidge Mt	1938	Sep-57	Deposit I	500	C2/3	BETALL	4.06	1.10
Big Coolidge Mt	1938	Sep-57	Deposit I	500	C2/4	BETPAP	8.13	2.09
Big Coolidge Mt	1938	Sep-57	Deposit I	500	D1/1	BETPAP	10.67	0.62
Big Coolidge Mt	1938	Sep-57	Deposit I	500	D1/2	PRUPEN	8.64	1.27
Big Coolidge Mt	1938	Sep-57	Deposit I	500	D1/3	BETALL	3.05	1.36
Big Coolidge Mt	1938	Sep-57	Deposit I	500	D1/4	BETALL	4.06	1.52
Big Coolidge Mt	1938	Sep-57	Deposit I	500	D2/1	BETALL	3.05	0.68
Big Coolidge Mt	1938	Sep-57	Deposit I	500	D2/2	BETALL	4.57	0.71
Big Coolidge Mt	1938	Sep-57	Deposit I	500	D2/3	BETALL	2.54	0.80
Big Coolidge Mt	1938	Sep-57	Deposit I	500	D2/4	PRUPEN	5.33	0.85
Big Coolidge Mt	1938	Sep-57	Deposit I	500	E1/1	ACERUB	2.54	2.62

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Big Coolidge Mt	1938	Sep-57	Deposit 1	500	E1/3	ACESAC	3.81	1.58
Big Coolidge Mt	1938	Sep-57	Deposit 1	500	E1/4	PRUPEN	2.79	0.61
Big Coolidge Mt	1938	Sep-57	Deposit 1	500	E2/1	BETPAP	2.79	0.19
Big Coolidge Mt	1938	Sep-57	Deposit 1	500	E2/2	ACERUB	3.05	0.92
Big Coolidge Mt	1938	Sep-57	Deposit 1	500	E2/3	BETPAP	6.60	1.45
Big Coolidge Mt	1938	Sep-57	Deposit 1	500	E2/4	BETPAP	6.86	1.92
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A1/1	ACESAC	4.06	0.65
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A1/2	BETPAP	3.56	0.83
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A1/3	PRUPEN	3.30	0.82
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A1/4	ACERUB	2.54	0.70
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A2/1	BETPAP	2.79	0.62
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A2/2	ACERUB	5.08	0.60
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A2/3	BETPAP	5.08	0.95
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A2/4	ACESAC	2.79	1.25
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A3/1	BETPAP	4.83	0.37
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A3/2	BETALL	3.05	0.32
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A3/3	ACEPEN	3.05	0.39
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A3/4	SORAME	5.08	0.81
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A4/1	PRUPEN	15.24	0.15
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A4/2	SORAME	3.30	0.51
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A4/3	BETPAP	4.32	1.02
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	A4/4	ACERUB	4.32	0.68
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	B1/1	BETPAP	6.86	0.98
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	B1/2	PRUPEN	5.59	1.25
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	B1/3	ACESAC	5.08	1.55
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	B1/4	BETPAP	3.81	2.13
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	B2/1	ACERUB	4.32	0.75
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	B2/2	PRUPEN	3.30	1.09
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	B2/3	ACERUB	5.84	1.13
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	B2/4	ACERUB	3.30	2.75
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	C1/1	ACERUB	4.32	1.10
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	C1/2	BETPAP	4.57	0.60
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	C1/3	ACERUB	3.05	0.81
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	C1/4	ACESAC	5.59	1.21
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	C2/1	ACERUB	7.11	0.20
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	C2/2	POPTRE	3.56	0.47
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	C2/3	BETPAP	3.30	0.64
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	C2/4	ACERUB	3.30	1.09
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	C3/1	BETPAP	4.83	0.45
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	C3/2	ACERUB	3.05	1.01
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	C3/3	ACERUB	2.79	1.20
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	C3/4	ACERUB	3.05	2.22
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	D1/1	ACERUB	3.30	0.66
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	D1/2	ACESAC	3.56	2.75
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	D1/3	ACERUB	3.30	1.77
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	D1/4	ACERUB	5.08	2.43
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	D2/1	ACERUB	2.79	0.43
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	D2/2	PRUPEN	6.86	1.05
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	D2/3	PRUPEN	2.54	0.55

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	D2/4	ACERUB	3.30	1.00
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	D3/1	ACERUB	3.56	1.49
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	D3/2	BETALL	3.30	1.57
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	D3/3	ACERUB	3.81	1.82
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	D3/4	POPTRE	4.32	1.55
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	E1/1	BETPAP	2.54	1.72
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	E1/2	ACERUB	2.79	0.84
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	E1/3	BETALL	3.56	0.55
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	E1/4	BETPAP	3.05	0.55
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	E2/1	ACERUB	9.65	0.70
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	E2/2	PRUPEN	7.87	1.70
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	E2/3	ACESAC	3.05	0.72
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	E2/4	ACERUB	3.05	1.58
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	E3/1	BETPAP	6.10	0.50
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	E3/2	ACESAC	2.54	0.59
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	E3/3	BETPAP	6.10	1.24
Big Coolidge Mt	1938	Sep-57	Deposit 2	500	E3/4	ACESAC	3.05	0.85
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	A1/1	BETALL	4.83	0.59
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	A1/2	BETALL	5.08	1.32
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	A1/3	BETPAP	3.81	0.40
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	A1/4	BETALL	3.05	0.84
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	A2/1	BETALL	4.06	0.40
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	A2/2	PRUPEN	5.33	0.81
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	A2/3	PRUPEN	5.33	1.94
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	A2/4	BETALL	4.32	0.42
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	A3/1	PRUPEN	9.65	1.48
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	A3/2	BETALL	3.56	1.43
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	A3/3	BETPAP	4.57	0.79
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	A3/4	BETALL	6.10	2.20
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	B1/1	BETALL	3.56	1.18
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	B1/2	ACERUB	3.56	1.33
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	B1/3	BETALL	7.37	1.43
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	B1/4	ACERUB	3.56	1.33
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	B2/1	PRUPEN	10.92	2.51
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	B2/2	BETALL	3.56	0.92
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	B2/3	BETALL	3.56	1.22
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	B2/4	BETALL	3.05	0.49
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	B3/1	BETALL	4.06	0.49
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	B3/2	BETALL	2.79	1.03
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	B3/3	PRUPEN	8.64	0.78
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	B3/4	BETPAP	4.83	1.06
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	C1/1	PRUPEN	5.84	0.81
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	C1/2	ACERUB	6.86	1.13
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	C1/3	POPTRE	3.30	0.47
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	C1/4	POPTRE	4.83	0.85
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	C2/1	PRUPEN	10.16	1.10
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	C2/2	BETPAP	4.57	0.58
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	C2/3	ACERUB	3.81	0.78
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	C2/4	BETALL	2.54	0.78

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	C3/1	SORAME	5.08	0.62
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	C3/2	ACERUB	4.06	0.82
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	C3/3	BETPAP	2.79	1.25
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	C3/4	BETALL	5.33	2.49
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	D1/1	BETPAP	2.54	2.22
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	D1/2	BETPAP	3.30	1.10
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	D1/3	ACERUB	4.06	2.12
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	D1/4	ACESPI	4.06	0.88
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	D2/1	BETALL	7.62	0.84
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	D2/2	BETPAP	3.81	1.65
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	D2/3	ACERUB	3.56	0.90
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	D2/4	ACERUB	3.81	1.98
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	D3/1	PRUPEN	5.08	0.33
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	D3/2	BETPAP	5.59	1.04
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	D3/3	BETALL	6.60	1.58
Big Coolidge Mt	1938	Sep-57	Deposit 3	450	D3/4	BETALL	4.06	0.65
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A1/1	BETALL	17.78	1.99
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A1/2	BETALL	18.03	4.85
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A1/3	BETPPC	17.27	2.88
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A1/4	BETALL	6.86	1.85
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A2/1	ABIBAL	2.54	1.30
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A2/2	BETALL	11.43	0.99
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A2/3	PICRUB	3.05	1.54
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A2/4	BETALL	5.33	1.24
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A3/1	ABIBAL	4.06	0.81
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A3/2	ABIBAL	5.84	2.31
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A3/3	BETPPC	7.11	1.90
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A3/4	PICRUB	3.05	1.18
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A4/1	BETALL	8.38	0.99
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A4/2	BETALL	4.06	1.35
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A4/3	BETPPC	13.21	2.18
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A4/4	BETALL	9.91	1.54
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A5/1	BETPPC	11.43	1.26
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A5/2	BETALL	18.80	2.97
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A5/3	ABIBAL	12.19	1.14
Osceola Mt E.	1897	Oct-57	Deposit 1	670	A5/4	PICRUB	3.81	2.05
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B1/1	BETALL	17.27	1.71
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B1/2	ABIBAL	2.79	1.60
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B1/3	PICRUB	3.30	0.85
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B1/4	BETALL	5.33	1.14
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B2/1	PICRUB	6.60	0.37
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B2/2	PICRUB	3.81	0.35
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B2/3	BETPPC	17.27	0.50
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B2/4	PICRUB	3.56	1.55
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B3/1	BETALL	17.02	1.15
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B3/2	PICRUB	5.59	3.90
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B3/3	BETPPC	13.46	1.02
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B3/4	ABIBAL	3.81	1.55
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B4/1	BETPPC	21.08	1.68

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B4/2	PICRUB	5.59	4.60
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B4/3	ACERUB	4.57	3.22
Osceola Mt E.	1897	Oct-57	Deposit 1	670	B4/4	BETALL	19.05	3.15
Osceola Mt E.	1897	Oct-57	Deposit 1	670	C1/1	BETPPC	11.94	0.60
Osceola Mt E.	1897	Oct-57	Deposit 1	670	C1/2	BETALL	20.07	2.28
Osceola Mt E.	1897	Oct-57	Deposit 1	670	C1/3	PICRUB	3.30	1.21
Osceola Mt E.	1897	Oct-57	Deposit 1	670	C1/4	BETALL	10.67	3.50
Osceola Mt E.	1897	Oct-57	Deposit 1	670	C2/1	BETALL	10.92	0.40
Osceola Mt E.	1897	Oct-57	Deposit 1	670	C2/2	BETALL	10.67	2.90
Osceola Mt E.	1897	Oct-57	Deposit 1	670	C2/3	BETPPC	8.13	2.50
Osceola Mt E.	1897	Oct-57	Deposit 1	670	C2/4	BETALL	11.94	3.16
Osceola Mt E.	1897	Oct-57	Deposit 1	670	C3/1	BETALL	13.72	1.10
Osceola Mt E.	1897	Oct-57	Deposit 1	670	C3/2	ABIBAL	3.56	1.24
Osceola Mt E.	1897	Oct-57	Deposit 1	670	C3/3	BETALL	7.37	1.00
Osceola Mt E.	1897	Oct-57	Deposit 1	670	C3/4	BETALL	7.11	2.21
Osceola Mt E.	1897	Oct-57	Deposit 2	690	A1/1	BETALL	7.87	0.74
Osceola Mt E.	1897	Oct-57	Deposit 2	690	A1/2	PICRUB	3.05	1.10
Osceola Mt E.	1897	Oct-57	Deposit 2	690	A1/3	PICRUB	3.30	1.68
Osceola Mt E.	1897	Oct-57	Deposit 2	690	A1/4	PICRUB	4.83	2.14
Osceola Mt E.	1897	Oct-57	Deposit 2	690	A2/1	PICRUB	5.08	0.63
Osceola Mt E.	1897	Oct-57	Deposit 2	690	A2/2	PICRUB	5.84	0.77
Osceola Mt E.	1897	Oct-57	Deposit 2	690	A2/3	PICRUB	8.13	1.10
Osceola Mt E.	1897	Oct-57	Deposit 2	690	A2/4	PICRUB	4.57	1.00
Osceola Mt E.	1897	Oct-57	Deposit 2	690	A3/1	ABIBAL	6.86	0.43
Osceola Mt E.	1897	Oct-57	Deposit 2	690	A3/2	PICRUB	3.81	1.40
Osceola Mt E.	1897	Oct-57	Deposit 2	690	A3/3	POPTRE	17.78	2.75
Osceola Mt E.	1897	Oct-57	Deposit 2	690	A3/4	PICRUB	4.06	1.83
Osceola Mt E.	1897	Oct-57	Deposit 2	690	B1/1	PICRUB	5.08	0.35
Osceola Mt E.	1897	Oct-57	Deposit 2	690	B1/2	PICRUB	5.08	0.53
Osceola Mt E.	1897	Oct-57	Deposit 2	690	B1/3	PICRUB	4.06	1.76
Osceola Mt E.	1897	Oct-57	Deposit 2	690	B1/4	ABIBAL	7.62	1.29
Osceola Mt E.	1897	Oct-57	Deposit 2	690	B2/1	ACERUB	16.00	0.42
Osceola Mt E.	1897	Oct-57	Deposit 2	690	B2/2	PICRUB	4.06	0.28
Osceola Mt E.	1897	Oct-57	Deposit 2	690	B2/3	PICRUB	3.30	0.36
Osceola Mt E.	1897	Oct-57	Deposit 2	690	B2/4	PICRUB	3.81	1.74
Osceola Mt E.	1897	Oct-57	Deposit 2	690	C1/1	ACEPEN	9.65	0.90
Osceola Mt E.	1897	Oct-57	Deposit 2	690	C1/2	ACERUB	12.95	1.06
Osceola Mt E.	1897	Oct-57	Deposit 2	690	C1/3	ABIBAL	4.57	1.22
Osceola Mt E.	1897	Oct-57	Deposit 2	690	C1/4	PICRUB	4.57	1.98
Osceola Mt E.	1897	Oct-57	Deposit 2	690	C2/1	ABIBAL	9.40	1.48
Osceola Mt E.	1897	Oct-57	Deposit 2	690	C2/2	PICRUB	6.86	0.63
Osceola Mt E.	1897	Oct-57	Deposit 2	690	C2/3	BETPPC	10.16	1.20
Osceola Mt E.	1897	Oct-57	Deposit 2	690	C2/4	BETALL	11.18	1.43
Osceola Mt E.	1897	Oct-57	Deposit 2	690	C3/1	ABIBAL	10.41	1.35
Osceola Mt E.	1897	Oct-57	Deposit 2	690	C3/2	BETALL	19.81	0.80
Osceola Mt E.	1897	Oct-57	Deposit 2	690	C3/3	BETALL	3.05	0.63
Osceola Mt E.	1897	Oct-57	Deposit 2	690	C3/4	BETALL	6.35	1.39
Osceola Mt E.	1897	Oct-57	Deposit 2	690	D1/1	BETALL	16.00	1.80
Osceola Mt E.	1897	Oct-57	Deposit 2	690	D1/2	PICRUB	3.56	1.15
Osceola Mt E.	1897	Oct-57	Deposit 2	690	D1/3	PICRUB	2.54	1.10
Osceola Mt E.	1897	Oct-57	Deposit 2	690	D1/4	BETALL	5.08	3.10

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A1/1	FAGGRA	7.62	2.14
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A1/2	FAGGRA	7.37	2.72
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A1/3	ACESPI	2.54	2.68
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A1/4	ABIBAL	2.79	3.31
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A2/1	ABIBAL	3.05	1.60
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A2/2	ABIBAL	6.35	3.02
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A2/3	ACEPEN	4.83	1.89
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A2/4	PICRUB	3.30	1.31
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A3/1	BETALL	95.50	0.55
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A3/2	FAGGRA	6.10	0.93
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A3/3	ABIBAL	3.05	1.67
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A3/4	FAGGRA	4.06	3.55
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A4/1	PICRUB	3.30	1.95
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A4/2	BETALL	21.34	2.58
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A4/3	ACESAC	13.21	2.14
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A4/4	BETALL	22.35	2.93
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A5/1	ACESAC	3.81	0.90
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A5/2	ACESAC	5.59	2.11
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A5/3	PICRUB	2.54	3.73
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A5/4	ACESAC	20.32	3.81
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A6/1	ACERUB	23.88	1.56
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A6/2	ACESAC	5.08	1.41
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A6/3	ACESAC	6.10	3.25
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A6/4	BETALL	6.35	3.10
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A7/1	TSUCAN	52.83	2.42
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A7/2	BETALL	38.10	3.01
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A7/3	FAGGRA	15.24	3.33
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	A7/4	FAGGRA	10.92	2.64
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B1/1	ACERUB	25.91	3.00
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B1/2	ACESAC	4.83	2.33
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B1/3	BETALL	7.37	4.25
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B1/4	PICRUB	5.33	4.15
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B10/1	BETPAP	51.05	1.75
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B10/2	FAGGRA	8.89	1.30
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B10/3	FAGGRA	6.86	2.17
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B10/4	ACEPEN	3.30	2.45
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B2/1	FAGGRA	11.43	0.55
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B2/2	FAGGRA	25.91	1.75
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B2/3	ACESAC	3.05	5.12
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B2/4	FAGGRA	2.79	4.08
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B3/1	FAGGRA	52.32	0.98
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B3/2	FAGGRA	2.79	0.51
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B3/3	FAGGRA	5.59	0.84
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B3/4	FAGGRA	3.05	2.29
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B4/1	FAGGRA	30.73	2.82
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B4/2	FAGGRA	8.13	2.58
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B4/3	ACESAC	7.62	3.27
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B4/4	FAGGRA	25.91	7.10
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B5/1	FAGGRA	19.05	2.41

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B5/2	BETALL	36.07	1.53
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B5/3	FAGGRA	5.08	0.85
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B5/4	ACESAC	40.64	4.59
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B6/1	ABIBAL	4.06	1.39
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B6/2	ACERUB	4.57	1.85
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B6/3	FAGGRA	8.13	1.73
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B6/4	FAGGRA	44.45	5.35
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B7/1	FAGGRA	3.30	0.26
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B7/2	ACESAC	4.57	2.95
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B7/3	ACESAC	3.81	1.30
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B7/4	BETPAP	53.85	3.90
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B8/1	ACERUB	20.07	0.42
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B8/2	ABIBAL	3.30	4.83
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B8/3	ACESAC	15.24	1.55
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B8/4	ABIBAL	3.05	2.23
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B9/1	FAGGRA	12.45	1.56
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B9/2	FAGGRA	5.33	5.30
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B9/3	FAGGRA	6.35	2.00
Pinkham Notch	1927	Oct-57	Adjacent Veg.	500	B9/4	FAGGRA	7.87	2.76
Pinkham Notch	1927	Sep-57	Deposit 3	700	A1/1	BETPAP	5.59	1.49
Pinkham Notch	1927	Sep-57	Deposit 3	700	A1/2	BETPAP	5.59	2.46
Pinkham Notch	1927	Sep-57	Deposit 3	700	A1/3	BETPAP	7.62	1.72
Pinkham Notch	1927	Sep-57	Deposit 3	700	A1/4	BETALL	6.35	2.35
Pinkham Notch	1927	Sep-57	Deposit 3	700	A2/1	BETPAP	7.37	1.45
Pinkham Notch	1927	Sep-57	Deposit 3	700	A2/2	BETPAP	3.81	1.51
Pinkham Notch	1927	Sep-57	Deposit 3	700	A2/3	ABIBAL	5.33	0.85
Pinkham Notch	1927	Sep-57	Deposit 3	700	A2/4	BETPAP	9.65	1.45
Pinkham Notch	1927	Sep-57	Deposit 3	700	A3/1	BETPAP	5.08	0.85
Pinkham Notch	1927	Sep-57	Deposit 3	700	A3/2	BETPAP	2.54	1.25
Pinkham Notch	1927	Sep-57	Deposit 3	700	A3/3	PICRUB	2.54	1.80
Pinkham Notch	1927	Sep-57	Deposit 3	700	A3/4	BETPAP	5.08	2.00
Pinkham Notch	1927	Sep-57	Deposit 3	700	A4/1	PICRUB	3.30	2.95
Pinkham Notch	1927	Sep-57	Deposit 3	700	A4/2	ABIBAL	4.83	1.93
Pinkham Notch	1927	Sep-57	Deposit 3	700	A4/3	SALBEB	6.35	3.15
Pinkham Notch	1927	Sep-57	Deposit 3	700	A4/4	ACESPI	2.54	1.11
Pinkham Notch	1927	Sep-57	Deposit 3	700	A5/1	BETPAP	7.62	0.39
Pinkham Notch	1927	Sep-57	Deposit 3	700	A5/2	BETPAP	14.73	0.53
Pinkham Notch	1927	Sep-57	Deposit 3	700	A5/3	BETPAP	7.37	1.60
Pinkham Notch	1927	Sep-57	Deposit 3	700	A5/4	BETPAP	6.86	2.35
Pinkham Notch	1927	Sep-57	Deposit 3	700	A6/1	BETALL	4.32	0.83
Pinkham Notch	1927	Sep-57	Deposit 3	700	A6/2	BETPAP	4.83	1.07
Pinkham Notch	1927	Sep-57	Deposit 3	700	A6/3	BETPAP	4.32	0.67
Pinkham Notch	1927	Sep-57	Deposit 3	700	A6/4	BETALL	3.81	1.62
Pinkham Notch	1927	Sep-57	Deposit 3	700	A7/1	POPTRE	10.67	1.50
Pinkham Notch	1927	Sep-57	Deposit 3	700	A7/2	BETALL	4.57	0.65
Pinkham Notch	1927	Sep-57	Deposit 3	700	A7/3	BETALL	5.08	1.72
Pinkham Notch	1927	Sep-57	Deposit 3	700	A7/4	BETALL	5.59	2.23
Pinkham Notch	1927	Sep-57	Deposit 3	700	B1/1	ABIBAL	4.83	1.03

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Pinkham Notch	1927	Sep-57	Deposit 3	700	B1/2	BETPAP	3.30	1.10
Pinkham Notch	1927	Sep-57	Deposit 3	700	B1/3	BETALL	4.32	1.91
Pinkham Notch	1927	Sep-57	Deposit 3	700	B1/4	PRUPEN	5.84	2.03
Pinkham Notch	1927	Sep-57	Deposit 3	700	B2/1	SALBEB	6.35	1.38
Pinkham Notch	1927	Sep-57	Deposit 3	700	B2/2	BETALL	3.30	1.78
Pinkham Notch	1927	Sep-57	Deposit 3	700	B2/3	BETPAP	2.54	1.50
Pinkham Notch	1927	Sep-57	Deposit 3	700	B2/4	BETALL	3.56	1.62
Pinkham Notch	1927	Sep-57	Deposit 3	700	B3/1	PRUPEN	19.30	0.87
Pinkham Notch	1927	Sep-57	Deposit 3	700	B3/2	ABIBAL	4.32	1.73
Pinkham Notch	1927	Sep-57	Deposit 3	700	B3/3	BETPAP	7.87	1.28
Pinkham Notch	1927	Sep-57	Deposit 3	700	B3/4	BETPAP	3.56	0.79
Pinkham Notch	1927	Sep-57	Deposit 3	700	B4/1	BETALL	4.57	1.45
Pinkham Notch	1927	Sep-57	Deposit 3	700	B4/2	BETPAP	6.60	2.44
Pinkham Notch	1927	Sep-57	Deposit 3	700	B4/3	BETPAP	7.11	1.59
Pinkham Notch	1927	Sep-57	Deposit 3	700	B4/4	BETPAP	2.54	0.86
Pinkham Notch	1927	Sep-57	Deposit 3	700	B5/1	BETPAP	10.67	1.62
Pinkham Notch	1927	Sep-57	Deposit 3	700	B5/2	BETPAP	4.06	2.32
Pinkham Notch	1927	Sep-57	Deposit 3	700	B5/3	PICRUB	2.54	2.11
Pinkham Notch	1927	Sep-57	Deposit 3	700	B5/4	BETPAP	4.06	1.69
Pinkham Notch	1927	Sep-57	Deposit 3	700	B6/1	BETPAP	11.43	0.72
Pinkham Notch	1927	Sep-57	Deposit 3	700	B6/2	BETPAP	13.46	0.80
Pinkham Notch	1927	Sep-57	Deposit 3	700	B6/3	BETALL	5.59	0.55
Pinkham Notch	1927	Sep-57	Deposit 3	700	B6/4	BETPAP	3.81	1.19
Pinkham Notch	1927	Sep-57	Deposit 3	700	B7/1	BETPAP	4.32	0.98
Pinkham Notch	1927	Sep-57	Deposit 3	700	B7/2	BETPAP	10.16	1.15
Pinkham Notch	1927	Sep-57	Deposit 3	700	B7/3	BETPAP	6.10	1.10
Pinkham Notch	1927	Sep-57	Deposit 3	700	B7/4	PICRUB	3.05	0.61
Pinkham Notch	1927	Sep-57	Deposit 3	700	B8/1	BETPAP	4.83	1.02
Pinkham Notch	1927	Sep-57	Deposit 3	700	B8/2	BETPAP	4.32	0.53
Pinkham Notch	1927	Sep-57	Deposit 3	700	B8/3	BETPAP	2.79	1.52
Pinkham Notch	1927	Sep-57	Deposit 3	700	B8/4	PICRUB	2.54	2.33
Pinkham Notch	1927	Sep-57	Deposit 3	700	C1/1	BETPAP	11.94	1.32
Pinkham Notch	1927	Sep-57	Deposit 3	700	C1/2	BETPAP	9.40	1.75
Pinkham Notch	1927	Sep-57	Deposit 3	700	C1/3	ABIBAL	4.06	2.00
Pinkham Notch	1927	Sep-57	Deposit 3	700	C1/4	BETPAP	7.11	2.00
Pinkham Notch	1927	Sep-57	Deposit 3	700	C2/1	BETPAP	5.59	0.58
Pinkham Notch	1927	Sep-57	Deposit 3	700	C2/2	BETPAP	8.38	2.10
Pinkham Notch	1927	Sep-57	Deposit 3	700	C2/3	BETPAP	6.35	1.15
Pinkham Notch	1927	Sep-57	Deposit 3	700	C2/4	BETPAP	7.87	2.03
Pinkham Notch	1927	Sep-57	Deposit 3	700	C3/1	PRUPEN	8.89	1.35
Pinkham Notch	1927	Sep-57	Deposit 3	700	C3/2	ABIBAL	3.30	1.13
Pinkham Notch	1927	Sep-57	Deposit 3	700	C3/3	BETPAP	2.54	1.57
Pinkham Notch	1927	Sep-57	Deposit 3	700	C3/4	BETPAP	7.62	3.43
Pinkham Notch	1927	Sep-57	Deposit 4	500	A1/1	BETALL	6.35	2.02
Pinkham Notch	1927	Sep-57	Deposit 4	500	A1/2	BETALL	8.64	3.42
Pinkham Notch	1927	Sep-57	Deposit 4	500	A1/3	ACESPI	5.84	0.90
Pinkham Notch	1927	Sep-57	Deposit 4	500	A1/4	BETALL	5.59	1.40
Pinkham Notch	1927	Sep-57	Deposit 4	500	A2/1	BETPPC	13.46	0.68
Pinkham Notch	1927	Sep-57	Deposit 4	500	A2/2	BETALL	4.06	1.23

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Pinkham Notch	1927	Sep-57	Deposit 4	500	A2/3	BETALL	4.83	0.84
Pinkham Notch	1927	Sep-57	Deposit 4	500	A2/4	BETPAP	11.43	1.72
Pinkham Notch	1927	Sep-57	Deposit 4	500	A3/1	BETPAP	8.89	0.48
Pinkham Notch	1927	Sep-57	Deposit 4	500	A3/2	BETPAP	7.37	0.55
Pinkham Notch	1927	Sep-57	Deposit 4	500	A3/3	BETPAP	9.65	0.87
Pinkham Notch	1927	Sep-57	Deposit 4	500	A3/4	BETALL	3.81	0.64
Pinkham Notch	1927	Sep-57	Deposit 4	500	B1/1	PRUPEN	3.30	0.30
Pinkham Notch	1927	Sep-57	Deposit 4	500	B1/2	BETPAP	5.59	1.07
Pinkham Notch	1927	Sep-57	Deposit 4	500	B1/3	BETALL	2.79	0.74
Pinkham Notch	1927	Sep-57	Deposit 4	500	B1/4	BETALL	5.59	1.98
Pinkham Notch	1927	Sep-57	Deposit 4	500	B2/1	BETALL	3.30	0.70
Pinkham Notch	1927	Sep-57	Deposit 4	500	B2/2	BETPAP	13.46	1.75
Pinkham Notch	1927	Sep-57	Deposit 4	500	B2/3	BETPAP	6.86	1.54
Pinkham Notch	1927	Sep-57	Deposit 4	500	B2/4	BETPAP	6.10	1.70
Pinkham Notch	1927	Sep-57	Deposit 4	500	B3/1	BETALL	16.00	0.74
Pinkham Notch	1927	Sep-57	Deposit 4	500	B3/2	PRUPEN	12.19	2.93
Pinkham Notch	1927	Sep-57	Deposit 4	500	B3/3	BETALL	3.05	1.16
Pinkham Notch	1927	Sep-57	Deposit 4	500	B3/4	BETALL	5.59	1.28
Pinkham Notch	1927	Sep-57	Deposit 4	500	B4/1	BETALL	3.81	0.59
Pinkham Notch	1927	Sep-57	Deposit 4	500	B4/2	BETPAP	13.46	1.00
Pinkham Notch	1927	Sep-57	Deposit 4	500	B4/3	BETALL	2.79	1.97
Pinkham Notch	1927	Sep-57	Deposit 4	500	B4/4	BETALL	3.30	1.35
Pinkham Notch	1927	Sep-57	Deposit 4	500	C1/1	BETALL	12.70	0.60
Pinkham Notch	1927	Sep-57	Deposit 4	500	C1/2	BETALL	7.11	1.95
Pinkham Notch	1927	Sep-57	Deposit 4	500	C1/3	BETALL	3.81	3.00
Pinkham Notch	1927	Sep-57	Deposit 4	500	C1/4	BETALL	2.54	1.57
Pinkham Notch	1927	Sep-57	Deposit 4	500	C2/1	BETALL	8.89	1.62
Pinkham Notch	1927	Sep-57	Deposit 4	500	C2/2	BETALL	4.83	1.35
Pinkham Notch	1927	Sep-57	Deposit 4	500	C2/3	BETALL	2.79	1.59
Pinkham Notch	1927	Sep-57	Deposit 4	500	C2/4	BETPAP	12.95	2.92
Pinkham Notch	1927	Sep-57	Deposit 4	500	C3/1	BETALL	4.32	0.38
Pinkham Notch	1927	Sep-57	Deposit 4	500	C3/2	BETALL	6.10	0.77
Pinkham Notch	1927	Sep-57	Deposit 4	500	C3/3	BETALL	2.54	0.76
Pinkham Notch	1927	Sep-57	Deposit 4	500	C3/4	BETALL	3.05	0.29
Pinkham Notch	1927	Sep-57	Deposit 4	500	C4/1	BETPAP	10.67	0.88
Pinkham Notch	1927	Sep-57	Deposit 4	500	C4/2	BETALL	3.30	1.30
Pinkham Notch	1927	Sep-57	Deposit 4	500	C4/3	BETALL	2.54	2.00
Pinkham Notch	1927	Sep-57	Deposit 4	500	C4/4	BETALL	3.05	1.10
Pinkham Notch	1927	Sep-57	Deposit 4	500	C5/1	BETPAP	4.57	0.50
Pinkham Notch	1927	Sep-57	Deposit 4	500	C5/2	BETPAP	13.46	1.88
Pinkham Notch	1927	Sep-57	Deposit 4	500	C5/3	BETPAP	6.35	1.07
Pinkham Notch	1927	Sep-57	Deposit 4	500	C5/4	BETALL	2.79	1.63
Pinkham Notch	1927	Sep-57	Deposit 4	500	D1/1	BETPPC	3.05	1.81
Pinkham Notch	1927	Sep-57	Deposit 4	500	D1/2	BETALL	4.32	0.87
Pinkham Notch	1927	Sep-57	Deposit 4	500	D1/3	BETPAP	3.05	0.63
Pinkham Notch	1927	Sep-57	Deposit 4	500	D1/4	BETPAP	26.42	1.00
Pinkham Notch	1927	Sep-57	Deposit 4	500	D2/1	BETALL	4.32	0.49
Pinkham Notch	1927	Sep-57	Deposit 4	500	D2/2	BETALL	3.30	2.50
Pinkham Notch	1927	Sep-57	Deposit 4	500	D2/3	BETALL	4.32	0.38

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Pinkham Notch	1927	Sep-57	Deposit 4	500	D3/1	BETALL	2.54	0.67
Pinkham Notch	1927	Sep-57	Deposit 4	500	D3/2	BETALL	5.08	1.12
Pinkham Notch	1927	Sep-57	Deposit 4	500	D3/3	BETALL	5.08	1.29
Pinkham Notch	1927	Sep-57	Deposit 4	500	D3/4	BETALL	2.79	2.60
Pinkham Notch	1927	Sep-57	Deposit 4	500	D4/1	BETALL	8.64	1.48
Pinkham Notch	1927	Sep-57	Deposit 4	500	D4/2	BETALL	3.56	2.92
Pinkham Notch	1927	Sep-57	Deposit 4	500	D4/3	BETALL	6.86	0.75
Pinkham Notch	1927	Sep-57	Deposit 4	500	D4/4	BETALL	3.81	1.10
Pinkham Notch	1927	Sep-57	Deposit 4	500	E1/1	BETALL	5.33	1.23
Pinkham Notch	1927	Sep-57	Deposit 4	500	E1/2	BETALL	9.65	2.32
Pinkham Notch	1927	Sep-57	Deposit 4	500	E1/3	BETALL	5.08	1.58
Pinkham Notch	1927	Sep-57	Deposit 4	500	E1/4	BETALL	4.32	2.36
Pinkham Notch	1927	Sep-57	Deposit 4	500	E2/1	BETPAP	8.38	0.18
Pinkham Notch	1927	Sep-57	Deposit 4	500	E2/2	BETPAP	10.16	2.74
Pinkham Notch	1927	Sep-57	Deposit 4	500	E2/3	BETALL	4.57	2.65
Pinkham Notch	1927	Sep-57	Deposit 4	500	E2/4	BETALL	4.06	3.50
Pinkham Notch	1927	Sep-57	Deposit 4	500	E3/1	POPTRE	8.64	1.85
Pinkham Notch	1927	Sep-57	Deposit 4	500	E3/2	BETPAP	8.13	2.85
Pinkham Notch	1927	Sep-57	Deposit 4	500	E3/3	BETALL	5.33	0.98
Pinkham Notch	1927	Sep-57	Deposit 4	500	E3/4	BETALL	5.84	1.96
Pinkham Notch	1927	Sep-57	Deposit 4	500	E4/1	BETPAP	11.43	1.12
Pinkham Notch	1927	Sep-57	Deposit 4	500	E4/2	BETALL	5.33	1.64
Pinkham Notch	1927	Sep-57	Deposit 4	500	E4/3	BETALL	3.81	1.20
Pinkham Notch	1927	Sep-57	Deposit 4	500	E4/4	BETALL	5.08	1.19
Webster Scout	1938	Sep-57	Deposit 1	910	A1/1	POPTRE	4.32	0.33
Webster Scout	1938	Sep-57	Deposit 1	910	A1/2	SORAME	5.33	1.00
Webster Scout	1938	Sep-57	Deposit 1	910	A1/3	BETPPC	4.06	0.65
Webster Scout	1938	Sep-57	Deposit 1	910	A1/4	BETPPC	4.32	0.62
Webster Scout	1938	Sep-57	Deposit 1	910	A2/1	BETPPC	3.30	0.25
Webster Scout	1938	Sep-57	Deposit 1	910	A2/2	ABIBAL	3.30	0.28
Webster Scout	1938	Sep-57	Deposit 1	910	A2/3	PRUPEN	4.57	0.78
Webster Scout	1938	Sep-57	Deposit 1	910	A2/4	BETPPC	2.54	0.63
Webster Scout	1938	Sep-57	Deposit 1	910	A3/1	PRUPEN	6.60	0.83
Webster Scout	1938	Sep-57	Deposit 1	910	A3/2	BETPPC	4.32	0.98
Webster Scout	1938	Sep-57	Deposit 1	910	A3/3	BETPPC	5.84	2.42
Webster Scout	1938	Sep-57	Deposit 1	910	A3/4	PRUPEN	5.84	1.10
Webster Scout	1938	Sep-57	Deposit 1	910	A4/1	BETPPC	3.30	1.93
Webster Scout	1938	Sep-57	Deposit 1	910	A4/2	BETALL	4.57	2.80
Webster Scout	1938	Sep-57	Deposit 1	910	A4/3	BETALL	3.05	1.35
Webster Scout	1938	Sep-57	Deposit 1	910	A4/4	BETPPC	3.81	2.21
Webster Scout	1938	Sep-57	Deposit 1	910	B1/1	BETPPC	3.56	1.22
Webster Scout	1938	Sep-57	Deposit 1	910	B1/2	BETPPC	2.54	1.32
Webster Scout	1938	Sep-57	Deposit 1	910	B1/3	BETALL	4.32	1.90
Webster Scout	1938	Sep-57	Deposit 1	910	B1/4	BETALL	7.62	1.70
Webster Scout	1938	Sep-57	Deposit 1	910	B2/1	BETPPC	3.30	0.35
Webster Scout	1938	Sep-57	Deposit 1	910	B2/2	PRUPEN	8.64	0.32
Webster Scout	1938	Sep-57	Deposit 1	910	B2/3	BETPPC	3.30	1.98
Webster Scout	1938	Sep-57	Deposit 1	910	B2/4	PRUPEN	4.06	1.45
Webster Scout	1938	Sep-57	Deposit 1	910	B3/1	PRUPEN	10.16	2.16

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Webster Scout	1938	Sep-57	Deposit 1	910	B3/2	BETPPC	2.79	1.42
Webster Scout	1938	Sep-57	Deposit 1	910	B3/3	BETPPC	3.05	1.32
Webster Scout	1938	Sep-57	Deposit 1	910	B3/4	BETPPC	8.89	3.40
Webster Scout	1938	Sep-57	Deposit 1	910	B4/1	POPGRA	7.62	0.56
Webster Scout	1938	Sep-57	Deposit 1	910	B4/2	PRUPEN	5.84	0.62
Webster Scout	1938	Sep-57	Deposit 1	910	B4/3	PRUPEN	8.13	2.00
Webster Scout	1938	Sep-57	Deposit 1	910	B4/4	PRUPEN	7.37	0.66
Webster Scout	1938	Sep-57	Deposit 1	910	C1/1	PRUPEN	5.08	1.09
Webster Scout	1938	Sep-57	Deposit 1	910	C1/2	PRUPEN	2.54	0.75
Webster Scout	1938	Sep-57	Deposit 1	910	C1/3	PRUPEN	7.87	1.20
Webster Scout	1938	Sep-57	Deposit 1	910	C1/4	PRUPEN	6.35	2.00
Webster Scout	1938	Sep-57	Deposit 2	880	A1/1	BETPPC	3.05	0.35
Webster Scout	1938	Sep-57	Deposit 2	880	A1/2	BETALL	3.05	1.85
Webster Scout	1938	Sep-57	Deposit 2	880	A1/3	BETPPC	3.30	1.00
Webster Scout	1938	Sep-57	Deposit 2	880	A1/4	BETPPC	2.54	0.30
Webster Scout	1938	Sep-57	Deposit 2	880	A2/1	PRUPEN	2.79	0.56
Webster Scout	1938	Sep-57	Deposit 2	880	A2/2	POPTRE	4.06	0.59
Webster Scout	1938	Sep-57	Deposit 2	880	A2/3	BETPPC	2.54	0.49
Webster Scout	1938	Sep-57	Deposit 2	880	A2/4	BETPPC	4.83	2.05
Webster Scout	1938	Sep-57	Deposit 2	880	B2/1	BETPPC	3.56	0.45
Webster Scout	1938	Sep-57	Deposit 2	880	B2/2	BETPPC	2.79	1.05
Webster Scout	1938	Sep-57	Deposit 2	880	B2/3	PRUPEN	3.81	1.45
Webster Scout	1938	Sep-57	Deposit 2	880	B2/4	BETPPC	2.79	1.10
Webster Scout	1938	Sep-57	Deposit 2	880	C1/1	TSUCAN	3.05	0.45
Webster Scout	1938	Sep-57	Deposit 2	880	C1/2	BETPPC	2.79	0.81
Webster Scout	1938	Sep-57	Deposit 2	880	C1/3	BETPPC	3.81	1.10
Webster Scout	1938	Sep-57	Deposit 2	880	C1/4	PRUPEN	3.81	1.37
Webster Scout	1938	Sep-57	Deposit 3	890	A1/1	BETPPC	2.79	0.19
Webster Scout	1938	Sep-57	Deposit 3	890	A1/2	BETPPC	5.33	0.44
Webster Scout	1938	Sep-57	Deposit 3	890	A1/3	BETPPC	4.06	1.12
Webster Scout	1938	Sep-57	Deposit 3	890	A1/4	BETPPC	3.81	1.52
Webster Scout	1938	Sep-57	Deposit 3	890	B1/1	PRUPEN	4.83	0.43
Webster Scout	1938	Sep-57	Deposit 3	890	B1/2	BETPPC	4.06	0.82
Webster Scout	1938	Sep-57	Deposit 3	890	B1/3	BETPPC	5.08	0.45
Webster Scout	1938	Sep-57	Deposit 3	890	B1/4	BETPPC	3.05	1.10
Webster Scout	1938	Sep-57	Deposit 3	890	C1/1	BETPPC	5.08	0.35
Webster Scout	1938	Sep-57	Deposit 3	890	C1/2	BETPPC	3.30	0.39
Webster Scout	1938	Sep-57	Deposit 3	890	C1/3	BETPPC	2.79	1.05
Webster Scout	1938	Sep-57	Deposit 3	890	C1/4	PRUPEN	3.30	1.52
Webster Scout	1938	Sep-57	Deposit 3	890	D1/1	BETPPC	5.59	0.23
Webster Scout	1938	Sep-57	Deposit 3	890	D1/2	PRUPEN	7.62	0.35
Webster Scout	1938	Sep-57	Deposit 3	890	D1/3	BETPPC	3.05	1.53
Webster Scout	1938	Sep-57	Deposit 3	890	D1/4	PRUPEN	12.70	1.35
Webster Scout	1938	Sep-57	Deposit 4	820	A1/1	POPTRE	6.10	1.15
Webster Scout	1938	Sep-57	Deposit 4	820	A1/2	BETPPC	3.81	1.42
Webster Scout	1938	Sep-57	Deposit 4	820	A1/3	BETPPC	4.57	1.16
Webster Scout	1938	Sep-57	Deposit 4	820	A1/4	BETPPC	2.54	1.92
Webster Scout	1938	Sep-57	Deposit 4	820	A2/1	POPTRE	6.86	0.50
Webster Scout	1938	Sep-57	Deposit 4	820	A2/2	BETPPC	4.83	0.72

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Webster Scout	1938	Sep-57	Deposit 4	820	A2/3	BETPPC	3.81	0.71
Webster Scout	1938	Sep-57	Deposit 4	820	A2/4	PRUPEN	10.67	1.35
Webster Scout	1938	Sep-57	Deposit 4	820	A3/1	BETPPC	9.40	1.05
Webster Scout	1938	Sep-57	Deposit 4	820	A3/2	BETPPC	4.06	2.35
Webster Scout	1938	Sep-57	Deposit 4	820	A3/3	PRUPEN	21.59	2.05
Webster Scout	1938	Sep-57	Deposit 4	820	A3/4	BETPPC	3.81	2.40
Webster Scout	1938	Sep-57	Deposit 4	820	A4/1	BETPPC	5.33	0.50
Webster Scout	1938	Sep-57	Deposit 4	820	A4/2	BETPPC	6.35	0.51
Webster Scout	1938	Sep-57	Deposit 4	820	A4/3	BETPPC	2.54	0.28
Webster Scout	1938	Sep-57	Deposit 4	820	A4/4	POPTRE	10.67	0.50
Webster Scout	1938	Sep-57	Deposit 4	820	A5/1	SALBEB	6.35	0.88
Webster Scout	1938	Sep-57	Deposit 4	820	A5/2	BETPPC	2.54	0.48
Webster Scout	1938	Sep-57	Deposit 4	820	A5/3	BETPPC	4.83	0.85
Webster Scout	1938	Sep-57	Deposit 4	820	A5/4	ACESPI	3.30	1.95
Webster Scout	1938	Sep-57	Deposit 4	820	A6/1	BETPPC	4.32	0.52
Webster Scout	1938	Sep-57	Deposit 4	820	A6/2	BETPPC	4.06	1.50
Webster Scout	1938	Sep-57	Deposit 4	820	A6/3	POPTRE	9.91	0.59
Webster Scout	1938	Sep-57	Deposit 4	820	A6/4	SALBEB	4.32	1.55
Webster Scout	1938	Sep-57	Deposit 4	820	B1/1	ABIBAL	4.57	1.13
Webster Scout	1938	Sep-57	Deposit 4	820	B1/2	SALBEB	4.06	0.90
Webster Scout	1938	Sep-57	Deposit 4	820	B1/3	BETPPC	3.30	1.68
Webster Scout	1938	Sep-57	Deposit 4	820	B1/4	BETPPC	2.54	1.77
Webster Scout	1938	Sep-57	Deposit 4	820	B2/1	ACEPEN	3.56	0.82
Webster Scout	1938	Sep-57	Deposit 4	820	B2/2	ABIBAL	3.30	0.65
Webster Scout	1938	Sep-57	Deposit 4	820	B2/3	ABIBAL	3.81	0.18
Webster Scout	1938	Sep-57	Deposit 4	820	B2/4	BETPPC	8.89	0.92
Webster Scout	1938	Sep-57	Deposit 4	820	B3/1	BETALL	6.86	0.20
Webster Scout	1938	Sep-57	Deposit 4	820	B3/2	BETPPC	7.37	1.26
Webster Scout	1938	Sep-57	Deposit 4	820	B3/3	PRUPEN	11.94	1.09
Webster Scout	1938	Sep-57	Deposit 4	820	B3/4	POPTRE	5.08	1.21
Webster Scout	1938	Sep-57	Deposit 4	820	B4/1	BETALL	3.05	0.38
Webster Scout	1938	Sep-57	Deposit 4	820	B4/2	POPTRE	10.16	1.20
Webster Scout	1938	Sep-57	Deposit 4	820	B4/3	SALBEB	4.32	2.08
Webster Scout	1938	Sep-57	Deposit 4	820	B4/4	ABIBAL	2.79	1.45
Tripyramid N.	1885	Sep-57	Deposit 2	830	A1/3	ABIBAL	21.336	2.58
Tripyramid N.	1885	Sep-57	Deposit 2	830	A1/4	ABIBAL	9.652	1.84
Tripyramid N.	1885	Sep-57	Deposit 2	830	A2/1	ABIBAL	5.842	0.75
Tripyramid N.	1885	Sep-57	Deposit 2	830	A2/2	ABIBAL	13.208	2.5
Tripyramid N.	1885	Sep-57	Deposit 2	830	A2/4	ABIBAL	7.366	1.38
Tripyramid N.	1885	Sep-57	Deposit 2	830	A3/1	ABIBAL	10.922	1.05
Tripyramid N.	1885	Sep-57	Deposit 2	830	A3/2	ABIBAL	25.146	1.52
Tripyramid N.	1885	Sep-57	Deposit 2	830	A3/3	ABIBAL	9.906	1.7
Tripyramid N.	1885	Sep-57	Deposit 2	830	A3/4	ABIBAL	9.652	1.02
Tripyramid N.	1885	Sep-57	Deposit 2	830	B1/2	ABIBAL	17.78	2.05
Tripyramid N.	1885	Sep-57	Deposit 2	830	B2/1	ABIBAL	13.208	4.53
Tripyramid N.	1885	Sep-57	Deposit 2	830	B2/2	ABIBAL	8.128	3
Tripyramid N.	1885	Sep-57	Deposit 2	830	B2/3	ABIBAL	10.16	1.32
Tripyramid N.	1885	Sep-57	Deposit 2	830	B2/4	ABIBAL	10.16	1.85
Tripyramid N.	1885	Sep-57	Deposit 2	830	B3/2	ABIBAL	12.446	2.63

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Tripyramid N.	1885	Sep-57	Deposit 2	830	B3/4	ABIBAL	5.08	2.42
Tripyramid N.	1885	Sep-57	Deposit 2	830	B4/1	ABIBAL	18.796	0.95
Tripyramid N.	1885	Sep-57	Deposit 2	830	C1/2	ABIBAL	12.954	2.32
Tripyramid N.	1885	Sep-57	Deposit 2	830	C1/3	ABIBAL	5.588	1.69
Tripyramid N.	1885	Sep-57	Deposit 2	830	C2/2	ABIBAL	6.858	0.88
Tripyramid N.	1885	Sep-57	Deposit 2	800	D1/2	ABIBAL	5.588	2.1
Tripyramid N.	1885	Sep-57	Deposit 2	800	D1/4	ABIBAL	4.826	2.2
Tripyramid N.	1885	Sep-57	Deposit 2	800	D3/4	ABIBAL	7.366	4.3
Tripyramid N.	1885	Sep-57	Deposit 2	800	D4/2	ABIBAL	6.35	2.1
Tripyramid N.	1885	Sep-57	Deposit 2	800	E1/1	ABIBAL	26.924	0.6
Tripyramid N.	1885	Sep-57	Deposit 2	800	E1/3	ABIBAL	8.128	2.05
Tripyramid N.	1885	Sep-57	Deposit 2	800	E4/4	ABIBAL	5.08	1.95
Tripyramid N.	1885	Sep-57	Deposit 2	800	F1/3	ABIBAL	5.588	0.66
Tripyramid N.	1885	Sep-57	Deposit 2	800	F2/1	ABIBAL	9.144	0.95
Tripyramid N.	1885	Sep-57	Deposit 2	800	F2/3	ABIBAL	10.16	1.2
Tripyramid N.	1885	Sep-57	Deposit 2	800	F2/4	ABIBAL	8.636	1.31
Tripyramid N.	1885	Sep-57	Deposit 2	800	F4/1	ABIBAL	15.748	1.35
Tripyramid N.	1885	Sep-57	Deposit 2	800	F4/4	ABIBAL	8.382	3.23
Tripyramid N.	1885	Sep-57	Deposit 2	800	F5/2	ABIBAL	12.7	2.35
Tripyramid N.	1885	Sep-57	Deposit 2	800	F5/4	ABIBAL	13.97	1.9
Tripyramid N.	1885	Sep-57	Deposit 2	800	G1/1	ABIBAL	11.176	0.83
Tripyramid N.	1885	Sep-57	Deposit 2	800	G1/3	ABIBAL	7.62	0.9
Tripyramid N.	1885	Sep-57	Deposit 2	800	G2/2	ABIBAL	6.096	1.82
Tripyramid N.	1885	Sep-57	Deposit 2	800	G2/3	ABIBAL	19.304	1.08
Tripyramid N.	1885	Sep-57	Deposit 2	800	G2/4	ABIBAL	15.494	1.63
Tripyramid N.	1885	Sep-57	Deposit 2	800	G3/3	ABIBAL	15.748	5.33
Tripyramid N.	1885	Sep-57	Deposit 2	800	G4/2	ABIBAL	4.318	1.09
Tripyramid N.	1885	Sep-57	Deposit 2	800	G4/3	ABIBAL	10.16	1.85
Tripyramid N.	1885	Sep-57	Deposit 2	800	G5/2	ABIBAL	5.588	0.78
Tripyramid N.	1885	Sep-57	Deposit 2	800	H1/3	ABIBAL	4.826	1.2
Tripyramid N.	1885	Sep-57	Deposit 2	800	H2/1	ABIBAL	7.874	1.37
Tripyramid N.	1885	Sep-57	Deposit 2	800	H2/3	ABIBAL	3.302	1.12
Tripyramid N.	1885	Sep-57	Deposit 2	800	H3/2	ABIBAL	11.43	3.55
Tripyramid N.	1885	Sep-57	Deposit 2	800	H3/4	ABIBAL	13.208	3.13
Tripyramid N.	1885	Sep-57	Deposit 2	800	H5/3	ABIBAL	14.224	0.87
Tripyramid N.	1885	Sep-57	Deposit 2	800	H5/4	ABIBAL	24.384	0.51
Tripyramid N.	1885	Sep-57	Deposit 2	800	H6/4	ABIBAL	19.05	6.28
Tripyramid N.	1885	Sep-57	Deposit 2	800	I1/1	ABIBAL	30.734	1.09
Tripyramid N.	1885	Sep-57	Deposit 2	800	I1/2	ABIBAL	19.05	5.59
Tripyramid N.	1885	Sep-57	Deposit 2	800	I1/3	ABIBAL	18.796	4.63
Tripyramid N.	1885	Sep-57	Deposit 2	800	I3/4	ABIBAL	5.334	1.77
Tripyramid N.	1885	Sep-57	Deposit 2	800	I4/2	ABIBAL	8.636	2.11
Tripyramid N.	1885	Sep-57	Deposit 2	800	H2/4	ACESUC	13.716	4.41
Tripyramid N.	1885	Sep-57	Deposit 2	800	A4/4	BETALL	12.954	1.23
Tripyramid N.	1885	Sep-57	Deposit 2	800	B4/4	BETALL	5.842	2.1
Tripyramid N.	1885	Sep-57	Deposit 2	800	D3/2	BETALL	7.874	0.55
Tripyramid N.	1885	Sep-57	Deposit 2	800	D3/3	BETALL	22.86	2.54
Tripyramid N.	1885	Sep-57	Deposit 2	800	E2/2	BETALL	4.572	2.09
Tripyramid N.	1885	Sep-57	Deposit 2	800	E2/3	BETALL	14.732	1.32

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Tripyramid N.	1885	Sep-57	Deposit 2	800	F1/1	BETALL	19.812	1.42
Tripyramid N.	1885	Sep-57	Deposit 2	800	F1/4	BETALL	13.716	1.2
Tripyramid N.	1885	Sep-57	Deposit 2	800	F3/2	BETALL	26.416	2.82
Tripyramid N.	1885	Sep-57	Deposit 2	800	F6/4	BETALL	5.842	2.11
Tripyramid N.	1885	Sep-57	Deposit 2	800	G4/1	BETALL	23.368	0.78
Tripyramid N.	1885	Sep-57	Deposit 2	800	G5/1	BETALL	8.636	0.9
Tripyramid N.	1885	Sep-57	Deposit 2	800	G5/3	BETALL	6.858	0.45
Tripyramid N.	1885	Sep-57	Deposit 2	800	G5/4	BETALL	14.478	0.79
Tripyramid N.	1885	Sep-57	Deposit 2	800	H3/3	BETALL	7.112	2.32
Tripyramid N.	1885	Sep-57	Deposit 2	800	H4/1	BETALL	18.796	0.63
Tripyramid N.	1885	Sep-57	Deposit 2	800	H4/2	BETALL	5.842	3.42
Tripyramid N.	1885	Sep-57	Deposit 2	800	I2/4	BETALL	9.144	2.14
Tripyramid N.	1885	Sep-57	Deposit 2	800	I3/1	BETALL	7.112	1.16
Tripyramid N.	1885	Sep-57	Deposit 2	800	I3/3	BETALL	11.43	1.82
Tripyramid N.	1885	Sep-57	Deposit 2	800	A2/3	BETPAP	14.986	1.42
Tripyramid N.	1885	Sep-57	Deposit 2	800	B1/3	BETPPC	13.97	1.83
Tripyramid N.	1885	Sep-57	Deposit 2	800	B1/4	BETPPC	11.938	2
Tripyramid N.	1885	Sep-57	Deposit 2	800	B3/1	BETPPC	17.526	0.92
Tripyramid N.	1885	Sep-57	Deposit 2	800	B3/3	BETPPC	11.176	1.69
Tripyramid N.	1885	Sep-57	Deposit 2	800	B4/3	BETPPC	15.748	1.5
Tripyramid N.	1885	Sep-57	Deposit 2	800	C1/1	BETPPC	15.24	0.92
Tripyramid N.	1885	Sep-57	Deposit 2	800	C2/3	BETPPC	20.32	1.21
Tripyramid N.	1885	Sep-57	Deposit 2	800	D1/3	BETPPC	15.24	1.18
Tripyramid N.	1885	Sep-57	Deposit 2	800	D2/1	BETPPC	22.86	1.8
Tripyramid N.	1885	Sep-57	Deposit 2	800	D2/3	BETPPC	11.176	2.13
Tripyramid N.	1885	Sep-57	Deposit 2	800	D3/1	BETPPC	20.066	1.23
Tripyramid N.	1885	Sep-57	Deposit 2	800	D4/1	BETPPC	10.922	0.65
Tripyramid N.	1885	Sep-57	Deposit 2	800	D4/3	BETPPC	8.128	2.75
Tripyramid N.	1885	Sep-57	Deposit 2	800	E1/2	BETPPC	8.89	0.82
Tripyramid N.	1885	Sep-57	Deposit 2	800	E2/1	BETPPC	18.034	1.18
Tripyramid N.	1885	Sep-57	Deposit 2	800	E3/1	BETPPC	23.114	1.38
Tripyramid N.	1885	Sep-57	Deposit 2	800	F1/2	BETPPC	7.62	2.39
Tripyramid N.	1885	Sep-57	Deposit 2	800	F4/2	BETPPC	5.588	3.88
Tripyramid N.	1885	Sep-57	Deposit 2	800	F5/3	BETPPC	29.464	0.7
Tripyramid N.	1885	Sep-57	Deposit 2	800	F6/1	BETPPC	18.542	1
Tripyramid N.	1885	Sep-57	Deposit 2	800	F6/2	BETPPC	17.018	1.19
Tripyramid N.	1885	Sep-57	Deposit 2	800	F6/3	BETPPC	10.16	1.3
Tripyramid N.	1885	Sep-57	Deposit 2	800	G1/2	BETPPC	18.288	1.2
Tripyramid N.	1885	Sep-57	Deposit 2	800	G1/4	BETPPC	11.938	1.63
Tripyramid N.	1885	Sep-57	Deposit 2	800	G2/1	BETPPC	18.796	1.05
Tripyramid N.	1885	Sep-57	Deposit 2	800	G3/2	BETPPC	12.7	2.2
Tripyramid N.	1885	Sep-57	Deposit 2	800	G3/4	BETPPC	5.842	2.12
Tripyramid N.	1885	Sep-57	Deposit 2	800	H1/4	BETPPC	22.86	1.32
Tripyramid N.	1885	Sep-57	Deposit 2	800	H3/1	BETPPC	29.464	1.68
Tripyramid N.	1885	Sep-57	Deposit 2	800	H4/3	BETPPC	25.4	1.57
Tripyramid N.	1885	Sep-57	Deposit 2	800	H4/4	BETPPC	11.43	2.33
Tripyramid N.	1885	Sep-57	Deposit 2	800	H5/1	BETPPC	11.43	2.65
Tripyramid N.	1885	Sep-57	Deposit 2	800	I1/4	BETPPC	20.066	3.14
Tripyramid N.	1885	Sep-57	Deposit 2	800	I2/1	BETPPC	28.194	0.59

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Tripyramid N.	1885	Sep-57	Deposit 2	800	I2/3	BETPPC	15.24	1.46
Tripyramid N.	1885	Sep-57	Deposit 2	800	A1/2	PICRUB	6.604	1.62
Tripyramid N.	1885	Sep-57	Deposit 2	800	A4/1	PICRUB	6.35	0.4
Tripyramid N.	1885	Sep-57	Deposit 2	800	A4/2	PICRUB	8.128	0.35
Tripyramid N.	1885	Sep-57	Deposit 2	800	A4/3	PICRUB	4.064	0.94
Tripyramid N.	1885	Sep-57	Deposit 2	800	B1/1	PICRUB	15.24	1.89
Tripyramid N.	1885	Sep-57	Deposit 2	800	B4/2	PICRUB	2.54	0.78
Tripyramid N.	1885	Sep-57	Deposit 2	800	C1/4	PICRUB	5.334	2.63
Tripyramid N.	1885	Sep-57	Deposit 2	800	C2/1	PICRUB	4.572	0.52
Tripyramid N.	1885	Sep-57	Deposit 2	800	C2/4	PICRUB	5.842	2.48
Tripyramid N.	1885	Sep-57	Deposit 2	800	D1/1	PICRUB	2.54	2.45
Tripyramid N.	1885	Sep-57	Deposit 2	800	D2/2	PICRUB	2.54	1.31
Tripyramid N.	1885	Sep-57	Deposit 2	800	D2/4	PICRUB	3.048	2.75
Tripyramid N.	1885	Sep-57	Deposit 2	800	E1/4	PICRUB	5.08	2.35
Tripyramid N.	1885	Sep-57	Deposit 2	800	E2/4	PICRUB	4.572	2.08
Tripyramid N.	1885	Sep-57	Deposit 2	800	E3/2	PICRUB	3.556	1.16
Tripyramid N.	1885	Sep-57	Deposit 2	800	E3/3	PICRUB	2.54	1.15
Tripyramid N.	1885	Sep-57	Deposit 2	800	E3/4	PICRUB	2.54	1.31
Tripyramid N.	1885	Sep-57	Deposit 2	800	E4/1	PICRUB	2.54	1.59
Tripyramid N.	1885	Sep-57	Deposit 2	800	E4/2	PICRUB	3.302	0.73
Tripyramid N.	1885	Sep-57	Deposit 2	800	E4/3	PICRUB	2.794	0.65
Tripyramid N.	1885	Sep-57	Deposit 2	800	F2/2	PICRUB	3.556	2.3
Tripyramid N.	1885	Sep-57	Deposit 2	800	F3/1	PICRUB	4.318	1.95
Tripyramid N.	1885	Sep-57	Deposit 2	800	F3/3	PICRUB	2.54	0.92
Tripyramid N.	1885	Sep-57	Deposit 2	800	F3/4	PICRUB	5.334	2.38
Tripyramid N.	1885	Sep-57	Deposit 2	800	F4/3	PICRUB	5.334	3.2
Tripyramid N.	1885	Sep-57	Deposit 2	800	G3/1	PICRUB	5.334	0.25
Tripyramid N.	1885	Sep-57	Deposit 2	800	G4/4	PICRUB	4.064	4.2
Tripyramid N.	1885	Sep-57	Deposit 2	800	H1/1	PICRUB	6.858	0.52
Tripyramid N.	1885	Sep-57	Deposit 2	800	H1/2	PICRUB	5.08	0.7
Tripyramid N.	1885	Sep-57	Deposit 2	800	H2/2	PICRUB	4.064	1.56
Tripyramid N.	1885	Sep-57	Deposit 2	800	H5/2	PICRUB	8.382	1.36
Tripyramid N.	1885	Sep-57	Deposit 2	800	H6/1	PICRUB	2.54	3
Tripyramid N.	1885	Sep-57	Deposit 2	800	H6/2	PICRUB	13.97	2.09
Tripyramid N.	1885	Sep-57	Deposit 2	800	I2/2	PICRUB	5.08	3.55
Tripyramid N.	1885	Sep-57	Deposit 2	800	I3/2	PICRUB	8.128	1.08
Tripyramid N.	1885	Sep-57	Deposit 2	800	I4/1	PICRUB	3.81	1.83
Tripyramid N.	1885	Sep-57	Deposit 2	800	I4/3	PICRUB	6.858	3.55
Tripyramid N.	1885	Sep-57	Deposit 2	800	I4/4	PICRUB	4.826	1.75
Tripyramid N.	1885	Sep-57	Deposit 2	800	A1/1	POPTRE	19.558	0.2
Tripyramid N.	1885	Sep-57	Deposit 2	800	D4/4	POPTRE	30.48	3.53
Tripyramid N.	1885	Sep-57	Deposit 2	800	F5/1	POPTRE	22.098	1.6
Tripyramid N.	1885	Sep-57	Deposit 2	800	H6/3	POPTRE	27.178	7.4
Tripyramid N.	1885	Sep-57	Deposit 1	840	A1/1	ABIBAL	20.828	1.11
Tripyramid N.	1885	Sep-57	Deposit 1	840	A2/4	ABIBAL	4.826	0.63
Tripyramid N.	1885	Sep-57	Deposit 1	840	B1/3	ABIBAL	3.048	1.17
Tripyramid N.	1885	Sep-57	Deposit 1	840	B2/1	ABIBAL	5.842	3.15
Tripyramid N.	1885	Sep-57	Deposit 1	840	C1/2	ABIBAL	5.334	0.64
Tripyramid N.	1885	Sep-57	Deposit 1	840	C1/3	ABIBAL	6.35	0.42

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Tripyramid N.	1885	Sep-57	Deposit 1	840	C1/4	ABIBAL	5.842	1.62
Tripyramid N.	1885	Sep-57	Deposit 1	840	C2/1	ABIBAL	5.842	2.2
Tripyramid N.	1885	Sep-57	Deposit 1	840	C2/3	ABIBAL	3.81	1.69
Tripyramid N.	1885	Sep-57	Deposit 1	840	A1/2	ACEPEN	6.096	0.82
Tripyramid N.	1885	Sep-57	Deposit 1	840	B1/4	ACEPEN	3.302	1.51
Tripyramid N.	1885	Sep-57	Deposit 1	840	A3/4	ACESAC	5.334	2.85
Tripyramid N.	1885	Sep-57	Deposit 1	840	B1/1	ACESAC	2.54	0.64
Tripyramid N.	1885	Sep-57	Deposit 1	840	B3/2	ACESAC	8.89	1.1
Tripyramid N.	1885	Sep-57	Deposit 1	840	A2/1	BETALL	11.938	1.31
Tripyramid N.	1885	Sep-57	Deposit 1	840	A2/3	BETALL	10.668	1.91
Tripyramid N.	1885	Sep-57	Deposit 1	840	A3/1	BETALL	23.622	1.59
Tripyramid N.	1885	Sep-57	Deposit 1	840	A3/3	BETALL	16.764	2.71
Tripyramid N.	1885	Sep-57	Deposit 1	840	B2/2	BETALL	4.318	2.23
Tripyramid N.	1885	Sep-57	Deposit 1	840	B2/3	BETALL	17.78	0.89
Tripyramid N.	1885	Sep-57	Deposit 1	840	B2/4	BETALL	13.97	1.63
Tripyramid N.	1885	Sep-57	Deposit 1	840	B3/4	BETALL	5.334	2.22
Tripyramid N.	1885	Sep-57	Deposit 1	840	B1/2	BETPPC	27.432	1.87
Tripyramid N.	1885	Sep-57	Deposit 1	840	C1/1	BETPPC	14.478	1
Tripyramid N.	1885	Sep-57	Deposit 1	840	C2/2	BETPPC	12.7	0.75
Tripyramid N.	1885	Sep-57	Deposit 1	840	A1/3	PICRUB	5.842	0.83
Tripyramid N.	1885	Sep-57	Deposit 1	840	A1/4	PICRUB	5.842	2.09
Tripyramid N.	1885	Sep-57	Deposit 1	840	A2/2	PICRUB	5.842	2.7
Tripyramid N.	1885	Sep-57	Deposit 1	840	A3/2	PICRUB	3.302	2.56
Tripyramid N.	1885	Sep-57	Deposit 1	840	B3/1	PICRUB	6.604	1.33
Tripyramid N.	1885	Sep-57	Deposit 1	840	B3/3	PICRUB	11.176	1.1
Tripyramid N.	1885	Sep-57	Deposit 1	840	C2/4	PICRUB	4.826	1.01

Appendix C

Chapter 1 Landslide Point-centered Quarter Data Collected 1996-1998 White Mountain National Forest, NH

Site Name	Slide Date	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Cherry Mtn.	1885	Jul-98	Deposit	590	A1/1	ACESPI	2.7	1.55
Cherry Mtn.	1885	Jul-98	Deposit	590	A1/2	ACEPEN	5.3	1.66
Cherry Mtn.	1885	Jul-98	Deposit	590	A1/3	ACESPI	5.2	1.59
Cherry Mtn.	1885	Jul-98	Deposit	590	A1/4	ACESPI	7.1	0.65
Cherry Mtn.	1885	Jul-98	Deposit	590	A2/1	ACESPI	2.6	1.59
Cherry Mtn.	1885	Jul-98	Deposit	590	A2/2	TSUCAN	13.0	1.56
Cherry Mtn.	1885	Jul-98	Deposit	590	A2/3	PICRUB	10.0	1.34
Cherry Mtn.	1885	Jul-98	Deposit	590	A2/4	PICRUB	12.3	2.00
Cherry Mtn.	1885	Jul-98	Deposit	590	A4/1	ACESAC	23.3	1.58
Cherry Mtn.	1885	Jul-98	Deposit	590	A4/2	ACESPI	3.6	2.21
Cherry Mtn.	1885	Jul-98	Deposit	590	A4/3	PICRUB	12.4	0.70
Cherry Mtn.	1885	Jul-98	Deposit	590	A4/4	ACESPI	3.4	2.70
Cherry Mtn.	1885	Jul-98	Deposit	590	A5/1	ACESPI	3.2	2.23
Cherry Mtn.	1885	Jul-98	Deposit	590	A5/2	ACESAC	8.5	2.75
Cherry Mtn.	1885	Jul-98	Deposit	590	A5/3	ACEPEN	3.0	2.42
Cherry Mtn.	1885	Jul-98	Deposit	590	A5/4	ACESPI	3.7	1.25
Cherry Mtn.	1885	Jul-98	Deposit	590	A6/1	ACEPEN	3.5	1.90
Cherry Mtn.	1885	Jul-98	Deposit	590	A6/2	ACESPI	4.9	1.30
Cherry Mtn.	1885	Jul-98	Deposit	590	A6/3	ACESPI	6.0	0.50
Cherry Mtn.	1885	Jul-98	Deposit	590	A6/4	ACESPI	5.0	4.60
Cherry Mtn.	1885	Jul-98	Deposit	590	B1/1	ACESPI	5.5	5.40
Cherry Mtn.	1885	Jul-98	Deposit	590	B1/2	ACESPI	4.5	3.27
Cherry Mtn.	1885	Jul-98	Deposit	590	B1/3	ACESPI	3.6	2.75
Cherry Mtn.	1885	Jul-98	Deposit	590	B1/4	ACESPI	5.5	2.30
Cherry Mtn.	1885	Jul-98	Deposit	590	B2/1	PICRUB	10.6	2.40
Cherry Mtn.	1885	Jul-98	Deposit	590	B2/2	PICRUB	11.7	3.80
Cherry Mtn.	1885	Jul-98	Deposit	590	B2/3	ACEPEN	6.7	1.58
Cherry Mtn.	1885	Jul-98	Deposit	590	B2/4	FRANIG	6.9	0.35
Cherry Mtn.	1885	Jul-98	Deposit	590	B3/1	PICRUB	4.1	2.04
Cherry Mtn.	1885	Jul-98	Deposit	590	B3/2	PICRUB	10.5	2.60
Cherry Mtn.	1885	Jul-98	Deposit	590	B3/3	ABIBAL	9.3	1.04
Cherry Mtn.	1885	Jul-98	Deposit	590	B3/4	BETALL	15.3	1.30
Cherry Mtn.	1885	Jul-98	Deposit	590	B4/1	BETALL	5.2	0.27
Cherry Mtn.	1885	Jul-98	Deposit	590	B4/2	PICRUB	16.5	3.50
Cherry Mtn.	1885	Jul-98	Deposit	590	B4/3	BETPAP	32.0	2.15
Cherry Mtn.	1885	Jul-98	Deposit	590	B4/4	PICRUB	3.9	2.90
Cherry Mtn.	1885	Jul-98	Deposit	590	B5/1	ACESPI	5.1	2.26
Cherry Mtn.	1885	Jul-98	Deposit	590	B5/2	ACESAC	2.7	4.50
Cherry Mtn.	1885	Jul-98	Deposit	590	B5/3	ACEPEN	3.2	4.20
Cherry Mtn.	1885	Jul-98	Deposit	590	B5/4	ACEPEN	3.0	2.70

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Cherry Mtn.	1885	Jul-98	Deposit	590	B6/1	ACEPEN	3.3	3.49
Cherry Mtn.	1885	Jul-98	Deposit	590	B6/2	ACESPI	4.2	0.60
Cherry Mtn.	1885	Jul-98	Deposit	590	B6/3	ACESAC	2.6	5.30
Cherry Mtn.	1885	Jul-98	Deposit	590	B6/4	ACESPI	5.1	1.70
Cherry Mtn.	1885	Jul-98	Deposit	590	C1/1	ACESPI	9.0	3.20
Cherry Mtn.	1885	Jul-98	Deposit	590	C1/2	ACESPI	6.7	1.80
Cherry Mtn.	1885	Jul-98	Deposit	590	C1/3	ACESPI	5.3	4.17
Cherry Mtn.	1885	Jul-98	Deposit	590	C1/4	ABIBAL	6.6	2.70
Cherry Mtn.	1885	Jul-98	Deposit	590	C2/1	ABIBAL	11.7	2.95
Cherry Mtn.	1885	Jul-98	Deposit	590	C2/2	ACEPEN	12.1	2.44
Cherry Mtn.	1885	Jul-98	Deposit	590	C2/3	ACESPI	6.5	1.70
Cherry Mtn.	1885	Jul-98	Deposit	590	C2/4	ACESPI	5.7	1.90
Cherry Mtn.	1885	Jul-98	Deposit	590	C3/1	ACESPI	3.6	1.70
Cherry Mtn.	1885	Jul-98	Deposit	590	C3/2	ACEPEN	3.8	0.74
Cherry Mtn.	1885	Jul-98	Deposit	590	C3/3	PICRUB	11.2	1.26
Cherry Mtn.	1885	Jul-98	Deposit	590	C3/4	TSUCAN	11.9	2.85
Cherry Mtn.	1885	Jul-98	Deposit	590	C4/1	PICRUB	16.4	2.50
Cherry Mtn.	1885	Jul-98	Deposit	590	C4/2	ACESPI	4.2	2.90
Cherry Mtn.	1885	Jul-98	Deposit	590	C4/3	ACEPEN	9.7	2.10
Cherry Mtn.	1885	Jul-98	Deposit	590	C4/4	ACESPI	4.4	3.85
Cherry Mtn.	1885	Jul-98	Deposit	590	C5/1	ACEPEN	4.2	2.60
Cherry Mtn.	1885	Jul-98	Deposit	590	C5/2	BETALL	27.2	1.70
Cherry Mtn.	1885	Jul-98	Deposit	590	C5/3	ACESPI	4.2	3.30
Cherry Mtn.	1885	Jul-98	Deposit	590	C5/4	ACEPEN	3.2	2.30
Cherry Mtn.	1885	Jul-98	Deposit	590	D1/1	ACESPI	6.6	2.65
Cherry Mtn.	1885	Jul-98	Deposit	590	D1/2	PICRUB	8.8	2.35
Cherry Mtn.	1885	Jul-98	Deposit	590	D1/3	ACESPI	5.3	2.30
Cherry Mtn.	1885	Jul-98	Deposit	590	D1/4	ABIBAL	6.6	4.05
Cherry Mtn.	1885	Jul-98	Deposit	590	D2/1	ACEPEN	3.3	0.75
Cherry Mtn.	1885	Jul-98	Deposit	590	D2/2	BETALL	12.0	2.73
Cherry Mtn.	1885	Jul-98	Deposit	590	D2/3	ACESPI	5.2	3.40
Cherry Mtn.	1885	Jul-98	Deposit	590	D2/4	ACESPI	6.5	1.34
Cherry Mtn.	1885	Jul-98	Deposit	590	D3/1	ACESPI	4.9	1.75
Cherry Mtn.	1885	Jul-98	Deposit	590	D3/2	ACEPEN	3.4	1.30
Cherry Mtn.	1885	Jul-98	Deposit	590	D3/3	BETPAP	16.7	0.45
Cherry Mtn.	1885	Jul-98	Deposit	590	D3/4	ACEPEN	5.1	2.36
Big Coolidge Mt	1938	Jun-96	Deposit I	500	A5/4	ACERUB	6.6	1.15
Big Coolidge Mt	1938	Jun-96	Deposit I	500	A5/1	ACESAC	2.6	1.42
Big Coolidge Mt	1938	Jun-96	Deposit I	500	A5/2	ACERUB	8.9	2.38
Big Coolidge Mt	1938	Jun-96	Deposit I	500	A5/3	ACESAC	4.5	3.93
Big Coolidge Mt	1938	Jun-96	Deposit I	500	A4/4	ACERUB	10.0	0.03
Big Coolidge Mt	1938	Jun-96	Deposit I	500	A4/1	ACESAC	4.0	1.05
Big Coolidge Mt	1938	Jun-96	Deposit I	500	A4/2	ACESAC	3.4	1.85
Big Coolidge Mt	1938	Jun-96	Deposit I	500	A4/3	PICRUB	3.4	2.38
Big Coolidge Mt	1938	Jun-96	Deposit I	500	A3/3	PICRUB	2.6	1.10
Big Coolidge Mt	1938	Jun-96	Deposit I	500	A3/2	BETALL	14.2	1.71
Big Coolidge Mt	1938	Jun-96	Deposit I	500	A3/4	BETALL	4.4	2.00
Big Coolidge Mt	1938	Jun-96	Deposit I	500	A3/1	ACERUB	7.4	2.20
Big Coolidge Mt	1938	Jun-96	Deposit I	500	A2/1	PICRUB	2.8	0.65

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	A2/4	ACEPEN	7.2	1.10
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	A2/2	PICRUB	4.6	1.30
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	A2/3	BETPAP	13.7	2.55
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	A1/1	ACEPEN	6.5	0.40
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	A1/4	ACEPEN	3.2	1.15
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	A1/2	PICRUB	2.7	1.80
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	A1/3	BETALL	10.2	1.80
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B1/4	BETPAP	12.9	0.30
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B1/3	BETPAP	22.2	0.75
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B1/1	ACESAC	7.4	0.80
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B1/2	ACESAC	4.9	3.90
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B2/4	ACESAC	4.4	0.75
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B2/2	ACERUB	24.6	0.90
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B2/1	ACESAC	3.8	1.35
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B2/3	ACESAC	3.5	3.36
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B3/2	ACERUB	22.1	0.40
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B3/3	BETALL	6.2	1.75
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B3/1	BETALL	4.2	2.50
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B3/4	ACEPEN	9.4	3.20
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B4/2	ACERUB	3.8	0.90
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B4/3	ACEPEN	8.0	1.80
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B4/4	ACERUB	13.1	1.80
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B4/1	PICRUB	5.7	1.90
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B5/2	BETPAP	22.6	0.13
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B5/3	ACEPEN	4.4	0.80
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B5/4	PICRUB	3.3	1.63
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	B5/1	ACERUB	5.1	2.10
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	C2/2	ACERUB	7.2	0.70
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	C2/3	ACERUB	6.3	1.05
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	C2/4	ACESAC	3.8	1.15
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	C2/1	ACEPEN	11.7	2.40
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	C1/3	PICRUB	2.8	0.90
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	C1/1	ACESAC	14.1	1.15
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	C1/4	BETALL	17.0	1.50
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	C1/2	BETPAP	25.4	4.50
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	D1/1	ACEPEN	11.2	0.83
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	D1/4	BETPAP	12.2	1.10
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	D1/3	ACESAC	3.8	1.65
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	D1/2	ACERUB	7.2	1.95
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	D2/3	BETPPC	16.9	0.65
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	D2/2	ACESAC	3.7	0.85
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	D2/1	BETPAP	22.8	1.00
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	D2/4	ACEPEN	11.2	3.55
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	E2/2	FRAPEN	6.6	1.00
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	E2/4	ACEPEN	4.8	1.50
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	E2/1	PICRUB	2.7	2.40
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	E2/3	ACERUB	10.3	3.20
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	E1/2	ACEPEN	7.4	0.22

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A1/1	ACESAC	5.3	0.90
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A1/2	PICRUB	2.7	0.70
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A1/3	ACESAC	16.6	2.15
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A1/4	ACERUB	17.5	3.50
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A2/1	BETALL	4.4	1.55
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A2/2	BETALL	19.7	0.15
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A2/3	ACESAC	2.9	1.65
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A2/4	ACERUB	8.4	2.40
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A3/1	ACESAC	2.6	1.56
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A3/2	ACESAC	5.0	1.65
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A3/3	ACERUB	5.9	3.15
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A3/4	ACESAC	4.7	1.60
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A4/1	ACERUB	6.6	2.20
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A4/2	ACERUB	6.8	2.20
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A4/3	FRAAME	6.9	2.20
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	A4/4	ACERUB	32.0	2.12
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	B1/1	ACERUB	12.7	0.10
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	B1/2	FAGGRA	7.4	2.85
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	B1/3	ACESAC	3.9	2.15
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	B1/4	ACESAC	3.6	6.40
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	B2/1	FAGGRA	6.0	0.60
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	B2/2	BETALL	22.2	1.60
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	B2/3	PICRUB	5.6	3.40
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	B2/4	ACERUB	11.0	0.01
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	C1/1	ACESAC	2.6	1.10
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	C1/2	ACESAC	4.2	1.15
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	C1/3	ACESAC	13.2	0.64
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	C1/4	ACERUB	19.6	2.15
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	C2/1	BETALL	23.5	1.13
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	C2/2	ACESAC	3.6	1.40
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	C2/3	ACERUB	10.1	1.15
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	C2/4	ACERUB	19.3	2.65
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	C3/1	FAGGRA	4.5	3.48
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	C3/2	ACERUB	9.1	2.18
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	C3/3	ACEPEN	2.8	1.90
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	C3/4	ACESAC	7.3	1.70
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	D1/1	ACEPEN	4.6	1.30
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	D1/2	TSUCAN	6.4	2.15
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	D1/3	ACESAC	4.5	1.40
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	D1/4	FAGGRA	3.7	1.42
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	D2/1	ACERUB	5.4	1.60
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	D2/2	FRAAME	8.4	3.15
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	D2/3	ACESAC	5.2	1.40
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	D2/4	ACESAC	4.3	2.57
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	D3/1	BETPAP	25.9	3.20
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	D3/2	ACESAC	19.6	3.38
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	D3/3	ACERUB	23.4	1.40
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	D3/4	ACESAC	2.9	2.14

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	A1/1	ACESAC	5.5	5.00
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	A1/2	ACEPEN	4.8	0.63
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	A1/3	BETALL	23.9	0.05
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	A1/4	BETALL	4.1	0.85
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	A2/1	BETALL	3.6	1.43
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	A2/2	BETPAP	48.7	3.40
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	A2/3	TSUCAN	3.0	0.61
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	A2/4	TSUCAN	2.9	1.33
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	A3/1	ACESAC	7.8	2.12
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	A3/2	BETALL	6.5	0.85
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	A3/3	ACESAC	12.6	2.67
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	A3/4	FRAAME	10.1	2.54
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	B1/1	BETPAP	21.2	0.77
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	B1/2	BETALL	14.1	3.85
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	B1/3	BETALL	10.0	1.35
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	B1/4	TSUCAN	4.6	1.71
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	B2/1	TSUCAN	3.5	2.59
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	B2/2	TSUCAN	3.4	3.40
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	B2/3	BETALL	5.4	5.40
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	B2/4	BETALL	4.0	4.00
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	B3/1	ACEPEN	4.6	5.40
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	B3/2	PRUSER	44.8	3.41
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	B3/3	ACESAC	14.8	1.42
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	B3/4	BETPAP	48.7	3.49
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	C1/1	FAGGRA	2.8	1.05
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	C1/2	PICRUB	2.5	0.40
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	C1/3	ABIBAL	2.7	1.58
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	C1/4	ACERUB	42.9	1.60
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	C2/1	BETALL	8.1	1.19
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	C2/2	BETALL	3.8	0.15
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	C2/3	BETPAP	25.1	0.70
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	C2/4	BETALL	14.3	2.70
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	C3/1	BETPAP	32.1	1.70
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	C3/2	TSUCAN	2.7	1.15
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	C3/3	BETALL	7.7	2.95
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	C3/4	BETALL	4.1	2.92
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	D1/1	FRAAME	23.5	2.00
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	D1/2	ACESAC	5.7	1.80
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	D1/3	BETALL	9.0	1.30
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	D1/4	FRAAME	14.5	1.90
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	D2/1	BETALL	3.0	2.70
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	D2/2	BETALL	7.0	2.75
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	D2/3	BETPAP	29.5	1.35
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	D2/4	ACEPEN	3.6	1.70
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	D3/1	ACESAC	3.4	4.10
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	D3/2	PICRUB	4.8	1.45
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	D3/3	TSUCAN	5.0	2.43
Big Coolidge Mt	1938	Jun-96	Deposit 3	450	D3/4	ACERUB	33.1	0.73

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Big Coolidge Mt	1938	Jun-96	Deposit 1	500	E1/1	ACERUB	9.2	11.80
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	E1/2	PICRUB	2.9	1.30
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	E1/3	BETPPC	11.7	0.40
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	E1/4	POPTRE	22.4	2.43
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	E2/1	BETPAP	25.9	1.11
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	E2/2	ACESAC	5.3	2.60
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	E2/3	ACESAC	2.9	2.76
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	E2/4	ACESAC	5.5	1.60
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	E3/1	FAGGRA	3.1	1.20
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	E3/2	ACERUB	5.6	1.45
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	E3/3	ACESAC	5.2	2.97
Big Coolidge Mt	1938	Jun-96	Deposit 2	500	E3/4	ACESAC	4.2	1.50
Osceola Mt E.	1897	Aug-97	Deposit 1	670	501/1	PICRUB	4.8	3.20
Osceola Mt E.	1897	Aug-97	Deposit 1	670	501/2	PICRUB	7.2	1.00
Osceola Mt E.	1897	Aug-97	Deposit 1	670	501/3	PICRUB	14.2	4.35
Osceola Mt E.	1897	Aug-97	Deposit 1	670	501/4	BETALL	25.3	0.10
Osceola Mt E.	1897	Aug-97	Deposit 1	670	502/1	BETALL	12.5	4.30
Osceola Mt E.	1897	Aug-97	Deposit 1	670	502/2	BETALL	6.0	1.38
Osceola Mt E.	1897	Aug-97	Deposit 1	670	502/3	PICRUB	6.1	1.45
Osceola Mt E.	1897	Aug-97	Deposit 1	670	502/4	BETALL	5.0	1.20
Osceola Mt E.	1897	Aug-97	Deposit 1	670	503/1	BETALL	26.8	3.75
Osceola Mt E.	1897	Aug-97	Deposit 1	670	503/2	PICRUB	5.8	0.38
Osceola Mt E.	1897	Aug-97	Deposit 1	670	503/3	BETPPC	11.2	2.70
Osceola Mt E.	1897	Aug-97	Deposit 1	670	503/4	BETALL	12.7	3.60
Osceola Mt E.	1897	Aug-97	Deposit 1	670	504/1	BETPPC	25.7	2.20
Osceola Mt E.	1897	Aug-97	Deposit 1	670	504/2	ABIBAL	10.8	1.30
Osceola Mt E.	1897	Aug-97	Deposit 1	670	504/3	PICRUB	4.3	2.60
Osceola Mt E.	1897	Aug-97	Deposit 1	670	504/4	PICRUB	3.7	2.02
Osceola Mt E.	1897	Aug-97	Deposit 1	670	505/1	PICRUB	4.0	0.80
Osceola Mt E.	1897	Aug-97	Deposit 1	670	505/2	PICRUB	3.1	1.07
Osceola Mt E.	1897	Aug-97	Deposit 1	670	505/3	BETALL	21.5	4.64
Osceola Mt E.	1897	Aug-97	Deposit 1	670	505/4	BETPPC	27.2	1.02
Osceola Mt E.	1897	Aug-97	Deposit 1	670	506/1	ABIBAL	3.0	2.65
Osceola Mt E.	1897	Aug-97	Deposit 1	670	506/2	BETPPC	18.2	1.42
Osceola Mt E.	1897	Aug-97	Deposit 1	670	506/3	PICRUB	2.9	1.40
Osceola Mt E.	1897	Aug-97	Deposit 1	670	506/4	BETALL	29.5	0.05
Osceola Mt E.	1897	Aug-97	Deposit 1	670	507/1	BETALL	9.1	1.00
Osceola Mt E.	1897	Aug-97	Deposit 1	670	507/2	PICRUB	3.4	2.00
Osceola Mt E.	1897	Aug-97	Deposit 1	670	507/3	ABIBAL	6.2	0.95
Osceola Mt E.	1897	Aug-97	Deposit 1	670	507/4	BETALL	16.4	1.76
Osceola Mt E.	1897	Aug-97	Deposit 1	670	508/1	PICRUB	7.0	0.27
Osceola Mt E.	1897	Aug-97	Deposit 1	670	508/2	PICRUB	2.6	2.99
Osceola Mt E.	1897	Aug-97	Deposit 1	670	508/3	BETALL	27.0	3.30
Osceola Mt E.	1897	Aug-97	Deposit 1	670	508/4	BETALL	8.3	3.82
Osceola Mt E.	1897	Aug-97	Deposit 1	670	509/1	PICRUB	3.0	3.00
Osceola Mt E.	1897	Aug-97	Deposit 1	670	509/2	BETALL	15.5	2.75
Osceola Mt E.	1897	Aug-97	Deposit 1	670	509/3	BETALL	22.3	1.90
Osceola Mt E.	1897	Aug-97	Deposit 1	670	509/4	BETALL	2.7	6.50

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Osceola Mt E.	1897	Aug-97	Deposit 1	670	510/1	PICRUB	3.4	3.05
Osceola Mt E.	1897	Aug-97	Deposit 1	670	510/2	BETALL	14.5	2.20
Osceola Mt E.	1897	Aug-97	Deposit 1	670	510/3	BETPPC	13.4	1.36
Osceola Mt E.	1897	Aug-97	Deposit 1	670	510/4	PICRUB	2.6	2.37
Osceola Mt E.	1897	Aug-97	Deposit 1	670	511/1	BETPPC	24.4	1.81
Osceola Mt E.	1897	Aug-97	Deposit 1	670	511/2	PICRUB	8.5	1.13
Osceola Mt E.	1897	Aug-97	Deposit 1	670	511/3	PICRUB	3.7	1.37
Osceola Mt E.	1897	Aug-97	Deposit 1	670	511/4	PICRUB	4.0	1.81
Osceola Mt E.	1897	Aug-97	Deposit 1	670	512/1	BETALL	29.7	0.75
Osceola Mt E.	1897	Aug-97	Deposit 1	670	512/2	PICRUB	3.5	1.09
Osceola Mt E.	1897	Aug-97	Deposit 1	670	512/3	BETPPC	17.9	1.26
Osceola Mt E.	1897	Aug-97	Deposit 1	670	512/4	ABIBAL	8.5	1.75
Osceola Mt E.	1897	Jun-96	Deposit 2	690	513/1	PICRUB	7.3	1.12
Osceola Mt E.	1897	Jun-96	Deposit 2	690	513/2	PICRUB	10.3	2.66
Osceola Mt E.	1897	Jun-96	Deposit 2	690	513/3	PICRUB	4.1	3.40
Osceola Mt E.	1897	Jun-96	Deposit 2	690	513/4	BETPPC	11.3	3.06
Osceola Mt E.	1897	Jun-96	Deposit 2	690	514/1	BETPPC	12.3	1.19
Osceola Mt E.	1897	Jun-96	Deposit 2	690	514/2	BETALL	9.9	0.98
Osceola Mt E.	1897	Jun-96	Deposit 2	690	514/3	BETPPC	15.5	2.03
Osceola Mt E.	1897	Jun-96	Deposit 2	690	514/4	BETPPC	6.5	1.35
Osceola Mt E.	1897	Jun-96	Deposit 2	690	515/1	BETPPC	14.0	2.15
Osceola Mt E.	1897	Jun-96	Deposit 2	690	515/2	BETPPC	7.2	0.82
Osceola Mt E.	1897	Jun-96	Deposit 2	690	515/3	BETPPC	7.3	0.90
Osceola Mt E.	1897	Jun-96	Deposit 2	690	515/4	BETPPC	10.3	0.33
Osceola Mt E.	1897	Jun-96	Deposit 2	690	516/1	BETPPC	23.1	7.60
Osceola Mt E.	1897	Jun-96	Deposit 2	690	516/2	ACESAC	22.6	2.52
Osceola Mt E.	1897	Jun-96	Deposit 2	690	516/3	PICRUB	3.4	0.06
Osceola Mt E.	1897	Jun-96	Deposit 2	690	516/4	BETPPC	8.3	0.95
Osceola Mt E.	1897	Jun-96	Deposit 2	690	517/1	BETPPC	10.2	0.85
Osceola Mt E.	1897	Jun-96	Deposit 2	690	517/2	BETPPC	15.5	0.12
Osceola Mt E.	1897	Jun-96	Deposit 2	690	517/3	ABIBAL	5.2	1.95
Osceola Mt E.	1897	Jun-96	Deposit 2	690	517/4	BETPPC	21.0	3.75
Osceola Mt E.	1897	Jun-96	Deposit 2	690	518/1	AMESPP	4.2	3.80
Osceola Mt E.	1897	Jun-96	Deposit 2	690	518/2	PICRUB	2.6	0.36
Osceola Mt E.	1897	Jun-96	Deposit 2	690	518/3	PICRUB	6.3	1.70
Osceola Mt E.	1897	Jun-96	Deposit 2	690	518/4	AMESPP	10.2	1.91
Osceola Mt E.	1897	Jun-96	Deposit 2	690	519/1	BETALL	6.0	1.60
Osceola Mt E.	1897	Jun-96	Deposit 2	690	519/2	PICRUB	3.0	1.21
Osceola Mt E.	1897	Jun-96	Deposit 2	690	519/3	PICRUB	6.0	3.20
Osceola Mt E.	1897	Jun-96	Deposit 2	690	519/4	ABIBAL	2.6	1.46
Osceola Mt E.	1897	Jun-96	Deposit 2	690	520/1	PICRUB	3.0	2.90
Osceola Mt E.	1897	Jun-96	Deposit 2	690	520/2	PICRUB	5.2	1.18
Osceola Mt E.	1897	Jun-96	Deposit 2	690	520/3	BETPPC	6.9	2.15
Osceola Mt E.	1897	Jun-96	Deposit 2	690	520/4	ACERUB	6.5	1.70
Osceola Mt E.	1897	Jun-96	Deposit 2	690	521/1	ACERUB	5.5	2.70
Osceola Mt E.	1897	Jun-96	Deposit 2	690	521/2	BETPPC	6.8	2.19
Osceola Mt E.	1897	Jun-96	Deposit 2	690	521/3	BETPPC	7.5	1.20
Osceola Mt E.	1897	Jun-96	Deposit 2	690	521/4	BETPPC	21.0	0.20
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A1/1	FAGGRA	3.1	2.80
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A1/2	ABIBAL	9.1	2.70
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A1/3	ABIBAL	8.8	1.60
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A1/4	FAGGRA	6.8	0.03

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A2/1	FAGGRA	15.2	2.05
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A2/2	ABIBAL	9.6	5.40
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A2/3	ABIBAL	6.6	1.40
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A2/4	FAGGRA	20.5	2.15
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A3/1	ABIBAL	6.6	1.70
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A3/2	BETALL	31.8	1.65
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A3/3	ACEPEN	7.4	0.80
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A3/4	ABIBAL	14.5	4.70
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A4/1	ABIBAL	7.7	1.80
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A4/2	ABIBAL	6.5	0.60
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A4/3	ACESAC	7.1	1.70
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A4/4	FRANIG	1.5	7.30
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A5/1	FAGGRA	4.3	3.38
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A5/2	ACESAC	54.2	1.50
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A5/3	FAGGRA	13.5	2.80
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A5/4	FAGGRA	5.1	1.20
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A6/1	FAGGRA	4.4	3.33
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A6/2	FAGGRA	33.2	0.53
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A6/3	FAGGRA	25.7	3.30
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A6/4	FAGGRA	3.8	5.25
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A7/1	FAGGRA	4.3	4.20
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A7/2	FAGGRA	3.3	2.95
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A7/3	FAGGRA	6.7	3.00
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	A7/4	ACESAC	15.5	0.01
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B1/1	FAGGRA	17.1	2.80
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B1/2	ABIBAL	5.9	1.00
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B1/3	FAGGRA	5.2	0.17
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B1/4	ABIBAL	10.4	4.90
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B2/1	ACESAC	43.8	1.32
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B2/2	FAGGRA	10.9	0.85
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B2/3	FAGGRA	36.5	3.75
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B2/4	FAGGRA	8.6	2.30
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B3/1	ACESAC	3.1	2.80
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B3/2	ABIBAL	7.1	2.30
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B3/3	FAGGRA	4.4	0.57
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B3/4	FAGGRA	6.5	2.50
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B4/1	BETALL	13.7	1.10
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B4/2	FAGGRA	12.7	3.90
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B4/3	ABIBAL	4.1	2.60
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B4/4	FAGGRA	23.6	0.80
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B5/1	FAGGRA	3.0	5.60
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B5/2	BETALL	40.6	5.80
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B5/3	FAGGRA	19.8	4.90
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B5/4	BETALL	16.3	1.20
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B6/1	FAGGRA	4.8	2.50
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B6/2	FAGGRA	10.4	2.97
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B6/3	ACESAC	50.5	4.50
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B6/4	BETALL	13.0	0.01

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B7/1	FAGGRA	38.0	1.40
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B7/2	FAGGRA	11.8	6.60
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B7/3	FAGGRA	5.3	4.40
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B7/4	ACESAC	55.9	2.60
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B8/1	FAGGRA	18.3	5.15
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B8/2	BETALL	15.4	4.00
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B8/3	FAGGRA	34.2	0.72
Pinkham Notch	1927	Jun-96	Adjacent Veg.	500	B8/4	FAGGRA	6.2	1.50
Pinkham Notch	1927	Aug-97	Deposit 3	700	367/1	PICRUB	3.6	0.43
Pinkham Notch	1927	Aug-97	Deposit 3	700	367/2	BETPPC	13.9	2.61
Pinkham Notch	1927	Aug-97	Deposit 3	700	367/3	ACEPEN	7.5	0.68
Pinkham Notch	1927	Aug-97	Deposit 3	700	367/4	PICRUB	2.7	0.62
Pinkham Notch	1927	Aug-97	Deposit 3	700	368/1	BETALL	11.7	0.22
Pinkham Notch	1927	Aug-97	Deposit 3	700	368/2	FRASPP	30.1	2.80
Pinkham Notch	1927	Aug-97	Deposit 3	700	368/3	BETALL	7.6	0.66
Pinkham Notch	1927	Aug-97	Deposit 3	700	368/4	BETALL	23.5	1.32
Pinkham Notch	1927	Aug-97	Deposit 3	700	369/1	ABIBAL	4.5	0.91
Pinkham Notch	1927	Aug-97	Deposit 3	700	369/2	BETALL	7.6	1.15
Pinkham Notch	1927	Aug-97	Deposit 3	700	369/3	BETALL	3.5	0.38
Pinkham Notch	1927	Aug-97	Deposit 3	700	369/4	PICRUB	3.0	2.93
Pinkham Notch	1927	Aug-97	Deposit 3	700	370/1	ABIBAL	4.9	2.10
Pinkham Notch	1927	Aug-97	Deposit 3	700	370/2	BETALL	5.3	1.22
Pinkham Notch	1927	Aug-97	Deposit 3	700	370/3	BETALL	18.0	1.64
Pinkham Notch	1927	Aug-97	Deposit 3	700	370/4	ABIBAL	3.1	1.62
Pinkham Notch	1927	Aug-97	Deposit 3	700	371/1	BETALL	3.7	1.54
Pinkham Notch	1927	Aug-97	Deposit 3	700	371/2	BETALL	5.6	1.32
Pinkham Notch	1927	Aug-97	Deposit 3	700	371/3	ABIBAL	9.0	1.13
Pinkham Notch	1927	Aug-97	Deposit 3	700	371/4	BETPPC	24.0	1.07
Pinkham Notch	1927	Aug-97	Deposit 3	700	372/1	POPTRE	30.2	2.18
Pinkham Notch	1927	Aug-97	Deposit 3	700	372/2	ABIBAL	5.4	1.25
Pinkham Notch	1927	Aug-97	Deposit 3	700	372/3	ABIBAL	3.7	0.80
Pinkham Notch	1927	Aug-97	Deposit 3	700	372/4	BETALL	8.4	2.20
Pinkham Notch	1927	Aug-97	Deposit 3	700	373/1	ABIBAL	4.6	1.11
Pinkham Notch	1927	Aug-97	Deposit 3	700	373/2	BETALL	3.8	1.35
Pinkham Notch	1927	Aug-97	Deposit 3	700	373/3	ABIBAL	5.0	1.28
Pinkham Notch	1927	Aug-97	Deposit 3	700	373/4	BETALL	8.7	1.61
Pinkham Notch	1927	Aug-97	Deposit 3	700	374/1	BETALL	4.3	0.95
Pinkham Notch	1927	Aug-97	Deposit 3	700	374/2	BETALL	5.8	1.45
Pinkham Notch	1927	Aug-97	Deposit 3	700	374/3	BETPAP	31.2	1.90
Pinkham Notch	1927	Aug-97	Deposit 3	700	374/4	ABIBAL	3.5	3.04
Pinkham Notch	1927	Aug-97	Deposit 3	700	375/1	ABIBAL	4.1	2.90
Pinkham Notch	1927	Aug-97	Deposit 3	700	375/2	BETPPC	14.3	1.04
Pinkham Notch	1927	Aug-97	Deposit 3	700	375/3	PICRUB	9.1	1.62
Pinkham Notch	1927	Aug-97	Deposit 3	700	375/4	ABIBAL	4.9	0.41
Pinkham Notch	1927	Aug-97	Deposit 3	700	376/1	PICRUB	5.8	2.38
Pinkham Notch	1927	Aug-97	Deposit 3	700	376/2	PICRUB	4.7	0.40
Pinkham Notch	1927	Aug-97	Deposit 3	700	376/3	PICRUB	3.7	0.36
Pinkham Notch	1927	Aug-97	Deposit 3	700	376/4	PICRUB	5.2	0.84

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Pinkham Notch	1927	Aug-97	Deposit 3	700	377/1	BETALL	5.4	3.50
Pinkham Notch	1927	Aug-97	Deposit 3	700	377/2	BETALL	7.4	2.53
Pinkham Notch	1927	Aug-97	Deposit 3	700	377/3	ACESPI	9.2	3.30
Pinkham Notch	1927	Aug-97	Deposit 3	700	377/4	ABIBAL	4.0	1.41
Pinkham Notch	1927	Aug-97	Deposit 3	700	378/1	BETALL	5.7	2.38
Pinkham Notch	1927	Aug-97	Deposit 3	700	378/2	ACERUB	11.3	1.17
Pinkham Notch	1927	Aug-97	Deposit 3	700	378/3	ABIBAL	3.3	2.12
Pinkham Notch	1927	Aug-97	Deposit 3	700	378/4	ABIBAL	10.1	0.72
Pinkham Notch	1927	Aug-97	Deposit 3	700	379/1	PICRUB	4.1	0.68
Pinkham Notch	1927	Aug-97	Deposit 3	700	379/2	ABIBAL	7.2	1.10
Pinkham Notch	1927	Aug-97	Deposit 3	700	379/3	BETPPC	20.3	2.50
Pinkham Notch	1927	Aug-97	Deposit 3	700	379/4	ABIBAL	4.8	1.98
Pinkham Notch	1927	Aug-97	Deposit 3	700	380/1	ABIBAL	4.4	1.70
Pinkham Notch	1927	Aug-97	Deposit 3	700	380/2	BETALL	7.2	0.67
Pinkham Notch	1927	Aug-97	Deposit 3	700	380/3	ABIBAL	6.3	1.20
Pinkham Notch	1927	Aug-97	Deposit 3	700	380/4	PICRUB	9.9	1.00
Pinkham Notch	1927	Aug-97	Deposit 3	700	381/1	PICRUB	3.5	2.03
Pinkham Notch	1927	Aug-97	Deposit 3	700	381/2	ABIBAL	5.1	1.98
Pinkham Notch	1927	Aug-97	Deposit 3	700	381/3	ABIBAL	3.4	0.17
Pinkham Notch	1927	Aug-97	Deposit 3	700	381/4	PICRUB	3.6	1.20
Pinkham Notch	1927	Aug-97	Deposit 3	700	382/1	PICRUB	3.7	1.76
Pinkham Notch	1927	Aug-97	Deposit 3	700	382/2	POPTRE	31.6	2.51
Pinkham Notch	1927	Aug-97	Deposit 3	700	382/3	BETALL	9.8	1.52
Pinkham Notch	1927	Aug-97	Deposit 3	700	382/4	BETALL	4.1	1.70
Pinkham Notch	1927	Aug-97	Deposit 3	700	383/1	ABIBAL	6.6	2.43
Pinkham Notch	1927	Aug-97	Deposit 3	700	383/2	BETALL	7.8	2.24
Pinkham Notch	1927	Aug-97	Deposit 3	700	383/3	ABIBAL	4.5	2.33
Pinkham Notch	1927	Aug-97	Deposit 3	700	383/4	PICRUB	4.0	1.06
Pinkham Notch	1927	Aug-97	Deposit 3	700	384/1	BETPPC	19.4	2.30
Pinkham Notch	1927	Aug-97	Deposit 3	700	384/2	ABIBAL	4.4	2.35
Pinkham Notch	1927	Aug-97	Deposit 3	700	384/3	BETALL	10.4	0.65
Pinkham Notch	1927	Aug-97	Deposit 3	700	384/4	BETALL	6.1	3.80
Pinkham Notch	1927	Jun-96	Deposit 4	500	A1/1	BETALL	8.0	1.50
Pinkham Notch	1927	Jun-96	Deposit 4	500	A1/2	ABIBAL	3.3	2.20
Pinkham Notch	1927	Jun-96	Deposit 4	500	A1/3	ABIBAL	2.9	3.90
Pinkham Notch	1927	Jun-96	Deposit 4	500	A1/4	BETPAP	29.7	0.01
Pinkham Notch	1927	Jun-96	Deposit 4	500	A2/1	BETALL	6.8	2.80
Pinkham Notch	1927	Jun-96	Deposit 4	500	A2/2	ABIBAL	2.9	1.23
Pinkham Notch	1927	Jun-96	Deposit 4	500	A2/3	BETALL	6.6	2.20
Pinkham Notch	1927	Jun-96	Deposit 4	500	A2/4	BETALL	11.5	1.40
Pinkham Notch	1927	Jun-96	Deposit 4	500	A3/1	BETALL	4.3	1.30
Pinkham Notch	1927	Jun-96	Deposit 4	500	A3/2	BETPAP	16.0	1.30
Pinkham Notch	1927	Jun-96	Deposit 4	500	A3/3	BETPAP	19.1	0.01
Pinkham Notch	1927	Jun-96	Deposit 4	500	A3/4	BETALL	4.0	1.65
Pinkham Notch	1927	Jun-96	Deposit 4	500	B1/1	BETPAP	25.9	2.60
Pinkham Notch	1927	Jun-96	Deposit 4	500	B1/2	BETALL	4.3	3.20
Pinkham Notch	1927	Jun-96	Deposit 4	500	B1/3	BETALL	9.3	1.50
Pinkham Notch	1927	Jun-96	Deposit 4	500	B1/4	BETALL	9.0	1.60

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Pinkham Notch	1927	Jun-96	Deposit 4	500	B2/1	BETPAP	7.5	3.10
Pinkham Notch	1927	Jun-96	Deposit 4	500	B2/2	BETALL	6.8	1.15
Pinkham Notch	1927	Jun-96	Deposit 4	500	B2/3	BETALL	11.6	3.10
Pinkham Notch	1927	Jun-96	Deposit 4	500	B2/4	BETALL	24.5	2.90
Pinkham Notch	1927	Jun-96	Deposit 4	500	B3/1	BETALL	25.4	2.40
Pinkham Notch	1927	Jun-96	Deposit 4	500	B3/2	BETALL	10.9	6.45
Pinkham Notch	1927	Jun-96	Deposit 4	500	B3/3	BETALL	10.9	1.90
Pinkham Notch	1927	Jun-96	Deposit 4	500	B3/4	BETPAP	4.1	0.10
Pinkham Notch	1927	Jun-96	Deposit 4	500	B4/1	BETPAP	42.5	2.30
Pinkham Notch	1927	Jun-96	Deposit 4	500	B4/2	BETALL	19.7	2.10
Pinkham Notch	1927	Jun-96	Deposit 4	500	B4/3	BETALL	7.4	0.90
Pinkham Notch	1927	Jun-96	Deposit 4	500	B4/4	BETPAP	7.3	2.20
Pinkham Notch	1927	Jun-96	Deposit 4	500	C2/1	BETALL	17.2	1.90
Pinkham Notch	1927	Jun-96	Deposit 4	500	C2/2	BETALL	6.8	0.47
Pinkham Notch	1927	Jun-96	Deposit 4	500	C2/3	BETALL	14.7	2.95
Pinkham Notch	1927	Jun-96	Deposit 4	500	C2/4	BETALL	5.2	3.20
Pinkham Notch	1927	Jun-96	Deposit 4	500	C3/1	BETALL	5.1	0.14
Pinkham Notch	1927	Jun-96	Deposit 4	500	C3/2	BETALL	14.7	1.75
Pinkham Notch	1927	Jun-96	Deposit 4	500	C3/3	BETALL	5.2	1.90
Pinkham Notch	1927	Jun-96	Deposit 4	500	C3/4	BETALL	12.8	4.10
Pinkham Notch	1927	Jun-96	Deposit 4	500	C4/1	BETALL	6.4	2.90
Pinkham Notch	1927	Jun-96	Deposit 4	500	C4/2	BETALL	4.4	1.40
Pinkham Notch	1927	Jun-96	Deposit 4	500	C4/3	BETPAP	23.4	1.40
Pinkham Notch	1927	Jun-96	Deposit 4	500	C4/4	BETPAP	52.6	3.46
Pinkham Notch	1927	Jun-96	Deposit 4	500	C5/1	BETALL	3.4	1.46
Pinkham Notch	1927	Jun-96	Deposit 4	500	C5/2	BETALL	6.7	1.40
Pinkham Notch	1927	Jun-96	Deposit 4	500	C5/3	PICRUB	5.0	1.42
Pinkham Notch	1927	Jun-96	Deposit 4	500	C5/4	BETALL	5.7	2.50
Pinkham Notch	1927	Jun-96	Deposit 4	500	D1/1	BETPPC	52.6	0.93
Pinkham Notch	1927	Jun-96	Deposit 4	500	D1/2	BETALL	3.5	2.02
Pinkham Notch	1927	Jun-96	Deposit 4	500	D1/3	BETALL	15.2	2.60
Pinkham Notch	1927	Jun-96	Deposit 4	500	D1/4	BETALL	5.6	1.42
Pinkham Notch	1927	Jun-96	Deposit 4	500	D2/1	BETALL	6.5	1.80
Pinkham Notch	1927	Jun-96	Deposit 4	500	D2/2	BETALL	4.6	2.30
Pinkham Notch	1927	Jun-96	Deposit 4	500	D2/3	BETPPC	23.2	2.41
Pinkham Notch	1927	Jun-96	Deposit 4	500	D2/4	BETALL	4.3	1.96
Pinkham Notch	1927	Jun-96	Deposit 4	500	D3/1	BETPAP	32.6	1.76
Pinkham Notch	1927	Jun-96	Deposit 4	500	D3/2	BETALL	5.0	1.25
Pinkham Notch	1927	Jun-96	Deposit 4	500	D3/3	BETALL	5.3	2.89
Pinkham Notch	1927	Jun-96	Deposit 4	500	D3/4	BETALL	12.8	3.50
Pinkham Notch	1927	Jun-96	Deposit 4	500	D4/1	BETALL	11.6	2.25
Pinkham Notch	1927	Jun-96	Deposit 4	500	D4/2	BETALL	8.6	2.32
Pinkham Notch	1927	Jun-96	Deposit 4	500	D4/3	BETALL	17.2	0.40
Pinkham Notch	1927	Jun-96	Deposit 4	500	D4/4	BETPAP	32.6	3.45
Pinkham Notch	1927	Jun-96	Deposit 4	500	E1/1	ACESAC	4.4	1.38
Pinkham Notch	1927	Jun-96	Deposit 4	500	E1/2	FAGGRA	6.0	0.75
Pinkham Notch	1927	Jun-96	Deposit 4	500	E1/3	ACESAC	2.6	1.28
Pinkham Notch	1927	Jun-96	Deposit 4	500	E1/4	PICRUB	9.2	2.55

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Pinkham Notch	1927	Jun-96	Deposit 4	500	E2/1	BETPAP	25.8	1.20
Pinkham Notch	1927	Jun-96	Deposit 4	500	E2/2	BETALL	7.6	1.20
Pinkham Notch	1927	Jun-96	Deposit 4	500	E2/3	BETALL	13.0	2.07
Pinkham Notch	1927	Jun-96	Deposit 4	500	E2/4	BETALL	12.8	2.60
Pinkham Notch	1927	Jun-96	Deposit 4	500	E3/1	BETALL	3.3	0.30
Pinkham Notch	1927	Jun-96	Deposit 4	500	E3/2	BETALL	6.6	1.15
Pinkham Notch	1927	Jun-96	Deposit 4	500	E3/3	BETALL	8.1	2.00
Pinkham Notch	1927	Jun-96	Deposit 4	500	E3/4	BETALL	5.7	2.41
Pinkham Notch	1927	Jun-96	Deposit 4	500	E4/1	BETALL	5.7	1.36
Pinkham Notch	1927	Jun-96	Deposit 4	500	E4/2	PICRUB	4.2	2.10
Pinkham Notch	1927	Jun-96	Deposit 4	500	E4/3	BETALL	3.4	1.47
Pinkham Notch	1927	Jun-96	Deposit 4	500	E4/4	BETALL	5.8	0.87
Franconia Notch	1948	Jun-97	Deposit 3	690	F1/1	BETPPC	15.5	2.20
Franconia Notch	1948	Jun-97	Deposit 3	690	F1/2	BETPPC	8.4	1.90
Franconia Notch	1948	Jun-97	Deposit 3	690	F1/3	ACEPEN	4.3	2.25
Franconia Notch	1948	Jun-97	Deposit 3	690	F1/4	BETPPC	14.5	2.05
Franconia Notch	1948	Jun-97	Deposit 3	690	F2/1	BETPPC	6.7	1.03
Franconia Notch	1948	Jun-97	Deposit 3	690	F2/2	POPTRE	23.5	1.40
Franconia Notch	1948	Jun-97	Deposit 3	690	F2/3	BETPAP	11.6	3.60
Franconia Notch	1948	Jun-97	Deposit 3	690	F2/4	BETPAP	15.3	3.10
Franconia Notch	1948	Jun-97	Deposit 3	690	F3/1	BETPPC	10.5	2.70
Franconia Notch	1948	Jun-97	Deposit 3	690	F3/2	BETPPC	7.8	1.95
Franconia Notch	1948	Jun-97	Deposit 3	690	F3/3	BETPPC	5.0	1.50
Franconia Notch	1948	Jun-97	Deposit 3	690	F3/4	BETALL	4.4	0.40
Franconia Notch	1948	Jun-97	Deposit 3	690	G5/1	BETPPC	1.7	0.40
Franconia Notch	1948	Jun-97	Deposit 3	690	G5/2	BETPPC	8.8	2.70
Franconia Notch	1948	Jun-97	Deposit 3	690	G5/3	BETALL	4.1	1.30
Franconia Notch	1948	Jun-97	Deposit 3	690	G5/4	BETPPC	1.4	2.65
Franconia Notch	1948	Jun-97	Deposit 3	690	G6/1	BETALL	18.0	1.30
Franconia Notch	1948	Jun-97	Deposit 3	690	G6/2	BETPPC	4.4	1.75
Franconia Notch	1948	Jun-97	Deposit 3	690	G6/3	BETPPC	4.6	2.00
Franconia Notch	1948	Jun-97	Deposit 3	690	G6/4	ACESPI	2.6	1.50
Franconia Notch	1948	Jun-97	Deposit 3	690	L1/1	BETPPC	5.9	3.96
Franconia Notch	1948	Jun-97	Deposit 3	690	L1/2	BETALL	30.5	4.07
Franconia Notch	1948	Jun-97	Deposit 3	690	L1/3	BETPAP	21.0	1.35
Franconia Notch	1948	Jun-97	Deposit 3	690	L1/4	BETALL	8.8	0.80
Franconia Notch	1948	Jun-97	Deposit 3	690	L2/1	BETPPC	4.5	3.15
Franconia Notch	1948	Jun-97	Deposit 3	690	L2/2	BETPPC	10.3	2.20
Franconia Notch	1948	Jun-97	Deposit 3	690	L2/3	BETPPC	5.8	0.85
Franconia Notch	1948	Jun-97	Deposit 3	690	L2/4	BETALL	16.0	3.90
Franconia Notch	1948	Jun-97	Deposit 3	690	L3/1	BETPPC	5.9	1.10
Franconia Notch	1948	Jun-97	Deposit 3	690	L3/2	BETPPC	6.4	1.65
Franconia Notch	1948	Jun-97	Deposit 3	690	L3/3	BETPPC	6.7	4.05
Franconia Notch	1948	Jun-97	Deposit 3	690	L3/4	BETPAP	15.2	0.30
Franconia Notch	1948	Jun-97	Deposit 3	690	L4/1	BETPPC	6.6	3.00
Franconia Notch	1948	Jun-97	Deposit 3	690	L4/2	BETPAP	14.7	1.30
Franconia Notch	1948	Jun-97	Deposit 3	690	L4/3	ACEPEN	4.3	3.80
Franconia Notch	1948	Jun-97	Deposit 3	690	L4/4	BETPAP	14.4	1.57

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Franconia Notch	1948	Jun-97	Deposit 3	690	M1/1	BETPPC	4.4	4.30
Franconia Notch	1948	Jun-97	Deposit 3	690	M1/2	BETPPC	4.5	0.70
Franconia Notch	1948	Jun-97	Deposit 3	690	M1/3	BETPPC	12.1	7.35
Franconia Notch	1948	Jun-97	Deposit 3	690	M1/4	ACEPEN	2.6	0.80
Franconia Notch	1948	Jun-97	Deposit 3	690	M2/1	BETPPC	17.8	0.85
Franconia Notch	1948	Jun-97	Deposit 3	690	M2/2	BETALL	5.6	1.55
Franconia Notch	1948	Jun-97	Deposit 3	690	M2/3	BETPAP	17.2	0.20
Franconia Notch	1948	Jun-97	Deposit 3	690	M2/4	BETPPC	4.5	1.00
Franconia Notch	1948	Jun-97	Deposit 3	690	M3/1	BETPPC	5.9	2.00
Franconia Notch	1948	Jun-97	Deposit 3	690	M3/2	PICRUB	4.2	1.10
Franconia Notch	1948	Jun-97	Deposit 3	690	M3/3	BETPPC	11.5	0.73
Franconia Notch	1948	Jun-97	Deposit 3	690	M3/4	PICRUB	3.5	0.65
Franconia Notch	1948	Jun-97	Deposit 3	690	M4/1	BETPPC	2.7	3.25
Franconia Notch	1948	Jun-97	Deposit 3	690	M4/2	BETPPC	5.5	1.53
Franconia Notch	1948	Jun-97	Deposit 3	690	M4/3	BETALL	7.3	2.40
Franconia Notch	1948	Jun-97	Deposit 3	690	M4/4	ACESPI	4.8	0.95
Franconia Notch	1948	Jun-97	Deposit 3	690	M5/1	BETPAP	24.9	0.10
Franconia Notch	1948	Jun-97	Deposit 3	690	M5/2	BETPPC	6.3	2.10
Franconia Notch	1948	Jun-97	Deposit 3	690	M5/3	BETPPC	17.8	4.22
Franconia Notch	1948	Jun-97	Deposit 3	690	M5/4	BETPPC	12.8	1.63
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F10/1	PICRUB	17.9	2.68
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F10/2	PICRUB	2.5	3.85
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F10/3	PICRUB	14.9	1.03
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F10/4	PICRUB	6.8	2.55
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F11/1	PICRUB	13.2	0.98
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F11/2	ABIBAL	13.9	3.96
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F11/3	BETPAP	25.3	2.57
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F11/4	PICRUB	7.7	1.08
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F12/1	BETPAP	22.0	1.18
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F12/2	PICRUB	9.2	0.62
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F12/3	PICRUB	4.3	1.73
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F12/4	PICRUB	4.2	3.05
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F13/1	BETPAP	24.6	1.98
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F13/2	BETPAP	23.5	1.75
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F13/3	ABIBAL	3.7	4.55
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F13/4	ABIBAL	3.5	3.00
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F4/1	PICRUB	3.7	2.00
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F4/2	BETPAP	16.8	2.30
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F4/3	BETPAP	19.5	2.60
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F4/4	BETALL	7.7	3.00
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F5/1	ABIBAL	4.8	1.50
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F5/2	ABIBAL	4.1	0.50
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F5/3	ABIBAL	5.2	1.50
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F5/4	ABIBAL	4.3	0.70
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F6/1	ABIBAL	4.0	0.40
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F6/2	BETPAP	15.8	1.40
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F6/3	ABIBAL	7.3	1.25
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F6/4	PICRUB	3.8	1.60
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F7/1	BETALL	4.5	0.60
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F7/2	BETALL	5.9	0.55
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F7/3	PICRUB	2.3	0.30
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F7/4	PICRUB	4.1	1.22

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F8/1	BETPPC	20.4	0.50
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F8/2	PICRUB	4.5	1.97
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F8/3	PICRUB	5.6	1.70
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	690	F8/4	BETPPC	21.6	1.10
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F9/1	BETPAP	27.1	1.73
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F9/2	ABIBAL	2.5	3.83
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F9/3	PICRUB	9.1	1.25
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	F9/4	PICRUB	5.9	1.85
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G1/1	PICRUB	8.2	0.60
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G1/2	BETALL	3.5	1.30
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G1/3	PICRUB	6.5	1.00
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G1/4	BETPAP	29.0	2.17
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G2/1	PICRUB	9.3	1.60
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G2/2	PICRUB	3.3	1.30
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G2/3	ABIBAL	11.0	2.75
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G2/4	BETPAP	16.9	1.55
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G3/1	PICRUB	3.0	0.79
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G3/2	ABIBAL	3.5	1.75
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G3/3	PICRUB	3.4	1.96
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G3/4	ABIBAL	2.9	2.60
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G4/1	BETPAP	5.6	0.35
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G4/2	PICRUB	2.8	0.85
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G4/3	BETPPC	4.3	2.90
Franconia Notch	1948	Jun-97	Adjacent Veg. 2	700	G4/4	ABIBAL	2.8	1.42
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G5/1	ABIBAL	5.0	1.63
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G5/2	ABIBAL	5.3	2.56
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G5/3	ABIBAL	3.8	1.70
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G5/4	ABIBAL	3.0	2.33
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G6/1	BETPAP	21.8	0.95
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G6/2	PICRUB	3.0	1.29
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G6/3	BETPAP	21.6	1.11
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G6/4	BETPAP	9.3	1.18
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G7/1	BETPAP	17.3	1.10
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G7/2	BETALL	9.3	2.53
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G7/3	BETALL	11.7	1.56
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G7/4	BETPAP	11.7	2.05
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G8/1	BETALL	23.0	2.36
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G8/2	BETALL	11.5	3.24
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G8/3	ABIBAL	3.3	2.29
Franconia Notch	1948	Oct-98	Adjacent Veg. 2	690	G8/4	BETALL	10.6	3.52
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A10/1	FAGGRA	11.5	3.50
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A10/2	FAGGRA	16.4	2.05
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A10/3	FAGGRA	8.6	3.33
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A10/4	ACESPI	3.6	4.03
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A11/1	FAGGRA	3.2	1.93
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A11/2	ACTPEN	2.7	3.03
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A11/3	BETPAP	49.0	1.93
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A11/4	FAGGRA	4.3	1.68

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A12/1	FAGGRA	4.0	1.73
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A12/2	FAGGRA	3.2	1.95
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A12/3	FAGGRA	4.7	0.70
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A12/4	FAGGRA	3.0	2.16
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A13/1	FAGGRA	3.3	1.23
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A13/2	FAGGRA	2.5	1.50
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A13/3	FAGGRA	24.2	0.90
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A13/4	FAGGRA	7.2	2.98
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A14/1	BETALL	16.9	1.54
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A14/2	BETPAP	41.9	0.95
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A14/3	FAGGRA	6.9	3.41
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A14/4	FAGGRA	20.0	4.02
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A15/1	ACESPI	2.5	2.32
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A15/2	FAGGRA	6.2	1.60
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A15/3	ACEPEN	3.0	0.90
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A15/4	FAGGRA	5.2	5.60
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A16/1	ACEPEN	5.7	1.74
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A16/2	FAGGRA	28.8	6.73
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A16/3	BETPAP	58.7	3.83
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A16/4	FAGGRA	18.7	2.76
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A17/1	FAGGRA	28.5	2.39
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A17/2	FAGGRA	24.3	2.08
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A17/3	BETALL	44.5	4.57
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A17/4	ACEPEN	4.1	3.20
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A18/1	FAGGRA	5.3	1.54
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A18/2	BETALL	50.6	2.53
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A18/3	ACEPEN	7.6	4.25
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A18/4	BETALL	44.5	3.98
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A5/1	ACESAC	23.1	3.80
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A5/2	FAGGRA	9.5	2.70
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A5/3	FAGGRA	7.7	1.40
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A5/4	FAGGRA	8.1	3.10
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A6/1	FAGGRA	7.0	2.85
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A6/2	FAGGRA	5.3	1.40
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A6/3	FAGGRA	9.5	1.65
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A6/4	BETALL	27.2	0.70
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A7/1	ACESAC	45.9	2.55
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A7/2	FAGGRA	6.0	0.60
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A7/3	ACESAC	36.5	2.55
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A7/4	FAGGRA	4.2	1.70
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A8/1	FAGGRA	2.7	2.50
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A8/2	ACESAC	28.6	1.40
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A8/3	FAGGRA	6.5	2.70
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	605	A8/4	FAGGRA	4.8	0.40
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A9/1	FAGGRA	7.8	2.63
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A9/2	FAGGRA	31.2	3.16
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A9/3	FAGGRA	7.5	2.93
Franconia Notch	1948	Oct-98	Adjacent Veg. 1	605	A9/4	FAGGRA	28.7	3.53

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B1/1	FAGGRA	4.1	1.05
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B1/2	ACESAC	5.5	1.35
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B1/3	ACESAC	12.9	3.10
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B1/4	ACESAC	16.7	0.10
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B2/1	ACESAC	3.9	2.85
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B2/2	ACESAC	12.9	3.05
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B2/3	ACESAC	41.0	3.55
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B2/4	BETALL	14.9	4.30
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B3/1	BETALL	15.0	3.21
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B3/2	ACESAC	40.8	2.10
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B3/3	FAGGRA	4.5	2.44
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B3/4	PICRUB	4.6	6.14
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B4/1	PICRUB	4.7	5.18
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B4/2	FAGGRA	6.0	2.27
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B4/3	FAGGRA	2.6	3.44
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B4/4	PICRUB	4.0	3.40
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B5/1	ACESAC	27.2	1.00
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B5/2	FAGGRA	2.6	1.40
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B5/3	FAGGRA	3.7	2.58
Franconia Notch	1948	Jun-97	Adjacent Veg. 1	651	B5/4	BETALL	46.6	4.27
Franconia Notch	1948	Jun-97	Deposit 1	605	A1/1	BETALL	10.5	3.45
Franconia Notch	1948	Jun-97	Deposit 1	605	A1/2	BETALL	15.8	4.06
Franconia Notch	1948	Jun-97	Deposit 1	605	A1/3	BETALL	5.3	2.10
Franconia Notch	1948	Jun-97	Deposit 1	605	A1/4	BETALL	3.5	1.40
Franconia Notch	1948	Jun-97	Deposit 1	605	A2/1	BETALL	9.9	3.40
Franconia Notch	1948	Jun-97	Deposit 1	605	A2/2	ACEPEN	4.8	2.25
Franconia Notch	1948	Jun-97	Deposit 1	605	A2/3	BETALL	15.8	2.37
Franconia Notch	1948	Jun-97	Deposit 1	605	A2/4	BETALL	10.5	2.10
Franconia Notch	1948	Jun-97	Deposit 1	605	A3/1	BETALL	7.3	1.20
Franconia Notch	1948	Jun-97	Deposit 1	605	A3/2	BETALL	17.6	3.15
Franconia Notch	1948	Jun-97	Deposit 1	605	A3/3	BETALL	22.5	1.80
Franconia Notch	1948	Jun-97	Deposit 1	605	A3/4	BETALL	9.9	1.60
Franconia Notch	1948	Jun-97	Deposit 1	651	B6/1	BETALL	17.2	0.85
Franconia Notch	1948	Jun-97	Deposit 1	651	B6/2	BETALL	16.8	2.75
Franconia Notch	1948	Jun-97	Deposit 1	651	B6/3	BETALL	9.1	0.97
Franconia Notch	1948	Jun-97	Deposit 1	651	B6/4	BETALL	3.7	1.30
Franconia Notch	1948	Jun-97	Deposit 1	651	B7/1	BETALL	4.3	3.05
Franconia Notch	1948	Jun-97	Deposit 1	651	B7/2	POPTRE	14.5	1.10
Franconia Notch	1948	Jun-97	Deposit 1	651	B7/3	BETALL	4.3	1.05
Franconia Notch	1948	Jun-97	Deposit 1	651	B7/4	BETALL	12.5	3.57
Franconia Notch	1948	Jun-97	Deposit 1	651	B8/1	BETALL	12.5	1.67
Franconia Notch	1948	Jun-97	Deposit 1	651	B8/2	BETALL	4.1	1.30
Franconia Notch	1948	Jun-97	Deposit 1	651	B8/3	BETALL	10.1	2.93
Franconia Notch	1948	Jun-97	Deposit 1	651	B8/4	BETALL	6.1	2.60
Franconia Notch	1948	Jun-97	Deposit 1	651	B9/1	BETALL	16.7	2.70
Franconia Notch	1948	Jun-97	Deposit 1	651	B9/2	BETALL	4.5	1.25
Franconia Notch	1948	Jun-97	Deposit 1	651	B9/3	BETALL	5.8	3.05
Franconia Notch	1948	Jun-97	Deposit 1	651	B9/4	BETALL	15.1	3.63

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Franconia Notch	1948	Jun-97	Deposit 1	648	G5/1	BETPPC	1.68	0.40
Franconia Notch	1948	Jun-97	Deposit 1	648	G5/2	BETPPC	8.8	2.70
Franconia Notch	1948	Jun-97	Deposit 1	648	G5/3	BETALL	4.1	1.30
Franconia Notch	1948	Jun-97	Deposit 1	648	G5/4	BETPPC	1.41	2.65
Franconia Notch	1948	Jun-97	Deposit 1	648	G6/1	BETALL	18	1.30
Franconia Notch	1948	Jun-97	Deposit 1	648	G6/2	BETPPC	4.4	1.75
Franconia Notch	1948	Jun-97	Deposit 1	648	G6/3	BETPPC	4.6	2.00
Franconia Notch	1948	Jun-97	Deposit 1	648	G6/4	ACESPI	2.6	1.50
Franconia Notch	1948	Jun-97	Deposit 1	667	11/1	BETALL	17	2.60
Franconia Notch	1948	Jun-97	Deposit 1	667	11/2	BETALL	20	2.30
Franconia Notch	1948	Jun-97	Deposit 1	667	11/3	BETALL	3.6	1.40
Franconia Notch	1948	Jun-97	Deposit 1	667	11/4	BETALL	4.7	1.70
Franconia Notch	1948	Jun-97	Deposit 1	667	12/1	BETALL	12.6	2.40
Franconia Notch	1948	Jun-97	Deposit 1	667	12/2	BETALL	10.7	2.25
Franconia Notch	1948	Jun-97	Deposit 1	667	12/3	BETALL	20	3.30
Franconia Notch	1948	Jun-97	Deposit 1	667	12/4	BETALL	17.1	3.30
Franconia Notch	1948	Jun-97	Deposit 1	667	13/1	ACESPI	3.4	5.25
Franconia Notch	1948	Jun-97	Deposit 1	667	13/2	ACESAC	3	1.15
Franconia Notch	1948	Jun-97	Deposit 1	667	13/3	BETALL	18.3	3.20
Franconia Notch	1948	Jun-97	Deposit 1	667	13/4	ACESAC	2.6	1.45
Franconia Notch	1948	Jun-97	Deposit 1	660	J1/1	BETALL	8.6	2.10
Franconia Notch	1948	Jun-97	Deposit 1	660	J1/2	BETPPC	17.4	1.35
Franconia Notch	1948	Jun-97	Deposit 1	660	J1/3	POPTRE	23.4	2.10
Franconia Notch	1948	Jun-97	Deposit 1	660	J1/4	POPTRE	19.3	0.60
Franconia Notch	1948	Jun-97	Deposit 1	660	J2/1	BETALL	4	3.60
Franconia Notch	1948	Jun-97	Deposit 1	660	J2/2	BETALL	20.6	3.10
Franconia Notch	1948	Jun-97	Deposit 1	660	J2/3	BETALL	8.4	2.25
Franconia Notch	1948	Jun-97	Deposit 1	660	J2/4	BETALL	4.8	2.30
Franconia Notch	1948	Jun-97	Deposit 1	660	J3/1	BETALL	4.2	1.35
Franconia Notch	1948	Jun-97	Deposit 1	660	J3/2	BETALL	6.1	1.45
Franconia Notch	1948	Jun-97	Deposit 1	660	J3/3	BETALL	4	1.00
Franconia Notch	1948	Jun-97	Deposit 1	660	J3/4	BETALL	15.1	5.41
Franconia Notch	1948	Jun-97	Deposit 1	645	L1/1	BETPPC	5.9	3.96
Franconia Notch	1948	Jun-97	Deposit 1	645	L1/2	BETALL	30.5	4.07
Franconia Notch	1948	Jun-97	Deposit 1	645	L1/3	BETPAP	21	1.35
Franconia Notch	1948	Jun-97	Deposit 1	645	L1/4	BETALL	8.8	0.80
Franconia Notch	1948	Jun-97	Deposit 1	645	L2/1	BETPPC	4.5	3.15
Franconia Notch	1948	Jun-97	Deposit 1	645	L2/2	BETPPC	10.3	2.20
Franconia Notch	1948	Jun-97	Deposit 1	645	L2/3	BETPPC	5.8	0.85
Franconia Notch	1948	Jun-97	Deposit 1	645	L2/4	BETALL	16	3.90
Franconia Notch	1948	Jun-97	Deposit 1	645	L3/1	BETPPC	5.9	1.10
Franconia Notch	1948	Jun-97	Deposit 1	645	L3/2	BETPPC	6.4	1.65
Franconia Notch	1948	Jun-97	Deposit 1	645	L3/3	BETPPC	6.7	4.05
Franconia Notch	1948	Jun-97	Deposit 1	645	L3/4	BETPAP	15.2	0.30
Franconia Notch	1948	Jun-97	Deposit 1	645	L4/1	BETPPC	6.6	3.00
Franconia Notch	1948	Jun-97	Deposit 1	645	L4/2	BETPAP	14.7	1.30
Franconia Notch	1948	Jun-97	Deposit 1	645	L4/3	ACEPEN	4.3	3.80
Franconia Notch	1948	Jun-97	Deposit 1	645	L4/4	BETPAP	14.4	1.57

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Franconia Notch	1948	Jun-97	Deposit 1	657	M1/1	BETPPC	4.4	4.30
Franconia Notch	1948	Jun-97	Deposit 1	657	M1/2	BETPPC	4.5	0.70
Franconia Notch	1948	Jun-97	Deposit 1	657	M1/3	BETPPC	12.1	7.35
Franconia Notch	1948	Jun-97	Deposit 1	657	M1/4	ACEPEN	2.6	0.80
Franconia Notch	1948	Jun-97	Deposit 1	657	M2/1	BETPPC	17.8	0.85
Franconia Notch	1948	Jun-97	Deposit 1	657	M2/2	BETALL	5.6	1.55
Franconia Notch	1948	Jun-97	Deposit 1	657	M2/3	BETPAP	17.2	0.20
Franconia Notch	1948	Jun-97	Deposit 1	657	M2/4	BETPPC	4.5	1.00
Franconia Notch	1948	Jun-97	Deposit 1	657	M3/1	BETPPC	5.9	2.00
Franconia Notch	1948	Jun-97	Deposit 1	657	M3/2	PICRUB	4.2	1.10
Franconia Notch	1948	Jun-97	Deposit 1	657	M3/3	BETPPC	11.5	0.73
Franconia Notch	1948	Jun-97	Deposit 1	657	M3/4	PICRUB	3.5	0.65
Franconia Notch	1948	Jun-97	Deposit 1	657	M4/1	BETPPC	2.7	3.25
Franconia Notch	1948	Jun-97	Deposit 1	657	M4/2	BETPPC	5.5	1.53
Franconia Notch	1948	Jun-97	Deposit 1	657	M4/3	BETALL	7.3	2.40
Franconia Notch	1948	Jun-97	Deposit 1	657	M4/4	ACESPI	4.8	0.95
Franconia Notch	1948	Jun-97	Deposit 1	657	M5/1	BETPAP	24.9	0.10
Franconia Notch	1948	Jun-97	Deposit 1	657	M5/2	BETPPC	6.3	2.10
Franconia Notch	1948	Jun-97	Deposit 1	657	M5/3	BETPPC	17.8	4.22
Franconia Notch	1948	Jun-97	Deposit 1	657	M5/4	BETPPC	12.8	1.63
Webster Scout	1938	Jun-97	Deposit 1	910	A1/1	ABIBAL	4	0.93
Webster Scout	1938	Jun-97	Deposit 1	910	A1/2	PICRUB	6.5	0.93
Webster Scout	1938	Jun-97	Deposit 1	910	A1/3	PICRUB	4.5	1.15
Webster Scout	1938	Jun-97	Deposit 1	910	A1/4	ABIBAL	7	0.90
Webster Scout	1938	Jun-97	Deposit 1	910	A2/1	ABIBAL	5.6	0.60
Webster Scout	1938	Jun-97	Deposit 1	910	A2/2	PICRUB	3.1	1.20
Webster Scout	1938	Jun-97	Deposit 1	910	A2/3	PICRUB	2.6	0.10
Webster Scout	1938	Jun-97	Deposit 1	910	A2/4	PICRUB	4.5	1.00
Webster Scout	1938	Jun-97	Deposit 1	910	A3/1	PICRUB	3.2	0.80
Webster Scout	1938	Jun-97	Deposit 1	910	A3/2	PICRUB	3.2	0.80
Webster Scout	1938	Jun-97	Deposit 1	910	A3/3	PICRUB	2.7	1.00
Webster Scout	1938	Jun-97	Deposit 1	910	A3/4	ABIBAL	3.5	1.20
Webster Scout	1938	Jun-97	Deposit 1	910	A4/1	BETPPC	3.1	0.60
Webster Scout	1938	Jun-97	Deposit 1	910	A4/2	ABIBAL	2.9	0.50
Webster Scout	1938	Jun-97	Deposit 1	910	A4/3	SORAME	2.1	0.66
Webster Scout	1938	Jun-97	Deposit 1	910	A4/4	PICRUB	2.6	0.50
Webster Scout	1938	Jun-97	Deposit 1	910	B1/1	PICRUB	3.7	0.80
Webster Scout	1938	Jun-97	Deposit 1	910	B1/2	BETPPC	13.2	0.40
Webster Scout	1938	Jun-97	Deposit 1	910	B1/3	ABIBAL	2.6	1.05
Webster Scout	1938	Jun-97	Deposit 1	910	B1/4	ABIBAL	4.1	0.85
Webster Scout	1938	Jun-97	Deposit 1	910	B2/1	BETPAP	15	1.30
Webster Scout	1938	Jun-97	Deposit 1	910	B2/2	ABIBAL	4.5	0.95
Webster Scout	1938	Jun-97	Deposit 1	910	B2/3	ABIBAL	4.9	1.00
Webster Scout	1938	Jun-97	Deposit 1	910	B2/4	PICRUB	5.4	0.10
Webster Scout	1938	Jun-97	Deposit 1	910	B3/1	PICRUB	3.5	0.12
Webster Scout	1938	Jun-97	Deposit 1	910	B3/2	PICRUB	3.4	0.50
Webster Scout	1938	Jun-97	Deposit 1	910	B3/3	PICRUB	3.4	0.65
Webster Scout	1938	Jun-97	Deposit 1	910	B3/4	BETPPC	4.4	0.87

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Webster Scout	1938	Jun-97	Deposit 1	910	B4/1	PICRUB	3.1	1.25
Webster Scout	1938	Jun-97	Deposit 1	910	B4/2	PICRUB	4	1.20
Webster Scout	1938	Jun-97	Deposit 1	910	B4/3	ABIBAL	3.7	0.60
Webster Scout	1938	Jun-97	Deposit 1	910	B4/4	ABIBAL	3.4	0.17
Webster Scout	1938	Jun-97	Deposit 1	910	C1/1	ABIBAL	4.2	0.40
Webster Scout	1938	Jun-97	Deposit 1	910	C1/2	ABIBAL	7.3	0.25
Webster Scout	1938	Jun-97	Deposit 1	910	C1/3	PICRUB	2.9	0.45
Webster Scout	1938	Jun-97	Deposit 1	910	C1/4	BETPPC	3.8	0.25
Webster Scout	1938	Jun-97	Deposit 2	880	A1/1	ABIBAL	3	0.13
Webster Scout	1938	Jun-97	Deposit 2	880	A1/2	BETPPC	10	2.40
Webster Scout	1938	Jun-97	Deposit 2	880	A1/3	PICRUB	3.8	1.47
Webster Scout	1938	Jun-97	Deposit 2	880	A1/4	PICRUB	4.7	1.45
Webster Scout	1938	Jun-97	Deposit 2	880	A2/1	ABIBAL	2.9	0.65
Webster Scout	1938	Jun-97	Deposit 2	880	A2/2	BETPAP	11.6	0.20
Webster Scout	1938	Jun-97	Deposit 2	880	A2/3	ABIBAL	4	1.05
Webster Scout	1938	Jun-97	Deposit 2	880	A2/4	SORAME	5.3	0.05
Webster Scout	1938	Jun-97	Deposit 2	880	B1/1	ABIBAL	3.3	2.90
Webster Scout	1938	Jun-97	Deposit 2	880	B1/2	ABIBAL	7.7	1.87
Webster Scout	1938	Jun-97	Deposit 2	880	B1/3	PICRUB	7.4	1.20
Webster Scout	1938	Jun-97	Deposit 2	880	B1/4	PICRUB	8.7	2.50
Webster Scout	1938	Jun-97	Deposit 2	880	B2/1	SORAME	6	3.30
Webster Scout	1938	Jun-97	Deposit 2	880	B2/2	BETPPC	7.8	0.90
Webster Scout	1938	Jun-97	Deposit 2	880	B2/3	ABIBAL	2.9	1.00
Webster Scout	1938	Jun-97	Deposit 2	880	B2/4	PICRUB	2.7	0.80
Webster Scout	1938	Jun-97	Deposit 2	880	C1/1	PICRUB	3	1.60
Webster Scout	1938	Jun-97	Deposit 2	880	C1/2	PICRUB	2.8	0.35
Webster Scout	1938	Jun-97	Deposit 2	880	C1/3	PICRUB	12.1	0.60
Webster Scout	1938	Jun-97	Deposit 2	880	C1/4	PICRUB	3.9	1.80
Webster Scout	1938	Jun-97	Deposit 3	895	A1/1	ABIBAL	4.5	0.67
Webster Scout	1938	Jun-97	Deposit 3	895	A1/2	PICRUB	5.3	1.95
Webster Scout	1938	Jun-97	Deposit 3	895	A1/3	SORAME	8.6	0.37
Webster Scout	1938	Jun-97	Deposit 3	895	A1/4	BETPPC	4.6	0.64
Webster Scout	1938	Jun-97	Deposit 3	895	B1/1	PICRUB	3.6	0.85
Webster Scout	1938	Jun-97	Deposit 3	895	B1/2	BETPPC	6	0.95
Webster Scout	1938	Jun-97	Deposit 3	895	B1/3	PICRUB	4.3	1.30
Webster Scout	1938	Jun-97	Deposit 3	895	B1/4	PICRUB	6.1	0.52
Webster Scout	1938	Jun-97	Deposit 3	895	C1/1	ABIBAL	4	0.65
Webster Scout	1938	Jun-97	Deposit 3	895	C1/2	PICRUB	3	0.80
Webster Scout	1938	Jun-97	Deposit 3	895	C1/3	ABIBAL	7.8	1.18
Webster Scout	1938	Jun-97	Deposit 3	895	C1/4	BETPPC	3.6	0.12
Webster Scout	1938	Jun-97	Deposit 3	895	D1/1	ABIBAL	3.7	0.38
Webster Scout	1938	Jun-97	Deposit 3	895	D1/2	ABIBAL	2.9	0.80
Webster Scout	1938	Jun-97	Deposit 3	895	D1/3	ABIBAL	4.9	0.60
Webster Scout	1938	Jun-97	Deposit 3	895	D1/4	ABIBAL	3.1	0.64
Webster Scout	1938	Jul-97	Deposit 4	818	A1/1	ABIBAL	2.8	0.85
Webster Scout	1938	Jul-97	Deposit 4	818	A1/2	BETPPC	13	2.00
Webster Scout	1938	Jul-97	Deposit 4	818	A1/3	BETPPC	10.6	4.90
Webster Scout	1938	Jul-97	Deposit 4	818	A1/4	BETPAP	14.8	0.33

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Webster Scout	1938	Jul-97	Deposit 4	818	A2/1	ABIBAL	5.4	0.35
Webster Scout	1938	Jul-97	Deposit 4	818	A2/2	ABIBAL	7.2	2.15
Webster Scout	1938	Jul-97	Deposit 4	818	A2/3	PICRUB	4.1	6.71
Webster Scout	1938	Jul-97	Deposit 4	818	A2/4	ABIBAL	4.1	0.25
Webster Scout	1938	Jul-97	Deposit 4	818	A3/1	ABIBAL	11.1	2.03
Webster Scout	1938	Jul-97	Deposit 4	818	A3/2	ABIBAL	5.1	1.35
Webster Scout	1938	Jul-97	Deposit 4	818	A3/3	ABIBAL	4.8	1.31
Webster Scout	1938	Jul-97	Deposit 4	818	A3/4	ABIBAL	8	0.45
Webster Scout	1938	Jul-97	Deposit 4	818	A4/1	BETPPC	8.8	2.10
Webster Scout	1938	Jul-97	Deposit 4	818	A4/2	ABIBAL	6.7	0.80
Webster Scout	1938	Jul-97	Deposit 4	818	A4/3	BETPPC	6	1.69
Webster Scout	1938	Jul-97	Deposit 4	818	A4/4	BETPAP	7	0.42
Webster Scout	1938	Jul-97	Deposit 4	818	A5/1	BETPPC	3.2	1.03
Webster Scout	1938	Jul-97	Deposit 4	818	A5/2	BETPPC	6.3	1.68
Webster Scout	1938	Jul-97	Deposit 4	818	A5/3	POPTRE	31	2.70
Webster Scout	1938	Jul-97	Deposit 4	818	A5/4	ABIBAL	5.5	3.40
Webster Scout	1938	Jul-97	Deposit 4	818	A6/1	BETPAP	14.3	1.10
Webster Scout	1938	Jul-97	Deposit 4	818	A6/2	BETPPC	5.6	0.60
Webster Scout	1938	Jul-97	Deposit 4	818	A6/3	BETPAP	14.4	1.80
Webster Scout	1938	Jul-97	Deposit 4	818	A6/4	BETPPC	9.6	1.20
Webster Scout	1938	Jul-97	Deposit 4	818	B1/1	ABIBAL	5	0.55
Webster Scout	1938	Jul-97	Deposit 4	818	B1/2	BETPPC	4.9	0.70
Webster Scout	1938	Jul-97	Deposit 4	818	B1/3	ABIBAL	7.8	0.50
Webster Scout	1938	Jul-97	Deposit 4	818	B1/4	ABIBAL	6.3	1.30
Webster Scout	1938	Jul-97	Deposit 4	818	B2/1	BETALL	7.4	1.70
Webster Scout	1938	Jul-97	Deposit 4	818	B2/2	BETPAP	17.5	0.25
Webster Scout	1938	Jul-97	Deposit 4	818	B2/3	BETPPC	5.2	1.00
Webster Scout	1938	Jul-97	Deposit 4	818	B2/4	ABIBAL	5.8	1.45
Webster Scout	1938	Jul-97	Deposit 4	818	B3/1	ABIBAL	7.5	1.65
Webster Scout	1938	Jul-97	Deposit 4	818	B3/2	ABIBAL	6.5	0.02
Webster Scout	1938	Jul-97	Deposit 4	818	B3/3	ABIBAL	4	1.45
Webster Scout	1938	Jul-97	Deposit 4	818	B3/4	ABIBAL	8.2	1.00
Webster Scout	1938	Jul-97	Deposit 4	818	B4/1	ABIBAL	6.7	0.50
Webster Scout	1938	Jul-97	Deposit 4	818	B4/2	ABIBAL	6.5	0.35
Webster Scout	1938	Jul-97	Deposit 4	818	B4/3	ABIBAL	6.2	1.40
Webster Scout	1938	Jul-97	Deposit 4	818	B4/4	ABIBAL	7.5	1.20
Tripyramid N.	1885	Aug-97	Deposit 1	836	779/1	ACERUB	29.1	4.25
Tripyramid N.	1885	Aug-97	Deposit 1	836	779/2	BETPAP	21.4	4.27
Tripyramid N.	1885	Aug-97	Deposit 1	836	779/3	PICRUB	3.5	1.25
Tripyramid N.	1885	Aug-97	Deposit 1	836	779/4	BETPAP	12.4	2.77
Tripyramid N.	1885	Aug-97	Deposit 1	836	780/1	ABIBAL	5.3	2.60
Tripyramid N.	1885	Aug-97	Deposit 1	836	780/2	PICRUB	3.5	3.35
Tripyramid N.	1885	Aug-97	Deposit 1	836	780/3	ACESAC	5.4	2.77
Tripyramid N.	1885	Aug-97	Deposit 1	836	780/4	ACESPI	16.9	1.95
Tripyramid N.	1885	Aug-97	Deposit 1	836	781/1	ACESPI	5.1	3.15
Tripyramid N.	1885	Aug-97	Deposit 1	836	781/2	ACESAC	11.6	13.10
Tripyramid N.	1885	Aug-97	Deposit 1	836	781/3	BETPPC	14.2	0.92
Tripyramid N.	1885	Aug-97	Deposit 1	836	781/4	BETPAP	17.8	0.39

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Tripyramid N.	1885	Aug-97	Deposit 1	836	782/1	BETPAP	16.4	4.40
Tripyramid N.	1885	Aug-97	Deposit 1	836	782/2	ABIBAL	4	3.30
Tripyramid N.	1885	Aug-97	Deposit 1	836	782/3	ABIBAL	8.5	4.75
Tripyramid N.	1885	Aug-97	Deposit 1	836	782/4	BETPAP	21	1.70
Tripyramid N.	1885	Aug-97	Deposit 1	836	783/1	BETPPC	12.2	1.40
Tripyramid N.	1885	Aug-97	Deposit 1	836	783/2	ABIBAL	8.4	3.62
Tripyramid N.	1885	Aug-97	Deposit 1	836	783/3	ACESPI	5.8	1.05
Tripyramid N.	1885	Aug-97	Deposit 1	836	783/4	ACESAC	22	3.60
Tripyramid N.	1885	Aug-97	Deposit 1	836	784/1	ABIBAL	4.8	3.85
Tripyramid N.	1885	Aug-97	Deposit 1	836	784/2	ACEPEN	3.4	8.15
Tripyramid N.	1885	Aug-97	Deposit 1	836	784/3	BETALL	12.2	5.70
Tripyramid N.	1885	Aug-97	Deposit 1	836	784/4	ACEPEN	3.4	2.30
Tripyramid N.	1885	Aug-97	Deposit 1	836	785/1	ACEPEN	3.4	4.72
Tripyramid N.	1885	Aug-97	Deposit 1	836	785/2	BETALL	9.5	4.30
Tripyramid N.	1885	Aug-97	Deposit 1	836	785/3	ABIBAL	8.3	2.62
Tripyramid N.	1885	Aug-97	Deposit 1	836	785/4	BETPAP	21.1	3.54
Tripyramid N.	1885	Aug-97	Deposit 1	836	786/1	BETPPC	12.3	3.93
Tripyramid N.	1885	Aug-97	Deposit 1	836	786/2	ABIBAL	8.3	1.98
Tripyramid N.	1885	Aug-97	Deposit 1	836	786/3	ACESPI	6.2	5.25
Tripyramid N.	1885	Aug-97	Deposit 1	836	786/4	ACESPI	5.8	2.50
Tripyramid N.	1885	Jul-96	Deposit 1	836	787/1	ACESAC	2.6	1.50
Tripyramid N.	1885	Jul-96	Deposit 1	836	787/2	BETALL	26.8	2.30
Tripyramid N.	1885	Jul-96	Deposit 1	836	787/3	ACESAC	25.8	3.95
Tripyramid N.	1885	Jul-96	Deposit 1	836	787/4	ACESAC	4.1	3.70
Tripyramid N.	1885	Jul-96	Deposit 1	836	788/1	ABIBAL	5.1	2.55
Tripyramid N.	1885	Jul-96	Deposit 1	836	788/2	ACESAC	25.8	6.30
Tripyramid N.	1885	Jul-96	Deposit 1	836	788/3	BETALL	4	1.90
Tripyramid N.	1885	Jul-96	Deposit 1	836	788/4	ACESAC	17.9	3.77
Tripyramid N.	1885	Jul-96	Deposit 1	836	789/1	ACESAC	17.9	3.70
Tripyramid N.	1885	Jul-96	Deposit 1	836	789/2	ACESPI	3.5	2.90
Tripyramid N.	1885	Jul-96	Deposit 1	836	789/3	BETALL	26.1	0.80
Tripyramid N.	1885	Jul-96	Deposit 1	836	789/4	ACEPEN	11.2	1.40
Tripyramid N.	1885	Aug-97	Deposit 2	818	790/1	ACESPI	8.9	2.10
Tripyramid N.	1885	Aug-97	Deposit 2	806	790/2	BETALL	22.7	7.80
Tripyramid N.	1885	Aug-97	Deposit 2	806	790/3	ACESAC	28.2	3.10
Tripyramid N.	1885	Aug-97	Deposit 2	806	790/4	BETALL	32.4	4.25
Tripyramid N.	1885	Aug-97	Deposit 2	806	791/1	BETALL	32.4	4.90
Tripyramid N.	1885	Aug-97	Deposit 2	806	791/2	ABIBAL	3.6	1.00
Tripyramid N.	1885	Aug-97	Deposit 2	806	791/3	ACESAC	16	5.00
Tripyramid N.	1885	Aug-97	Deposit 2	806	791/4	BETPAP	24.5	2.92
Tripyramid N.	1885	Aug-97	Deposit 2	806	792/1	ACESAC	7.7	1.43
Tripyramid N.	1885	Aug-97	Deposit 2	806	792/2	ACESAC	21.7	4.47
Tripyramid N.	1885	Aug-97	Deposit 2	806	792/3	BETALL	16.3	4.12
Tripyramid N.	1885	Aug-97	Deposit 2	806	792/4	ABIBAL	4.3	4.65
Tripyramid N.	1885	Aug-97	Deposit 2	806	793/1	ABIBAL	4.3	1.37
Tripyramid N.	1885	Aug-97	Deposit 2	806	793/2	PICRUB	3.4	2.70
Tripyramid N.	1885	Aug-97	Deposit 2	806	793/3	BETPPC	15.7	2.71
Tripyramid N.	1885	Aug-97	Deposit 2	806	793/4	BETALL	25.7	3.17
Tripyramid N.	1885	Aug-97	Deposit 2	806	794/1	ACESAC	28.2	2.10
Tripyramid N.	1885	Aug-97	Deposit 2	806	794/2	PICRUB	2.8	4.04
Tripyramid N.	1885	Aug-97	Deposit 2	806	794/3	ABIBAL	5	3.30
Tripyramid N.	1885	Aug-97	Deposit 2	806	794/4	ACESAC	16.4	2.70

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Tripyramid N.	1885	Aug-97	Deposit 2	806	795/1	ACESAC	16.4	1.80
Tripyramid N.	1885	Aug-97	Deposit 2	806	795/2	ABIBAL	5	5.73
Tripyramid N.	1885	Aug-97	Deposit 2	806	795/3	BETALL	4.5	4.80
Tripyramid N.	1885	Aug-97	Deposit 2	806	795/4	ACESAC	22.3	4.10
Tripyramid N.	1885	Aug-97	Deposit 2	806	796/1	ACESAC	22.3	0.93
Tripyramid N.	1885	Aug-97	Deposit 2	806	796/2	ACESAC	16.4	6.40
Tripyramid N.	1885	Aug-97	Deposit 2	806	796/3	BETALL	4.5	1.07
Tripyramid N.	1885	Aug-97	Deposit 2	806	796/4	BETALL	16.4	1.85
Tripyramid N.	1885	Aug-97	Deposit 2	818	797/1	BETPAP	15.7	2.90
Tripyramid N.	1885	Aug-97	Deposit 2	818	797/2	ACESPI	3.5	1.60
Tripyramid N.	1885	Aug-97	Deposit 2	818	797/3	BETALL	11.8	2.90
Tripyramid N.	1885	Aug-97	Deposit 2	818	797/4	BETALL	23.8	4.30
Tripyramid N.	1885	Aug-97	Deposit 2	818	798/1	ABIBAL	5	7.20
Tripyramid N.	1885	Aug-97	Deposit 2	818	798/2	BETALL	21.7	2.00
Tripyramid N.	1885	Aug-97	Deposit 2	818	798/3	ACESAC	19.2	3.47
Tripyramid N.	1885	Aug-97	Deposit 2	818	798/4	BETPPC	8.9	2.03
Tripyramid N.	1885	Aug-97	Deposit 2	818	799/1	ACEPEN	13.7	2.30
Tripyramid N.	1885	Aug-97	Deposit 2	818	799/2	ACESAC	18.8	3.55
Tripyramid N.	1885	Aug-97	Deposit 2	818	799/3	ABIBAL	3.9	1.90
Tripyramid N.	1885	Aug-97	Deposit 2	818	799/4	BETALL	11.8	5.35
Tripyramid N.	1885	Aug-97	Deposit 2	818	800/1	ABIBAL	2.6	0.70
Tripyramid N.	1885	Aug-97	Deposit 2	818	800/2	ACESPI	6.4	2.60
Tripyramid N.	1885	Aug-97	Deposit 2	818	800/3	ACESAC	11.7	4.50
Tripyramid N.	1885	Aug-97	Deposit 2	818	800/4	BETALL	16.8	5.75
Tripyramid N.	1885	Aug-97	Deposit 2	818	801/1	ABIBAL	2.6	4.10
Tripyramid N.	1885	Aug-97	Deposit 2	818	801/2	ACESPI	6.4	6.10
Tripyramid N.	1885	Aug-97	Deposit 2	818	801/3	ACESAC	11.7	0.79
Tripyramid N.	1885	Aug-97	Deposit 2	818	801/4	BETALL	16.8	2.20
Tripyramid N.	1885	Aug-97	Deposit 2	818	802/1	POPTRE	42.5	2.85
Tripyramid N.	1885	Aug-97	Deposit 2	818	802/2	BETALL	4	2.75
Tripyramid N.	1885	Aug-97	Deposit 2	818	802/3	BETPAP	21.3	3.07
Tripyramid N.	1885	Aug-97	Deposit 2	818	802/4	BETALL	4.3	4.20
Tripyramid N.	1885	Aug-97	Deposit 2	818	803/1	BETALL	4.4	1.00
Tripyramid N.	1885	Aug-97	Deposit 2	818	803/2	BETALL	8.4	2.10
Tripyramid N.	1885	Aug-97	Deposit 2	818	803/3	ABIBAL	26.5	3.03
Tripyramid N.	1885	Aug-97	Deposit 2	818	803/4	BETALL	6.3	4.36
Tripyramid N.	1885	Jul-96	Deposit 2	818	804/1	ACESPI	4.9	1.90
Tripyramid N.	1885	Jul-96	Deposit 2	818	804/2	ACESPI	4.2	4.70
Tripyramid N.	1885	Jul-96	Deposit 2	818	804/3	ACESPI	2.9	3.20
Tripyramid N.	1885	Jul-96	Deposit 2	818	804/4	ACESPI	5.7	2.45
Tripyramid N.	1885	Jul-96	Deposit 2	818	805/1	ACESPI	6.2	1.20
Tripyramid N.	1885	Jul-96	Deposit 2	818	805/2	ACESPI	5.9	1.35
Tripyramid N.	1885	Jul-96	Deposit 2	818	805/3	BETPAP	9.5	6.70
Tripyramid N.	1885	Jul-96	Deposit 2	818	805/4	ACESAC	12	6.83
Tripyramid N.	1885	Jul-96	Deposit 2	818	806/1	ACESPI	6.4	5.45
Tripyramid N.	1885	Jul-96	Deposit 2	818	806/2	BETPAP	9.5	5.90
Tripyramid N.	1885	Jul-96	Deposit 2	818	806/3	BETALL	7	3.50
Tripyramid N.	1885	Jul-96	Deposit 2	818	806/4	ACESAC	11.5	2.70

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Tripyramid N.	1885	Jul-96	Deposit 2	818	807/1	BETALL	4.1	0.85
Tripyramid N.	1885	Jul-96	Deposit 2	818	807/2	BETALL	10.3	1.95
Tripyramid N.	1885	Jul-96	Deposit 2	818	807/3	BETALL	10.6	1.30
Tripyramid N.	1885	Jul-96	Deposit 2	818	807/4	BETPAP	21.5	2.67
Tripyramid N.	1885	Jul-96	Deposit 2	818	808/1	ACESPI	4.4	4.70
Tripyramid N.	1885	Jul-96	Deposit 2	818	808/2	ACESPI	4	2.70
Tripyramid N.	1885	Jul-96	Deposit 2	818	808/3	ACESPI	5	2.90
Tripyramid N.	1885	Jul-96	Deposit 2	818	808/4	ACESPI	2.8	2.40
Tripyramid N.	1885	Jul-96	Deposit 2	818	809/1	ACESPI	3	2.60
Tripyramid N.	1885	Jul-96	Deposit 2	818	809/2	ACESPI	8.1	2.50
Tripyramid N.	1885	Jul-96	Deposit 2	818	809/3	BETALL	11.5	5.50
Tripyramid N.	1885	Jul-96	Deposit 2	818	809/4	BETPAP	9.7	4.00
Tripyramid N.	1885	Jul-96	Deposit 2	818	810/1	ACESPI	3	7.00
Tripyramid N.	1885	Jul-96	Deposit 2	818	810/2	BETPAP	9.7	0.60
Tripyramid N.	1885	Jul-96	Deposit 2	818	810/3	BETALL	11.5	1.30
Tripyramid N.	1885	Jul-96	Deposit 2	818	810/4	BETALL	7.2	1.93
Tripyramid N.	1885	Jul-96	Deposit 2	818	811/1	BETPAP	11.3	0.95
Tripyramid N.	1885	Jul-96	Deposit 2	818	811/2	BETALL	11.9	1.40
Tripyramid N.	1885	Jul-96	Deposit 2	818	811/3	BETPAP	19.1	0.40
Tripyramid N.	1885	Jul-96	Deposit 2	818	811/4	ACEPEN	12.8	1.50
Tripyramid N.	1885	Jul-96	Deposit 2	818	812/1	BETALL	17.1	0.65
Tripyramid N.	1885	Jul-96	Deposit 2	818	812/2	ABIBAL	15.6	3.50
Tripyramid N.	1885	Jul-96	Deposit 2	818	812/3	BETALL	9.9	0.60
Tripyramid N.	1885	Jul-96	Deposit 2	818	812/4	ACEPEN	12.1	7.90
Tripyramid N.	1885	Jul-96	Deposit 2	818	813/1	ACEPEN	12.1	7.00
Tripyramid N.	1885	Jul-96	Deposit 2	818	813/2	ABIBAL	33.2	5.25
Tripyramid N.	1885	Jul-96	Deposit 2	818	813/3	ABIBAL	23.5	2.95
Tripyramid N.	1885	Jul-96	Deposit 2	818	813/4	BETALL	22.9	7.20
Tripyramid N.	1885	Jul-96	Deposit 2	818	814/1	ACESPI	4.5	3.20
Tripyramid N.	1885	Jul-96	Deposit 2	818	814/2	ACESAC	34.8	1.40
Tripyramid N.	1885	Jul-96	Deposit 2	818	814/3	BETPAP	24	4.74
Tripyramid N.	1885	Jul-96	Deposit 2	818	814/4	ACESPI	5	2.10
Tripyramid N.	1885	Aug-97	Deposit 2	818	815/1	ACESPI	5	4.25
Tripyramid N.	1885	Jul-96	Deposit 2	818	815/2	BETPPC	14.4	4.50
Tripyramid N.	1885	Jul-96	Deposit 2	818	815/3	ABIBAL	5.3	5.50
Tripyramid N.	1885	Jul-96	Deposit 2	818	815/4	BETPPC	9.5	4.10
Tripyramid N.	1885	Jul-96	Deposit 2	818	816/1	ACESAC	24	2.80
Tripyramid N.	1885	Jul-96	Deposit 2	818	816/2	ABIBAL	4.8	2.40
Tripyramid N.	1885	Jul-96	Deposit 2	818	816/3	BETALL	11.9	3.50
Tripyramid N.	1885	Jul-96	Deposit 2	818	816/4	BETALL	11.6	1.20
Tripyramid N.	1885	Jul-96	Deposit 2	818	817/1	ABIBAL	15.6	4.03
Tripyramid N.	1885	Jul-96	Deposit 2	818	817/2	BETALL	11.8	3.00
Tripyramid N.	1885	Jul-96	Deposit 2	818	817/3	ABIBAL	8.1	3.47
Tripyramid N.	1885	Jul-96	Deposit 2	818	817/4	BETALL	10.2	2.10
Tripyramid N.	1885	Jul-96	Deposit 2	818	818/1	BETALL	10.2	4.10
Tripyramid N.	1885	Jul-96	Deposit 2	818	818/2	ABIBAL	33.3	3.30
Tripyramid N.	1885	Jul-96	Deposit 2	818	818/3	ABIBAL	20.2	2.67
Tripyramid N.	1885	Jul-96	Deposit 2	818	818/4	POPTRE	44.8	3.15

Site Name	Year	Sample Date	Sub-site	Altitude (m)	Point & Qtr.	Species Code	dbh (cm)	Distance (m)
Tripyramid N.	1885	Jul-96	Deposit 2	818	819/1	BETALL	11.3	2.80
Tripyramid N.	1885	Jul-96	Deposit 2	818	819/2	ACESAC	21.8	1.02
Tripyramid N.	1885	Jul-96	Deposit 2	818	819/3	BETALL	7.2	2.35
Tripyramid N.	1885	Jul-96	Deposit 2	818	819/4	BETPAP	23.8	1.50
Tripyramid N.	1885	Jul-96	Deposit 2	818	820/1	BETPAP	14.4	0.65
Tripyramid N.	1885	Jul-96	Deposit 2	818	820/2	POPTRE	27.6	0.75
Tripyramid N.	1885	Jul-96	Deposit 2	818	820/3	ABIBAL	4.7	3.95
Tripyramid N.	1885	Jul-96	Deposit 2	818	820/4	ACESAC	29.7	6.70
Tripyramid N.	1885	Jul-96	Deposit 2	818	821/1	BETALL	11.4	7.65
Tripyramid N.	1885	Jul-96	Deposit 2	818	821/2	BETPAP	14.5	5.40
Tripyramid N.	1885	Jul-96	Deposit 2	818	821/3	POPTRE	23	0.64
Tripyramid N.	1885	Jul-96	Deposit 2	818	821/4	ACESAC	29.7	2.25
Tripyramid N.	1885	Jul-96	Deposit 2	818	822/1	SORAME	12	0.78
Tripyramid N.	1885	Jul-96	Deposit 2	818	822/2	ACESPI	2.9	3.30
Tripyramid N.	1885	Jul-96	Deposit 2	818	822/3	ABIBAL	3.2	5.60
Tripyramid N.	1885	Jul-96	Deposit 2	818	822/4	ABIBAL	4.7	0.10
Tripyramid N.	1885	Jul-96	Deposit 2	818	823/1	ABIBAL	4.7	4.81
Tripyramid N.	1885	Jul-96	Deposit 2	818	823/2	ABIBAL	3.2	3.04
Tripyramid N.	1885	Jul-96	Deposit 2	818	823/3	ABIBAL	22.8	4.13
Tripyramid N.	1885	Jul-96	Deposit 2	818	823/4	ABIBAL	33.3	2.15
Tripyramid N.	1885	Jul-96	Deposit 2	818	824/1	ABIBAL	12	0.42
Tripyramid N.	1885	Jul-96	Deposit 2	818	824/2	ABIBAL	22.8	1.80
Tripyramid N.	1885	Jul-96	Deposit 2	818	824/3	BETPAP	24.8	4.85
Tripyramid N.	1885	Jul-96	Deposit 2	818	824/4	BETPAP	23.3	1.90
Tripyramid N.	1885	Jul-96	Deposit 2	818	825/1	ABIBAL	23	1.26
Tripyramid N.	1885	Jul-96	Deposit 2	818	825/2	BETALL	16.2	2.75
Tripyramid N.	1885	Jul-96	Deposit 2	818	825/3	BETPAP	13.4	2.40
Tripyramid N.	1885	Jul-96	Deposit 2	818	825/4	BETPAP	23.2	3.80
Tripyramid N.	1885	Jul-96	Deposit 2	818	826/1	ABIBAL	3	2.95
Tripyramid N.	1885	Jul-96	Deposit 2	818	826/2	ABIBAL	4.9	2.91
Tripyramid N.	1885	Jul-96	Deposit 2	818	826/3	BETALL	16.2	3.75
Tripyramid N.	1885	Jul-96	Deposit 2	818	826/4	ABIBAL	23	3.35
Tripyramid N.	1885	Jul-96	Deposit 2	818	827/1	ACESPI	3	2.40
Tripyramid N.	1885	Jul-96	Deposit 2	818	827/2	ACESAC	31.5	0.20
Tripyramid N.	1885	Jul-96	Deposit 2	818	827/3	ABIBAL	5.8	1.25
Tripyramid N.	1885	Jul-96	Deposit 2	818	827/4	ABIBAL	3.8	2.27
Tripyramid N.	1885	Jul-96	Deposit 2	818	828/1	ABIBAL	15	2.90
Tripyramid N.	1885	Jul-96	Deposit 2	818	828/2	SORAME	19.5	3.70
Tripyramid N.	1885	Jul-96	Deposit 2	818	828/3	ABIBAL	24.7	0.45
Tripyramid N.	1885	Jul-96	Deposit 2	818	828/4	ACESPI	2.7	2.95
Tripyramid N.	1885	Jul-96	Deposit 2	818	829/1	BETALL	21.6	0.45
Tripyramid N.	1885	Jul-96	Deposit 2	818	829/2	BETALL	5.7	1.30
Tripyramid N.	1885	Jul-96	Deposit 2	818	829/3	BETPPC	12.9	0.75
Tripyramid N.	1885	Jul-96	Deposit 2	818	829/4	ABIBAL	2.6	0.80

Appendix D
Chapter 2
Litterbag Mass and Nutrient
Content at Time of Harvest

Bag #	Species Code	Site Code	Initial Mass		Harvest Date	Final Ash-Free Mass	Final % Nutrient Content					Mg	Ash content
			Oven-dry (gm)	Free Mass			N	P	K	Ca	Final %		
2	BETPAP	TRP H	2.93	2.21	6/1/99	2.21	1.76	0.07	0.11	0.64	0.09	0.03	
5	BETPAP	BCE L	3.02	1.82	10/30/99	1.82	2.23	0.08	0.17	0.74	0.09	0.04	
6	BETPAP	BCE H	3.02	1.96	10/30/99	1.96	2.11	0.07	0.20	0.61	0.05	0.04	
11	BETPAP	PNK H	2.93	1.69	9/29/00	1.69	2.58	0.13	0.15	0.93	0.16	0.04	
12	BETPAP	BCE L	2.93	2.27	6/1/99	2.27	1.64	0.07	0.09	0.78	0.10	0.02	
13	BETPAP	FRS H	2.93	2.16	10/31/99	2.16	1.88	0.07	0.07	0.79	0.09	0.02	
14	BETPAP	BCE H	2.84	2.20	6/1/99	2.20	2.00	0.07	0.07	0.72	0.09	0.03	
16	BETPAP	TRP H	2.93	1.84	10/26/99	1.84	2.11	0.12	0.16	0.84	0.14	0.03	
17	BETPAP	PNK L	2.93	1.45	10/31/99	1.45	2.58	0.13	0.24	0.88	0.13	0.14	
18	BETPAP	PNK H	2.93	2.02	6/1/99	2.02	2.11	0.07	0.12	0.73	0.09	0.04	
19	BETPAP	PNK H	2.84	2.08	6/1/99	2.08	1.88	0.06	0.09	0.74	0.09	0.02	
20	BETPAP	BCE H	2.93	1.49	10/10/00	1.49	2.58	0.09	0.15	0.60	0.05	0.01	
21	BETPAP	BCE L	2.84	1.48	10/10/00	1.48	2.35	0.09	0.13	1.15	0.10	0.01	
23	BETPAP	PNK L	2.93	1.29	9/29/00	1.29	2.82	0.13	0.11	1.07	0.16	0.02	
24	BETPAP	BCE H	2.93	2.23	6/1/99	2.23	2.35	0.08	0.11	0.49	0.04	0.02	
25	BETPAP	FRS H	2.93	2.01	10/31/99	2.01	2.00	0.08	0.09	0.71	0.08	0.05	
26	BETPAP	FRS H	2.93	2.23	6/1/99	2.23	1.88	0.06	0.11	0.70	0.08	0.00	
27	BETPAP	FRS L	2.84	1.34	9/29/00	1.34	2.82	0.13	0.15	0.99	0.10	0.03	
28	BETPAP	FRS L	2.84	1.77	10/31/99	1.77	2.82	0.12	0.24	0.99	0.13	0.03	
30	BETPAP	TRP H	2.93	2.38	6/1/99	2.38	1.76	0.07	0.07	0.93	0.10	0.00	
32	BETPAP	BCE H	2.93	1.30	10/10/00	1.30	2.82	0.14	0.25	0.45	0.05	0.02	
35	BETPAP	FRS L	2.93	1.44	9/29/00	1.44	2.82	0.13	0.12	1.14	0.13	0.02	
36	BETPAP	PNK H	2.84	2.06	10/27/99	2.06	2.11	0.06	0.09	0.62	0.09	0.00	
38	BETPAP	PNK H	2.84	1.43	9/29/00	1.43	2.35	0.12	0.15	0.98	0.15	0.01	
39	BETPAP	FRS H	2.84	1.37	9/29/00	1.37	3.52	0.16	0.16	0.90	0.06	0.07	
42	BETPAP	TRP L	2.75	1.94	6/1/99	1.94	2.23	0.09	0.11	0.93	0.11	0.00	
43	BETPAP	FRS H	2.93	2.10	10/31/99	2.10	2.35	0.09	0.13	0.94	0.10	0.00	
44	BETPAP	PNK L	2.93	2.09	6/1/99	2.09	2.00	0.07	0.12	0.73	0.10	0.02	

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Bag #	Species Code	Site Code	Initial Mass		Harvest Date	Final Ash-Free Mass	Final % Nutrient Content				Final % Ash content	
			Oven-dry (gm)	Free Mass			N	P	K	Ca	Mg	Ash content
45	BETPAP	BCE L	2.93	2.13	6/1/99	2.11	0.07	0.07	0.69	0.08	0.02	
46	BETPAP	FRS L	2.75	1.96	6/1/99	1.64	0.07	0.17	1.10	0.11	0.05	
47	BETPAP	FRS H	2.93	0.91	9/29/00	3.17	0.15	0.21	1.17	0.11	0.05	
48	BETPAP	TRP L	2.84	2.13	6/1/99	1.64	0.07	0.11	0.79	0.10	0.02	
49	BETPAP	PNK H	2.93	1.01	9/29/00	3.17	0.16	0.15	1.26	0.13	0.05	
50	BETPAP	FRS L	2.93	1.79	10/31/99	2.47	0.10	0.15	1.10	0.11	0.04	
51	BETPAP	FRS L	2.93	2.04	10/31/99	1.88	0.06	0.05	0.72	0.08	0.02	
52	BETPAP	TRP L	2.84	1.54	10/26/99	2.47	0.13	0.17	0.92	0.15	0.07	
55	BETPAP	BCE L	3.11	1.25	10/10/00	2.35	0.10	0.11	1.07	0.13	0.08	
56	BETPAP	PNK L	3.02	2.26	6/1/99	1.88	0.09	0.20	0.81	0.13	0.04	
57	BETPAP	TRP H	3.02	1.66	10/26/99	2.11	0.10	0.17	0.81	0.11	0.04	
58	BETPAP	TRP H	2.93	2.47	10/20/00	2.58	0.19	0.22	0.96	0.13	0.26	
59	BETPAP	TRP H	3.02	2.07	10/26/99	1.88	0.07	0.07	0.73	0.08	0.04	
60	BETPAP	PNK L	3.20	1.46	9/29/00	2.70	0.10	0.12	1.01	0.14	0.06	
62	BETPAP	FRS H	2.75	2.18	6/1/99	1.88	0.07	0.07	0.75	0.08	0.03	
63	BETPAP	FRS L	3.02	1.26	9/29/00	2.82	0.12	0.09	1.01	0.10	0.06	
64	BETPAP	PNK L	2.93	1.50	10/31/99	2.82	0.12	0.19	1.04	0.10	0.05	
65	BETPAP	PNK L	3.11	2.10	6/1/99	1.76	0.07	0.11	0.97	0.11	0.03	
67	BETPAP	FRS L	2.75	1.53	9/29/00	2.70	0.14	0.20	1.00	0.14	0.15	
70	BETPAP	TRP H	2.84	1.57	10/26/99	2.23	0.14	0.16	1.00	0.11	0.04	
72	BETPAP	TRP L	2.93	1.73	10/26/99	2.35	0.15	0.17	0.97	0.18	0.04	
73	BETPAP	BCE H	2.84	1.37	10/10/00	2.70	0.10	0.12	0.63	0.05	0.04	
77	BETPAP	PNK H	2.84	2.11	6/1/99	1.64	0.06	0.04	0.81	0.09	0.03	
79	BETPAP	TRP L	2.93	0.89	10/20/00	2.70	0.17	0.21	1.21	0.19	0.05	
80	BETPAP	PNK L	2.93	1.04	9/29/00	2.94	0.16	0.17	1.21	0.15	0.06	
81	BETPAP	FRS H	2.93	1.41	9/29/00	2.82	0.12	0.12	0.75	0.06	0.04	
82	BETPAP	PNK H	2.75	1.69	10/27/99	2.11	0.08	0.12	0.56	0.08	0.06	
84	BETPAP	FRS H	2.93	1.20	9/29/00	3.05	0.12	0.15	1.04	0.11	0.06	
86	BETPAP	BCE H	2.84	1.32	10/10/00	2.70	0.10	0.13	0.62	0.04	0.03	
87	BETPAP	FRS L	2.84	2.13	6/1/99	1.41	0.06	0.09	0.78	0.10	0.03	
90	BETPAP	BCE H	2.84	1.63	10/30/99	2.23	0.10	0.25	0.84	0.08	0.04	
91	BETPAP	PNK H	2.75	1.52	10/27/99	2.58	0.14	0.15	0.81	0.13	0.04	

Bag #	Species Code	Site Code	Initial Mass		Final Ash- Free Mass	Final % Nutrient Content					Final % Ash content
			Oven-dry (gm)	Harvest Date		N	P	K	Ca	Mg	
92	BETPAP	BCE L	2.93	10/30/99	1.74	2.11	0.09	0.20	0.75	0.08	0.03
96	BETALL	BCE L	2.58	10/10/00	1.27	2.94	0.10	0.12	1.20	0.10	0.05
98	BETALL	BCE L	2.87	10/10/00	1.13	3.29	0.10	0.12	0.93	0.08	0.04
100	BETALL	FRS H	2.87	10/31/99	2.01	1.76	0.07	0.13	0.73	0.11	0.27
101	BETALL	FRS H	2.78	9/29/00	1.43	2.70	0.10	0.17	0.60	0.05	0.05
104	BETALL	TRP. L	2.87	10/20/00	1.14	3.29	0.15	0.15	1.20	0.15	0.06
105	BETALL	PNK L	2.78	9/29/00	0.93	2.94	0.15	0.15	1.33	0.14	0.06
106	BETALL	PNK H	2.87	9/29/00	1.25	2.70	0.13	0.12	1.10	0.14	0.04
108	BETALL	PNK H	2.87	6/1/99	2.25	1.76	0.07	0.22	0.95	0.15	0.04
110	BETALL	PNK H	2.97	6/1/99	2.18	1.76	0.07	0.07	0.86	0.09	0.02
112	BETALL	TRP H	2.87	10/26/99	1.78	2.70	0.12	0.12	1.25	0.18	0.03
113	BETALL	BCE L	2.87	6/1/99	2.04	2.11	0.09	0.21	1.11	0.18	0.04
115	BETALL	PNK L	2.87	6/1/99	1.97	2.23	0.06	0.08	0.76	0.11	0.04
121	BETALL	TRP H	2.87	10/20/00	1.49	2.70	0.15	0.15	1.21	0.18	0.08
122	BETALL	FRS L	2.87	10/31/99	1.79	2.70	0.10	0.19	1.16	0.15	0.06
123	BETALL	BCE L	2.97	6/1/99	2.01	2.35	0.09	0.16	1.03	0.15	0.04
124	BETALL	TRP L	2.87	10/26/99	1.40	2.94	0.14	0.17	1.08	0.15	0.05
126	BETALL	PNK H	2.87	10/27/99	1.75	2.47	0.12	0.20	0.96	0.13	0.08
129	BETALL	PNK H	2.78	10/27/99	1.63	2.58	0.08	0.09	1.03	0.11	0.04
131	BETALL	FRS L	2.78	6/1/99	1.88	2.70	0.13	0.12	1.09	0.14	0.05
132	BETALL	PNK H	2.87	9/29/00	1.43	2.58	0.12	0.12	1.20	0.21	0.05
133	BETALL	FRS L	2.78	10/31/99	1.75	3.05	0.17	0.34	1.23	0.19	0.12
134	BETALL	FRS L	2.87	9/29/00	1.38	3.05	0.13	0.13	1.22	0.10	0.00
136	BETALL	BCE L	2.78	10/30/99	1.64	3.05	0.08	0.21	0.71	0.09	0.04
137	BETALL	PNK L	2.87	9/29/00	1.35	2.70	0.14	0.16	1.22	0.18	0.07
138	BETALL	FRS H	2.97	6/1/99	1.98	1.88	0.07	0.08	0.94	0.09	0.03
140	BETALL	PNK L	2.78	10/31/99	1.77	2.47	0.08	0.28	1.29	0.21	0.05
141	BETALL	TRP H	2.87	6/1/99	2.05	2.00	0.08	0.08	1.10	0.14	0.04
143	BETALL	FRS H	2.78	9/29/00	1.62	2.94	0.14	0.21	0.93	0.09	0.10
144	BETALL	FRS L	2.78	6/1/99	2.19	1.76	0.07	0.13	1.00	0.15	0.04
145	BETALL	BCE L	3.45	6/1/99	2.01	2.35	0.09	0.15	0.89	0.14	0.04
151	BETALL	TRP L	3.45	6/1/99	2.01	2.00	0.08	0.13	1.00	0.14	0.03
152	BETALL	BCE H	3.45	10/30/99	2.10	2.70	0.09	0.26	0.39	0.04	0.00

Bag #	Species Code	Site Code	Initial Mass		Final Ash-Free Mass	Final % Nutrient Content					Final % Ash content
			Oven-dry (gm)	Harvest Date		N	P	K	Ca	Mg	
154	BETALL	FRS H	3.45	10/31/99	1.78	2.11	0.08	0.16	0.96	0.11	0.12
155	BETALL	PNK L	3.55	6/1/99	2.10	2.35	0.08	0.16	0.79	0.13	0.00
156	BETALL	TRP H	3.45	10/20/00	1.09	3.05	0.14	0.19	1.08	0.13	0.06
159	ACESAC	TRP H	3.11	10/20/00	1.43	2.58	0.15	0.17	1.23	0.19	0.08
163	ACESAC	TRP H	2.98	6/1/99	2.12	1.41	0.03	0.11	0.78	0.06	0.04
165	ACESAC	TRP L	3.20	10/20/00	1.61	2.47	0.15	0.24	1.16	0.13	0.53
166	ACESAC	PNK L	3.02	6/1/99	2.15	1.53	0.06	0.13	0.77	0.08	0.04
169	ACESAC	PNK L	3.02	10/27/99	2.12	1.53	0.06	0.28	0.88	0.10	0.05
171	ACESAC	TRP H	3.11	10/26/99	1.91	1.88	0.09	0.26	0.77	0.06	0.04
175	ACESAC	TRP H	3.13	10/26/99	1.80	1.88	0.13	0.13	0.95	0.10	0.07
176	ACESAC	BCE H	3.10	10/30/99	1.59	2.23	0.07	0.30	0.82	0.05	0.07
177	ACESAC	PNK L	3.09	6/1/99	2.01	1.64	0.06	0.07	0.87	0.09	0.06
178	ACESAC	TRP L	2.84	10/20/00	0.98	2.23	0.14	0.20	1.03	0.14	0.08
179	ACESAC	FRS L	3.07	6/1/99	2.23	1.41	0.06	0.21	0.97	0.08	0.06
180	ACESAC	FRS H	3.24	9/29/00	1.55	2.58	0.13	0.29	0.93	0.08	0.10
182	ACESAC	BCE H	3.03	10/30/99	1.58	2.11	0.07	0.34	0.78	0.04	0.06
184	ACESAC	TRP H	3.02	10/26/99	1.96	1.76	0.09	0.15	0.87	0.09	0.06
186	ACESAC	PNK L	2.88	9/29/00	1.02	2.58	0.12	0.19	1.18	0.14	0.10
187	ACESAC	BCE L	3.20	10/10/00	0.93	2.35	0.09	0.17	1.12	0.08	0.09
188	ACESAC	TRP L	3.11	6/1/99	2.30	1.17	0.03	0.28	1.01	0.08	0.06
190	ACESAC	FRS L	3.20	9/29/00	1.36	2.23	0.13	0.19	1.18	0.10	0.08
192	BETALL	FRS L	3.44	9/29/00	1.63	3.05	0.14	0.36	1.12	0.11	0.07
194	BETALL	TRP L	3.58	10/20/00	1.80	2.70	0.12	0.33	0.76	0.10	0.05
197	BETALL	PNK L	3.46	6/1/99	2.05	2.23	0.08	0.26	1.05	0.15	0.04
199	BETALL	FRS L	3.27	9/29/00	1.20	3.05	0.13	0.29	1.28	0.14	0.10
201	BETALL	PNK H	3.35	10/27/99	2.03	2.11	0.08	0.22	1.22	0.19	0.05
202	BETALL	FRS H	3.26	6/1/99	2.27	2.11	0.08	0.16	1.00	0.10	0.04
203	BETALL	PNK L	3.10	9/29/00	1.40	2.82	0.09	0.13	1.08	0.14	0.06
205	BETALL	BCE H	3.15	10/10/00	1.05	3.05	0.14	0.22	0.70	0.06	0.06
206	BETALL	FRS H	3.15	9/29/00	1.53	2.94	0.14	0.20	1.00	0.11	0.14
207	BETALL	FRS L	3.25	2/29/00	1.65	3.17	0.16	0.21	1.24	0.14	0.01
208	BETALL	FRS L	3.07	9/29/00	1.01	3.05	0.16	0.20	1.43	0.14	0.10
209	BETALL	PNK H	3.14	10/27/99	0.78	2.94	0.15	0.19	1.52	0.14	0.07

Bag #	Species Code	Site Code	Initial Mass		Harvest Date	Final Ash-Free Mass	Final % Nutrient Content					Final % Ash content	
			Oven-dry (gm)	Free Mass			N	P	K	Ca	Mg	Ash content	
210	BETALL	BCE H	3.06	0.92	10/10/00	3.05	0.14	0.21	0.64	0.06	0.05		
211	BETALL	FRS H	3.14	2.01	6/1/99	2.00	0.07	0.12	0.89	0.13	0.04		
215	BETALL	FRS H	3.24	2.01	10/31/99	2.35	0.09	0.16	0.95	0.11	0.05		
216	BETALL	BCE H	3.10	0.90	10/30/99	2.35	0.13	0.26	0.90	0.06	0.05		
217	BETALL	TRP L	3.00	1.51	10/26/99	2.70	0.16	0.24	1.02	0.20	0.08		
218	BETALL	PNK H	3.39	1.45	9/29/00	2.82	0.13	0.16	0.95	0.14	0.06		
219	BETALL	FRS L	3.04	2.12	6/1/99	1.76	0.08	0.21	1.01	0.14	0.04		
221	BETALL	PNK L	3.10	1.70	10/31/99	2.70	0.12	0.41	1.32	0.19	0.06		
222	BETALL	BCE H	3.02	2.18	6/1/99	1.76	0.08	0.09	0.97	0.11	0.03		
223	BETALL	TRP H	3.25	1.72	10/26/99	2.58	0.14	0.19	1.02	0.14	0.04		
226	ACESAC	TRP H	3.11	2.06	6/1/99	1.88	0.10	0.20	0.96	0.10	0.11		
227	ACESAC	PNK L	3.23	1.66	10/31/99	1.88	0.09	0.26	1.26	0.15	0.08		
228	ACESAC	BCE H	3.17	1.32	10/10/00	2.70	0.10	0.20	0.89	0.05	0.07		
230	ACESAC	TRP L	3.02	1.58	10/26/99	2.23	0.13	0.17	1.17	0.11	0.07		
231	ACESAC	BCE H	3.22	1.16	10/10/00	2.35	0.12	0.17	0.66	0.06	0.06		
232	ACESAC	BCE L	3.10	2.07	10/30/99	1.76	0.05	0.09	1.13	0.08	0.06		
233	ACESAC	PNK H	3.18	1.25	9/29/00	2.58	0.12	0.16	0.98	0.20	0.08		
234	ACESAC	BCE L	3.19	2.34	6/1/99	1.53	0.07	0.17	1.02	0.10	0.06		
238	ACESAC	PNK L	3.02	1.37	9/29/00	2.35	0.12	0.15	1.12	0.18	0.08		
239	ACESAC	FRS H	3.41	2.01	10/31/99	2.00	0.07	0.12	1.01	0.09	0.06		
241	ACESAC	TRP H	3.38	1.78	10/26/99	2.23	0.10	0.15	0.93	0.10	0.07		
242	ACESAC	TRP H	3.34	2.41	6/1/99	1.17	0.05	0.09	0.85	0.06	0.05		
243	ACESAC	FRS L	3.28	0.64	9/29/00	2.58	0.12	0.20	1.31	0.15	0.56		
244	ACESAC	FRS H	3.28	2.37	6/1/99	1.53	0.06	0.17	1.02	0.09	0.06		
245	ACESAC	FRS L	3.09	2.31	6/1/99	1.64	0.06	0.13	0.87	0.08	0.06		
246	ACESAC	FRS L	3.34	1.30	10/31/99	2.35	0.13	0.25	0.95	0.54	0.25		
247	ACESAC	FRS L	3.02	2.22	6/1/99	1.53	0.06	0.12	0.96	0.10	0.06		
248	ACESAC	BCE L	3.02	1.32	10/10/00	2.35	0.09	0.16	1.02	0.14	0.09		
249	ACESAC	TRP H	2.44	1.74	10/20/00	1.41	0.06	0.09	0.66	0.08	0.05		
252	ACESAC	FRS H	2.91	1.01	9/29/00	3.05	0.14	0.22	1.05	0.16	0.09		
253	ACESAC	PNK H	3.38	1.21	9/29/00	2.23	0.13	0.17	1.27	0.14	0.09		
254	ACESAC	FRS H	3.20	2.35	10/31/99	1.76	0.05	0.09	0.79	0.09	0.05		
256	ACESAC	BCE H	3.19	1.11	10/10/00	2.35	0.09	0.13	0.68	0.06	0.08		

Bag #	Species Code	Site Code	Initial Mass		Harvest Date	Final Ash-Free Mass		Final % Nutrient Content					Final % Ash content
			Over-dry (gm)			N	P	K	Ca	Mg			
257	ACESAC	PNK L	3.32		9/29/00	1.60	1.88	0.08	0.12	1.08	0.16	0.08	
258	ACESAC	FRS H	3.21		9/29/00	1.40	2.47	0.13	0.17	0.89	0.28	0.13	
260	ACESAC	PNK H	3.31		10/27/99	1.96	1.41	0.06	0.11	0.78	0.10	0.06	
261	ACESAC	PNK H	3.08		9/29/00	1.40	2.47	0.13	0.19	0.86	0.21	0.07	
262	ACESAC	BCE L	3.17		6/1/99	2.29	1.29	0.03	0.12	0.74	0.08	0.05	
263	ACESAC	PNK H	3.19		6/1/99	2.51	1.41	0.03	0.05	0.71	0.08	0.05	
265	ACESAC	FRS H	3.09		6/1/99	2.54	2.23	0.10	0.21	0.61	0.91	0.08	
268	ACESAC	PNK H	3.27		9/29/00	1.36	2.35	0.10	0.07	0.72	0.25	0.09	
269	ACESAC	FRS H	3.10		10/31/99	2.27	1.53	0.05	0.07	0.78	0.10	0.06	
273	ACESAC	PNK H	3.10		6/1/99	2.43	1.76	0.06	0.11	0.71	0.08	0.05	
275	ACESAC	TRP L	3.28		6/1/99	2.43	1.53	0.05	0.07	0.90	0.08	0.05	
276	ACESAC	TRP L	2.92		10/20/00	1.26	2.47	0.15	0.26	1.27	0.18	0.09	
277	ACESAC	FRS L	3.10		10/31/99	1.64	1.88	0.10	0.25	1.01	0.10	0.07	
281	ACESAC	FRS L	3.15		9/29/00	1.15	2.47	0.12	0.24	1.11	0.14	0.08	
282	ACESAC	TRP L	3.18		6/1/99	2.50	1.41	0.05	0.24	0.82	0.09	0.05	
287	ACESAC	FRS H	3.17		6/1/99	1.65	2.23	0.13	0.19	0.76	0.09	0.24	
288	ACESAC	PNK L	3.14		9/29/00	1.23	2.47	0.14	0.17	1.28	0.18	0.09	
290	ACESAC	BCE L	3.20		10/30/99	1.72	2.94	0.09	0.21	0.89	0.08	0.05	
336	ABIBAL	BCE L	2.99		10/10/00	1.46	2.11	0.07	0.12	0.78	0.06	0.03	
337	ABIBAL	TRP H	2.99		10/20/00	1.81	2.35	0.10	0.15	0.64	0.08	0.03	
338	ABIBAL	FRS H	2.99		10/31/99	2.17	2.00	0.07	0.12	0.67	0.06	0.03	
339	ABIBAL	TRP L	2.99		10/20/00	1.83	2.82	0.12	0.13	0.77	0.10	0.05	
341	ABIBAL	FRS L	2.99		10/31/99	1.93	2.58	0.10	0.17	0.69	0.08	0.04	
342	ABIBAL	BCE H	2.99		10/30/99	2.03	2.23	0.08	0.17	0.49	0.03	0.03	
343	ABIBAL	TRP H	2.99		10/26/99	2.27	2.11	0.08	0.17	0.68	0.08	0.03	
345	ABIBAL	PNK H	2.99		10/27/99	2.29	2.35	0.12	0.16	0.56	0.05	0.05	
346	ABIBAL	PNK L	2.99		10/27/99	1.87	2.70	0.12	0.20	0.88	0.09	0.04	
347	ABIBAL	FRS L	2.99		9/29/00	1.22	3.05	0.12	0.11	0.75	0.06	0.04	
348	ABIBAL	PNK L	2.99		10/27/99	2.33	2.11	0.07	0.11	0.66	0.08	0.03	
349	ABIBAL	FRS H	2.99		10/31/99	2.16	2.11	0.08	0.15	0.61	0.06	0.14	
350	ABIBAL	TRP H	2.99		10/27/99	2.17	2.00	0.09	0.20	0.76	0.09	0.03	

Bag #	Species Code	Site Code	Initial Mass		Harvest Date	Final Ash-Free Mass	Final % Nutrient Content				Final % Ash content	
			Oven-dry (gm)	Free Mass			N	P	K	Ca	Mg	Ash content
351	ABIBAL	FRS H	2.99	2.21	10/30/99	2.00	0.08	0.15	0.68	0.08	0.03	
354	ABIBAL	TRP H	2.99	1.69	10/26/99	2.82	0.13	0.17	0.74	0.09	0.03	
355	ABIBAL	PNK L	2.99	2.22	10/27/99	2.00	0.08	0.11	0.76	0.06	0.02	
358	ABIBAL	PNK L	2.99	1.61	9/29/00	2.47	0.09	0.13	0.75	0.08	0.04	
359	ABIBAL	BCE L	2.99	2.05	10/30/99	1.88	0.07	0.12	0.69	0.06	0.03	
361	ABIBAL	BCE H	2.99	2.00	10/30/99	2.58	0.08	0.11	0.42	0.03	0.03	
362	ABIBAL	FRS L	2.99	2.31	10/31/99	2.00	0.10	0.13	0.97	0.10	0.02	
364	ABIBAL	FRS H	2.99	1.99	9/29/00	2.70	0.13	0.15	0.70	0.05	0.07	
365	ABIBAL	FRS H	2.99	2.04	9/29/00	2.11	0.09	0.11	0.92	0.08	0.02	
367	ABIBAL	PNK H	2.99	2.19	10/27/99	2.00	0.09	0.05	0.78	0.05	0.03	
368	ABIBAL	PNK L	2.99	1.94	10/27/99	2.47	0.13	0.12	0.90	0.09	0.03	
370	ABIBAL	TRP L	2.99	2.15	6/1/99	2.00	0.09	0.09	0.90	0.10	0.03	
371	ABIBAL	TRP H	2.99	1.85	10/26/99	2.58	0.15	0.16	0.81	0.09	0.03	
378	ABIBAL	PNK L	2.99	2.15	10/27/99	2.11	0.10	0.07	0.84	0.09	0.03	
379	ABIBAL	FRS H	2.99	1.77	9/29/00	2.82	0.14	0.11	0.73	0.06	0.05	
381	ABIBAL	PNK L	2.99	1.77	9/29/00	2.82	0.13	0.05	0.72	0.06	0.02	
383	ABIBAL	PNK L	2.99	1.73	9/29/00	2.82	0.13	0.07	0.70	0.08	0.03	
386	ABIBAL	PNK H	2.99	2.14	10/27/99	2.00	0.09	0.05	0.85	0.08	0.04	
387	ABIBAL	FRS L	2.99	1.64	9/29/00	2.82	0.14	0.11	0.85	0.08	0.08	
388	ABIBAL	FRS L	2.99	2.30	10/31/99	2.11	0.08	0.05	0.64	0.06	0.03	
390	ABIBAL	PNK H	2.99	1.99	9/29/00	2.35	0.10	0.09	0.77	0.09	0.03	
392	ABIBAL	PNK H	2.99	1.61	9/29/00	2.58	0.12	0.08	0.84	0.09	0.03	
394	ABIBAL	FRS H	2.99	2.34	10/30/99	1.88	0.09	0.15	0.50	0.06	0.21	
395	ABIBAL	PNK H	2.99	2.32	9/29/00	1.88	0.12	0.15	0.80	0.10	0.03	
396	ABIBAL	TRP H	2.99	2.24	10/27/99	1.29	0.13	0.33	0.42	0.14	0.03	
397	ABIBAL	FRS H	2.99	2.08	9/29/00	2.00	0.10	0.08	0.84	0.09	0.02	
398	ABIBAL	TRP H	2.99	1.33	10/20/00	2.58	0.14	0.15	0.89	0.10	0.03	
399	ABIBAL	BCE H	2.99	1.27	10/10/00	2.94	0.14	0.11	0.69	0.03	0.02	
401	ABIBAL	TRP H	2.99	1.49	10/20/00	3.05	0.14	0.08	1.03	0.10	0.04	

Species codes follow Appendix I. Site codes refer to Big Coolidge Mt (BCE) high (700 m) and low (450 m) elevation stands, Franconia Notch (FRS) high (700 m) and low (600 m) elevation stands, Pinkham Notch (PNK) high (750 m) and low (500 m) elevation stands and Tripyramid N (TRP) high (830 m) and low (610 m) elevation stands. Initial litter mass is reported in grams nutrient concentrations are % total ash free oven-dry mass.

Appendix E
Chapter 2
Initial Litterbag Carbon Fraction
and Nutrient Content Data.

Species Code	Lignin	Cellulose	Extractable	N	P	K	Ca	Mg
ABIBAL	30.41	33.01	36.58	1.43	0.14	0.36	0.65	0.09
ABIBAL	29.04	36.79	34.17	1.43	0.13	0.33	0.69	0.08
ABIBAL	29.4	35.46	35.14	1.54	0.14	0.36	0.68	0.09
ABIBAL	29.32	34.37	36.31	1.43	0.12	0.35	0.72	0.08
ABIBAL	29.17	35.88	34.95	1.43	0.14	0.36	0.70	0.09
ABIBAL	29.36	35.05	35.59	1.43	0.13	0.35	0.68	0.08
ACESAC	24.57	42.45	32.98	1.21	0.04	0.39	0.68	0.08
ACESAC	25.27	37.63	37.1	1.21	0.05	0.47	0.49	0.06
ACESAC	25.45	39.43	35.12	1.32	0.04	0.49	0.69	0.07
ACESAC	24.32	43.28	32.4	1.32	0.04	0.41	0.75	0.09
ACESAC	23.21	40.55	36.24	1.32	0.06	0.47	0.85	0.07
ACESAC	24.58	42.56	32.86	1.21	0.03	0.43	0.72	0.08
ACESAC	21.24	42.57	36.19	1.21	0.04	0.43	1.00	0.08
BETALL	24.13	42.59	33.28	1.54	0.07	0.67	0.83	0.14
BETALL	24.89	41.52	33.59	1.43	0.07	0.59	0.79	0.13
BETALL	23.77	41.59	34.64	1.76	0.08	0.60	0.72	0.12
BETALL	23.1	42.34	34.56	1.65	0.06	0.52	0.87	0.16
BETALL	23.91	43.07	33.02	1.32	0.07	0.64	0.79	0.13
BETALL	24.61	40.75	34.64	1.21	0.06	0.63	0.78	0.13
BETALL	24.73	42.98	32.29	1.54	0.08	0.54	0.88	0.15
BETPAP	21.75	37.01	41.24	1.21	0.07	0.49	0.51	0.08
BETPAP	19.71	38.08	42.21	1.21	0.06	0.60	0.63	0.09
BETPAP	24.95	37.85	37.2	1.43	0.07	0.35	0.53	0.08
BETPAP	19.72	37.05	43.23	1.32	0.07	0.41	0.59	0.08
BETPAP	22.02	40.05	37.93	1.21	0.05	0.55	0.73	0.11
BETPAP	18.16	37.44	44.4	0.88	0.05	0.52	0.63	0.08
BETPAP	21.25	38.68	40.07	1.10	0.07	0.52	0.70	0.10

Appendix F
Chapter 2
Foliage Nutrient Content of
Five Selected Species
Site Codes Follow Appendix IV.

Site	Elevation	Sample Date	Species Code	N	P	K	Ca	Mg
BCE	455	8/18/98	ABIBAL	1.37	0.09	0.5	0.7	0.06
BCE	455	8/18/98	ABIBAL	1.68	0.1	0.7	0.5	0.08
BCE	455	8/18/98	ABIBAL	1.67	0.15	0.6	0.8	0.06
BCE	455	8/18/98	ABIBAL	1.72	0.12	0.5	0.4	0.07
BCE	455	8/18/98	ABIBAL	1.69	0.1	0.6	0.8	0.07
BCE	455	8/18/98	ACESAC	2.18	0.1	0.5	0.8	0.1
BCE	455	8/18/98	ACESAC	2.34	0.1	0.8	0.5	0.1
BCE	455	8/18/98	ACESAC	2.58	0.13	0.9	0.5	0.08
BCE	455	8/18/98	ACESAC	2.3	0.08	0.9	0.4	0.07
BCE	455	8/18/98	ACESAC	2.23	0.09	0.9	0.8	0.11
BCE	455	8/18/98	BETALL	2.78	0.1	0.9	0.6	0.1
BCE	455	8/18/98	BETALL	2.79	0.1	1	0.7	0.11
BCE	455	8/18/98	BETALL	3.02	0.11	1.1	1	0.14
BCE	455	8/18/98	BETALL	2.74	0.09	1.2	1	0.14
BCE	455	8/18/98	BETALL	2.33	0.11	1.7	0.6	0.13
BCE	455	8/18/98	BETPAP	2.12	0.09	1.1	0.6	0.13
BCE	455	8/18/98	BETPAP	2.46	0.09	1.1	0.6	0.13
BCE	455	8/18/98	BETPAP	2.56	0.05	1.3	0.6	0.08
BCE	455	8/18/98	BETPAP	3.01	0.07	1	0.5	0.1
BCE	455	8/18/98	BETPAP	2.73	0.07	1.1	0.5	0.1
BCE	455	8/18/98	PICRUB	1.2	0.06	0.5	0.2	0.04
BCE	455	8/18/98	PICRUB	1.31	0.07	0.6	0.2	0.04
BCE	455	8/18/98	PICRUB	1.34	0.06	0.6	0.2	0.04
BCE	455	8/18/98	PICRUB	1.07	0.06	0.6	0.3	0.05
BCE	455	8/18/98	PICRUB	1.4	0.06	0.5	0.2	0.03
BCE	690	8/18/98	ABIBAL	1.16	0.05	0.3	0.3	0.04
BCE	690	8/18/98	ABIBAL	1.39	0.07	0.6	0.4	0.05
BCE	690	8/18/98	ABIBAL	1.95	0.07	0.6	0.4	0.06
BCE	690	8/18/98	ABIBAL	1.63	0.09	0.7	0.6	0.05
BCE	690	8/18/98	ABIBAL	1.36	0.07	0.5	0.6	0.06
BCE	690	8/18/98	ACEPEN	2.09	0.11	1.6	0.4	0.06
BCE	690	8/18/98	ACEPEN	2.94	0.12	1.6	0.6	0.08
BCE	690	8/18/98	ACEPEN	2.19	0.09	1.2	0.4	0.06
BCE	690	8/18/98	ACEPEN	2.36	0.11	1.4	0.4	0.05
BCE	690	8/18/98	ACEPEN	2.67	0.11	1.6	0.5	0.06
BCE	690	8/18/98	BETALL	2.44	0.09	1	0.4	0.04
BCE	690	8/18/98	BETALL	2.41	0.07	1	0.5	0.05
BCE	690	8/18/98	BETALL	2.2	0.09	0.9	0.5	0.05

Site	Elevation	Sample Date	Species Code	N	P	K	Ca	Mg
BCE	690	8/18/98	BETALL	2.29	0.09	1	0.5	0.07
BCE	690	8/18/98	BETALL	2.4	0.11	0.8	0.5	0.09
BCE	690	8/18/98	BETPAP	2.4	0.08	0.9	0.5	0.07
BCE	690	8/18/98	BETPAP	1.93	0.05	1	0.2	0.05
BCE	690	8/18/98	BETPAP	1.91	0.08	1.4	0.3	0.03
BCE	690	8/18/98	BETPAP	1.98	0.07	1.5	0.2	0.03
BCE	690	8/18/98	BETPAP	2.44	0.08	1.1	0.4	0.06
BCE	690	8/18/98	PICRUB	1	0.05	0.5	0.1	0.03
BCE	690	8/18/98	PICRUB	1.08	0.05	0.6	0.2	0.04
BCE	690	8/18/98	PICRUB	1.08	0.05	0.6	0.3	0.03
BCE	690	8/18/98	PICRUB	1.26	0.06	0.4	0.3	0.04
BCE	690	8/18/98	PICRUB	1.05	0.04	0.5	0.1	0.03
FRS	610	8/19/98	ABIBAL	1.74	0.14	0.7	0.6	0.06
FRS	610	8/19/98	ABIBAL	1.77	0.1	0.8	0.6	0.06
FRS	610	8/19/98	ABIBAL	2.06	0.21	0.9	0.3	0.07
FRS	610	8/18/98	ABIBAL	2.46	0.18	1	0.4	0.06
FRS	610	8/18/98	ABIBAL	1.66	0.15	0.9	0.4	0.07
FRS	610	8/18/98	ACESAC	2.79	0.12	0.9	0.6	0.1
FRS	610	8/18/98	ACESAC	2.97	0.13	0.9	0.7	0.1
FRS	610	8/18/98	ACESAC	2.66	0.12	1.1	0.6	0.09
FRS	610	8/18/98	ACESAC	2.74	0.18	0.8	0.5	0.08
FRS	610	8/18/98	ACESAC	2.76	0.16	0.7	0.6	0.08
FRS	610	8/18/98	BETALL	2.64	0.12	1.3	0.5	0.13
FRS	610	8/18/98	BETALL	3.31	0.16	1.8	1	0.15
FRS	610	8/18/98	BETALL	2.86	0.13	1.1	0.7	0.13
FRS	610	8/18/98	BETALL	2.69	0.11	1.1	0.7	0.17
FRS	610	8/18/98	BETALL	n/a	0.13	0.9	0.68	0.18
FRS	610	8/19/98	BETALL	3.2	0.13	1.6	0.5	0.1
FRS	610	8/19/98	BETALL	n/a	0.12	0.59	0.69	0.14
FRS	610	8/18/98	BETPAP	2.78	0.12	1	0.5	0.06
FRS	610	8/18/98	BETPAP	2.81	0.11	0.9	0.5	0.07
FRS	610	8/18/98	BETPAP	3.45	0.18	0.8	0.6	0.07
FRS	610	8/18/98	BETPAP	3.79	0.13	1.1	0.6	0.08
FRS	610	8/19/98	BETPAP	2.56	0.12	1.1	0.5	0.08
FRS	610	8/18/98	PICRUB	1.74	0.09	0.6	0.2	0.04
FRS	610	8/18/98	PICRUB	2.39	0.11	0.5	0.2	0.04
FRS	610	8/18/98	PICRUB	1.99	0.11	0.5	0.2	0.04
FRS	610	8/18/98	PICRUB	1.64	0.08	0.6	0.2	0.05
FRS	610	8/18/98	PICRUB	n/a	0.1	0.46	0.19	0.05

Site	Elevation	Sample Date	Species Code	N	P	K	Ca	Mg
FRS	610	8/19/98	PICRUB	1.56	0.08	0.6	0.2	0.04
FRS	690	8/19/98	ABIBAL	2.03	0.11	0.5	0.5	0.06
FRS	690	8/19/98	ABIBAL	1.84	0.1	0.5	0.7	0.09
FRS	690	8/19/98	ABIBAL	2.64	0.1	0.8	0.5	0.08
FRS	690	8/19/98	ABIBAL	2.34	0.1	0.9	0.7	0.09
FRS	690	8/19/98	ABIBAL	1.73	0.1	0.6	0.5	0.08
FRS	690	8/19/98	BETALL	3.13	0.09	0.6	0.7	0.13
FRS	690	8/19/98	BETALL	2.49	0.08	0.6	0.7	0.15
FRS	690	8/19/98	BETALL	3.16	0.13	1	0.7	0.17
FRS	690	8/18/98	BETPAP	2.81	0.09	1.1	0.3	0.05
FRS	690	8/19/98	BETPAP	2.59	0.09	0.8	0.4	0.05
FRS	690	8/19/98	BETPAP	2.05	0.08	0.6	0.4	0.06
FRS	690	8/19/98	BETPAP	2.11	0.1	0.9	0.3	0.07
FRS	690	8/19/98	BETPAP	3.06	0.11	1.1	0.3	0.07
FRS	690	8/19/98	PICRUB	1.69	0.09	0.5	0.2	0.05
FRS	690	8/19/98	PICRUB	1.56	0.08	0.7	0.2	0.07
FRS	690	8/19/98	PICRUB	2.86	0.09	0.9	0.2	0.06
FRS	690	8/19/98	PICRUB	n/a	0.1	0.54	0.21	0.06
PNK	500	8/13/98	ABIBAL	1.55	0.1	0.4	0.6	0.07
PNK	500	8/13/98	ABIBAL	1.99	0.09	0.5	0.7	0.08
PNK	500	8/13/98	ABIBAL	1.61	0.1	0.5	0.7	0.08
PNK	500	8/13/98	ABIBAL	1.3	0.09	0.6	1.2	0.09
PNK	500	8/13/98	ABIBAL	1.79	0.11	0.7	0.6	0.07
PNK	500	8/13/98	ABIBAL	1	0.112	0.24	0.7	0.094
PNK	500	8/13/98	ACESAC	1.92	0.07	0.7	0.7	0.14
PNK	500	8/13/98	ACESAC	2.11	0.09	0.6	1	0.19
PNK	500	8/13/98	ACESAC	1.65	0.08	0.5	0.8	0.12
PNK	500	8/13/98	ACESAC	2.08	0.1	0.6	0.8	0.18
PNK	500	8/13/98	ACESAC	2.21	0.09	0.7	1.2	0.16
PNK	500	8/13/98	BETALL	2.56	0.13	0.9	1.3	0.32
PNK	500	8/13/98	BETALL	2.22	0.13	1.2	1.4	0.35
PNK	500	8/13/98	BETALL	2.27	0.12	1.1	1.3	0.34
PNK	500	8/13/98	BETALL	2.29	0.13	0.8	1.3	0.35
PNK	500	8/13/98	BETALL	2.01	0.12	0.8	1	0.29
PNK	500	8/13/98	BETPAP	2.2	0.11	1	0.7	0.15
PNK	500	8/13/98	BETPAP	1.78	0.1	1.1	1.1	0.22
PNK	500	8/13/98	BETPAP	1.76	0.09	0.9	1	0.19
PNK	500	8/13/98	BETPAP	1.8	0.08	1	0.7	0.12
PNK	500	8/13/98	BETPAP	2.67	0.14	1.1	0.8	0.23

Site	Elevation	Sample Date	Species Code	N	P	K	Ca	Mg
PNK	500	8/13/98	PICRUB	1.07	0.07	0.5	0.3	0.06
PNK	500	8/13/98	PICRUB	1.08	0.07	0.4	0.2	0.05
PNK	500	8/13/98	PICRUB	0.98	0.07	0.6	0.2	0.07
PNK	500	8/13/98	PICRUB	1.22	0.08	0.5	0.2	0.07
PNK	500	8/13/98	PICRUB	1.24	0.09	0.4	0.2	0.05
PNK	740	8/13/98	ABIBAL	1.76	0.11	0.6	0.8	0.1
PNK	740	8/13/98	ABIBAL	1.23	0.09	0.5	0.8	0.11
PNK	740	8/13/98	ABIBAL	1.76	0.11	0.6	0.8	0.1
PNK	740	8/13/98	ABIBAL	1.69	0.09	0.5	0.8	0.12
PNK	740	8/13/98	ABIBAL	1.51	0.09	0.4	0.6	0.12
PNK	740	8/13/98	BETALL	2.1	0.09	0.8	0.8	0.21
PNK	740	8/13/98	BETALL	2.65	0.1	1.2	0.9	0.27
PNK	740	8/13/98	BETALL	2.65	0.11	1	1.2	0.27
PNK	740	8/13/98	BETALL	n/a	0.13	0.72	0.68	0.25
PNK	740	8/13/98	BETPAP	2.47	0.09	0.8	0.4	0.12
PNK	740	8/13/98	BETPAP	2.03	0.11	1.1	0.5	0.14
PNK	740	8/13/98	BETPAP	2.51	0.12	1.1	0.5	0.12
PNK	740	8/13/98	BETPAP	2.23	0.1	1	1.3	0.27
PNK	740	8/13/98	BETPAP	n/a	0.14	1.1	1.13	0.29
PNK	740	8/13/98	PICRUB	1.19	0.08	0.5	0.3	0.06
PNK	740	8/13/98	PICRUB	1.04	0.07	0.5	0.3	0.05
PNK	740	8/13/98	PICRUB	1.29	0.08	0.6	0.2	0.08
PNK	740	8/13/98	PICRUB	1.17	0.1	0.8	0.3	0.08
PNK	740	8/13/98	PICRUB	1.08	0.08	0.6	0.2	0.07
TRP	610	8/19/98	ABIBAL	1.66	0.11	0.6	0.6	0.08
TRP	610	8/19/98	ABIBAL	1.19	0.08	0.4	0.5	0.07
TRP	610	8/19/98	ABIBAL	1.83	0.15	0.7	1	0.1
TRP	610	8/19/98	ACERUB	1.63	0.11	0.5	0.3	0.06
TRP	610	8/19/98	ACERUB	2.11	0.14	0.6	1.2	0.24
TRP	610	8/19/98	ACERUB	n/a	0.23	0.6	0.91	0.24
TRP	610	8/19/98	ACERUB	1.15	0.09	0.6	0.2	0.05
TRP	610	8/19/98	ACERUB	n/a	0.16	0.44	0.39	0.1
TRP	610	8/19/98	ACESAC	1.49	0.09	0.7	0.7	0.08
TRP	610	8/19/98	ACESAC	2.46	0.12	0.8	1	0.13
TRP	610	8/19/98	ACESAC	2.07	0.18	0.8	0.9	0.11
TRP	610	8/19/98	ACESAC	2.06	0.23	0.7	0.9	0.15
TRP	610	8/19/98	ACESAC	1.51	0.12	0.8	1.3	0.17
TRP	610	8/19/98	BETALL	2.28	0.16	0.7	0.9	0.24

Site	Elevation	Sample Date	Species Code	N	P	K	Ca	Mg
TRP	610	8/19/98	BETALL	2.42	0.2	0.9	1.3	0.27
TRP	610	8/19/98	BETALL	2.49	0.16	0.8	1	0.24
TRP	610	8/19/98	BETALL	2.25	0.17	1	1.2	0.22
TRP	610	8/19/98	PICRUB	1.39	0.09	0.6	0.2	0.06
TRP	610	8/19/98	PICRUB	1.12	0.09	0.7	0.3	0.06
TRP	610	8/19/98	PICRUB	1.21	0.09	0.6	0.2	0.06
TRP	610	8/19/98	PICRUB	1.16	0.08	0.5	0.3	0.07
TRP	830	8/20/98	ABIBAL	1.79	0.13	0.6	0.6	0.1
TRP	830	8/20/98	ABIBAL	1.84	0.11	0.6	0.6	0.07
TRP	830	8/20/98	ABIBAL	1.76	0.1	0.6	0.8	0.09
TRP	830	8/20/98	ABIBAL	1.72	0.1	0.5	0.6	0.09
TRP	830	8/20/98	ABIBAL	1.67	0.11	0.5	0.6	0.1
TRP	830	8/20/98	ACESAC	2.37	0.14	0.7	0.8	0.08
TRP	830	8/20/98	ACESAC	2.64	0.13	0.7	0.7	0.06
TRP	830	8/20/98	ACESAC	1.9	0.206	0.61	0.74	0.093
TRP	830	8/20/98	ACESAC	2.2	0.18	0.48	0.92	0.115
TRP	830	8/20/98	ACESAC	2.5	0.233	0.77	1.03	0.098
TRP	830	8/20/98	BETALL	2.2	0.237	0.57	0.8	0.168
TRP	830	8/20/98	BETALL	2.2	0.22	0.47	1.07	0.213
TRP	830	8/20/98	BETALL	2.3	0.191	0.36	0.85	0.166
TRP	830	8/20/98	BETALL	2.6	0.323	0.7	1.19	0.326
TRP	830	8/20/98	BETALL	2.8	0.214	0.69	0.76	0.182
TRP	830	8/20/98	BETPAP	1.8	0.235	0.68	0.5	0.117
TRP	830	8/20/98	BETPAP	2	0.204	0.69	0.37	0.079
TRP	830	8/20/98	BETPAP	2.2	0.226	0.76	0.39	0.09
TRP	830	8/20/98	BETPAP	2.3	0.213	0.74	0.38	0.098
TRP	830	8/20/98	BETPAP	2.1	0.168	0.61	0.36	0.087
TRP	830	8/20/98	PICRUB	1.3	0.108	0.39	0.21	0.059
TRP	830	8/20/98	PICRUB	1.4	0.123	0.5	0.26	0.064
TRP	830	8/20/98	PICRUB	1.2	0.114	0.36	0.33	0.078
TRP	830	8/20/98	PICRUB	1.3	0.104	0.32	0.32	0.04
TRP	830	8/20/98	PICRUB	0.9	0.1	0.3	0.26	0.051
TRP	610	8/19/98	ACERUB	n/a	0.16	0.44	0.39	0.1

Appendix G
Chapter 2
Nutrient Content of Selected Species from
Composites of Litterfall Collection
Site Codes Follow Appendix IV.

Site	Elevation	Species Code	Sample #	N	P	K	Ca	Mg
FRS	610	ACESAC	1	1.2	0.041	0.43	0.91	0.084
FRS	610	ACESAC	2	1.3	0.06	0.47	0.86	0.097
FRS	610	ACESAC	3	1	0.034	0.4	0.87	0.095
FRS	610	BETPAP	4	1.6	0.058	0.37	1.05	0.106
FRS	610	BETPAP	5	1.7	0.069	0.43	0.93	0.107
FRS	610	BETPAP	6	1.5	0.069	0.45	0.94	0.109
FRS	610	BETALL	7	1.2	0.052	0.34	0.93	0.101
FRS	610	BETALL	8	1.4	0.065	0.43	0.96	0.111
FRS	610	BETALL	9	1.5	0.061	0.42	1.03	0.116
FRS	690	ABIBAL	73	0.8	0.058	0.19	0.73	0.05
FRS	690	BETPAP	11	1.2	0.046	0.3	0.7	0.063
FRS	690	BETPAP	12	1.1	0.046	0.3	0.7	0.059
FRS	690	BETPAP	13	1.4	0.043	0.27	0.58	0.053
FRS	690	BETALL	14	1.2	0.041	0.29	0.93	0.089
FRS	690	BETALL	15	1.2	0.045	0.27	0.78	0.08
FRS	690	BETALL	16	1.5	0.043	0.24	0.8	0.078
BCE	455	BETALL	17	1.6	0.037	0.29	0.72	0.074
BCE	455	BETALL	18	1.5	0.042	0.41	0.82	0.095
BCE	455	BETALL	19	1.5	0.036	0.35	0.9	0.104
BCE	455	ACESAC	21	1	0.026	0.34	0.86	0.082
BCE	455	ACESAC	22	1	0.023	0.25	0.74	0.07
BCE	455	ACESAC	23	1.1	0.024	0.27	0.7	0.072
BCE	455	ACERUB	24	0.9	0.025	0.25	0.74	0.084
BCE	455	ACERUB	25	0.8	0.03	0.26	0.76	0.083
BCE	455	ACERUB	26	0.8	0.029	0.26	0.73	0.091
BCE	455	BETPAP	27	1.4	0.037	0.37	0.77	0.086
BCE	455	BETPAP	28	0.9	0.035	0.45	0.78	0.096
BCE	455	BETPAP	29	1.4	0.035	0.37	0.85	0.106
BCE	455	PICRUB	81	1	0.037	0.11	0.73	0.032
BCE	455	PICRUB	92	1.1	0.052	0.07	0.44	0.046
BCE	455	PICRUB	93	1.1	0.063	0.02	0.48	0.049
BCE	690	ABIBAL	94	1.6	0.081	0.12	0.66	0.044
BCE	690	ABIBAL	95	0.8	0.053	0.25	0.97	0.04
BCE	690	ABIBAL	96	1.7	0.088	0.09	0.83	0.029
BCE	690	ACEPEN	X07	1.1	0.044	0.41	0.98	0.077
BCE	690	BETALL	31	1.2	0.03	0.37	0.49	0.045
BCE	690	BETALL	32	1.3	0.032	0.34	0.58	0.052
BCE	690	BETALL	33	1.4	0.033	0.3	0.69	0.063

Site	Elevation	Species Code	Sample #	N	P	K	Ca	Mg
BCE	690	BETPAP	34	0.9	0.031	0.42	0.59	0.049
BCE	690	BETPAP	35	1.2	0.032	0.35	0.57	0.044
BCE	690	BETPAP	36	1.5	0.04	0.34	0.51	0.042
BCE	690	PICRUB	97	0.9	0.052	0.12	0.43	0.041
BCE	690	PICRUB	98	0.7	0.035	0.15	0.54	0.024
PNK	500	ABIBAL	74	1.2	0.065	0.25	0.84	0.088
PNK	500	ABIBAL	75	0.9	0.042	0.16	0.71	0.104
PNK	500	ACESAC	37	1.4	0.062	0.26	1.14	0.147
PNK	500	ACESAC	38	1.1	0.045	0.23	1.18	0.147
PNK	500	ACESAC	39	1.3	0.043	0.21	1.33	0.14
PNK	500	betall	x01	1.4	0.084	0.49	1.32	0.238
PNK	500	betall	x02	1.5	0.071	0.34	1.25	0.211
PNK	500	betall	x03	1.4	0.067	0.45	1.22	0.229
PNK	500	BETPAP	40	1.7	0.093	0.41	1.21	0.188
PNK	500	BETPAP	41	1.6	0.072	0.42	1.08	0.154
PNK	500	BETPAP	42	1.2	0.065	0.64	1.23	0.2
PNK	500	PICRUB	76	1	0.058	0.09	0.5	0.043
PNK	740	ABIBAL	77	1.5	0.108	0.08	0.72	0.064
PNK	740	ABIBAL	78	1.8	0.113	0.11	0.81	0.066
PNK	740	ACESAC	X06	1	0.085	0.29	1.55	0.152
PNK	740	BETALL	43	1.1	0.048	0.36	1.39	0.272
PNK	740	BETALL	44	1.2	0.053	0.5	1.19	0.293
PNK	740	BETALL	45	1.1	0.05	0.41	1.17	0.249
PNK	740	BETPAP	46	1.2	0.05	0.34	0.87	0.159
PNK	740	BETPAP	47	1.1	0.053	0.42	0.88	0.164
PNK	740	BETPAP	48	1.1	0.053	0.43	0.9	0.152
PNK	740	PICRUB	79	1.3	0.079	0.09	0.61	0.09
PNK	740	PICRUB	80	1	0.071	0.06	0.48	0.062
TRP	610	ABIBAL	99	0.9	0.086	0.16	0.98	0.082
TRP	610	ABIBAL	100	0.8	0.07	0.17	1.17	0.075
TRP	610	ABIBAL	102	1	0.086	0.17	1.04	0.073
TRP	610	ACERUB	49	0.6	0.083	0.22	1.07	0.152
TRP	610	ACERUB	50	0.8	0.085	0.2	1.4	0.202
TRP	610	ACERUB	61	1.1	0.108	0.28	1.05	0.162
TRP	610	BETALL	51	1.1	0.12	0.23	1.62	0.234
TRP	610	BETALL	52	1.4	0.122	0.22	1.46	0.227
TRP	610	BETALL	59	1.3	0.141	0.28	1.77	0.25
TRP	610	BETPAP	53	1.3	0.119	0.24	1.27	0.189

Site	Elevation	Species Code	Sample #	N	P	K	Ca	Mg
TRP	610	BETPAP	54	1.4	0.121	0.29	0.84	0.124
TRP	610	BETPAP	56	1	0.132	0.32	1.34	0.153
TRP	610	PICRUB	103	0.8	0.064	0.17	0.56	0.048
TRP	610	PICRUB	103	0.7	0.065	0.13	0.52	0.05
TRP	830	ABIBAL	104	1.7	0.118	0.07	0.87	0.043
TRP	830	ABIBAL	105	0.8	0.076	0.14	1.12	0.068
TRP	830	ABIBAL	106	1.8	0.127	0.14	0.75	0.076
TRP	830	ACESAC	69	1.1	0.112	0.33	1.18	0.131
TRP	830	ACESAC	71	1.1	0.102	0.28	1.03	0.118
TRP	830	ACESAC	72	1.2	0.083	0.23	1.17	0.113
TRP	830	BETALL	62	1.1	0.105	0.19	1.26	0.137
TRP	830	BETALL	63	1.2	0.136	0.28	1.07	0.156
TRP	830	BETALL	64	1.3	0.129	0.3	1.22	0.175
TRP	830	BETPAP	66	1.2	0.115	0.24	0.95	0.114
TRP	830	BETPAP	67	1.3	0.138	0.35	0.71	0.104
TRP	830	BETPAP	68	1.4	0.141	0.34	0.77	0.103
TRP	830	PICRUB	107	0.7	0.054	0.12	0.62	0.046
TRP	830	PICRUB	108	1.2	0.089	0.07	0.4	0.048
TRP	830	PICRUB	110	0.9	0.073	0.12	0.51	0.049

Appendix H
Chapter 3 Fixed-area Plot Data
White Mountain Landslide Sites
Site Codes Follow Appendix A.

Site Code	Stand Type	Elevation (m)	Plot #	Sub Plot	Sub Plot Size (ha)	Tree #	Species Code	DBH (cm)
BCE	Deposit	455	84	A	0.01	236	ACESAC	22.6
BCE	Deposit	455	84	A	0.01	237	ABIBAL	16.4
BCE	Deposit	455	84	A	0.01	238	BETALL	31.3
BCE	Deposit	455	84	A	0.01	239	BETALL	23.5
BCE	Deposit	455	84	A	0.01	240	PICRUB	14.1
BCE	Deposit	455	84	B	0.005	241	ABIBAL	6.7
BCE	Deposit	455	84	C	0.0025	242	ABIBAL	3.3
BCE	Deposit	455	85	A	0.01	243	BETALL	32.9
BCE	Deposit	455	85	A	0.01	244	PICRUB	15
BCE	Deposit	455	85	A	0.01	245	BETALL	18.8
BCE	Deposit	455	85	A	0.01	246	BETALL	21.5
BCE	Deposit	455	85	A	0.01	247	PICRUB	10.6
BCE	Deposit	455	85	A	0.01	248	ACERUB	38.5
BCE	Deposit	455	85	B	0.005	249	PICRUB	5
BCE	Deposit	455	85	C	0.0025	250	PICRUB	3.1
BCE	Deposit	455	85	C	0.0025	251	PICRUB	3.3
BCE	Deposit	455	85	C	0.0025	252	PICRUB	3.5
BCE	Deposit	455	85	C	0.0025	253	PICRUB	2.9
BCE	Deposit	455	90	A	0.01	439	ACESAC	12
BCE	Deposit	455	90	A	0.01	440	BETPAP	15.1
BCE	Deposit	455	90	A	0.01	441	ACESAC	13
BCE	Deposit	455	90	A	0.01	442	ACESAC	21
BCE	Deposit	455	90	A	0.01	443	ACESAC	19
BCE	Deposit	455	90	A	0.01	444	BETPAP	16.5
BCE	Deposit	455	90	A	0.01	445	BETPAP	17.6
BCE	Deposit	455	90	A	0.01	446	ACESAC	21.6
BCE	Deposit	455	90	A	0.01	447	ACESAC	9
BCE	Deposit	455	90	A	0.01	448	ACESAC	11.5
BCE	Deposit	455	90	A	0.01	449	ACESAC	15.5
BCE	Deposit	455	90	B	0.005	450	ACESAC	5.4
BCE	Deposit	455	90	B	0.005	451	PICRUB	4.6
BCE	Deposit	455	90	B	0.005	452	ACESAC	4.7
BCE	Deposit	455	90	B	0.005	453	ABIBAL	4.1
BCE	Deposit	455	90	B	0.005	454	ACESAC	4.5
BCE	Deposit	455	90	B	0.005	455	ACESAC	6.1
BCE	Deposit	455	90	C	0.0025	456	ABIBAL	4
BCE	Deposit	455	90	C	0.0025	457	ACESAC	2.5
BCE	Deposit	455	90	C	0.0025	458	PICRUB	3.6

Site Code	Stand Type	Elevation (m)	Plot #	Sub Plot	Sub Plot Size (ha)	Tree #	Species Code	DBH (cm)
FRS	Adjacent Veg.	610	34	A	0.01	306	BETALL	26.9
FRS	Adjacent Veg.	610	34	A	0.01	307	FAGGRA	17.3
FRS	Adjacent Veg.	610	34	A	0.01	308	BETALL	49.2
FRS	Adjacent Veg.	610	34	A	0.01	309	BETALL	39.2
FRS	Adjacent Veg.	610	34	A	0.01	310	BETALL	49.4
FRS	Adjacent Veg.	610	34	A	0.01	311	BETALL	13.8
FRS	Adjacent Veg.	610	34	B	0.005	312	ACESAC	5.2
FRS	Adjacent Veg.	610	34	C	0.0025	313	FAGGRA	2.9
FRS	Adjacent Veg.	610	34	C	0.0025	314	FAGGRA	2.8
FRS	Adjacent Veg.	610	34	C	0.0025	315	ACESAC	2.8
FRS	Adjacent Veg.	610	34	C	0.0025	316	ACESAC	2.6
FRS	Adjacent Veg.	610	35	A	0.01	317	FAGGRA	22.4
FRS	Adjacent Veg.	610	35	A	0.01	318	BETALL	42.4
FRS	Adjacent Veg.	610	35	A	0.01	319	BETALL	48.7
FRS	Adjacent Veg.	610	35	A	0.01	320	FAGGRA	11.3
FRS	Adjacent Veg.	610	35	A	0.01	321	BETALL	57.6
FRS	Adjacent Veg.	610	35	B	0.005	322	FAGGRA	6.9
FRS	Adjacent Veg.	610	35	B	0.005	323	FAGGRA	7
FRS	Adjacent Veg.	610	35	C	0.0025	324	FAGGRA	4.5
FRS	Adjacent Veg.	610	36	A	0.01	325	ACESAC	34.7
FRS	Adjacent Veg.	610	36	A	0.01	326	ACESAC	39
FRS	Adjacent Veg.	610	36	A	0.01	327	ACESAC	38.3
FRS	Adjacent Veg.	610	36	A	0.01	328	ACESAC	20.3
FRS	Adjacent Veg.	610	36	A	0.01	329	FAGGRA	13.4
FRS	Adjacent Veg.	610	36	A	0.01	330	ACESAC	39
FRS	Adjacent Veg.	610	36	A	0.01	331	ACESAC	34.6
FRS	Adjacent Veg.	610	36	A	0.01	332	FAGGRA	24.2
FRS	Adjacent Veg.	610	36	A	0.01	333	ACESAC	31.7
FRS	Adjacent Veg.	610	36	A	0.01	334	ACESAC	28.5
FRS	Adjacent Veg.	610	36	B	0.005	335	FAGGRA	8.5
FRS	Adjacent Veg.	610	36	C	0.0025	336	FAGGRA	4.2
FRS	Adjacent Veg.	690	37	A	0.01	337	PICRUB	26.4
FRS	Adjacent Veg.	690	37	A	0.01	338	PICRUB	24.3
FRS	Adjacent Veg.	690	37	A	0.01	339	PICRUB	22.7
FRS	Adjacent Veg.	690	37	A	0.01	340	BETPPC	26.4
FRS	Adjacent Veg.	690	37	A	0.01	341	PICRUB	16.2
FRS	Adjacent Veg.	690	37	A	0.01	342	BETPPC	25.8
FRS	Adjacent Veg.	690	37	A	0.01	343	BETPPC	19.2
FRS	Adjacent Veg.	690	37	A	0.01	344	BETPPC	15.4
FRS	Adjacent Veg.	690	37	A	0.01	345	BETPPC	14.8
FRS	Adjacent Veg.	690	37	B	0.005	346	PICRUB	9.1
FRS	Adjacent Veg.	690	37	A	0.01	347	PICRUB	10
FRS	Adjacent Veg.	690	37	B	0.005	348	PICRUB	5.1
FRS	Adjacent Veg.	690	37	B	0.005	349	PICRUB	9.1
FRS	Adjacent Veg.	690	37	B	0.005	350	PICRUB	8
FRS	Adjacent Veg.	690	37	B	0.005	351	BETPPC	9.4
FRS	Adjacent Veg.	690	38	A	0.01	352	BETPPC	29
FRS	Adjacent Veg.	690	38	A	0.01	353	ABIBAL	11.2

Site Code	Stand Type	Elevation (m)	Plot #	Sub Plot	Sub Plot Size (ha)	Tree #	Species Code	DBH (cm)
FRS	Adjacent Veg.	690	38	A	0.01	354	BETALL	13.5
FRS	Adjacent Veg.	690	38	A	0.01	355	PICRUB	14.1
FRS	Adjacent Veg.	690	38	A	0.01	356	PICRUB	22.9
FRS	Adjacent Veg.	690	38	A	0.01	357	PICRUB	17
FRS	Adjacent Veg.	690	38	A	0.01	358	PICRUB	21
FRS	Adjacent Veg.	690	38	A	0.01	359	BETPPC	22.7
FRS	Adjacent Veg.	690	38	A	0.01	360	PICRUB	11.6
FRS	Adjacent Veg.	690	38	B	0.005	361	BETPPC	7.5
FRS	Adjacent Veg.	690	38	B	0.005	362	ABIBAL	6.2
FRS	Adjacent Veg.	690	38	B	0.005	363	PICRUB	5.1
FRS	Adjacent Veg.	690	38	B	0.005	364	BETALL	7.8
FRS	Adjacent Veg.	690	39	A	0.01	365	BETALL	54.7
FRS	Adjacent Veg.	690	39	A	0.01	366	BETALL	16.3
FRS	Adjacent Veg.	690	39	A	0.01	367	BETALL	21.6
FRS	Adjacent Veg.	690	39	A	0.01	368	BETPPC	28.4
FRS	Adjacent Veg.	690	39	A	0.01	369	PICRUB	16.5
FRS	Adjacent Veg.	690	39	A	0.01	370	PICRUB	22.3
FRS	Adjacent Veg.	690	39	A	0.01	371	BETPPC	17.9
FRS	Adjacent Veg.	690	39	A	0.01	372	BETPPC	19.8
FRS	Adjacent Veg.	690	39	A	0.01	373	BETPPC	20.4
FRS	Adjacent Veg.	690	39	B	0.005	374	BETALL	5.5
FRS	Adjacent Veg.	690	39	C	0.0025	375	ABIBAL	3
FRS	Adjacent Veg.	690	39	C	0.0025	376	ABIBAL	2.8
FRS	Deposit	610	7	A	0.01	202	BETPAP	11.2
FRS	Deposit	610	7	A	0.01	203	POPTRE	24.6
FRS	Deposit	610	7	A	0.01	204	BETPAP	14.6
FRS	Deposit	610	7	A	0.01	205	POPTRE	28.8
FRS	Deposit	610	7	A	0.01	206	BETALL	12.6
FRS	Deposit	610	7	A	0.01	208	BETPAP	21
FRS	Deposit	610	7	A	0.01	209	POPTRE	27.9
FRS	Deposit	610	7	A	0.01	210	POPTRE	17.8
FRS	Deposit	610	7	A	0.01	211	POPGRA	14.7
FRS	Deposit	610	7	A	0.01	212	POPTRE	26.6
FRS	Deposit	610	7	B	0.005	213	BETPAP	6.1
FRS	Deposit	610	7	B	0.005	214	BETALL	6.6
FRS	Deposit	610	7	B	0.005	215	ACEPEN	6.5
FRS	Deposit	610	7	B	0.005	216	BETALL	9.3
FRS	Deposit	610	7	B	0.005	217	BETPAP	5.1
FRS	Deposit	610	7	C	0.0025	218	BETALL	4.5
FRS	Deposit	610	7	C	0.0025	219	BETALL	2.8
FRS	Deposit	610	7	C	0.0025	220	BETALL	4.4
FRS	Deposit	610	7	C	0.0025	221	BETALL	4.2
FRS	Deposit	610	7	C	0.0025	222	BETALL	2.9
FRS	Deposit	610	7	C	0.0025	223	BETALL	3.7
FRS	Deposit	610	8	A	0.01	224	BETALL	17.7
FRS	Deposit	610	8	A	0.01	225	POPTRE	23.5
FRS	Deposit	610	8	A	0.01	226	BETALL	15.6
FRS	Deposit	610	8	A	0.01	227	POPTRE	29.5
FRS	Deposit	610	8	A	0.01	228	BETALL	10.8

Site Code	Stand Type	Elevation (m)	Plot #	Sub Plot	Sub Plot Size (ha)	Tree #	Species Code	DBH (cm)
FRS	Deposit	610	8	A	0.01	229	POPTRE	28.9
FRS	Deposit	610	8	A	0.01	230	POPTRE	18.8
FRS	Deposit	610	8	B	0.005	231	BETALL	5.2
FRS	Deposit	610	8	B	0.005	232	BETALL	9.8
FRS	Deposit	610	8	B	0.005	233	BETALL	8.8
FRS	Deposit	610	8	B	0.005	234	BETALL	5.5
FRS	Deposit	610	8	B	0.005	235	BETALL	5.6
FRS	Deposit	610	8	A	0.01	236	BETALL	10.5
FRS	Deposit	610	8	C	0.0025	237	BETALL	4.5
FRS	Deposit	610	9	A	0.01	238	BETALL	18.3
FRS	Deposit	610	9	A	0.01	239	BETALL	21.7
FRS	Deposit	610	9	A	0.01	240	BETALL	10.5
FRS	Deposit	610	9	A	0.01	241	BETALL	17.3
FRS	Deposit	610	9	A	0.01	242	BETALL	11.2
FRS	Deposit	610	9	A	0.01	243	BETALL	14.8
FRS	Deposit	610	9	A	0.01	244	BETALL	19.4
FRS	Deposit	610	9	A	0.01	245	BETALL	10.7
FRS	Deposit	610	9	A	0.01	246	POPTRE	22.3
FRS	Deposit	610	9	A	0.01	247	BETALL	18.3
FRS	Deposit	610	9	A	0.01	248	BETALL	15.1
FRS	Deposit	610	9	B	0.005	249	BETALL	5
FRS	Deposit	610	9	B	0.005	250	BETALL	6.8
FRS	Deposit	690	19	A	0.01	65	BETPPC	12.7
FRS	Deposit	690	19	A	0.01	66	BETPPC	32.8
FRS	Deposit	690	19	A	0.01	67	BETPPC	16.5
FRS	Deposit	690	19	A	0.01	68	BETPPC	17.6
FRS	Deposit	690	19	B	0.005	69	BETALL	7.6
FRS	Deposit	690	19	B	0.005	70	ABIBAL	7.6
FRS	Deposit	690	19	B	0.005	71	BETALL	6
FRS	Deposit	690	20	A	0.01	72	BETPPC	17.5
FRS	Deposit	690	20	A	0.01	73	BETPPC	18.1
FRS	Deposit	690	20	A	0.01	74	BETPPC	10.2
FRS	Deposit	690	20	A	0.01	75	BETPPC	11.9
FRS	Deposit	690	20	A	0.01	76	BETPPC	10.2
FRS	Deposit	690	20	A	0.01	77	BETPPC	22.3
FRS	Deposit	690	20	A	0.01	78	BETPPC	11.8
FRS	Deposit	690	20	A	0.01	79	BETPPC	16.5
FRS	Deposit	690	20	A	0.01	80	BETPPC	13.5
FRS	Deposit	690	20	A	0.01	81	BETPAP	14
FRS	Deposit	690	20	A	0.01	82	BETPPC	12.7
FRS	Deposit	690	20	A	0.01	83	BETPPC	16.1
FRS	Deposit	690	20	A	0.01	84	BETPPC	12.6
FRS	Deposit	690	20	A	0.01	86	BETPPC	10.4
FRS	Deposit	690	20	A	0.01	87	BETPPC	13.5
FRS	Deposit	690	20	A	0.01	88	BETPPC	11.9
FRS	Deposit	690	20	A	0.01	89	BETPPC	11.1
FRS	Deposit	690	20	B	0.005	90	BETPPC	5.5
FRS	Deposit	690	20	C	0.0025	96	BETALL	4.8
FRS	Deposit	690	20	C	0.0025	97	BETALL	3

Site Code	Stand Type	Elevation (m)	Plot #	Sub Plot	Sub Plot Size (ha)	Tree #	Species Code	DBH (cm)
FRS	Deposit	690	20	C	0.0025	98	BETALL	2.6
FRS	Deposit	690	20	C	0.0025	100	ACEPEN	3.5
FRS	Deposit	690	21	A	0.01	103	POPTRE	17.5
FRS	Deposit	690	21	A	0.01	107	BETPPC	16.4
FRS	Deposit	690	21	A	0.01	113	POPGRA	12.1
FRS	Deposit	690	21	A	0.01	115	POPGRA	16.7
FRS	Deposit	690	21	A	0.01	118	BETPPC	16.9
FRS	Deposit	690	21	A	0.01	119	BETPPC	12.5
FRS	Deposit	690	21	A	0.01	120	BETPPC	13.8
FRS	Deposit	690	21	B	0.005	122	BETPPC	9.4
FRS	Deposit	690	21	B	0.005	123	BETPPC	5.6
FRS	Deposit	690	21	B	0.005	124	BETPPC	7.4
FRS	Deposit	690	21	B	0.005	125	BETPPC	5.2
FRS	Deposit	690	21	B	0.005	126	BETPPC	9.2
FRS	Deposit	690	21	C	0.0025	131	PICRUB	2.7
OSE	Deposit	2270	65	A	0.01	526	ABIBAL	11.7
OSE	Deposit	2270	65	A	0.01	523	BETALL	13
OSE	Deposit	2270	65	A	0.01	525	BETALL	30.8
OSE	Deposit	2270	65	A	0.01	522	BETPPC	18.6
OSE	Deposit	2270	65	A	0.01	524	BETPPC	10.6
OSE	Deposit	2270	65	A	0.01	527	BETPPC	11.6
OSE	Deposit	2270	65	A	0.01	528	BETPPC	20.4
OSE	Deposit	2270	65	A	0.01	529	BETPPC	16.4
OSE	Deposit	2270	65	A	0.01	530	BETPPC	19.7
OSE	Deposit	2270	65	A	0.01	531	PICRUB	11.2
OSE	Deposit	2270	65	B	0.005	532	ACERUB	6.3
OSE	Deposit	2270	65	B	0.005	533	PICRUB	5.5
OSE	Deposit	2270	65	C	0.0025	535	ABIBAL	3.1
OSE	Deposit	2270	65	C	0.0025	534	ACESAC	4.9
OSE	Deposit	2200	66	A	0.01	541	ABIBAL	11.4
OSE	Deposit	2200	66	A	0.01	536	BETALL	16.4
OSE	Deposit	2200	66	A	0.01	537	BETALL	30.1
OSE	Deposit	2200	66	A	0.01	538	BETALL	17.6
OSE	Deposit	2200	66	A	0.01	542	BETALL	34.8
OSE	Deposit	2200	66	A	0.01	543	BETALL	16.1
OSE	Deposit	2200	66	A	0.01	544	BETALL	23.4
OSE	Deposit	2200	66	A	0.01	545	BETALL	23.7
OSE	Deposit	2200	66	A	0.01	539	BETPPC	24.3
OSE	Deposit	2200	66	A	0.01	540	BETPPC	13.5
OSE	Deposit	2200	66	B	0.005	547	BETALL	9
OSE	Deposit	2200	66	B	0.005	546	PICRUB	8.4
OSE	Deposit	2250	67	A	0.01	550	ABIBAL	13
OSE	Deposit	2250	67	A	0.01	548	BETALL	14.3
OSE	Deposit	2250	67	A	0.01	549	BETALL	18.4
OSE	Deposit	2250	67	A	0.01	551	BETALL	36.4
OSE	Deposit	2250	67	A	0.01	555	BETALL	17.2
OSE	Deposit	2250	67	A	0.01	552	BETPPC	15.8
OSE	Deposit	2250	67	A	0.01	556	BETPPC	26.8
OSE	Deposit	2250	67	C	0.0025	553	PICRUB	3.1

Site Code	Stand Type	Elevation (m)	Plot #	Sub Plot	Sub Plot Size (ha)	Tree #	Species Code	DBH (cm)
OSE	Deposit	2250	67	C	0.0025	554	PICRUB	3.3
PNK	Adjacent Veg.	500	78	A	0.01	846	ACERUB	15.4
PNK	Adjacent Veg.	500	78	A	0.01	847	ACERUB	18
PNK	Adjacent Veg.	500	78	A	0.01	848	ACERUB	37.6
PNK	Adjacent Veg.	500	78	A	0.01	849	ACERUB	24
PNK	Adjacent Veg.	500	78	A	0.01	850	BETALL	11.2
PNK	Adjacent Veg.	500	78	A	0.01	851	ACERUB	19.9
PNK	Adjacent Veg.	500	78	A	0.01	852	BETPAP	34.5
PNK	Adjacent Veg.	500	78	A	0.01	853	ACERUB	19.4
PNK	Adjacent Veg.	500	78	B	0.005	854	BETALL	7
PNK	Adjacent Veg.	500	79	A	0.01	855	ACERUB	26.6
PNK	Adjacent Veg.	500	79	A	0.01	856	BETALL	20.9
PNK	Adjacent Veg.	500	79	A	0.01	857	ACERUB	24
PNK	Adjacent Veg.	500	79	A	0.01	858	ACERUB	10.9
PNK	Adjacent Veg.	500	79	A	0.01	860	BETALL	22.1
PNK	Adjacent Veg.	500	79	A	0.01	861	ACERUB	32.5
PNK	Adjacent Veg.	500	79	A	0.01	862	ACERUB	10.1
PNK	Adjacent Veg.	500	79	A	0.01	863	ACERUB	23.5
PNK	Adjacent Veg.	500	79	A	0.01	864	ACERUB	11
PNK	Adjacent Veg.	500	79	A	0.01	865	BETALL	27.6
PNK	Adjacent Veg.	500	79	B	0.005	866	ACESAC	7.5
PNK	Adjacent Veg.	500	79	B	0.005	867	ACESAC	6
PNK	Adjacent Veg.	500	80	A	0.01	868	ACESAC	10.8
PNK	Adjacent Veg.	500	80	A	0.01	869	BETALL	21.4
PNK	Adjacent Veg.	500	80	A	0.01	870	BETALL	24
PNK	Adjacent Veg.	500	80	A	0.01	871	BETALL	24.5
PNK	Adjacent Veg.	500	80	A	0.01	872	BETALL	12
PNK	Adjacent Veg.	500	80	A	0.01	873	ACERUB	15.8
PNK	Adjacent Veg.	500	80	A	0.01	874	BETALL	23.1
PNK	Adjacent Veg.	500	80	A	0.01	875	BETALL	22.5
PNK	Adjacent Veg.	500	80	B	0.005	876	PICRUB	6.9
PNK	Adjacent Veg.	500	80	B	0.005	877	FAGGRA	8.3
PNK	Deposit	740	18	A	0.01	39	BETPAP	23.8
PNK	Deposit	740	18	A	0.01	40	BETPAP	29.8
PNK	Deposit	740	18	A	0.01	41	BETALL	26
PNK	Deposit	740	18	A	0.01	43	BETPAP	25.1
PNK	Deposit	740	18	A	0.01	44	BETPAP	15.1
PNK	Deposit	740	18	A	0.01	45	POPTRE	35.3
PNK	Deposit	740	18	A	0.01	46	BETPAP	13.6
PNK	Deposit	740	18	A	0.01	47	BETALL	11.6
PNK	Deposit	740	18	A	0.01	48	BETPAP	21.7
PNK	Deposit	740	18	A	0.01	49	BETPAP	12.7
PNK	Deposit	740	18	A	0.01	50	POPTRE	38.9
PNK	Deposit	740	18	A	0.01	51	BETPAP	16.4
PNK	Deposit	740	18	A	0.01	52	BETPAP	23
PNK	Deposit	740	18	B	0.005	53	BETALL	5.5
PNK	Deposit	740	18	B	0.005	54	BETALL	6.5
PNK	Deposit	740	18	B	0.005	55	BETALL	6.8
PNK	Deposit	740	18	B	0.005	56	BETALL	8.5
PNK	Deposit	740	18	B	0.005	57	BETALL	7.3

Site Code	Stand Type	Elevation (m)	Plot #	Sub Plot	Sub Plot Size (ha)	Tree #	Species Code	DBH (cm)
PNK	Deposit	740	18	B	0.005	58	BETALL	7.1
PNK	Deposit	740	18	C	0.0025	59	PICRUB	2.5
PNK	Deposit	740	18	C	0.0025	60	PICRUB	3.3
PNK	Deposit	740	18	C	0.0025	61	PICRUB	4.3
PNK	Deposit	740	18	C	0.0025	62	PICRUB	4.3
PNK	Deposit	740	18	C	0.0025	63	PICRUB	3.8
PNK	Deposit	740	18	C	0.0025	64	BETALL	4.5
PNK	Deposit	740	68	A	0.01	557	BETPAP	21
PNK	Deposit	740	68	A	0.01	558	BETALL	16
PNK	Deposit	740	68	A	0.01	559	BETALL	11.7
PNK	Deposit	740	68	A	0.01	560	BETALL	18.3
PNK	Deposit	740	68	A	0.01	561	BETALL	10.9
PNK	Deposit	740	68	A	0.01	562	BETPPC	12.6
PNK	Deposit	740	68	A	0.01	564	BETPPC	17.1
PNK	Deposit	740	68	A	0.01	565	BETALL	12.3
PNK	Deposit	740	68	A	0.01	566	BETALL	11.3
PNK	Deposit	740	68	A	0.01	567	BETALL	11.1
PNK	Deposit	740	68	A	0.01	568	BETALL	10.4
PNK	Deposit	740	68	B	0.005	569	BETALL	5.8
PNK	Deposit	740	68	B	0.005	570	BETALL	7.9
PNK	Deposit	740	68	B	0.005	571	BETALL	6.5
PNK	Deposit	740	68	B	0.005	572	BETALL	7.1
PNK	Deposit	740	68	B	0.005	573	BETALL	7.9
PNK	Deposit	740	68	C	0.0025	574	PICRUB	4.2
PNK	Deposit	740	68	C	0.0025	575	BETALL	4.9
PNK	Deposit	740	68	C	0.0025	576	BETALL	4.2
PNK	Deposit	740	69	A	0.01	577	BETPAP	32
PNK	Deposit	740	69	A	0.01	578	POPTRE	24.6
PNK	Deposit	740	69	A	0.01	579	BETALL	15.3
PNK	Deposit	740	69	A	0.01	580	BETPPC	16.3
PNK	Deposit	740	69	A	0.01	581	BETPPC	12.5
PNK	Deposit	740	69	A	0.01	582	BETPPC	11.9
PNK	Deposit	740	69	A	0.01	583	POPTRE	32
PNK	Deposit	740	69	A	0.01	584	BETALL	10.5
PNK	Deposit	740	69	A	0.01	585	BETPPC	17.7
PNK	Deposit	740	69	A	0.01	586	BETPPC	21
PNK	Deposit	740	69	B	0.005	587	BETALL	6.7
PNK	Deposit	740	69	B	0.005	588	BETALL	5.9
PNK	Deposit	740	69	B	0.005	589	BETALL	5.5
PNK	Deposit	740	69	B	0.005	590	BETALL	5.8
PNK	Deposit	740	69	B	0.005	591	BETALL	7
PNK	Deposit	740	69	C	0.0025	592	ABIBAL	3.2
PNK	Deposit	740	69	C	0.0025	593	PICRUB	3.6
PNK	Deposit	740	69	C	0.0025	594	PICRUB	2.1
PNK	Deposit	740	69	C	0.0025	595	ABIBAL	2.9
PNK	Deposit	740	69	C	0.0025	596	PICRUB	3.2
PNK	Deposit	740	69	C	0.0025	597	ABIBAL	3.5
PNK	Deposit	740	69	C	0.0025	598	ABIBAL	2.7

Site Code	Stand Type	Elevation (m)	Plot #	Sub Plot	Sub Plot Size (ha)	Tree #	Species Code	DBH (cm)
PNK	Deposit	500	75	A	0.01	247	BETPAP	12.3
PNK	Deposit	500	75	A	0.01	248	BETPAP	16.4
PNK	Deposit	500	75	A	0.01	249	BETPAP	25
PNK	Deposit	500	75	A	0.01	250	PICRUB	11.1
PNK	Deposit	500	75	A	0.01	251	BETPAP	13.1
PNK	Deposit	500	75	A	0.01	252	BETPAP	25
PNK	Deposit	500	75	B	0.005	253	ACEPEN	5.4
PNK	Deposit	500	75	B	0.005	254	ACEPEN	2.7
PNK	Deposit	500	75	B	0.005	255	BETALL	6
PNK	Deposit	500	75	B	0.005	256	BETALL	7
PNK	Deposit	500	75	B	0.005	257	BETALL	8.6
PNK	Deposit	500	75	C	0.0025	258	ACEPEN	3.6
PNK	Deposit	500	75	C	0.0025	259	PICRUB	2.5
PNK	Deposit	500	75	C	0.0025	260	BETALL	4.2
PNK	Deposit	500	75	C	0.0025	261	BETALL	4
PNK	Deposit	500	76	A	0.01	262	BETALL	15.6
PNK	Deposit	500	76	A	0.01	263	BETALL	28.3
PNK	Deposit	500	76	A	0.01	264	BETALL	26.8
PNK	Deposit	500	76	B	0.005	265	BETALL	8.2
PNK	Deposit	500	76	B	0.005	266	BETALL	7.90
PNK	Deposit	500	76	C	0.0025	267	PICRUB	4.3
PNK	Deposit	500	76	C	0.0025	268	PICRUB	4.7
PNK	Deposit	500	77	A	0.01	269	BETPAP	26.2
PNK	Deposit	500	77	A	0.01	270	BETALL	13.1
PNK	Deposit	500	77	A	0.01	271	BETPAP	23.6
PNK	Deposit	500	77	A	0.01	272	BETPAP	25.3
PNK	Deposit	500	77	A	0.01	273	BETALL	11.7
PNK	Deposit	500	77	B	0.005	275	BETALL	7.8
PNK	Deposit	500	77	B	0.005	276	BETALL	7
PNK	Deposit	500	77	C	0.0025	277	BETALL	4.9
PNK	Deposit	500	77	C	0.0025	278	BETALL	4.3
PNK	Deposit	500	77	B	0.005	279	BETALL	7.1
PNK	Deposit	500	77	C	0.0025	280	BETALL	3
PNK	Deposit	500	77	A	0.01	281	BETPAP	25.9

Appendix I
Chapter 3
Fixed Plot Data for College Woods
Collected September 1998

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 1	1/1	0.0050	ACERUB	17.6	CW 1	1/2	0.0050	TSUCAN	8.6
CW 1	1/1	0.0050	ACERUB	21.7	CW 1	1/2	0.0050	TSUCAN	10.2
CW 1	1/1	0.0050	BETLEN	9.6	CW 1	1/2	0.0050	TSUCAN	10.5
CW 1	1/1	0.0050	BETLEN	10.6	CW 1	1/2	0.0050	TSUCAN	14.9
CW 1	1/1	0.0050	BETLEN	18.7	CW 1	1/2	0.0050	TSUCAN	16.3
CW 1	1/1	0.0050	BETLEN	22.5	CW 1	1/2	0.0050	TSUCAN	16.6
CW 1	1/1	0.0024	FAGGRA	5.5	CW 1	1/2	0.0050	TSUCAN	17
CW 1	1/1	0.0024	FAGGRA	6.5	CW 1	1/2	0.0050	TSUCAN	18.7
CW 1	1/1	0.0050	FAGGRA	13.3	CW 1	1/2	0.0050	TSUCAN	19
CW 1	1/1	0.0050	FAGGRA	14.1	CW 1	1/2	0.0050	TSUCAN	20.5
CW 1	1/1	0.0050	FAGGRA	15	CW 1	1/2	0.0050	TSUCAN	21.8
CW 1	1/1	0.0050	QUERUB	33	CW 1	1/2	0.0050	TSUCAN	22
CW 1	1/1	0.0050	QUERUB	38.1	CW 1	1/2	0.0050	TSUCAN	22
CW 1	1/1	0.0050	QUERUB	48.5	CW 1	1/2	0.0050	TSUCAN	22.7
CW 1	1/1	0.0024	TSUCAN	2.1	CW 1	1/2	0.0050	TSUCAN	30
CW 1	1/1	0.0024	TSUCAN	2.8	CW 1	1/3	0.0050	ACERUB	8.2
CW 1	1/1	0.0024	TSUCAN	4.5	CW 1	1/3	0.0050	ACERUB	10
CW 1	1/1	0.0024	TSUCAN	6.3	CW 1	1/3	0.0050	ACERUB	12.2
CW 1	1/1	0.0024	TSUCAN	6.5	CW 1	1/3	0.0050	ACERUB	16.3
CW 1	1/1	0.0024	TSUCAN	6.9	CW 1	1/3	0.0050	ACERUB	18
CW 1	1/1	0.0050	TSUCAN	8.1	CW 1	1/3	0.0050	ACERUB	19.3
CW 1	1/1	0.0050	TSUCAN	9.5	CW 1	1/3	0.0050	ACERUB	24.8
CW 1	1/1	0.0050	TSUCAN	9.8	CW 1	1/3	0.0050	BETALL	32.6
CW 1	1/1	0.0050	TSUCAN	10.5	CW 1	1/3	0.0050	BETLEN	29.4
CW 1	1/1	0.0050	TSUCAN	10.6	CW 1	1/3	0.0050	QUERUB	14
CW 1	1/1	0.0050	TSUCAN	11.5	CW 1	1/3	0.0050	QUERUB	14.5
CW 1	1/1	0.0050	TSUCAN	13	CW 1	1/3	0.0050	QUERUB	16.1
CW 1	1/1	0.0050	TSUCAN	15.5	CW 1	1/3	0.0050	QUERUB	17.2
CW 1	1/1	0.0050	TSUCAN	16	CW 1	1/3	0.0050	QUERUB	18.6
CW 1	1/1	0.0050	TSUCAN	18.8	CW 1	1/3	0.0024	TSUCAN	2.1
CW 1	1/1	0.0050	TSUCAN	26.2	CW 1	1/3	0.0024	TSUCAN	2.2
CW 1	1/1	0.0050	TSUCAN	26.8	CW 1	1/3	0.0024	TSUCAN	2.8
CW 1	1/2	0.0050	FAGGRA	27.6	CW 1	1/3	0.0024	TSUCAN	3
CW 1	1/2	0.0050	FAGGRA	53.2	CW 1	1/3	0.0024	TSUCAN	3.1
CW 1	1/2	0.0050	QUERUB	11.3	CW 1	1/3	0.0024	TSUCAN	3.5
CW 1	1/2	0.0050	QUERUB	31.4	CW 1	1/3	0.0024	TSUCAN	6
CW 1	1/2	0.0050	QUERUB	33.4	CW 1	1/3	0.0024	TSUCAN	6.7
CW 1	1/2	0.0024	TSUCAN	3.2	CW 1	1/3	0.0024	TSUCAN	7.9
CW 1	1/2	0.0024	TSUCAN	4.8	CW 1	1/3	0.0050	TSUCAN	9.1

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 1	1/3	0.0050	TSUCAN	9.2	CW 1	1/4	0.0024	TSUCAN	7.8
CW 1	1/3	0.0050	TSUCAN	9.8	CW 1	1/4	0.0050	TSUCAN	8.2
CW 1	1/3	0.0050	TSUCAN	10	CW 1	1/4	0.0050	TSUCAN	8.3
CW 1	1/3	0.0050	TSUCAN	10.4	CW 1	1/4	0.0050	TSUCAN	9.1
CW 1	1/3	0.0050	TSUCAN	11.1	CW 1	1/4	0.0050	TSUCAN	9.8
CW 1	1/3	0.0050	TSUCAN	13.2	CW 1	1/4	0.0050	TSUCAN	11.6
CW 1	1/3	0.0050	TSUCAN	13.3	CW 1	1/4	0.0050	TSUCAN	13.2
CW 1	1/3	0.0050	TSUCAN	14.7	CW 1	1/4	0.0050	TSUCAN	13.9
CW 1	1/3	0.0050	TSUCAN	14.9	CW 1	1/4	0.0050	TSUCAN	15.2
CW 1	1/3	0.0050	TSUCAN	15.6	CW 1	1/4	0.0050	TSUCAN	17.1
CW 1	1/3	0.0050	TSUCAN	15.7	CW 1	1/5	0.0050	ACERUB	8.2
CW 1	1/3	0.0050	TSUCAN	16.3	CW 1	1/5	0.0050	ACERUB	11.8
CW 1	1/3	0.0050	TSUCAN	18.7	CW 1	1/5	0.0050	ACERUB	26.3
CW 1	1/3	0.0050	TSUCAN	18.9	CW 1	1/5	0.0050	BETLEN	12.2
CW 1	1/4	0.0050	ACERUB	22	CW 1	1/5	0.0050	BETLEN	14.4
CW 1	1/4	0.0050	ACERUB	29.5	CW 1	1/5	0.0050	BETLEN	16.2
CW 1	1/4	0.0050	BETALL	9	CW 1	1/5	0.0050	BETLEN	17.3
CW 1	1/4	0.0050	BETALL	10	CW 1	1/5	0.0050	BETLEN	21.4
CW 1	1/4	0.0050	BETALL	13	CW 1	1/5	0.0050	BETLEN	23
CW 1	1/4	0.0050	BETALL	16.4	CW 1	1/5	0.0050	FAGGRA	8.1
CW 1	1/4	0.0050	BETALL	21.8	CW 1	1/5	0.0050	FAGGRA	8.9
CW 1	1/4	0.0050	BETLEN	16.7	CW 1	1/5	0.0050	FAGGRA	11
CW 1	1/4	0.0024	FAGGRA	5.5	CW 1	1/5	0.0050	FAGGRA	13.6
CW 1	1/4	0.0024	FAGGRA	6.1	CW 1	1/5	0.0050	FAGGRA	17.2
CW 1	1/4	0.0024	FAGGRA	7.6	CW 1	1/5	0.0050	FAGGRA	28.6
CW 1	1/4	0.0050	FAGGRA	9.4	CW 1	1/5	0.0050	FAGGRA	45
CW 1	1/4	0.0050	FAGGRA	11.4	CW 1	1/5	0.0050	QUERUB	17.3
CW 1	1/4	0.0024	TSUCAN	2	CW 1	1/5	0.0050	QUERUB	30
CW 1	1/4	0.0024	TSUCAN	2.1	CW 1	1/5	0.0024	TSUCAN	2.4
CW 1	1/4	0.0024	TSUCAN	2.2	CW 1	1/5	0.0024	TSUCAN	3.5
CW 1	1/4	0.0024	TSUCAN	2.7	CW 1	1/5	0.0024	TSUCAN	3.9
CW 1	1/4	0.0024	TSUCAN	2.7	CW 1	1/5	0.0024	TSUCAN	5.1
CW 1	1/4	0.0024	TSUCAN	3.2	CW 1	1/5	0.0024	TSUCAN	5.3
CW 1	1/4	0.0024	TSUCAN	3.3	CW 1	1/5	0.0024	TSUCAN	5.8
CW 1	1/4	0.0024	TSUCAN	3.4	CW 1	1/5	0.0024	TSUCAN	5.9
CW 1	1/4	0.0024	TSUCAN	3.8	CW 1	1/5	0.0024	TSUCAN	6.1
CW 1	1/4	0.0024	TSUCAN	4	CW 1	1/5	0.0024	TSUCAN	6.3
CW 1	1/4	0.0024	TSUCAN	4.1	CW 1	1/5	0.0024	TSUCAN	6.3
CW 1	1/4	0.0024	TSUCAN	4.9	CW 1	1/5	0.0024	TSUCAN	7
CW 1	1/4	0.0024	TSUCAN	5	CW 1	1/5	0.0024	TSUCAN	7.3
CW 1	1/4	0.0024	TSUCAN	5.1	CW 1	1/5	0.0024	TSUCAN	7.5
CW 1	1/4	0.0024	TSUCAN	5.1	CW 1	1/5	0.0050	TSUCAN	8
CW 1	1/4	0.0024	TSUCAN	5.5	CW 1	1/5	0.0050	TSUCAN	8
CW 1	1/4	0.0024	TSUCAN	5.8	CW 1	1/5	0.0050	TSUCAN	8.2
CW 1	1/4	0.0024	TSUCAN	5.9	CW 1	1/5	0.0050	TSUCAN	8.5
CW 1	1/4	0.0024	TSUCAN	6	CW 1	1/5	0.0050	TSUCAN	8.8
CW 1	1/4	0.0024	TSUCAN	6.3	CW 1	1/5	0.0050	TSUCAN	9.6
CW 1	1/4	0.0024	TSUCAN	6.6	CW 1	1/5	0.0050	TSUCAN	10
CW 1	1/4	0.0024	TSUCAN	6.7	CW 1	1/5	0.0050	TSUCAN	11.7
CW 1	1/4	0.0024	TSUCAN	7.2	CW 1	1/5	0.0050	TSUCAN	12

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 1	1/5	0.0050	TSUCAN	12.9	CW 1	1/7	0.0050	BETLEN	11.8
CW 1	1/5	0.0050	TSUCAN	15.1	CW 1	1/7	0.0050	BETLEN	11.9
CW 1	1/5	0.0050	TSUCAN	15.5	CW 1	1/7	0.0050	BETLEN	12.1
CW 1	1/5	0.0050	TSUCAN	18.1	CW 1	1/7	0.0050	BETLEN	13
CW 1	1/6	0.0050	ACERUB	9.8	CW 1	1/7	0.0050	BETLEN	13.7
CW 1	1/6	0.0050	ACERUB	11.5	CW 1	1/7	0.0050	BETLEN	14.4
CW 1	1/6	0.0050	ACERUB	12.2	CW 1	1/7	0.0050	BETLEN	16.9
CW 1	1/6	0.0050	ACERUB	14.4	CW 1	1/7	0.0024	FAGGRA	4.8
CW 1	1/6	0.0050	ACERUB	16.8	CW 1	1/7	0.0050	FAGGRA	14.3
CW 1	1/6	0.0050	ACERUB	28.9	CW 1	1/7	0.0050	QUERUB	18
CW 1	1/6	0.0050	BETLEN	9.9	CW 1	1/7	0.0050	QUERUB	22.2
CW 1	1/6	0.0050	BETLEN	10.2	CW 1	1/7	0.0024	TSUCAN	2.1
CW 1	1/6	0.0050	BETLEN	11	CW 1	1/7	0.0024	TSUCAN	3.1
CW 1	1/6	0.0050	BETLEN	11.5	CW 1	1/7	0.0024	TSUCAN	4.8
CW 1	1/6	0.0050	BETLEN	11.8	CW 1	1/7	0.0024	TSUCAN	5.6
CW 1	1/6	0.0050	BETLEN	16.5	CW 1	1/7	0.0024	TSUCAN	5.7
CW 1	1/6	0.0050	BETLEN	21.1	CW 1	1/7	0.0024	TSUCAN	5.7
CW 1	1/6	0.0050	BETLEN	21.4	CW 1	1/7	0.0024	TSUCAN	6
CW 1	1/6	0.0050	BETLEN	25.5	CW 1	1/7	0.0024	TSUCAN	6.5
CW 1	1/6	0.0050	FAGGRA	15.8	CW 1	1/7	0.0024	TSUCAN	7.1
CW 1	1/6	0.0050	QUERUB	24.4	CW 1	1/7	0.0050	TSUCAN	8.4
CW 1	1/6	0.0050	QUERUB	25.5	CW 1	1/7	0.0050	TSUCAN	8.6
CW 1	1/6	0.0050	QUERUB	28	CW 1	1/7	0.0050	TSUCAN	8.7
CW 1	1/6	0.0050	QUERUB	31.3	CW 1	1/7	0.0050	TSUCAN	9
CW 1	1/6	0.0024	TSUCAN	2.1	CW 1	1/7	0.0050	TSUCAN	9.3
CW 1	1/6	0.0024	TSUCAN	2.7	CW 1	1/7	0.0050	TSUCAN	9.5
CW 1	1/6	0.0024	TSUCAN	5	CW 1	1/7	0.0050	TSUCAN	10.8
CW 1	1/6	0.0024	TSUCAN	6.3	CW 1	1/7	0.0050	TSUCAN	11.3
CW 1	1/6	0.0050	TSUCAN	8.2	CW 1	1/7	0.0050	TSUCAN	11.4
CW 1	1/6	0.0050	TSUCAN	8.8	CW 1	1/7	0.0050	TSUCAN	11.4
CW 1	1/6	0.0050	TSUCAN	9.1	CW 1	1/7	0.0050	TSUCAN	12.5
CW 1	1/6	0.0050	TSUCAN	9.1	CW 1	1/7	0.0050	TSUCAN	13.4
CW 1	1/6	0.0050	TSUCAN	9.2	CW 1	1/7	0.0050	TSUCAN	14.2
CW 1	1/6	0.0050	TSUCAN	9.8	CW 1	1/7	0.0050	TSUCAN	15
CW 1	1/6	0.0050	TSUCAN	10.7	CW 1	1/7	0.0050	TSUCAN	15.3
CW 1	1/6	0.0050	TSUCAN	12	CW 1	1/7	0.0050	TSUCAN	15.7
CW 1	1/6	0.0050	TSUCAN	12.3	CW 1	1/7	0.0050	TSUCAN	17
CW 1	1/6	0.0050	TSUCAN	12.8	CW 1	1/8	0.0050	ACERUB	8.2
CW 1	1/6	0.0050	TSUCAN	13.1	CW 1	1/8	0.0050	ACERUB	12.8
CW 1	1/6	0.0050	TSUCAN	14.3	CW 1	1/8	0.0050	ACERUB	13.3
CW 1	1/6	0.0050	TSUCAN	14.7	CW 1	1/8	0.0024	BETLEN	7.9
CW 1	1/6	0.0050	TSUCAN	20.9	CW 1	1/8	0.0050	BETLEN	8.8
CW 1	1/7	0.0050	ACERUB	7.4	CW 1	1/8	0.0050	BETLEN	9
CW 1	1/7	0.0050	ACERUB	10.1	CW 1	1/8	0.0050	BETLEN	9.1
CW 1	1/7	0.0050	BETLEN	9	CW 1	1/8	0.0050	BETLEN	9.3
CW 1	1/7	0.0050	BETLEN	10.2	CW 1	1/8	0.0050	BETLEN	11.3
CW 1	1/7	0.0050	BETLEN	10.4	CW 1	1/8	0.0050	BETLEN	12.6
CW 1	1/7	0.0050	BETLEN	10.5	CW 1	1/8	0.0050	BETLEN	13.8
CW 1	1/7	0.0050	BETLEN	10.8	CW 1	1/8	0.0050	BETLEN	14.1

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 1	1/8	0.0050	BETLEN	14.5	CW 1	1/8	0.0050	TSUCAN	13.5
CW 1	1/8	0.0050	BETLEN	15.3	CW 1	1/8	0.0050	TSUCAN	13.7
CW 1	1/8	0.0050	BETLEN	15.8	CW 1	1/8	0.0050	TSUCAN	14.7
CW 1	1/8	0.0050	BETLEN	15.9	CW 1	1/8	0.0050	TSUCAN	16.8
CW 1	1/8	0.0050	BETLEN	16	CW 1	1/8	0.0050	TSUCAN	17
CW 1	1/8	0.0050	BETLEN	16.2	CW 1	1/8	0.0050	TSUCAN	17.4
CW 1	1/8	0.0050	BETLEN	16.3	CW 1	1/8	0.0050	TSUCAN	19.4
CW 1	1/8	0.0050	BETLEN	16.6	CW 1	1/9	0.0050	BETLEN	9.9
CW 1	1/8	0.0050	BETLEN	16.7	CW 1	1/9	0.0050	BETLEN	10.8
CW 1	1/8	0.0050	BETLEN	17.8	CW 1	1/9	0.0050	BETLEN	11.2
CW 1	1/8	0.0050	BETLEN	18.5	CW 1	1/9	0.0050	BETLEN	12.3
CW 1	1/8	0.0050	BETLEN	20.3	CW 1	1/9	0.0050	BETLEN	13.2
CW 1	1/8	0.0050	FAGGRA	16.2	CW 1	1/9	0.0050	BETLEN	13.3
CW 1	1/8	0.0050	FAGGRA	21.1	CW 1	1/9	0.0050	BETLEN	13.5
CW 1	1/8	0.0050	FAGGRA	32.6	CW 1	1/9	0.0050	BETLEN	14.7
CW 1	1/8	0.0050	QUERUB	8.4	CW 1	1/9	0.0024	FAGGRA	4.3
CW 1	1/8	0.0050	QUERUB	8.9	CW 1	1/9	0.0024	FAGGRA	6.2
CW 1	1/8	0.0050	QUERUB	24.9	CW 1	1/9	0.0024	FAGGRA	6.4
CW 1	1/8	0.0050	QUERUB	35.9	CW 1	1/9	0.0050	FAGGRA	13.1
CW 1	1/8	0.0024	TSUCAN	2.2	CW 1	1/9	0.0050	FAGGRA	21
CW 1	1/8	0.0024	TSUCAN	2.4	CW 1	1/9	0.0050	FAGGRA	25.9
CW 1	1/8	0.0024	TSUCAN	2.9	CW 1	1/9	0.0050	FAGGRA	39.5
CW 1	1/8	0.0024	TSUCAN	3.4	CW 1	1/9	0.0050	QUERUB	17.9
CW 1	1/8	0.0024	TSUCAN	3.5	CW 1	1/9	0.0024	TSUCAN	2.1
CW 1	1/8	0.0024	TSUCAN	5.4	CW 1	1/9	0.0024	TSUCAN	3.3
CW 1	1/8	0.0024	TSUCAN	6	CW 1	1/9	0.0024	TSUCAN	4.2
CW 1	1/8	0.0024	TSUCAN	6.4	CW 1	1/9	0.0024	TSUCAN	4.3
CW 1	1/8	0.0024	TSUCAN	6.4	CW 1	1/9	0.0024	TSUCAN	4.5
CW 1	1/8	0.0024	TSUCAN	7.4	CW 1	1/9	0.0024	TSUCAN	4.9
CW 1	1/8	0.0024	TSUCAN	7.5	CW 1	1/9	0.0024	TSUCAN	6.3
CW 1	1/8	0.0024	TSUCAN	7.6	CW 1	1/9	0.0024	TSUCAN	6.8
CW 1	1/8	0.0050	TSUCAN	8.9	CW 1	1/9	0.0024	TSUCAN	7.1
CW 1	1/8	0.0050	TSUCAN	9	CW 1	1/9	0.0024	TSUCAN	7.3
CW 1	1/8	0.0050	TSUCAN	9	CW 1	1/9	0.0050	TSUCAN	8.3
CW 1	1/8	0.0050	TSUCAN	9.7	CW 1	1/9	0.0050	TSUCAN	8.4
CW 1	1/8	0.0050	TSUCAN	9.8	CW 1	1/9	0.0050	TSUCAN	8.6
CW 1	1/8	0.0050	TSUCAN	9.8	CW 1	1/9	0.0050	TSUCAN	8.6
CW 1	1/8	0.0050	TSUCAN	10.3	CW 1	1/9	0.0050	TSUCAN	8.6
CW 1	1/8	0.0050	TSUCAN	10.5	CW 1	1/9	0.0050	TSUCAN	8.6
CW 1	1/8	0.0050	TSUCAN	11.1	CW 1	1/9	0.0050	TSUCAN	8.8
CW 1	1/8	0.0050	TSUCAN	11.2	CW 1	1/9	0.0050	TSUCAN	8.9
CW 1	1/8	0.0050	TSUCAN	11.3	CW 1	1/9	0.0050	TSUCAN	9
CW 1	1/8	0.0050	TSUCAN	11.4	CW 1	1/9	0.0050	TSUCAN	9
CW 1	1/8	0.0050	TSUCAN	11.4	CW 1	1/9	0.0050	TSUCAN	9.2
CW 1	1/8	0.0050	TSUCAN	12.5	CW 1	1/9	0.0050	TSUCAN	9.2
CW 1	1/8	0.0050	TSUCAN	12.6	CW 1	1/9	0.0050	TSUCAN	9.3
CW 1	1/8	0.0050	TSUCAN	12.7	CW 1	1/9	0.0050	TSUCAN	9.3
CW 1	1/8	0.0050	TSUCAN	12.8	CW 1	1/9	0.0050	TSUCAN	10.3
CW 1	1/8	0.0050	TSUCAN	13.2	CW 1	1/9	0.0050	TSUCAN	10.8
CW 1	1/8	0.0050	TSUCAN	13.2	CW 1	1/9	0.0050	TSUCAN	11.5

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 1	1/9	0.0050	TSUCAN	12	CW 1	8/8	0.0050	TSUCAN	11.3
CW 1	1/9	0.0050	TSUCAN	12.5	CW 1	8/8	0.0050	TSUCAN	12
CW 1	1/9	0.0050	TSUCAN	12.9	CW 1	8/8	0.0050	TSUCAN	12
CW 1	1/9	0.0050	TSUCAN	13.2	CW 1	8/8	0.0050	TSUCAN	17.2
CW 1	1/9	0.0050	TSUCAN	16.1	CW 1	8/9	0.0050	ACERUB	8.5
CW 1	1/9	0.0050	TSUCAN	19.2	CW 1	8/9	0.0050	ACERUB	10.3
CW 1	1/9	0.0050	TSUCAN	25	CW 1	8/9	0.0050	ACERUB	10.9
CW 1	1/9	0.0050	TSUCAN	25.9	CW 1	8/9	0.0050	ACERUB	12
CW 1	1/9	0.0050	TSUCAN	28.2	CW 1	8/9	0.0050	ACERUB	14
CW 1	8/8	0.0050	ACESAC	19.6	CW 1	8/9	0.0050	ACERUB	16.3
CW 1	8/8	0.0024	BETLEN	6.9	CW 1	8/9	0.0050	ACERUB	26.3
CW 1	8/8	0.0050	BETLEN	8.7	CW 1	8/9	0.0024	BETALL	6.8
CW 1	8/8	0.0050	BETLEN	34.2	CW 1	8/9	0.0050	BETALL	9
CW 1	8/8	0.0050	TILAME	17	CW 1	8/9	0.0050	BETALL	20.6
CW 1	8/8	0.0050	TILAME	28.2	CW 1	8/9	0.0050	BETALL	24
CW 1	8/8	0.0024	FAGGRA	6.5	CW 1	8/9	0.0050	BETALL	30
CW 1	8/8	0.0050	FAGGRA	13.8	CW 1	8/9	0.0050	BETALL	30.8
CW 1	8/8	0.0050	FAGGRA	34.1	CW 1	8/9	0.0050	BETLEN	8
CW 1	8/8	0.0050	FAGGRA	42.7	CW 1	8/9	0.0050	BETLEN	18
CW 1	8/8	0.0050	FAGGRA	48	CW 1	8/9	0.0050	BETLEN	19.6
CW 1	8/8	0.0050	QUERUB	27	CW 1	8/9	0.0024	CARCAR	2.2
CW 1	8/8	0.0024	TSUCAN	2.1	CW 1	8/9	0.0024	TSUCAN	2
CW 1	8/8	0.0024	TSUCAN	2.1	CW 1	8/9	0.0024	TSUCAN	2
CW 1	8/8	0.0024	TSUCAN	2.3	CW 1	8/9	0.0024	TSUCAN	2.1
CW 1	8/8	0.0024	TSUCAN	2.4	CW 1	8/9	0.0024	TSUCAN	2.3
CW 1	8/8	0.0024	TSUCAN	2.6	CW 1	8/9	0.0024	TSUCAN	2.4
CW 1	8/8	0.0024	TSUCAN	2.8	CW 1	8/9	0.0024	TSUCAN	2.4
CW 1	8/8	0.0024	TSUCAN	2.8	CW 1	8/9	0.0024	TSUCAN	2.5
CW 1	8/8	0.0024	TSUCAN	3	CW 1	8/9	0.0024	TSUCAN	2.5
CW 1	8/8	0.0024	TSUCAN	3.2	CW 1	8/9	0.0024	TSUCAN	2.9
CW 1	8/8	0.0024	TSUCAN	3.9	CW 1	8/9	0.0024	TSUCAN	3.6
CW 1	8/8	0.0024	TSUCAN	4	CW 1	8/9	0.0024	TSUCAN	4.1
CW 1	8/8	0.0024	TSUCAN	4.2	CW 1	8/9	0.0024	TSUCAN	4.5
CW 1	8/8	0.0024	TSUCAN	4.6	CW 1	8/9	0.0024	TSUCAN	4.6
CW 1	8/8	0.0024	TSUCAN	4.7	CW 1	8/9	0.0024	TSUCAN	4.8
CW 1	8/8	0.0024	TSUCAN	4.9	CW 1	8/9	0.0024	TSUCAN	6.1
CW 1	8/8	0.0024	TSUCAN	5.6	CW 1	8/9	0.0024	TSUCAN	7.8
CW 1	8/8	0.0024	TSUCAN	5.7	CW 1	8/9	0.0050	TSUCAN	10.9
CW 1	8/8	0.0024	TSUCAN	5.8	CW 1	8/9	0.0050	TSUCAN	13.3
CW 1	8/8	0.0024	TSUCAN	6	CW 1	8/9	0.0050	TSUCAN	25.6
CW 1	8/8	0.0024	TSUCAN	6.8	CW 1	8/13	0.0050	BETALL	8.4
CW 1	8/8	0.0024	TSUCAN	7.7	CW 1	8/13	0.0050	BETALL	10.1
CW 1	8/8	0.0024	TSUCAN	7.9	CW 1	8/13	0.0050	BETALL	12.2
CW 1	8/8	0.0050	TSUCAN	8.1	CW 1	8/13	0.0050	BETALL	12.2
CW 1	8/8	0.0050	TSUCAN	8.5	CW 1	8/13	0.0050	BETALL	13.7
CW 1	8/8	0.0050	TSUCAN	9.5	CW 1	8/13	0.0050	BETALL	16.8
CW 1	8/8	0.0050	TSUCAN	10.2	CW 1	8/13	0.0050	BETALL	22.3
CW 1	8/8	0.0050	TSUCAN	10.3	CW 1	8/13	0.0050	BETALL	22.3
CW 1	8/8	0.0050	TSUCAN	10.5	CW 1	8/13	0.0050	BETALL	25.2
CW 1	8/8	0.0050	TSUCAN	10.8	CW 1	8/13	0.0050	BETALL	30.2

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 1	8/13	0.0050	BETLEN	13.5	CW 1	8/13	0.0050	TSUCAN	10.9
CW 1	8/13	0.0050	BETLEN	19.9	CW 1	8/13	0.0050	TSUCAN	12.1
CW 1	8/13	0.0050	FAGGRA	10.9	CW 1	8/13	0.0050	TSUCAN	12.8
CW 1	8/13	0.0024	TSUCAN	3.8	CW 1	8/13	0.0050	TSUCAN	13.3
CW 1	8/13	0.0024	TSUCAN	5.5	CW 1	8/13	0.0050	TSUCAN	14.2
CW 1	8/13	0.0024	TSUCAN	5.8	CW 1	8/13	0.0050	TSUCAN	15.2
CW 1	8/13	0.0024	TSUCAN	6.7	CW 1	8/13	0.0050	TSUCAN	15.7
CW 1	8/13	0.0024	TSUCAN	6.7	CW 1	8/13	0.0050	TSUCAN	15.9
CW 1	8/13	0.0024	TSUCAN	6.9	CW 1	8/13	0.0050	TSUCAN	18.5
CW 1	8/13	0.0024	TSUCAN	7.5	CW 1	8/13	0.0050	TSUCAN	19.8
CW 1	8/13	0.0050	TSUCAN	8	CW 1	8/13	0.0050	TSUCAN	20.9
CW 1	8/13	0.0050	TSUCAN	10.8					
CW2	3/1	0.0050	ACERUB	15	CW2	3/2	0.0050	BETLEN	31.4
CW2	3/1	0.0050	ACERUB	16.4	CW2	3/2	0.0050	BETLEN	31.9
CW2	3/1	0.0050	ACERUB	17.2	CW2	3/2	0.0024	FAGGRA	5.3
CW2	3/1	0.0050	ACERUB	17.3	CW2	3/2	0.0050	FAGGRA	13.2
CW2	3/1	0.0050	ACERUB	24.9	CW2	3/2	0.0050	FAGGRA	23.2
CW2	3/1	0.0050	ACERUB	28	CW2	3/2	0.0050	FAGGRA	42.1
CW2	3/1	0.0050	BETALL	20	CW2	3/2	0.0050	FAGGRA	44.8
CW2	3/1	0.0050	BETLEN	16.5	CW2	3/2	0.0050	QUERUB	39.8
CW2	3/1	0.0050	FAGGRA	18.6	CW2	3/2	0.0024	TSUCAN	2.5
CW2	3/1	0.0050	FAGGRA	25.5	CW2	3/2	0.0024	TSUCAN	2.8
CW2	3/1	0.0050	QUERUB	24.2	CW2	3/2	0.0024	TSUCAN	3.1
CW2	3/1	0.0050	QUERUB	24.3	CW2	3/2	0.0024	TSUCAN	3.1
CW2	3/1	0.0050	QUERUB	31.4	CW2	3/2	0.0024	TSUCAN	3.2
CW2	3/1	0.0024	TSUCAN	2.1	CW2	3/2	0.0024	TSUCAN	3.3
CW2	3/1	0.0024	TSUCAN	2.2	CW2	3/2	0.0024	TSUCAN	3.5
CW2	3/1	0.0024	TSUCAN	2.3	CW2	3/2	0.0024	TSUCAN	3.5
CW2	3/1	0.0024	TSUCAN	2.5	CW2	3/2	0.0024	TSUCAN	4.4
CW2	3/1	0.0024	TSUCAN	3.4	CW2	3/2	0.0024	TSUCAN	5.2
CW2	3/1	0.0024	TSUCAN	4	CW2	3/2	0.0024	TSUCAN	5.6
CW2	3/1	0.0024	TSUCAN	4.1	CW2	3/2	0.0024	TSUCAN	7.9
CW2	3/1	0.0024	TSUCAN	5	CW2	3/2	0.0050	TSUCAN	8.2
CW2	3/1	0.0024	TSUCAN	5.2	CW2	3/2	0.0050	TSUCAN	8.5
CW2	3/1	0.0050	TSUCAN	8	CW2	3/2	0.0050	TSUCAN	9.2
CW2	3/1	0.0050	TSUCAN	9.8	CW2	3/2	0.0050	TSUCAN	9.8
CW2	3/1	0.0050	TSUCAN	13.3	CW2	3/2	0.0050	TSUCAN	10.2
CW2	3/1	0.0050	TSUCAN	13.3	CW2	3/2	0.0050	TSUCAN	16.3
CW2	3/1	0.0050	TSUCAN	13.5	CW2	3/2	0.0050	TSUCAN	14.9
CW2	3/1	0.0050	TSUCAN	13.9	CW2	3/2	0.0050	TSUCAN	18.4
CW2	3/1	0.0050	TSUCAN	13.9	CW2	3/2	0.0050	TSUCAN	19.9
CW2	3/1	0.0050	TSUCAN	15.4	CW2	3/2	0.0050	TSUCAN	20.7
CW2	3/1	0.0050	TSUCAN	16.2	CW2	3/2	0.0050	TSUCAN	36.4
CW2	3/1	0.0050	TSUCAN	16.8	CW2	3/2	0.0050	TSUCAN	41.2
CW2	3/1	0.0050	TSUCAN	19.5	CW2	3/3	0.0050	ACERUB	20.5
CW2	3/1	0.0050	TSUCAN	21	CW2	3/3	0.0050	BETLEN	12.8
CW2	3/1	0.0050	TSUCAN	33.5	CW2	3/3	0.0050	BETLEN	13.5
CW2	3/1	0.0050	TSUCAN	8.9	CW2	3/3	0.0050	BETLEN	16.1
CW2	3/1	0.0050	TSUCAN	10	CW2	3/3	0.0050	BETLEN	17.7

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW2	3/1	0.0050	TSUCAN	11.7	CW2	3/3	0.0050	FAGGRA	8.8
CW2	3/1	0.0050	TSUCAN	11.7	CW2	3/3	0.0050	FAGGRA	42.3
CW2	3/1	0.0050	TSUCAN	12.9	CW2	3/3	0.0050	FAGGRA	12.8
CW2	3/1	0.0050	TSUCAN	20.8	CW2	3/3	0.0050	FAGGRA	35.3
CW2	3/1	0.0050	TSUCAN	52.6	CW2	3/3	0.0050	QUERUB	39.1
CW2	3/2	0.0024	ACERUB	5.3	CW2	3/3	0.0050	QUERUB	38.5
CW2	3/2	0.0024	ACERUB	7.4	CW2	3/3	0.0024	TSUCAN	2.1
CW2	3/2	0.0050	BETLEN	12.3	CW2	3/3	0.0024	TSUCAN	2.1
CW2	3/2	0.0050	BETLEN	15.3	CW2	3/3	0.0024	TSUCAN	2.5
CW2	3/2	0.0050	BETLEN	20.4	CW2	3/3	0.0024	TSUCAN	2.6
CW2	3/2	0.0050	BETLEN	21.1	CW2	3/3	0.0024	TSUCAN	2.7
CW2	3/2	0.0050	BETLEN	21.4	CW2	3/3	0.0024	TSUCAN	2.8
CW2	3/2	0.0050	BETLEN	24	CW2	3/3	0.0024	TSUCAN	3.1
CW2	3/2	0.0050	BETLEN	31.4	CW2	3/3	0.0024	TSUCAN	3.4
CW2	3/2	0.0050	BETLEN	31.9	CW2	3/3	0.0024	TSUCAN	3.5
CW2	3/2	0.0024	FAGGRA	5.3	CW2	3/3	0.0024	TSUCAN	4.2
CW2	3/2	0.0050	FAGGRA	13.2	CW2	3/3	0.0024	TSUCAN	4.4
CW2	3/2	0.0050	FAGGRA	23.2	CW2	3/3	0.0024	TSUCAN	4.7
CW2	3/2	0.0050	FAGGRA	42.1	CW2	3/3	0.0024	TSUCAN	4.7
CW2	3/2	0.0050	FAGGRA	44.8	CW2	3/3	0.0024	TSUCAN	4.8
CW2	3/2	0.0050	QUERUB	39.8	CW2	3/3	0.0024	TSUCAN	4.8
CW2	3/2	0.0024	TSUCAN	2.5	CW2	3/3	0.0024	TSUCAN	5
CW2	3/2	0.0024	TSUCAN	2.8	CW2	3/3	0.0024	TSUCAN	5
CW2	3/2	0.0024	TSUCAN	3.1	CW2	3/3	0.0024	TSUCAN	5.4
CW2	3/2	0.0024	TSUCAN	3.1	CW2	3/3	0.0024	TSUCAN	5.4
CW2	3/2	0.0024	TSUCAN	3.2	CW2	3/3	0.0024	TSUCAN	5.5
CW2	3/2	0.0024	TSUCAN	3.3	CW2	3/3	0.0024	TSUCAN	5.9
CW2	3/2	0.0024	TSUCAN	3.5	CW2	3/3	0.0024	TSUCAN	6
CW2	3/2	0.0024	TSUCAN	3.5	CW2	3/3	0.0024	TSUCAN	6.6
CW2	3/2	0.0024	TSUCAN	4.4	CW2	3/3	0.0024	TSUCAN	6.7
CW2	3/2	0.0024	TSUCAN	5.2	CW2	3/3	0.0024	TSUCAN	6.7
CW2	3/2	0.0024	TSUCAN	5.6	CW2	3/3	0.0024	TSUCAN	6.9
CW2	3/2	0.0024	TSUCAN	7.9	CW2	3/3	0.0024	TSUCAN	7.8
CW2	3/2	0.0050	TSUCAN	8.2	CW2	3/3	0.0050	TSUCAN	8
CW2	3/2	0.0050	TSUCAN	8.5	CW2	3/3	0.0050	TSUCAN	8.2
CW2	3/2	0.0050	TSUCAN	9.2	CW2	3/3	0.0050	TSUCAN	9.3
CW2	3/2	0.0050	TSUCAN	9.8	CW2	3/3	0.0050	TSUCAN	9.7
CW2	3/2	0.0050	TSUCAN	10.2	CW2	3/3	0.0050	TSUCAN	9.8
CW2	3/2	0.0050	TSUCAN	16.3	CW2	3/3	0.0050	TSUCAN	11.3
CW2	3/2	0.0050	TSUCAN	14.9	CW2	3/3	0.0050	TSUCAN	11.4
CW2	3/2	0.0050	TSUCAN	18.4	CW2	3/3	0.0050	TSUCAN	12.8
CW2	3/2	0.0050	TSUCAN	19.9	CW2	3/3	0.0050	TSUCAN	16.5
CW2	3/2	0.0050	TSUCAN	20.7	CW2	3/3	0.0050	TSUCAN	17.6
CW2	3/2	0.0050	TSUCAN	36.4	CW2	3/3	0.0050	TSUCAN	18.2
CW2	3/2	0.0050	TSUCAN	41.2	CW2	3/3	0.0050	TSUCAN	9.6
CW2	3/3	0.0050	ACERUB	20.5	CW2	3/3	0.0050	TSUCAN	10.7
CW2	3/3	0.0050	BETLEN	12.8	CW2	3/3	0.0050	TSUCAN	12.3
CW2	3/3	0.0050	BETLEN	13.5	CW2	3/3	0.0050	TSUCAN	14.3
CW2	3/3	0.0050	BETLEN	16.1	CW2	3/3	0.0050	TSUCAN	15.3

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW2	3/3	0.0050	BETLEN	17.7	CW2	3/3	0.0050	TSUCAN	21
CW2	3/3	0.0050	FAGGRA	8.8	CW2	3/4	0.0050	ACERUB	10.7
CW2	3/3	0.0050	FAGGRA	42.3	CW2	3/4	0.0050	ACERUB	12.6
CW2	3/3	0.0050	FAGGRA	12.8	CW2	3/4	0.0050	BETLEN	12.1
CW2	3/3	0.0050	FAGGRA	35.3	CW2	3/4	0.0050	BETLEN	13
CW2	3/3	0.0050	QUERUB	39.1	CW2	3/4	0.0050	BETLEN	15.5
CW2	3/3	0.0050	QUERUB	38.5	CW2	3/4	0.0050	BETLEN	16.7
CW2	3/3	0.0024	TSUCAN	2.1	CW2	3/4	0.0050	BETLEN	18.9
CW2	3/3	0.0024	TSUCAN	2.1	CW2	3/4	0.0050	BETLEN	19.3
CW2	3/3	0.0024	TSUCAN	2.5	CW2	3/4	0.0050	BETLEN	21.6
CW2	3/3	0.0024	TSUCAN	2.6	CW2	3/4	0.0050	BETLEN	25.5
CW2	3/3	0.0024	TSUCAN	2.7	CW2	3/4	0.0050	BETLEN	22.3
CW2	3/3	0.0024	TSUCAN	2.8	CW2	3/4	0.0050	QUERUB	35
CW2	3/3	0.0024	TSUCAN	3.1	CW2	3/5	0.0050	TSUCAN	17.2
CW2	3/3	0.0024	TSUCAN	3.2	CW2	3/5	0.0050	TSUCAN	18.6
CW2	3/4	0.0050	QUERUB	29.7	CW2	3/5	0.0050	TSUCAN	9.3
CW2	3/4	0.0050	QUERUB	32.3	CW2	3/5	0.0050	TSUCAN	10.7
CW2	3/4	0.0050	QUERUB	47.2	CW2	3/5	0.0050	TSUCAN	11
CW2	3/4	0.0024	TSUCAN	2.1	CW2	3/5	0.0050	TSUCAN	15.6
CW2	3/4	0.0024	TSUCAN	2.3	CW2	3/5	0.0050	TSUCAN	45.3
CW2	3/4	0.0024	TSUCAN	2.9	CW2	3/6	0.0050	FAGGRA	17.7
CW2	3/4	0.0024	TSUCAN	3.3	CW2	3/6	0.0050	FAGGRA	18.1
CW2	3/4	0.0024	TSUCAN	3.7	CW2	3/6	0.0050	FAGGRA	18.3
CW2	3/4	0.0024	TSUCAN	6.2	CW2	3/6	0.0050	FAGGRA	20.6
CW2	3/4	0.0024	TSUCAN	7	CW2	3/6	0.0024	TSUCAN	2.1
CW2	3/4	0.0024	TSUCAN	7.5	CW2	3/6	0.0024	TSUCAN	2.1
CW2	3/4	0.0050	TSUCAN	9	CW2	3/6	0.0024	TSUCAN	2.1
CW2	3/4	0.0050	TSUCAN	9.7	CW2	3/6	0.0024	TSUCAN	2.2
CW2	3/4	0.0050	TSUCAN	11.1	CW2	3/6	0.0024	TSUCAN	3.6
CW2	3/4	0.0050	TSUCAN	11.9	CW2	3/6	0.0024	TSUCAN	3.9
CW2	3/4	0.0050	TSUCAN	11.9	CW2	3/6	0.0024	TSUCAN	4.1
CW2	3/4	0.0050	TSUCAN	12.3	CW2	3/6	0.0024	TSUCAN	4.1
CW2	3/4	0.0050	TSUCAN	13.6	CW2	3/6	0.0024	TSUCAN	4.4
CW2	3/4	0.0050	TSUCAN	22.2	CW2	3/6	0.0024	TSUCAN	5.1
CW2	3/4	0.0050	TSUCAN	9.6	CW2	3/6	0.0024	TSUCAN	5.7
CW2	3/4	0.0050	TSUCAN	9.7	CW2	3/6	0.0024	TSUCAN	6.2
CW2	3/4	0.0050	TSUCAN	12.9	CW2	3/6	0.0024	TSUCAN	6.5
CW2	3/5	0.0050	BETLEN	13.3	CW2	3/6	0.0050	TSUCAN	12.9
CW2	3/5	0.0050	BETLEN	15.1	CW2	3/7	0.0050	ACERUB	15.7
CW2	3/5	0.0050	BETLEN	15.6	CW2	3/7	0.0050	BETLEN	12.8
CW2	3/5	0.0050	FAGGRA	9	CW2	3/7	0.0050	FAGGRA	10.5
CW2	3/5	0.0050	FAGGRA	52.3	CW2	3/7	0.0050	FAGGRA	13.8
CW2	3/5	0.0050	QUENIG	24.9	CW2	3/7	0.0050	FAGGRA	26.3
CW2	3/5	0.0050	QUERUB	23.4	CW2	3/7	0.0050	FAGGRA	33.3
CW2	3/5	0.0050	QUERUB	14.5	CW2	3/7	0.0050	FAGGRA	41.6
CW2	3/5	0.0024	TSUCAN	2.6	CW2	3/7	0.0050	FAGGRA	27.5
CW2	3/5	0.0024	TSUCAN	2.6	CW2	3/7	0.0050	QUERUB	42.2
CW2	3/5	0.0024	TSUCAN	2.6	CW2	3/7	0.0024	TSUCAN	2.2

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW2	3/5	0.0024	TSUCAN	3.1	CW2	3/7	0.0024	TSUCAN	4.2
CW2	3/5	0.0024	TSUCAN	4.1	CW2	3/7	0.0024	TSUCAN	5.3
CW2	3/5	0.0024	TSUCAN	4.1	CW2	3/7	0.0024	TSUCAN	5.3
CW2	3/5	0.0024	TSUCAN	4.8	CW2	3/7	0.0050	TSUCAN	10.1
CW2	3/5	0.0024	TSUCAN	5.3	CW2	3/7	0.0050	TSUCAN	13.6
CW2	3/5	0.0024	TSUCAN	5.6	CW2	3/7	0.0050	TSUCAN	13.7
CW2	3/5	0.0024	TSUCAN	5.7	CW2	3/7	0.0050	TSUCAN	16.3
CW2	3/5	0.0024	TSUCAN	5.9	CW2	3/7	0.0050	TSUCAN	17.9
CW2	3/5	0.0024	TSUCAN	6.4	CW2	3/7	0.0050	TSUCAN	13.7
CW2	3/5	0.0024	TSUCAN	7.6	CW2	3/7	0.0050	TSUCAN	16.9
CW2	3/5	0.0024	TSUCAN	7.7	CW2	3/7	0.0050	TSUCAN	52.6
CW2	3/5	0.0050	TSUCAN	8.7	CW2	6/6	0.0024	ACERUB	4.9
CW2	3/5	0.0050	TSUCAN	10	CW2	6/6	0.0050	ACERUB	10.1
CW2	3/5	0.0050	TSUCAN	11.2	CW2	6/6	0.0050	ACERUB	20.2
CW2	3/5	0.0050	TSUCAN	12.5	CW2	6/6	0.0024	ACESAC	3
CW2	3/5	0.0050	TSUCAN	12.9	CW2	6/7	0.0050	FAGGRA	18.1
CW2	6/6	0.0050	ACESAC	10.9	CW2	6/7	0.0050	PINSTR	99.9
CW2	6/6	0.0050	BETLEN	11.2	CW2	6/7	0.0024	TSUCAN	2.3
CW2	6/6	0.0050	BETLEN	11.8	CW2	6/7	0.0024	TSUCAN	2.4
CW2	6/6	0.0050	BETLEN	19.4	CW2	6/7	0.0024	TSUCAN	2.5
CW2	6/6	0.0050	BETLEN	21.3	CW2	6/7	0.0024	TSUCAN	2.9
CW2	6/6	0.0024	FAGGRA	4	CW2	6/7	0.0024	TSUCAN	3.2
CW2	6/6	0.0024	FAGGRA	5	CW2	6/7	0.0024	TSUCAN	3.3
CW2	6/6	0.0024	FAGGRA	6	CW2	6/7	0.0024	TSUCAN	5.1
CW2	6/6	0.0024	FAGGRA	6.4	CW2	6/7	0.0024	TSUCAN	5.3
CW2	6/6	0.0024	FAGGRA	7.6	CW2	6/7	0.0024	TSUCAN	5.8
CW2	6/6	0.0050	FAGGRA	14	CW2	6/7	0.0024	TSUCAN	6.7
CW2	6/6	0.0050	FAGGRA	14.6	CW2	6/7	0.0024	TSUCAN	6.8
CW2	6/6	0.0050	FAGGRA	16.5	CW2	6/7	0.0050	TSUCAN	8.5
CW2	6/6	0.0050	FAGGRA	25.5	CW2	6/7	0.0050	TSUCAN	10.4
CW2	6/6	0.0050	FAGGRA	25.9	CW2	6/7	0.0050	TSUCAN	11
CW2	6/6	0.0024	TSUCAN	2	CW2	6/7	0.0050	TSUCAN	14.3
CW2	6/6	0.0024	TSUCAN	2.5	CW2	6/7	0.0050	TSUCAN	47.9
CW2	6/6	0.0024	TSUCAN	3.1	CW2	6/7	0.0050	TSUCAN	8.3
CW2	6/6	0.0024	TSUCAN	3.4	CW2	6/7	0.0050	TSUCAN	8.5
CW2	6/6	0.0024	TSUCAN	3.5	CW2	6/7	0.0050	TSUCAN	8.6
CW2	6/6	0.0024	TSUCAN	3.6	CW2	6/7	0.0050	TSUCAN	11.2
CW2	6/6	0.0024	TSUCAN	3.6	CW2	6/7	0.0050	TSUCAN	12.3
CW2	6/6	0.0024	TSUCAN	4.1	CW2	6/7	0.0050	TSUCAN	15.5
CW2	6/6	0.0024	TSUCAN	4.2	CW2	3/8	0.0050	ACERUB	16
CW2	6/6	0.0024	TSUCAN	4.3	CW2	3/8	0.0050	ACERUB	23.2
CW2	6/6	0.0024	TSUCAN	4.9	CW2	3/8	0.0050	BETLEN	20.5
CW2	6/6	0.0024	TSUCAN	4.9	CW2	3/8	0.0050	BETLEN	33.4
CW2	6/6	0.0024	TSUCAN	5	CW2	3/8	0.0050	BETLEN	23.8
CW2	6/6	0.0024	TSUCAN	5	CW2	3/8	0.0024	TSUCAN	4.1
CW2	6/6	0.0024	TSUCAN	5.5	CW2	3/8	0.0024	TSUCAN	6.2
CW2	6/6	0.0024	TSUCAN	6.2	CW2	3/8	0.0024	TSUCAN	6.5
CW2	6/6	0.0024	TSUCAN	6.5	CW2	3/8	0.0024	TSUCAN	7.8
CW2	6/6	0.0024	TSUCAN	6.6	CW2	3/8	0.0050	TSUCAN	8.2
CW2	6/6	0.0024	TSUCAN	7.5	CW2	3/8	0.0050	TSUCAN	9.5

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW2	6/6	0.0050	TSUCAN	13.1	CW2	3/8	0.0050	TSUCAN	17
CW2	6/6	0.0050	TSUCAN	57.4	CW2	3/8	0.0050	TSUCAN	19.7
CW2	6/6	0.0050	TSUCAN	8.2	CW2	3/8	0.0050	TSUCAN	20.6
CW2	6/6	0.0050	TSUCAN	8.6	CW2	3/8	0.0050	TSUCAN	25.9
CW2	6/6	0.0050	TSUCAN	8.8	CW2	3/8	0.0050	TSUCAN	29.6
CW2	6/6	0.0050	TSUCAN	9.7	CW2	3/8	0.0050	TSUCAN	9.5
CW2	6/6	0.0050	TSUCAN	26.9	CW2	3/8	0.0050	TSUCAN	17.2
CW2	6/7	0.0050	ACERUB	10.1	CW2	3/8	0.0050	TSUCAN	20.4
CW2	6/7	0.0024	ACESAC	4	CW2	3/9	0.0050	ACERUB	15.9
CW2	6/7	0.0050	ACESAC	15.2	CW2	3/9	0.0050	ACERUB	16.4
CW2	6/7	0.0050	ACESAC	13.4	CW2	3/9	0.0050	BETLEN	12.9
CW2	6/7	0.0050	ACESAC	22.3	CW2	3/9	0.0050	BETLEN	24.8
CW2	6/7	0.0024	BETLEN	4.3	CW2	3/9	0.0050	BETLEN	31
CW2	6/7	0.0024	FAGGRA	6.9	CW2	3/9	0.0050	BETLEN	13.6
CW2	6/7	0.0050	FAGGRA	9.8	CW2	3/9	0.0050	BETLEN	14.1
CW2	6/7	0.0050	FAGGRA	14.8	CW2	8/18	0.0050	BETALL	14.3
CW2	3/9	0.0050	BETLEN	16.6	CW2	8/18	0.0050	BETALL	15.5
CW2	3/9	0.0050	BETLEN	18.9	CW2	8/18	0.0050	BETALL	16.9
CW2	3/9	0.0050	BETLEN	19.7	CW2	8/18	0.0050	BETALL	19.7
CW2	3/9	0.0050	BETLEN	22	CW2	8/18	0.0050	BETLEN	22.8
CW2	3/9	0.0050	BETLEN	24.4	CW2	8/18	0.0050	BETLEN	15.1
CW2	3/9	0.0050	BETLEN	24.5	CW2	8/18	0.0050	FAGGRA	30.4
CW2	3/9	0.0050	BETLEN	26.6	CW2	8/18	0.0050	FAGGRA	36.5
CW2	3/9	0.0024	FAGGRA	6.7	CW2	8/18	0.0050	FAGGRA	9
CW2	3/9	0.0050	FAGGRA	8.6	CW2	8/18	0.0050	FAGGRA	42.4
CW2	3/9	0.0050	FAGGRA	10.6	CW2	8/18	0.0024	TSUCAN	2.3
CW2	3/9	0.0050	FAGGRA	11.7	CW2	8/18	0.0024	TSUCAN	2.5
CW2	3/9	0.0050	FAGGRA	12.7	CW2	8/18	0.0024	TSUCAN	3.1
CW2	3/9	0.0050	FAGGRA	20.5	CW2	8/18	0.0024	TSUCAN	4.2
CW2	3/9	0.0050	FAGGRA	8.5	CW2	8/18	0.0024	TSUCAN	4.8
CW2	3/9	0.0050	FAGGRA	12.5	CW2	8/18	0.0024	TSUCAN	5.3
CW2	3/9	0.0050	FAGGRA	20.3	CW2	8/18	0.0024	TSUCAN	5.8
CW2	3/9	0.0050	QUERUB	58.6	CW2	8/18	0.0024	TSUCAN	6.5
CW2	3/9	0.0050	QUERUB	20.7	CW2	8/18	0.0024	TSUCAN	6.9
CW2	3/9	0.0024	TSUCAN	5.2	CW2	8/18	0.0024	TSUCAN	7.3
CW2	3/9	0.0024	TSUCAN	5.4	CW2	8/18	0.0024	TSUCAN	7.6
CW2	3/9	0.0024	TSUCAN	5.6	CW2	8/18	0.0050	TSUCAN	8
CW2	3/9	0.0024	TSUCAN	5.8	CW2	8/18	0.0050	TSUCAN	8.2
CW2	3/9	0.0024	TSUCAN	6.1	CW2	8/18	0.0050	TSUCAN	8.2
CW2	3/9	0.0024	TSUCAN	6.4	CW2	8/18	0.0050	TSUCAN	8.9
CW2	3/9	0.0024	TSUCAN	7.3	CW2	8/18	0.0050	TSUCAN	9.3
CW2	3/9	0.0024	TSUCAN	7.4	CW2	8/18	0.0050	TSUCAN	9.6
CW2	3/9	0.0024	TSUCAN	7.8	CW2	8/18	0.0050	TSUCAN	10.4
CW2	3/9	0.0050	TSUCAN	8.5	CW2	8/18	0.0050	TSUCAN	12.9
CW2	3/9	0.0050	TSUCAN	9.2	CW2	8/18	0.0050	TSUCAN	15.6
CW2	3/9	0.0050	TSUCAN	12.5	CW2	8/18	0.0050	TSUCAN	17.4
CW2	3/9	0.0050	TSUCAN	14.3	CW2	8/18	0.0050	TSUCAN	18.7
CW2	3/9	0.0050	TSUCAN	16.9	CW2	8/18	0.0050	TSUCAN	19.4
CW2	3/9	0.0050	TSUCAN	8.8	CW2	8/18	0.0050	TSUCAN	22.1

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW2	3/9	0.0050	TSUCAN	9	CW2	8/18	0.0050	TSUCAN	9.1
CW2	3/9	0.0050	TSUCAN	9.9	CW2	8/18	0.0050	TSUCAN	9.4
CW2	3/9	0.0050	TSUCAN	9.9	CW2	8/18	0.0050	TSUCAN	9.9
CW2	3/9	0.0050	TSUCAN	11.6	CW2	8/18	0.0050	TSUCAN	11
CW2	3/9	0.0050	TSUCAN	14.2	CW2	8/18	0.0050	TSUCAN	11.1
CW2	3/9	0.0050	TSUCAN	14.2	CW2	8/18	0.0050	TSUCAN	12.3
CW2	8/18	0.0050	ACERUB	11.2	CW2	8/18	0.0050	TSUCAN	21.7
CW2	8/18	0.0050	ACERUB	21.2	CW2	8/18	0.0050	TSUCAN	23.4
CW2	8/18	0.0050	BETALL	13					
CW3	1/10	0.0050	ACERUB	9	CW3	1/10	0.0050	TSUCAN	8.5
CW3	1/10	0.0050	BETLEN	25.4	CW3	1/10	0.0050	TSUCAN	13.1
CW3	1/10	0.0050	BETLEN	9.9	CW3	1/10	0.0050	TSUCAN	29
CW3	1/10	0.0050	BETLEN	15.3	CW3	1/10	0.0050	TSUCAN	15.7
CW3	1/10	0.0050	QUERUB	31.2	CW3	2/10	0.0050	ACERUB	10.8
CW3	1/10	0.0050	QUERUB	26.9	CW3	2/10	0.0050	BETLEN	19.4
CW3	1/10	0.0024	TSUCAN	7.9	CW3	2/10	0.0050	BETLEN	18.1
CW3	1/10	0.0024	TSUCAN	7.9	CW3	2/10	0.0050	BETLEN	8.1
CW3	1/10	0.0024	TSUCAN	3.9	CW3	2/10	0.0050	BETLEN	8.6
CW3	1/10	0.0050	TSUCAN	11.1	CW3	2/10	0.0050	BETLEN	26.1
CW3	1/10	0.0050	TSUCAN	15.7	CW3	2/10	0.0050	BETLEN	11.5
CW3	1/10	0.0050	TSUCAN	12	CW3	2/10	0.0050	BETLEN	11.1
CW3	1/10	0.0050	TSUCAN	15	CW3	2/10	0.0050	BETLEN	16.6
CW3	1/10	0.0050	TSUCAN	8.6	CW3	2/10	0.0050	QUERUB	32.6
CW3	1/10	0.0050	TSUCAN	9.1	CW3	2/10	0.0050	QUERUB	17.2
CW3	1/10	0.0050	TSUCAN	17.7	CW3	2/10	0.0024	TSUCAN	3.6
CW3	1/10	0.0050	TSUCAN	9.1	CW3	2/10	0.0024	TSUCAN	3.6
CW3	1/10	0.0050	TSUCAN	16	CW3	2/10	0.0024	TSUCAN	5.5
CW3	1/10	0.0050	TSUCAN	13.1	CW3	2/10	0.0024	TSUCAN	4.6
CW3	1/10	0.0050	TSUCAN	14.7	CW3	2/10	0.0024	TSUCAN	6.2
CW3	1/10	0.0050	TSUCAN	13.2	CW3	2/10	0.0024	TSUCAN	2.5
CW3	1/10	0.0050	TSUCAN	17.5	CW3	2/10	0.0024	TSUCAN	4.2
CW3	1/10	0.0050	TSUCAN	11.1	CW3	2/10	0.0024	TSUCAN	3.8
CW3	1/10	0.0050	TSUCAN	9.9	CW3	2/10	0.0050	TSUCAN	11.5
CW3	1/10	0.0050	TSUCAN	9.5	CW3	2/10	0.0050	TSUCAN	8.4
CW3	1/10	0.0050	TSUCAN	8.8	CW3	2/10	0.0050	TSUCAN	16
CW3	1/10	0.0050	TSUCAN	11.4	CW3	2/10	0.0050	TSUCAN	29.7
CW3	1/10	0.0050	TSUCAN	14.9	CW3	2/10	0.0050	TSUCAN	8.9
CW3	1/10	0.0050	TSUCAN	11.3	CW3	2/10	0.0050	TSUCAN	22.3
CW3	1/10	0.0050	TSUCAN	16.1	CW3	2/10	0.0050	TSUCAN	10.1
CW3	1/10	0.0050	TSUCAN	14.9	CW3	2/10	0.0050	TSUCAN	9.1
CW3	1/10	0.0050	TSUCAN	11.9	CW3	2/10	0.0050	TSUCAN	13.3
CW3	1/10	0.0050	TSUCAN	11.4	CW3	2/10	0.0050	TSUCAN	11.7
CW3	1/10	0.0050	TSUCAN	42.1	CW3	2/10	0.0050	TSUCAN	12.6
CW3	1/10	0.0050	TSUCAN	10.2	CW3	2/10	0.0050	TSUCAN	9.8
CW3	1/10	0.0050	TSUCAN	18.4	CW3	2/10	0.0050	TSUCAN	11.4
CW3	1/10	0.0050	TSUCAN	16.5	CW3	2/10	0.0050	TSUCAN	9.6
CW3	1/10	0.0050	TSUCAN	13.1	CW3	2/10	0.0050	TSUCAN	9.2
CW3	1/10	0.0050	TSUCAN	13.9	CW3	2/10	0.0050	TSUCAN	15.8
CW3	1/10	0.0050	TSUCAN	12.5	CW3	2/10	0.0050	TSUCAN	14.3
CW3	1/10	0.0050	TSUCAN	9.4	CW3	2/11	0.0050	ACERUB	22.1

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW3	2/11	0.0050	ACESAC	21.6	CW3	2/12	0.0050	TSUCAN	30.2
CW3	2/11	0.0050	BETLEN	16	CW3	2/12	0.0050	TSUCAN	8.4
CW3	2/11	0.0050	FRAAME	13.1	CW3	2/12	0.0050	TSUCAN	14.7
CW3	2/11	0.0050	FRAAME	65.5	CW3	2/12	0.0050	TSUCAN	12.5
CW3	2/11	0.0024	CARCAR	6.9	CW3	2/12	0.0050	TSUCAN	14
CW3	2/11	0.0024	CARCAR	4.1	CW3	2/12	0.0050	TSUCAN	20.1
CW3	2/11	0.0024	CARCAR	5.6	CW3	2/12	0.0050	TSUCAN	9.3
CW3	2/11	0.0024	CARCAR	4.6	CW3	2/12	0.0050	TSUCAN	15.2
CW3	2/11	0.0050	CARCAR	25.8	CW3	2/12	0.0050	TSUCAN	13.3
CW3	2/11	0.0050	TILAME	19.3	CW3	2/12	0.0050	TSUCAN	15.4
CW3	2/11	0.0050	PINSTR	46.7	CW3	2/12	0.0050	TSUCAN	10.5
CW3	2/11	0.0050	PINSTR	50.8	CW3	2/12	0.0050	TSUCAN	9.6
CW3	2/11	0.0050	PINSTR	74.1	CW3	2/12	0.0050	TSUCAN	11.1
CW3	2/11	0.0050	PINSTR	58.3	CW3	2/12	0.0050	TSUCAN	9.3
CW3	2/11	0.0050	QUERUB	42.7	CW3	2/12	0.0050	TSUCAN	12.8
CW3	2/11	0.0024	TSUCAN	5.9	CW3	2/12	0.0050	TSUCAN	8.1
CW3	2/11	0.0024	TSUCAN	2.9	CW3	2/12	0.0050	TSUCAN	12.6
CW3	2/11	0.0024	TSUCAN	3.6	CW3	2/12	0.0050	TSUCAN	9.6
CW3	2/11	0.0024	TSUCAN	2.9	CW3	2/12	0.0050	TSUCAN	19
CW3	2/11	0.0024	TSUCAN	5.1	CW3	2/13	0.0050	ACERUB	16.3
CW3	2/11	0.0024	TSUCAN	5.9	CW3	2/13	0.0050	ACERUB	13.6
CW3	2/11	0.0024	TSUCAN	2.5	CW3	2/13	0.0050	ACERUB	21.2
CW3	2/11	0.0024	TSUCAN	6.7	CW3	2/13	0.0050	ACERUB	11.1
CW3	2/11	0.0024	TSUCAN	3.1	CW3	2/13	0.0050	ACERUB	22.1
CW3	2/11	0.0024	TSUCAN	5.4	CW3	2/13	0.0050	ACERUB	15.8
CW3	2/11	0.0050	TSUCAN	39.5	CW3	2/13	0.0050	BETLEN	31.2
CW3	2/11	0.0050	TSUCAN	10.1	CW3	2/13	0.0050	BETLEN	13.7
CW3	2/11	0.0050	TSUCAN	18.8	CW3	2/13	0.0050	BETLEN	10.1
CW3	2/11	0.0050	TSUCAN	10	CW3	2/13	0.0050	BETLEN	38.5
CW3	2/12	0.0050	ACERUB	22.7	CW3	2/13	0.0050	BETLEN	25.6
CW3	2/12	0.0050	BETLEN	22.8	CW3	2/13	0.0050	CAROVA	18.6
CW3	2/12	0.0050	BETLEN	20.9	CW3	2/13	0.0050	FRANIG	19.1
CW3	2/12	0.0050	BETLEN	26.3	CW3	2/13	0.0050	FRANIG	30
CW3	2/12	0.0050	BETLEN	19.9	CW3	2/13	0.0050	TILAME	27.4
CW3	2/12	0.0050	FAGGRA	8.6	CW3	2/13	0.0050	QUERUB	48.6
CW3	2/12	0.0024	CARCAR	6.1	CW3	2/13	0.0050	QUERUB	33.9
CW3	2/12	0.0050	PINSTR	77.4	CW3	2/13	0.0050	QUERUB	43.4
CW3	2/12	0.0024	TSUCAN	4.9	CW3	2/13	0.0050	QUERUB	33
CW3	2/12	0.0024	TSUCAN	3.4	CW3	2/13	0.0024	TSUCAN	4.7
CW3	2/12	0.0024	TSUCAN	3.7	CW3	2/13	0.0024	TSUCAN	3.5
CW3	2/12	0.0024	TSUCAN	3.2	CW3	2/13	0.0050	TSUCAN	9.2
CW3	2/12	0.0024	TSUCAN	6.7	CW3	2/13	0.0050	TSUCAN	19.7
CW3	2/12	0.0024	TSUCAN	6.6	CW3	2/13	0.0050	TSUCAN	26
CW3	2/12	0.0024	TSUCAN	6.8	CW3	2/13	0.0050	TSUCAN	8.7
CW3	2/12	0.0024	TSUCAN	5	CW3	2/13	0.0050	TSUCAN	12.9
CW3	2/12	0.0024	TSUCAN	7.6	CW3	2/13	0.0050	TSUCAN	20
CW3	2/12	0.0024	TSUCAN	6.4	CW3	2/13	0.0050	TSUCAN	15.1
CW3	2/12	0.0024	TSUCAN	6.6	CW3	2/13	0.0050	TSUCAN	18.8
CW3	2/12	0.0024	TSUCAN	6.9	CW3	2/13	0.0050	TSUCAN	11.3

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW3	2/12	0.0024	TSUCAN	7.2	CW3	2/13	0.0050	TSUCAN	8.9
CW3	2/12	0.0024	TSUCAN	4.6	CW3	2/13	0.0050	TSUCAN	14
CW3	2/13	0.0050	TSUCAN	16.4	CW3	2/13	0.0050	TSUCAN	11.6
CW3	2/13	0.0050	TSUCAN	55.2					
CW4	3/10	0.0024	TSUCAN	2.1	CW4	3/12	0.0024	TSUCAN	6.8
CW4	3/10	0.0024	TSUCAN	2.4	CW4	3/12	0.0024	TSUCAN	7
CW4	3/10	0.0024	TSUCAN	2.4	CW4	3/12	0.0024	TSUCAN	7.5
CW4	3/10	0.0024	TSUCAN	3.3	CW4	3/12	0.0024	TSUCAN	7.7
CW4	3/10	0.0024	TSUCAN	4.6	CW4	3/12	0.0024	HAMVIR	2.4
CW4	3/10	0.0024	TSUCAN	5.3	CW4	3/12	0.0024	HAMVIR	2.5
CW4	3/10	0.0024	TSUCAN	5.4	CW4	3/12	0.0050	BETLEN	15.1
CW4	3/10	0.0050	FAGGRA	8.1	CW4	3/12	0.0050	BETLEN	16.1
CW4	3/10	0.0050	FAGGRA	8.8	CW4	3/12	0.0050	BETLEN	19.2
CW4	3/10	0.0050	FAGGRA	15.5	CW4	3/12	0.0050	BETLEN	24.7
CW4	3/10	0.0050	BETLEN	10.9	CW4	3/12	0.0050	TSUCAN	8.1
CW4	3/10	0.0050	BETLEN	12.1	CW4	3/12	0.0050	TSUCAN	8.1
CW4	3/10	0.0050	BETLEN	13.3	CW4	3/12	0.0050	TSUCAN	8.6
CW4	3/10	0.0050	BETLEN	21.2	CW4	3/12	0.0050	TSUCAN	8.8
CW4	3/10	0.0050	TSUCAN	10.9	CW4	3/12	0.0050	TSUCAN	9.3
CW4	3/10	0.0050	TSUCAN	11.7	CW4	3/12	0.0050	TSUCAN	9.6
CW4	3/10	0.0050	TSUCAN	17.6	CW4	3/12	0.0050	TSUCAN	9.6
CW4	3/10	0.0050	TSUCAN	46.4	CW4	3/12	0.0050	TSUCAN	10.1
CW4	3/10	0.0050	BETPAP	24.9	CW4	3/12	0.0050	TSUCAN	10.6
CW4	3/10	0.0050	BETPAP	31.1	CW4	3/12	0.0050	TSUCAN	10.7
CW4	3/10	0.0050	QUERUB	32.4	CW4	3/12	0.0050	TSUCAN	11
CW4	3/10	0.0050	PINSTR	100.6	CW4	3/12	0.0050	TSUCAN	13.6
CW4	3/12	0.0024	FAGGRA	2.6	CW4	3/12	0.0050	TSUCAN	13.6
CW4	3/12	0.0024	TSUCAN	2.1	CW4	3/12	0.0050	TSUCAN	16
CW4	3/12	0.0024	TSUCAN	2.2	CW4	3/12	0.0050	TSUCAN	21.8
CW4	3/12	0.0024	TSUCAN	2.5	CW4	3/12	0.0050	LARDEC	26.4
CW4	3/12	0.0024	TSUCAN	3	CW4	3/12	0.0050	QUERUB	35.7
CW4	3/12	0.0024	TSUCAN	3.1	CW4	3/12	0.0050	QUERUB	37.1
CW4	3/12	0.0024	TSUCAN	3.5	CW4	3/12	0.0050	PINSTR	24.6
CW4	3/12	0.0024	TSUCAN	3.5	CW4	3/12	0.0050	PINSTR	35.1
CW4	3/12	0.0024	TSUCAN	3.7	CW4	3/12	0.0050	PINSTR	45
CW4	3/12	0.0024	TSUCAN	4	CW4	3/13	0.0050	ACERUB	9.9
CW4	3/12	0.0024	TSUCAN	4	CW4	3/13	0.0050	ACERUB	18.8
CW4	3/12	0.0024	TSUCAN	4.8	CW4	3/13	0.0050	QUERUB	34.2
CW4	3/12	0.0024	TSUCAN	5.3	CW4	3/13	0.0050	QUERUB	23.3
CW4	3/12	0.0024	TSUCAN	5.9	CW4	3/13	0.0024	TSUCAN	5.4
CW4	3/12	0.0024	TSUCAN	6.1	CW4	3/13	0.0024	TSUCAN	7.6
CW4	3/12	0.0024	TSUCAN	6.5	CW4	3/13	0.0024	TSUCAN	4
CW4	3/13	0.0024	TSUCAN	5.7	CW4	3/15	0.0050	TSUCAN	69.9
CW4	3/13	0.0024	TSUCAN	2.3	CW4	3/15	0.0050	TSUCAN	12.4
CW4	3/13	0.0024	TSUCAN	6.8	CW4	3/15	0.0050	TSUCAN	9.4
CW4	3/13	0.0024	TSUCAN	5.7	CW4	3/15	0.0050	TSUCAN	42.6
CW4	3/13	0.0024	TSUCAN	4.9	CW4	3/16	0.0024	BETLEN	4.7
CW4	3/13	0.0024	TSUCAN	7.5	CW4	3/16	0.0024	OSTVIR	4.9

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW4	3/13	0.0024	TSUCAN	4.8	CW4	3/16	0.0024	PINSTR	65.3
CW4	3/13	0.0024	TSUCAN	4.5	CW4	3/16	0.0024	QUERUB	20.3
CW4	3/13	0.0024	TSUCAN	4.8	CW4	3/16	0.0050	TSUCAN	19.7
CW4	3/13	0.0024	TSUCAN	3.1	CW4	3/16	0.0050	TSUCAN	15.7
CW4	3/13	0.0024	TSUCAN	2.7	CW4	3/16	0.0050	TSUCAN	41.3
CW4	3/13	0.0024	TSUCAN	3.9	CW4	3/16	0.0050	TSUCAN	32.3
CW4	3/13	0.0024	TSUCAN	2.9	CW4	3/16	0.0050	TSUCAN	37.8
CW4	3/13	0.0024	TSUCAN	3.4	CW4	3/16	0.0050	TSUCAN	49.1
CW4	3/13	0.0024	TSUCAN	7.1	CW4	6/1	0.0024	TSUCAN	4.8
CW4	3/13	0.0024	TSUCAN	6.5	CW4	6/1	0.0024	TSUCAN	5.1
CW4	3/13	0.0024	TSUCAN	6.6	CW4	6/1	0.0024	TSUCAN	5.8
CW4	3/13	0.0024	TSUCAN	5.7	CW4	6/1	0.0024	TSUCAN	7.3
CW4	3/13	0.0050	TSUCAN	57.8	CW4	6/1	0.0050	TSUCAN	8.5
CW4	3/13	0.0050	TSUCAN	15.8	CW4	6/1	0.0050	TSUCAN	8.6
CW4	3/13	0.0050	TSUCAN	32.7	CW4	6/1	0.0050	TSUCAN	9.2
CW4	3/13	0.0050	TSUCAN	52.2	CW4	6/1	0.0050	TSUCAN	9.2
CW4	3/13	0.0050	TSUCAN	53	CW4	6/1	0.0050	TSUCAN	9.3
CW4	3/13	0.0050	TSUCAN	10.8	CW4	6/1	0.0050	TSUCAN	9.4
CW4	3/13	0.0050	TSUCAN	13.5	CW4	6/1	0.0050	TSUCAN	9.6
CW4	3/13	0.0050	TSUCAN	11.1	CW4	6/1	0.0050	TSUCAN	10.2
CW4	3/14	0.0024	TSUCAN	2.1	CW4	6/1	0.0050	TSUCAN	10.2
CW4	3/14	0.0024	TSUCAN	2.2	CW4	6/1	0.0050	TSUCAN	10.3
CW4	3/14	0.0024	TSUCAN	2.5	CW4	6/1	0.0050	TSUCAN	11
CW4	3/14	0.0024	TSUCAN	4.1	CW4	6/1	0.0050	TSUCAN	11.7
CW4	3/14	0.0024	TSUCAN	4.9	CW4	6/1	0.0050	TSUCAN	11.7
CW4	3/14	0.0024	TSUCAN	5.8	CW4	6/1	0.0050	TSUCAN	12
CW4	3/14	0.0024	OSTVIR	2.1	CW4	6/1	0.0050	TSUCAN	12.3
CW4	3/14	0.0024	OSTVIR	4.4	CW4	6/1	0.0050	TSUCAN	14.6
CW4	3/14	0.0024	QUERUB	7.9	CW4	6/1	0.0050	TSUCAN	15.5
CW4	3/14	0.0050	TSUCAN	9.6	CW4	6/1	0.0050	TSUCAN	16.2
CW4	3/14	0.0050	TSUCAN	10.1	CW4	6/1	0.0050	TSUCAN	16.9
CW4	3/14	0.0050	TSUCAN	19.3	CW4	6/1	0.0050	TSUCAN	18.2
CW4	3/14	0.0050	OSTVIR	8.2	CW4	6/1	0.0050	TSUCAN	18.5
CW4	3/14	0.0050	ACERUB	50.5	CW4	6/1	0.0050	TSUCAN	22
CW4	3/14	0.0050	QUERUB	34.1	CW4	6/1	0.0050	TSUCAN	22.3
CW4	3/14	0.0050	FRAAME	37.6	CW4	6/1	0.0050	TSUCAN	51.4
CW4	3/14	0.0050	PINSTR	17.9	CW4	6/1	0.0050	BETPAP	30.1
CW4	3/14	0.0050	PINSTR	21.9	CW4	6/1	0.0050	QUERUB	33.4
CW4	3/14	0.0050	PINSTR	46.7	CW4	6/1	0.0050	QUERUB	37.8
CW4	3/15	0.0050	BETLEN	24	CW4	6/1	0.0050	PINSTR	25.1
CW4	3/15	0.0050	BETLEN	24.8	CW4	6/2	0.0024	FAGGRA	2.2
CW4	3/15	0.0050	BETLEN	12.1	CW4	6/2	0.0024	FAGGRA	6
CW4	3/15	0.0024	TSUCAN	3.3	CW4	6/2	0.0024	TSUCAN	2.3
CW4	3/15	0.0050	TSUCAN	26	CW4	6/2	0.0024	TSUCAN	2.5
CW4	6/2	0.0024	TSUCAN	2.9	CW4	6/2	0.0050	PINSTR	55
CW4	6/2	0.0024	TSUCAN	2.9	CW4	6/2	0.0050	PINSTR	58.3
CW4	6/2	0.0024	TSUCAN	3	CW4	6/2	0.0050	PINSTR	71
CW4	6/2	0.0024	TSUCAN	3.2	CW4	6/4	0.0050	ACERUB	17.6
CW4	6/2	0.0024	TSUCAN	3.3	CW4	6/4	0.0050	ACERUB	9.9

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW4	6/2	0.0024	TSUCAN	3.4	CW4	6/4	0.0050	ACERUB	28.1
CW4	6/2	0.0024	TSUCAN	3.8	CW4	6/4	0.0024	ACESAC	21.8
CW4	6/2	0.0024	TSUCAN	4.3	CW4	6/4	0.0024	FRANIG	6.8
CW4	6/2	0.0024	TSUCAN	5.1	CW4	6/4	0.0050	FRANIG	34.7
CW4	6/2	0.0024	TSUCAN	5.2	CW4	6/4	0.0050	FRANIG	28.2
CW4	6/2	0.0024	TSUCAN	5.4	CW4	6/4	0.0024	BETLEN	18.8
CW4	6/2	0.0024	TSUCAN	5.9	CW4	6/4	0.0050	BETLEN	17
CW4	6/2	0.0024	TSUCAN	5.9	CW4	6/4	0.0050	BETLEN	26.3
CW4	6/2	0.0024	TSUCAN	6.2	CW4	6/4	0.0050	CAROVA	17.4
CW4	6/2	0.0024	TSUCAN	6.9	CW4	6/4	0.0050	CARCAR	8.8
CW4	6/2	0.0024	TSUCAN	7.5	CW4	6/4	0.0024	TSUCAN	5.7
CW4	6/2	0.0050	FAGGRA	11.6	CW4	6/4	0.0024	TSUCAN	5.2
CW4	6/2	0.0050	FAGGRA	12.3	CW4	6/4	0.0024	TSUCAN	7.7
CW4	6/2	0.0050	FAGGRA	16.4	CW4	6/4	0.0024	TSUCAN	5.1
CW4	6/2	0.0050	BETLEN	12.1	CW4	6/4	0.0024	TSUCAN	6.7
CW4	6/2	0.0050	BETLEN	19	CW4	6/4	0.0024	TSUCAN	5.5
CW4	6/2	0.0050	BETLEN	20.5	CW4	6/4	0.0050	TSUCAN	19.3
CW4	6/2	0.0050	TSUCAN	8.2	CW4	6/4	0.0050	TSUCAN	16.2
CW4	6/2	0.0050	TSUCAN	9.9	CW4	6/4	0.0050	TSUCAN	14.7
CW4	6/2	0.0050	TSUCAN	11.1	CW4	6/4	0.0050	TSUCAN	9.3
CW4	6/2	0.0050	TSUCAN	11.5	CW4	6/4	0.0050	TSUCAN	11.6
CW4	6/2	0.0050	TSUCAN	13.5	CW4	6/4	0.0050	TSUCAN	8.9
CW4	6/2	0.0050	TSUCAN	34.3	CW4	6/4	0.0050	TSUCAN	10.7
CW4	6/2	0.0050	TSUCAN	39.9	CW4	6/4	0.0050	TSUCAN	27
CW4	6/2	0.0050	TSUCAN	42.1	CW4	6/4	0.0050	TSUCAN	10.3
CW4	6/2	0.0050	TSUCAN	48.6					
CW5	4/1	0.0024	FAGGRA	7.1	CW5	4/2	0.0024	TSUCAN	2.2
CW5	4/1	0.0050	FAGGRA	12.2	CW5	4/2	0.0024	TSUCAN	2.2
CW5	4/1	0.0024	BETLEN	6.1	CW5	4/2	0.0024	TSUCAN	2.2
CW5	4/1	0.0024	BETLEN	6.9	CW5	4/2	0.0024	TSUCAN	2.4
CW5	4/1	0.0050	BETLEN	9.8	CW5	4/2	0.0024	TSUCAN	2.4
CW5	4/1	0.0050	BETLEN	9.9	CW5	4/2	0.0024	TSUCAN	2.4
CW5	4/1	0.0024	TSUCAN	2	CW5	4/2	0.0024	TSUCAN	2.4
CW5	4/1	0.0024	TSUCAN	2.1	CW5	4/2	0.0024	TSUCAN	2.5
CW5	4/1	0.0024	TSUCAN	2.2	CW5	4/2	0.0024	TSUCAN	2.5
CW5	4/1	0.0024	TSUCAN	2.2	CW5	4/2	0.0024	TSUCAN	2.6
CW5	4/1	0.0024	TSUCAN	2.6	CW5	4/2	0.0024	TSUCAN	2.7
CW5	4/1	0.0024	TSUCAN	2.9	CW5	4/2	0.0024	TSUCAN	2.7
CW5	4/1	0.0024	TSUCAN	3	CW5	4/2	0.0024	TSUCAN	2.7
CW5	4/1	0.0024	TSUCAN	3	CW5	4/2	0.0024	TSUCAN	2.8
CW5	4/1	0.0024	TSUCAN	3	CW5	4/2	0.0024	TSUCAN	2.9
CW5	4/1	0.0024	TSUCAN	3	CW5	4/2	0.0024	TSUCAN	3
CW5	4/1	0.0024	TSUCAN	3.1	CW5	4/2	0.0024	TSUCAN	3
CW5	4/1	0.0024	TSUCAN	3.2	CW5	4/2	0.0024	TSUCAN	3
CW5	4/1	0.0024	TSUCAN	3.9	CW5	4/2	0.0024	TSUCAN	3.1
CW5	4/1	0.0024	TSUCAN	4.2	CW5	4/2	0.0024	TSUCAN	3.1
CW5	4/1	0.0024	TSUCAN	4.5	CW5	4/2	0.0024	TSUCAN	3.2
CW5	4/1	0.0024	TSUCAN	5.9	CW5	4/2	0.0024	TSUCAN	3.3
CW5	4/1	0.0024	TSUCAN	6.4	CW5	4/2	0.0024	TSUCAN	3.3

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW5	4/1	0.0024	TSUCAN	7.1	CW5	4/2	0.0024	TSUCAN	3.3
CW5	4/1	0.0024	TSUCAN	7.4	CW5	4/2	0.0024	TSUCAN	3.4
CW5	4/1	0.0024	TSUCAN	7.5	CW5	4/2	0.0024	TSUCAN	3.5
CW5	4/1	0.0050	TSUCAN	8.1	CW5	4/2	0.0024	TSUCAN	3.8
CW5	4/1	0.0050	TSUCAN	8.6	CW5	4/2	0.0024	TSUCAN	3.8
CW5	4/1	0.0050	TSUCAN	10.7	CW5	4/2	0.0024	TSUCAN	3.9
CW5	4/1	0.0050	TSUCAN	10.8	CW5	4/2	0.0024	TSUCAN	4
CW5	4/1	0.0050	TSUCAN	10.8	CW5	4/2	0.0024	TSUCAN	4
CW5	4/1	0.0050	TSUCAN	12	CW5	4/2	0.0024	TSUCAN	4.1
CW5	4/1	0.0050	TSUCAN	14.4	CW5	4/2	0.0024	TSUCAN	4.2
CW5	4/1	0.0050	TSUCAN	17.6	CW5	4/2	0.0024	TSUCAN	4.2
CW5	4/1	0.0050	TSUCAN	18.8	CW5	4/2	0.0024	TSUCAN	4.4
CW5	4/1	0.0050	TSUCAN	20	CW5	4/2	0.0024	TSUCAN	4.4
CW5	4/1	0.0050	TSUCAN	25	CW5	4/2	0.0024	TSUCAN	4.5
CW5	4/1	0.0050	TSUCAN	25	CW5	4/2	0.0024	TSUCAN	4.6
CW5	4/1	0.0050	ACERUB	9.9	CW5	4/2	0.0024	TSUCAN	4.8
CW5	4/1	0.0050	ACERUB	14.9	CW5	4/2	0.0024	TSUCAN	4.9
CW5	4/1	0.0050	QUERUB	23.6	CW5	4/2	0.0024	TSUCAN	5.1
CW5	4/1	0.0050	QUERUB	36.4	CW5	4/2	0.0024	TSUCAN	5.3
CW5	4/1	0.0050	QUERUB	44.4	CW5	4/2	0.0024	TSUCAN	5.3
CW5	4/1	0.0024	ACESAC	6.2	CW5	4/2	0.0024	TSUCAN	5.4
CW5	4/1	0.0050	ACESAC	11.6	CW5	4/2	0.0024	TSUCAN	5.5
CW5	4/2	0.0050	BETLEN	19.7	CW5	4/2	0.0024	TSUCAN	5.5
CW5	4/2	0.0050	BETLEN	36.4	CW5	4/2	0.0024	TSUCAN	6.3
CW5	4/2	0.0050	BETLEN	37.7	CW5	4/2	0.0024	TSUCAN	7.6
CW5	4/2	0.0050	QUENIG	20.8	CW5	4/2	0.0024	TSUCAN	2.1
CW5	4/2	0.0024	TSUCAN	2.1	CW5	4/2	0.0024	TSUCAN	2.1
CW5	4/2	0.0050	TSUCAN	9.5	CW5	4/4	0.0050	BETLEN	22.8
CW5	4/2	0.0050	TSUCAN	10.7	CW5	4/4	0.0024	TSUCAN	3.3
CW5	4/2	0.0050	TSUCAN	11	CW5	4/4	0.0024	TSUCAN	4.7
CW5	4/2	0.0050	TSUCAN	15.4	CW5	4/4	0.0024	TSUCAN	7.5
CW5	4/2	0.0050	TSUCAN	22.4	CW5	4/4	0.0050	TSUCAN	8.9
CW5	4/2	0.0050	TSUCAN	47.1	CW5	4/4	0.0050	TSUCAN	9.1
CW5	4/2	0.0050	QUERUB	37.4	CW5	4/4	0.0050	TSUCAN	10.5
CW5	4/2	0.0050	QUERUB	38.9	CW5	4/4	0.0050	TSUCAN	11.9
CW5	4/3	0.0050	FAGGRA	16.6	CW5	4/4	0.0050	TSUCAN	18.5
CW5	4/3	0.0050	FAGGRA	30.5	CW5	4/4	0.0050	TSUCAN	18.7
CW5	4/3	0.0050	BETLEN	21.7	CW5	4/4	0.0050	TSUCAN	20.5
CW5	4/3	0.0050	BETLEN	22	CW5	4/4	0.0050	TSUCAN	24
CW5	4/3	0.0050	QUENIG	33.1	CW5	4/4	0.0050	TSUCAN	24.8
CW5	4/3	0.0024	TSUCAN	2.3	CW5	4/4	0.0050	TSUCAN	25
CW5	4/3	0.0024	TSUCAN	2.7	CW5	4/4	0.0050	ACERUB	18.9
CW5	4/3	0.0024	TSUCAN	3	CW5	4/4	0.0050	QUERUB	43.1
CW5	4/3	0.0024	TSUCAN	3.2	CW5	4/5	0.0024	TSUCAN	2.4
CW5	4/3	0.0024	TSUCAN	3.7	CW5	4/5	0.0024	TSUCAN	3.3
CW5	4/3	0.0024	TSUCAN	4.1	CW5	4/5	0.0024	TSUCAN	3.4
CW5	4/3	0.0024	TSUCAN	4.2	CW5	4/5	0.0024	TSUCAN	3.4
CW5	4/3	0.0024	TSUCAN	4.5	CW5	4/5	0.0024	TSUCAN	3.5
CW5	4/3	0.0024	TSUCAN	4.5	CW5	4/5	0.0024	TSUCAN	3.5

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW5	4/3	0.0024	TSUCAN	5.3	CW5	4/5	0.0024	TSUCAN	3.7
CW5	4/3	0.0050	TSUCAN	8.4	CW5	4/5	0.0024	TSUCAN	3.8
CW5	4/3	0.0050	TSUCAN	9.4	CW5	4/5	0.0024	TSUCAN	4.1
CW5	4/3	0.0050	TSUCAN	10.3	CW5	4/5	0.0024	TSUCAN	4.3
CW5	4/3	0.0050	TSUCAN	10.6	CW5	4/5	0.0024	TSUCAN	4.4
CW5	4/3	0.0050	TSUCAN	11.2	CW5	4/5	0.0050	TSUCAN	12.3
CW5	4/3	0.0050	TSUCAN	12.6	CW5	4/5	0.0050	TSUCAN	12.4
CW5	4/3	0.0050	TSUCAN	14.4	CW5	4/5	0.0050	TSUCAN	19.6
CW5	4/3	0.0050	TSUCAN	14.6	CW5	4/5	0.0050	TSUCAN	20.3
CW5	4/3	0.0050	TSUCAN	24.3	CW5	4/5	0.0050	TSUCAN	26.2
CW5	4/3	0.0050	ACERUB	15.8	CW5	4/5	0.0050	TSUCAN	37.1
CW5	4/3	0.0050	QUERUB	26.7	CW5	4/5	0.0050	TSUCAN	39.5
CW5	4/3	0.0050	QUERUB	37.1	CW5	4/5	0.0050	TSUCAN	46.1
CW5	4/3	0.0050	QUERUB	37.7	CW5	4/5	0.0050	ACERUB	15.6
CW5	4/3	0.0050	QUERUB	39.5	CW5	4/5	0.0050	ACERUB	20
CW5	4/3	0.0050	CAROVA	10.7	CW5	4/5	0.0050	ACERUB	20.5
CW5	4/3	0.0050	ACESAC	12	CW5	4/5	0.0050	ACERUB	26.7
CW5	4/4	0.0024	FAGGRA	6.1	CW5	4/5	0.0050	ACERUB	34
CW5	4/4	0.0024	FAGGRA	6.2	CW5	4/5	0.0050	ACERUB	37.8
CW5	4/4	0.0024	FAGGRA	7	CW5	4/5	0.0050	ACERUB	43.5
CW5	4/4	0.0050	FAGGRA	18.4	CW5	4/5	0.0050	QUERUB	31.5
CW5	4/4	0.0050	BETLEN	9.9	CW5	4/6	0.0050	FAGGRA	46.4
CW5	4/4	0.0050	BETLEN	11.5	CW5	4/6	0.0050	BETLEN	20.3
CW5	4/4	0.0050	BETLEN	13.1	CW5	4/6	0.0024	TSUCAN	2.4
CW5	4/4	0.0050	BETLEN	14.3	CW5	4/6	0.0024	TSUCAN	3
CW5	4/4	0.0050	BETLEN	15.2	CW5	4/6	0.0024	TSUCAN	3.1
CW5	4/4	0.0050	BETLEN	21.8	CW5	4/6	0.0024	TSUCAN	3.9
CW5	4/4	0.0050	BETLEN	22.3	CW5	4/7	0.0050	TSUCAN	16.4
CW5	4/6	0.0024	TSUCAN	4.2	CW5	4/7	0.0050	TSUCAN	18.2
CW5	4/6	0.0024	TSUCAN	4.8	CW5	4/7	0.0050	TSUCAN	28.9
CW5	4/6	0.0024	TSUCAN	5.4	CW5	4/7	0.0050	ACERUB	20.3
CW5	4/6	0.0024	TSUCAN	5.7	CW5	4/7	0.0050	ACERUB	26.5
CW5	4/6	0.0024	TSUCAN	6.9	CW5	4/7	0.0050	ACERUB	26.9
CW5	4/6	0.0050	TSUCAN	8.2	CW5	4/8	0.0050	BETLEN	10.5
CW5	4/6	0.0050	TSUCAN	9.1	CW5	4/8	0.0050	BETLEN	14.8
CW5	4/6	0.0050	TSUCAN	9.9	CW5	4/8	0.0050	BETLEN	15.7
CW5	4/6	0.0050	TSUCAN	10.1	CW5	4/8	0.0024	TSUCAN	4
CW5	4/6	0.0050	TSUCAN	10.5	CW5	4/8	0.0024	TSUCAN	4.3
CW5	4/6	0.0050	TSUCAN	10.7	CW5	4/8	0.0024	TSUCAN	4.4
CW5	4/6	0.0050	TSUCAN	11	CW5	4/8	0.0024	TSUCAN	5.8
CW5	4/6	0.0050	TSUCAN	12	CW5	4/8	0.0024	TSUCAN	6.5
CW5	4/6	0.0050	TSUCAN	12.5	CW5	4/8	0.0024	TSUCAN	7.8
CW5	4/6	0.0050	TSUCAN	12.9	CW5	4/8	0.0050	TSUCAN	8.5
CW5	4/6	0.0050	TSUCAN	13.8	CW5	4/8	0.0050	TSUCAN	8.8
CW5	4/6	0.0050	TSUCAN	14.4	CW5	4/8	0.0050	TSUCAN	10.8
CW5	4/6	0.0050	TSUCAN	14.9	CW5	4/8	0.0050	TSUCAN	10.9
CW5	4/6	0.0050	TSUCAN	14.9	CW5	4/8	0.0050	TSUCAN	13.4
CW5	4/6	0.0050	TSUCAN	15.2	CW5	4/8	0.0050	TSUCAN	13.6
CW5	4/6	0.0050	TSUCAN	15.6	CW5	4/8	0.0050	TSUCAN	15.8

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW5	4/6	0.0050	TSUCAN	15.9	CW5	4/8	0.0050	TSUCAN	18.7
CW5	4/6	0.0050	TSUCAN	18.9	CW5	4/8	0.0050	TSUCAN	20.2
CW5	4/6	0.0050	TSUCAN	21.1	CW5	4/8	0.0050	TSUCAN	22.8
CW5	4/6	0.0050	TSUCAN	21.7	CW5	4/8	0.0050	TSUCAN	23.9
CW5	4/6	0.0050	TSUCAN	24.9	CW5	4/8	0.0050	TSUCAN	30.8
CW5	4/6	0.0050	TSUCAN	24.9	CW5	4/8	0.0050	TSUCAN	49.7
CW5	4/6	0.0050	TSUCAN	39.7	CW5	4/8	0.0050	OSTVIR	11.5
CW5	4/6	0.0050	ACERUB	14.5	CW5	4/8	0.0050	ACERUB	28.2
CW5	4/6	0.0050	CAROVA	16.1	CW5	4/8	0.0050	FRAAME	26.5
CW5	4/6	0.0050	ACESAC	19.7	CW5	4/9	0.0050	BETLEN	14.5
CW5	4/6	0.0050	ACESAC	21.9	CW5	4/9	0.0050	BETLEN	16.3
CW5	4/6	0.0050	ACESAC	22.4	CW5	4/9	0.0050	BETLEN	17.1
CW5	4/7	0.0050	FAGGRA	10.4	CW5	4/9	0.0050	BETLEN	17.2
CW5	4/7	0.0050	FAGGRA	16.8	CW5	4/9	0.0050	BETLEN	17.8
CW5	4/7	0.0050	BETLEN	18	CW5	4/9	0.0050	BETLEN	18.1
CW5	4/7	0.0050	BETLEN	18.4	CW5	4/9	0.0050	BETLEN	18.7
CW5	4/7	0.0050	BETLEN	19.2	CW5	4/9	0.0050	BETLEN	18.9
CW5	4/7	0.0050	BETLEN	22.7	CW5	4/9	0.0050	BETLEN	19
CW5	4/7	0.0050	BETLEN	32.4	CW5	4/9	0.0050	BETLEN	21.7
CW5	4/7	0.0050	BETLEN	35	CW5	4/9	0.0050	BETLEN	23.2
CW5	4/7	0.0024	TSUCAN	4.1	CW5	4/9	0.0050	BETLEN	28
CW5	4/7	0.0024	TSUCAN	6.1	CW5	4/9	0.0050	BETLEN	30.9
CW5	4/7	0.0050	TSUCAN	8	CW5	4/9	0.0050	BETLEN	34.8
CW5	4/7	0.0050	TSUCAN	10.5	CW5	4/9	0.0024	TSUCAN	2.9
CW5	4/7	0.0050	TSUCAN	11.3	CW5	4/9	0.0024	TSUCAN	3.9
CW5	4/7	0.0050	TSUCAN	13.7	CW5	4/9	0.0024	TSUCAN	4
CW5	4/7	0.0050	TSUCAN	14.4	CW5	4/9	0.0024	TSUCAN	4
CW5	4/7	0.0050	TSUCAN	15.7	CW5	4/9	0.0024	TSUCAN	4
CW5	4/6	0.0024	TSUCAN	3.9	CW5	4/10	0.0024	TSUCAN	4.7
CW5	4/9	0.0024	TSUCAN	4.2	CW5	4/10	0.0024	TSUCAN	4.7
CW5	4/9	0.0024	TSUCAN	4.4	CW5	4/10	0.0024	TSUCAN	4.7
CW5	4/9	0.0024	TSUCAN	4.9	CW5	4/10	0.0024	TSUCAN	5
CW5	4/9	0.0024	TSUCAN	4.9	CW5	4/10	0.0024	TSUCAN	5.2
CW5	4/9	0.0024	TSUCAN	5.2	CW5	4/10	0.0024	TSUCAN	5.3
CW5	4/9	0.0024	TSUCAN	5.3	CW5	4/10	0.0024	TSUCAN	5.3
CW5	4/9	0.0024	TSUCAN	5.3	CW5	4/10	0.0024	TSUCAN	5.7
CW5	4/9	0.0024	TSUCAN	5.5	CW5	4/10	0.0024	TSUCAN	6
CW5	4/9	0.0024	TSUCAN	5.8	CW5	4/10	0.0024	TSUCAN	6.5
CW5	4/9	0.0024	TSUCAN	6.1	CW5	4/10	0.0024	TSUCAN	7.7
CW5	4/9	0.0024	TSUCAN	7.3	CW5	4/10	0.0024	TSUCAN	7.9
CW5	4/9	0.0024	TSUCAN	7.8	CW5	4/10	0.0050	TSUCAN	8.1
CW5	4/9	0.0050	TSUCAN	8.4	CW5	4/10	0.0050	TSUCAN	8.1
CW5	4/9	0.0050	TSUCAN	10.2	CW5	4/10	0.0050	TSUCAN	8.8
CW5	4/9	0.0050	TSUCAN	11.2	CW5	4/10	0.0050	TSUCAN	9.4
CW5	4/9	0.0050	TSUCAN	11.2	CW5	4/10	0.0050	TSUCAN	10.6
CW5	4/9	0.0050	TSUCAN	12.1	CW5	4/10	0.0050	TSUCAN	10.7
CW5	4/9	0.0050	TSUCAN	12.3	CW5	4/10	0.0050	TSUCAN	12.5
CW5	4/9	0.0050	TSUCAN	12.5	CW5	4/10	0.0050	ACERUB	10
CW5	4/9	0.0050	TSUCAN	13.5	CW5	4/10	0.0050	ACERUB	11.4

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW5	4/9	0.0050	TSUCAN	13.5	CW5	4/10	0.0050	ACERUB	19.6
CW5	4/9	0.0050	TSUCAN	14.1	CW5	4/10	0.0050	QUERUB	44.4
CW5	4/9	0.0050	TSUCAN	14.4	CW5	4/10	0.0050	QUERUB	48.6
CW5	4/9	0.0050	TSUCAN	15.5	CW5	4/11	0.0050	BETLEN	22.4
CW5	4/9	0.0050	TSUCAN	17.4	CW5	4/11	0.0050	BETLEN	23.1
CW5	4/9	0.0050	TSUCAN	19.6	CW5	4/11	0.0050	BETLEN	27.2
CW5	4/9	0.0050	ACERUB	18	CW5	4/11	0.0050	BETLEN	38.3
CW5	4/10	0.0050	FAGGRA	10.9	CW5	4/11	0.0024	TSUCAN	2.8
CW5	4/10	0.0050	FAGGRA	15.4	CW5	4/11	0.0024	TSUCAN	2.9
CW5	4/10	0.0050	FAGGRA	62.9	CW5	4/11	0.0024	TSUCAN	4.5
CW5	4/10	0.0050	BETLEN	14.9	CW5	4/11	0.0024	TSUCAN	4.9
CW5	4/10	0.0050	BETLEN	40.1	CW5	4/11	0.0024	TSUCAN	5.2
CW5	4/10	0.0024	TSUCAN	2	CW5	4/11	0.0024	TSUCAN	7.5
CW5	4/10	0.0024	TSUCAN	2.2	CW5	4/11	0.0024	TSUCAN	7.7
CW5	4/10	0.0024	TSUCAN	2.4	CW5	4/11	0.0050	TSUCAN	9.3
CW5	4/10	0.0024	TSUCAN	2.5	CW5	4/11	0.0050	TSUCAN	9.6
CW5	4/10	0.0024	TSUCAN	2.6	CW5	4/11	0.0050	TSUCAN	10
CW5	4/10	0.0024	TSUCAN	2.7	CW5	4/11	0.0050	TSUCAN	11.7
CW5	4/10	0.0024	TSUCAN	2.8	CW5	4/11	0.0050	TSUCAN	12.3
CW5	4/10	0.0024	TSUCAN	3.1	CW5	4/11	0.0050	TSUCAN	12.4
CW5	4/10	0.0024	TSUCAN	3.2	CW5	4/11	0.0050	TSUCAN	16.8
CW5	4/10	0.0024	TSUCAN	3.2	CW5	4/11	0.0050	TSUCAN	17.4
CW5	4/10	0.0024	TSUCAN	3.3	CW5	4/11	0.0050	TSUCAN	21.7
CW5	4/10	0.0024	TSUCAN	3.4	CW5	4/11	0.0050	TSUCAN	27.3
CW5	4/10	0.0024	TSUCAN	3.6	CW5	4/11	0.0050	TSUCAN	30.4
CW5	4/10	0.0024	TSUCAN	3.6	CW5	4/11	0.0050	OSTVIR	9.3
CW5	4/10	0.0024	TSUCAN	3.7	CW5	4/11	0.0050	ACERUB	9.8
CW5	4/10	0.0024	TSUCAN	3.8	CW5	4/11	0.0050	ACERUB	12.3
CW5	4/10	0.0024	TSUCAN	3.9	CW5	4/11	0.0050	ACERUB	13.6
CW5	4/11	0.0050	ACERUB	13.8	CW5	4/13	0.0024	TSUCAN	4.6
CW5	4/11	0.0050	ACERUB	16.4	CW5	4/13	0.0024	TSUCAN	5
CW5	4/11	0.0050	ACERUB	16.9	CW5	4/13	0.0024	TSUCAN	5.6
CW5	4/11	0.0050	ACERUB	29.3	CW5	4/13	0.0024	TSUCAN	5.9
CW5	4/11	0.0050	CAROVA	8.9	CW5	4/13	0.0024	TSUCAN	7.9
CW5	4/11	0.0050	CAROVA	11.3	CW5	4/13	0.0050	TSUCAN	8.4
CW5	4/12	0.0050	BETLEN	20.3	CW5	4/13	0.0050	TSUCAN	8.8
CW5	4/12	0.0024	TSUCAN	2.2	CW5	4/13	0.0050	TSUCAN	9.1
CW5	4/12	0.0024	TSUCAN	2.3	CW5	4/13	0.0050	TSUCAN	10.6
CW5	4/12	0.0024	TSUCAN	2.6	CW5	4/13	0.0050	TSUCAN	10.7
CW5	4/12	0.0024	TSUCAN	2.7	CW5	4/13	0.0050	TSUCAN	10.9
CW5	4/12	0.0024	TSUCAN	2.9	CW5	4/13	0.0050	TSUCAN	11.9
CW5	4/12	0.0024	TSUCAN	3	CW5	4/13	0.0050	TSUCAN	12.1
CW5	4/12	0.0024	TSUCAN	3.4	CW5	4/13	0.0050	TSUCAN	12.4
CW5	4/12	0.0024	TSUCAN	4.8	CW5	4/13	0.0050	TSUCAN	13.5
CW5	4/12	0.0024	TSUCAN	5	CW5	4/13	0.0050	TSUCAN	13.9
CW5	4/12	0.0024	TSUCAN	5.6	CW5	4/13	0.0050	TSUCAN	14.7
CW5	4/12	0.0024	TSUCAN	6.3	CW5	4/13	0.0050	TSUCAN	14.7
CW5	4/12	0.0024	TSUCAN	6.5	CW5	4/13	0.0050	TSUCAN	16
CW5	4/12	0.0024	TSUCAN	7.3	CW5	4/13	0.0050	TSUCAN	17.1

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW5	4/12	0.0050	TSUCAN	9	CW5	4/13	0.0050	TSUCAN	17.6
CW5	4/12	0.0050	TSUCAN	9.8	CW5	4/13	0.0050	TSUCAN	18
CW5	4/12	0.0050	TSUCAN	10.3	CW5	4/13	0.0050	TSUCAN	18.1
CW5	4/12	0.0050	TSUCAN	11.2	CW5	4/13	0.0050	TSUCAN	18.7
CW5	4/12	0.0050	TSUCAN	13.8	CW5	4/13	0.0050	TSUCAN	20
CW5	4/12	0.0050	TSUCAN	14	CW5	4/13	0.0050	TSUCAN	21.1
CW5	4/12	0.0050	TSUCAN	15.3	CW5	4/13	0.0050	TSUCAN	23.5
CW5	4/12	0.0050	TSUCAN	16.6	CW5	4/13	0.0050	TSUCAN	25.8
CW5	4/12	0.0050	TSUCAN	16.8	CW5	4/13	0.0050	TSUCAN	47.6
CW5	4/12	0.0050	TSUCAN	26.7	CW5	4/13	0.0050	QUERUB	35.5
CW5	4/12	0.0050	TSUCAN	28.4	CW5	4/14	0.0050	BETLEN	12.6
CW5	4/12	0.0050	TSUCAN	47.6	CW5	4/14	0.0050	BETLEN	16.3
CW5	4/12	0.0050	TSUCAN	59.2	CW5	4/14	0.0050	BETLEN	18.4
CW5	4/12	0.0050	ACERUB	17.1	CW5	4/14	0.0050	BETLEN	19.2
CW5	4/12	0.0050	ACERUB	19.6	CW5	4/14	0.0050	BETLEN	19.9
CW5	4/12	0.0050	PINSTR	16.5	CW5	4/14	0.0050	BETLEN	21.5
CW5	4/13	0.0050	BETLEN	14.2	CW5	4/14	0.0050	BETLEN	25
CW5	4/13	0.0050	BETLEN	14.3	CW5	4/14	0.0050	BETLEN	26.8
CW5	4/13	0.0050	BETLEN	15.3	CW5	4/14	0.0050	BETLEN	27.8
CW5	4/13	0.0050	BETLEN	18.4	CW5	4/14	0.0050	BETLEN	30
CW5	4/13	0.0050	BETLEN	18.6	CW5	4/14	0.0050	QUENIG	28.5
CW5	4/13	0.0050	BETLEN	19.9	CW5	4/14	0.0024	TSUCAN	2.2
CW5	4/13	0.0050	BETLEN	22.3	CW5	4/14	0.0024	TSUCAN	4.2
CW5	4/13	0.0050	BETLEN	24.7	CW5	4/14	0.0024	TSUCAN	5.2
CW5	4/13	0.0050	BETLEN	28.1	CW5	4/14	0.0024	TSUCAN	6.1
CW5	4/13	0.0050	BETLEN	28.5	CW5	4/14	0.0024	TSUCAN	6.1
CW5	4/13	0.0050	BETLEN	30.4	CW5	4/14	0.0024	TSUCAN	7.2
CW5	4/13	0.0024	TSUCAN	2.9	CW5	4/14	0.0050	TSUCAN	8.5
CW5	4/13	0.0024	TSUCAN	3	CW5	4/14	0.0050	TSUCAN	9
CW5	4/13	0.0024	TSUCAN	3.7	CW5	4/15	0.0024	TSUCAN	5.7
CW5	4/14	0.0050	TSUCAN	9.6	CW5	4/15	0.0024	TSUCAN	5.8
CW5	4/14	0.0050	TSUCAN	11.1	CW5	4/15	0.0024	TSUCAN	6.2
CW5	4/14	0.0050	TSUCAN	11.7	CW5	4/15	0.0050	TSUCAN	8.3
CW5	4/14	0.0050	TSUCAN	12	CW5	4/15	0.0050	TSUCAN	8.6
CW5	4/14	0.0050	TSUCAN	13.1	CW5	4/15	0.0050	TSUCAN	8.9
CW5	4/14	0.0050	TSUCAN	14.3	CW5	4/15	0.0050	TSUCAN	9.4
CW5	4/14	0.0050	TSUCAN	14.4	CW5	4/15	0.0050	TSUCAN	10.1
CW5	4/14	0.0050	TSUCAN	14.4	CW5	4/15	0.0050	TSUCAN	16.9
CW5	4/14	0.0050	TSUCAN	14.8	CW5	4/15	0.0050	TSUCAN	71
CW5	4/14	0.0050	TSUCAN	16.9	CW5	6/4	0.0024	FRANIG	6.8
CW5	4/14	0.0050	TSUCAN	17.7	CW5	6/4	0.0050	FRANIG	28.2
CW5	4/14	0.0050	TSUCAN	22.8	CW5	6/4	0.0050	FRANIG	34.7
CW5	4/14	0.0050	TSUCAN	26.8	CW5	6/4	0.0050	BETLEN	17
CW5	4/14	0.0050	TSUCAN	28	CW5	6/4	0.0050	BETLEN	18.8
CW5	4/14	0.0050	QUERUB	33	CW5	6/4	0.0050	BETLEN	26.3
CW5	4/14	0.0050	QUERUB	38.8	CW5	6/4	0.0024	TSUCAN	5.1
CW5	4/14	0.0050	PINSTR	20.8	CW5	6/4	0.0024	TSUCAN	5.2
CW5	4/15	0.0024	BETLEN	7.6	CW5	6/4	0.0024	TSUCAN	5.5
CW5	4/15	0.0050	BETLEN	10.5	CW5	6/4	0.0024	TSUCAN	5.7

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW5	4/15	0.0050	BETLEN	11.7	CW5	6/4	0.0024	TSUCAN	6.7
CW5	4/15	0.0050	BETLEN	15.2	CW5	6/4	0.0024	TSUCAN	7.7
CW5	4/15	0.0050	BETLEN	16	CW5	6/4	0.0050	TSUCAN	8.9
CW5	4/15	0.0050	BETLEN	16.3	CW5	6/4	0.0050	TSUCAN	9.3
CW5	4/15	0.0050	BETLEN	18.8	CW5	6/4	0.0050	TSUCAN	10.3
CW5	4/15	0.0050	BETLEN	22.5	CW5	6/4	0.0050	TSUCAN	10.7
CW5	4/15	0.0050	BETLEN	28.4	CW5	6/4	0.0050	TSUCAN	11.6
CW5	4/15	0.0050	BETLEN	30.3	CW5	6/4	0.0050	TSUCAN	14.7
CW5	4/15	0.0024	TSUCAN	2.2	CW5	6/4	0.0050	TSUCAN	16.2
CW5	4/15	0.0024	TSUCAN	2.2	CW5	6/4	0.0050	TSUCAN	19.3
CW5	4/15	0.0024	TSUCAN	2.4	CW5	6/4	0.0050	TSUCAN	27
CW5	4/15	0.0024	TSUCAN	2.4	CW5	6/4	0.0050	CARCAR	8.8
CW5	4/15	0.0024	TSUCAN	2.6	CW5	6/4	0.0050	ACERUB	9.9
CW5	4/15	0.0024	TSUCAN	3.4	CW5	6/4	0.0050	ACERUB	17.6
CW5	4/15	0.0024	TSUCAN	3.6	CW5	6/4	0.0050	ACERUB	28.1
CW5	4/15	0.0024	TSUCAN	3.8	CW5	6/4	0.0050	CAROVA	17.4
CW5	4/15	0.0024	TSUCAN	3.9	CW5	6/4	0.0050	ACESAC	21.8
CW5	4/15	0.0024	TSUCAN	4.4	CW5	6/5	0.0024	FAGGRA	2.2
CW5	4/15	0.0024	TSUCAN	4.5	CW5	6/5	0.0024	FAGGRA	3.6
CW5	4/15	0.0024	TSUCAN	4.6	CW5	6/5	0.0024	FAGGRA	4
CW5	4/15	0.0024	TSUCAN	4.7	CW5	6/5	0.0024	FAGGRA	4.4
CW5	4/15	0.0024	TSUCAN	4.7	CW5	6/5	0.0024	FAGGRA	4.5
CW5	4/15	0.0024	TSUCAN	4.7	CW5	6/5	0.0050	FAGGRA	11.5
CW5	4/15	0.0024	TSUCAN	4.8	CW5	6/5	0.0050	FAGGRA	13.7
CW5	4/15	0.0024	TSUCAN	4.9	CW5	6/5	0.0050	FAGGRA	21.6
CW5	4/15	0.0024	TSUCAN	5	CW5	6/5	0.0024	TSUCAN	2.1
CW5	4/15	0.0024	TSUCAN	5.1	CW5	6/5	0.0024	TSUCAN	2.5
CW5	4/15	0.0024	TSUCAN	5.3	CW5	6/5	0.0024	TSUCAN	2.9
CW5	4/15	0.0024	TSUCAN	5.5	CW5	6/5	0.0024	TSUCAN	3.3
CW5	6/5	0.0024	TSUCAN	3.6	CW5	6/5	0.0024	OSTVIR	6
CW5	6/5	0.0024	TSUCAN	3.6	CW5	6/5	0.0024	OSTVIR	7.3
CW5	6/5	0.0024	TSUCAN	3.7	CW5	6/5	0.0050	QUERUB	36.8
CW5	6/5	0.0024	TSUCAN	4.2	CW5	6/5	0.0050	CAROVA	21.5
CW5	6/5	0.0024	TSUCAN	4.4	CW5	6/5	0.0050	CAROVA	25.8
CW5	6/5	0.0024	TSUCAN	4.7	CW5	6/5	0.0050	CAROVA	32.1
CW5	6/5	0.0024	TSUCAN	4.8	CW5	6/5	0.0024	ACESAC	2.8
CW5	6/5	0.0024	TSUCAN	5.1	CW5	6/5	0.0024	ACESAC	4.3
CW5	6/5	0.0024	TSUCAN	6.1	CW5	6/5	0.0024	ACESAC	6.3
CW5	6/5	0.0050	TSUCAN	11.5	CW5	6/5	0.0050	FRAAME	37.9
CW5	6/5	0.0050	TSUCAN	13.9	CW5	6/5	0.0050	BETALL	20.5
CW5	6/5	0.0050	TSUCAN	14.5					
CW 6	4/16	0.0024	FAGGRA	4	CW 6	4/17	0.0050	TSUCAN	8.5
CW 6	4/16	0.0024	FAGGRA	4.4	CW 6	4/17	0.0050	TSUCAN	8.9
CW 6	4/16	0.0050	FAGGRA	43.5	CW 6	4/17	0.0050	TSUCAN	9
CW 6	4/16	0.0050	BETLEN	23.1	CW 6	4/17	0.0050	TSUCAN	9.1
CW 6	4/16	0.0050	BETLEN	38.1	CW 6	4/17	0.0050	TSUCAN	9.4
CW 6	4/16	0.0024	TSUCAN	2	CW 6	4/17	0.0050	TSUCAN	9.5
CW 6	4/16	0.0024	TSUCAN	2.3	CW 6	4/17	0.0050	TSUCAN	10.1
CW 6	4/16	0.0024	TSUCAN	3.3	CW 6	4/17	0.0050	TSUCAN	10.9

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 6	4/16	0.0024	TSUCAN	3.5	CW 6	4/17	0.0050	TSUCAN	11.1
CW 6	4/16	0.0024	TSUCAN	3.8	CW 6	4/17	0.0050	TSUCAN	12
CW 6	4/16	0.0024	TSUCAN	4.2	CW 6	4/17	0.0050	TSUCAN	12.3
CW 6	4/16	0.0024	TSUCAN	4.4	CW 6	4/17	0.0050	TSUCAN	16.9
CW 6	4/16	0.0024	TSUCAN	4.8	CW 6	4/17	0.0050	TSUCAN	17.8
CW 6	4/16	0.0024	TSUCAN	5.7	CW 6	4/17	0.0050	TSUCAN	18.4
CW 6	4/16	0.0024	TSUCAN	6	CW 6	4/17	0.0050	TSUCAN	20.2
CW 6	4/16	0.0024	TSUCAN	6.2	CW 6	4/17	0.0050	TSUCAN	27.3
CW 6	4/16	0.0024	TSUCAN	7.8	CW 6	4/17	0.0050	ACERUB	10.2
CW 6	4/16	0.0050	TSUCAN	8.3	CW 6	4/17	0.0050	ACERUB	12.9
CW 6	4/16	0.0050	TSUCAN	8.5	CW 6	4/17	0.0050	QUERUB	17.7
CW 6	4/16	0.0050	TSUCAN	9.7	CW 6	4/18	0.0024	FAGGRA	3.6
CW 6	4/16	0.0050	TSUCAN	10.2	CW 6	4/18	0.0024	FAGGRA	4.6
CW 6	4/16	0.0050	TSUCAN	12.2	CW 6	4/18	0.0024	FAGGRA	4.8
CW 6	4/16	0.0050	TSUCAN	13.3	CW 6	4/18	0.0050	FAGGRA	46.3
CW 6	4/16	0.0050	TSUCAN	14.1	CW 6	4/18	0.0050	BETLEN	17.5
CW 6	4/16	0.0050	TSUCAN	14.5	CW 6	4/18	0.0024	TSUCAN	2.1
CW 6	4/16	0.0050	TSUCAN	16.1	CW 6	4/18	0.0024	TSUCAN	2.4
CW 6	4/16	0.0050	TSUCAN	16.4	CW 6	4/18	0.0024	TSUCAN	2.7
CW 6	4/16	0.0050	TSUCAN	35.8	CW 6	4/18	0.0024	TSUCAN	2.9
CW 6	4/16	0.0050	TSUCAN	46.8	CW 6	4/18	0.0024	TSUCAN	3.2
CW 6	4/16	0.0050	ACERUB	16.9	CW 6	4/18	0.0024	TSUCAN	4
CW 6	4/17	0.0024	FAGGRA	7.1	CW 6	4/18	0.0024	TSUCAN	4.3
CW 6	4/17	0.0050	FAGGRA	11.4	CW 6	4/18	0.0024	TSUCAN	4.3
CW 6	4/17	0.0050	FAGGRA	13	CW 6	4/18	0.0024	TSUCAN	4.9
CW 6	4/17	0.0050	FAGGRA	17.2	CW 6	4/18	0.0024	TSUCAN	6.2
CW 6	4/17	0.0050	BETLEN	18.1	CW 6	4/18	0.0050	TSUCAN	8
CW 6	4/17	0.0050	BETLEN	27.4	CW 6	4/18	0.0050	TSUCAN	8.8
CW 6	4/17	0.0024	TSUCAN	2.4	CW 6	4/18	0.0050	TSUCAN	10.8
CW 6	4/17	0.0024	TSUCAN	2.5	CW 6	4/18	0.0050	TSUCAN	11.1
CW 6	4/17	0.0024	TSUCAN	2.6	CW 6	4/18	0.0050	TSUCAN	12.3
CW 6	4/17	0.0024	TSUCAN	2.7	CW 6	4/18	0.0050	TSUCAN	12.8
CW 6	4/17	0.0024	TSUCAN	3.5	CW 6	4/18	0.0050	TSUCAN	13.3
CW 6	4/17	0.0024	TSUCAN	4.7	CW 6	4/18	0.0050	TSUCAN	14.5
CW 6	4/17	0.0024	TSUCAN	5.1	CW 6	4/18	0.0050	TSUCAN	28.7
CW 6	4/17	0.0024	TSUCAN	5.2	CW 6	4/18	0.0050	TSUCAN	44.8
CW 6	4/17	0.0024	TSUCAN	5.3	CW 6	4/18	0.0050	TSUCAN	62.9
CW 6	4/17	0.0024	TSUCAN	6.9	CW 6	4/18	0.0024	ACERUB	2.9
CW 6	4/17	0.0024	TSUCAN	6.9	CW 6	4/19	0.0024	BETLEN	4.2
CW 6	4/17	0.0050	TSUCAN	8	CW 6	4/19	0.0024	BETLEN	6
CW 6	4/17	0.0050	TSUCAN	8.1	CW 6	4/19	0.0050	BETLEN	10.7
CW 6	4/17	0.0050	TSUCAN	8.5	CW 6	4/20	0.0024	TSUCAN	6.4
CW 6	4/19	0.0050	BETLEN	10.8	CW 6	4/20	0.0050	TSUCAN	8.3
CW 6	4/19	0.0050	BETLEN	11.3	CW 6	4/20	0.0050	TSUCAN	8.6
CW 6	4/19	0.0050	BETLEN	11.9	CW 6	4/20	0.0050	TSUCAN	10.3
CW 6	4/19	0.0050	BETLEN	13.3	CW 6	4/20	0.0050	TSUCAN	10.4
CW 6	4/19	0.0050	BETLEN	13.5	CW 6	4/20	0.0050	TSUCAN	10.7
CW 6	4/19	0.0050	BETLEN	16.2	CW 6	4/20	0.0050	TSUCAN	12.2
CW 6	4/19	0.0050	BETLEN	18.2	CW 6	4/20	0.0050	TSUCAN	14.3

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 6	4/19	0.0050	BETLEN	18.9	CW 6	4/20	0.0050	TSUCAN	15.9
CW 6	4/19	0.0050	BETLEN	19.6	CW 6	4/20	0.0050	TSUCAN	23.7
CW 6	4/19	0.0050	BETLEN	20.7	CW 6	4/20	0.0024	CARCAR	2.8
CW 6	4/19	0.0024	TSUCAN	3.3	CW 6	4/20	0.0050	ACERUB	9.8
CW 6	4/19	0.0024	TSUCAN	3.5	CW 6	4/20	0.0050	ACERUB	10.1
CW 6	4/19	0.0024	TSUCAN	4	CW 6	4/20	0.0050	ACERUB	10.7
CW 6	4/19	0.0024	TSUCAN	4.3	CW 6	4/20	0.0050	ACERUB	10.8
CW 6	4/19	0.0024	TSUCAN	4.9	CW 6	4/20	0.0050	ACERUB	11.5
CW 6	4/19	0.0024	TSUCAN	5.7	CW 6	4/20	0.0050	ACERUB	12.1
CW 6	4/19	0.0024	TSUCAN	6.5	CW 6	4/20	0.0050	ACERUB	12.4
CW 6	4/19	0.0024	TSUCAN	6.8	CW 6	4/20	0.0050	ACERUB	12.9
CW 6	4/19	0.0024	TSUCAN	7.4	CW 6	4/20	0.0050	ACERUB	13.3
CW 6	4/19	0.0024	TSUCAN	7.7	CW 6	4/20	0.0050	ACERUB	25.9
CW 6	4/19	0.0050	TSUCAN	8.1	CW 6	4/21	0.0024	FAGGRA	3.7
CW 6	4/19	0.0050	TSUCAN	8.4	CW 6	4/21	0.0024	FAGGRA	5.3
CW 6	4/19	0.0050	TSUCAN	8.8	CW 6	4/21	0.0024	FAGGRA	6.8
CW 6	4/19	0.0050	TSUCAN	9.7	CW 6	4/21	0.0050	FAGGRA	9.5
CW 6	4/19	0.0050	TSUCAN	9.7	CW 6	4/21	0.0050	FAGGRA	10
CW 6	4/19	0.0050	TSUCAN	10.1	CW 6	4/21	0.0050	FAGGRA	10.5
CW 6	4/19	0.0050	TSUCAN	10.7	CW 6	4/21	0.0050	FAGGRA	12.3
CW 6	4/19	0.0050	TSUCAN	10.9	CW 6	4/21	0.0050	FAGGRA	15.3
CW 6	4/19	0.0050	TSUCAN	11.1	CW 6	4/21	0.0050	FAGGRA	16.1
CW 6	4/19	0.0050	TSUCAN	14.5	CW 6	4/21	0.0050	FAGGRA	16.8
CW 6	4/19	0.0050	TSUCAN	14.8	CW 6	4/21	0.0050	FAGGRA	19.1
CW 6	4/19	0.0050	TSUCAN	14.9	CW 6	4/21	0.0050	FAGGRA	20
CW 6	4/19	0.0050	TSUCAN	16.7	CW 6	4/21	0.0050	FAGGRA	21.3
CW 6	4/19	0.0050	TSUCAN	17.2	CW 6	4/21	0.0050	FAGGRA	22
CW 6	4/19	0.0050	TSUCAN	18.8	CW 6	4/21	0.0050	FAGGRA	25
CW 6	4/19	0.0050	TSUCAN	64.2	CW 6	4/21	0.0050	BETLEN	19.8
CW 6	4/19	0.0050	ACERUB	14.8	CW 6	4/21	0.0050	BETLEN	21.3
CW 6	4/19	0.0050	QUERUB	22.9	CW 6	4/21	0.0024	TSUCAN	2
CW 6	4/19	0.0050	QUERUB	29	CW 6	4/21	0.0024	TSUCAN	2.2
CW 6	4/20	0.0050	BETLEN	14	CW 6	4/21	0.0024	TSUCAN	2.2
CW 6	4/20	0.0050	BETLEN	14.4	CW 6	4/21	0.0024	TSUCAN	3.2
CW 6	4/20	0.0050	BETLEN	16.9	CW 6	4/21	0.0024	TSUCAN	3.2
CW 6	4/20	0.0050	BETLEN	18.3	CW 6	4/21	0.0024	TSUCAN	3.2
CW 6	4/20	0.0050	BETLEN	18.4	CW 6	4/21	0.0024	TSUCAN	3.3
CW 6	4/20	0.0050	BETLEN	22.6	CW 6	4/21	0.0024	TSUCAN	3.4
CW 6	4/20	0.0024	TSUCAN	3.7	CW 6	4/21	0.0024	TSUCAN	3.6
CW 6	4/20	0.0024	TSUCAN	3.8	CW 6	4/21	0.0024	TSUCAN	3.7
CW 6	4/20	0.0024	TSUCAN	5.5	CW 6	4/21	0.0024	TSUCAN	3.9
CW 6	4/21	0.0024	TSUCAN	4.1	CW 6	4/23	0.0050	BETLEN	12.6
CW 6	4/21	0.0024	TSUCAN	4.4	CW 6	4/23	0.0050	BETLEN	16.7
CW 6	4/21	0.0024	TSUCAN	4.5	CW 6	4/23	0.0024	TSUCAN	2.7
CW 6	4/21	0.0024	TSUCAN	4.6	CW 6	4/23	0.0024	TSUCAN	2.9
CW 6	4/21	0.0024	TSUCAN	5.2	CW 6	4/23	0.0024	TSUCAN	3.3
CW 6	4/21	0.0024	TSUCAN	5.8	CW 6	4/23	0.0024	TSUCAN	3.3
CW 6	4/21	0.0024	TSUCAN	6.5	CW 6	4/23	0.0024	TSUCAN	3.4
CW 6	4/21	0.0024	TSUCAN	6.9	CW 6	4/23	0.0024	TSUCAN	4.4

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 6	4/21	0.0024	TSUCAN	7.6	CW 6	4/23	0.0024	TSUCAN	4.7
CW 6	4/21	0.0024	TSUCAN	7.8	CW 6	4/23	0.0024	TSUCAN	4.8
CW 6	4/21	0.0050	TSUCAN	9.7	CW 6	4/23	0.0024	TSUCAN	5.4
CW 6	4/21	0.0050	TSUCAN	10	CW 6	4/23	0.0050	TSUCAN	8.2
CW 6	4/21	0.0050	TSUCAN	11.6	CW 6	4/23	0.0050	TSUCAN	8.4
CW 6	4/21	0.0050	TSUCAN	12.3	CW 6	4/23	0.0050	TSUCAN	8.7
CW 6	4/21	0.0050	TSUCAN	13.9	CW 6	4/23	0.0050	TSUCAN	8.9
CW 6	4/21	0.0050	TSUCAN	15.9	CW 6	4/23	0.0050	TSUCAN	9.2
CW 6	4/21	0.0050	ACERUB	12.5	CW 6	4/23	0.0050	TSUCAN	9.6
CW 6	4/21	0.0050	ACERUB	18.4	CW 6	4/23	0.0050	TSUCAN	9.7
CW 6	4/21	0.0050	ACERUB	18.8	CW 6	4/23	0.0050	TSUCAN	10.5
CW 6	4/21	0.0050	ACERUB	24.3	CW 6	4/23	0.0050	TSUCAN	12.3
CW 6	4/21	0.0050	PINSTR	98.3	CW 6	4/23	0.0050	TSUCAN	13
CW 6	4/22	0.0024	FAGGRA	3.4	CW 6	4/23	0.0050	TSUCAN	13.2
CW 6	4/22	0.0024	FAGGRA	3.5	CW 6	4/23	0.0050	TSUCAN	14.4
CW 6	4/22	0.0050	FAGGRA	9.6	CW 6	4/23	0.0050	TSUCAN	16.9
CW 6	4/22	0.0050	FAGGRA	18.7	CW 6	4/23	0.0050	TSUCAN	18.9
CW 6	4/22	0.0050	FAGGRA	32.8	CW 6	4/23	0.0050	TSUCAN	25.1
CW 6	4/22	0.0050	FAGGRA	35.7	CW 6	4/23	0.0050	QUERUB	18.5
CW 6	4/22	0.0024	TSUCAN	3.1	CW 6	4/23	0.0050	QUERUB	26.9
CW 6	4/22	0.0024	TSUCAN	3.2	CW 6	4/23	0.0050	QUERUB	29.4
CW 6	4/22	0.0024	TSUCAN	4.1	CW 6	4/24	0.0050	FAGGRA	9.2
CW 6	4/22	0.0024	TSUCAN	7.2	CW 6	4/24	0.0050	FAGGRA	13.3
CW 6	4/22	0.0050	TSUCAN	8.5	CW 6	4/24	0.0050	FAGGRA	24.8
CW 6	4/22	0.0050	TSUCAN	10.7	CW 6	4/24	0.0050	FAGGRA	28.6
CW 6	4/22	0.0050	TSUCAN	12.3	CW 6	4/24	0.0050	FAGGRA	29.4
CW 6	4/22	0.0050	TSUCAN	15.9	CW 6	4/24	0.0050	FAGGRA	31.5
CW 6	4/22	0.0050	TSUCAN	27.4	CW 6	4/24	0.0050	BETLEN	26
CW 6	4/22	0.0050	TSUCAN	34.8	CW 6	4/24	0.0024	TSUCAN	2
CW 6	4/22	0.0050	TSUCAN	42.6	CW 6	4/24	0.0024	TSUCAN	2.1
CW 6	4/22	0.0050	TSUCAN	55	CW 6	4/24	0.0024	TSUCAN	2.2
CW 6	4/22	0.0050	ACERUB	34.2	CW 6	4/24	0.0024	TSUCAN	2.4
CW 6	4/22	0.0050	QUERUB	25.4	CW 6	4/24	0.0024	TSUCAN	2.4
CW 6	4/23	0.0050	FAGGRA	16.9	CW 6	4/24	0.0024	TSUCAN	2.5
CW 6	4/23	0.0050	FAGGRA	23.7	CW 6	4/24	0.0024	TSUCAN	2.5
CW 6	4/23	0.0050	FAGGRA	24.4	CW 6	4/24	0.0024	TSUCAN	2.7
CW 6	4/23	0.0050	FAGGRA	24.4	CW 6	4/24	0.0024	TSUCAN	3
CW 6	4/23	0.0050	FAGGRA	32.5	CW 6	4/24	0.0024	TSUCAN	3.4
CW 6	4/23	0.0050	FAGGRA	45.9	CW 6	4/24	0.0024	TSUCAN	3.5
CW 6	4/23	0.0050	BETLEN	8.1	CW 6	4/24	0.0024	TSUCAN	3.6
CW 6	4/23	0.0050	BETLEN	8.9	CW 6	4/25	0.0024	TSUCAN	3
CW 6	4/23	0.0050	BETLEN	9.9	CW 6	4/25	0.0024	TSUCAN	3.1
CW 6	4/23	0.0050	BETLEN	11.2	CW 6	4/25	0.0024	TSUCAN	3.2
CW 6	4/24	0.0024	TSUCAN	3.7	CW 6	4/25	0.0024	TSUCAN	3.2
CW 6	4/24	0.0024	TSUCAN	3.9	CW 6	4/25	0.0024	TSUCAN	3.5
CW 6	4/24	0.0024	TSUCAN	4	CW 6	4/25	0.0024	TSUCAN	3.5
CW 6	4/24	0.0024	TSUCAN	4.2	CW 6	4/25	0.0024	TSUCAN	4
CW 6	4/24	0.0024	TSUCAN	4.3	CW 6	4/25	0.0024	TSUCAN	5.7
CW 6	4/24	0.0024	TSUCAN	4.3	CW 6	4/25	0.0024	TSUCAN	6.9

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 6	4/24	0.0024	TSUCAN	4.7	CW 6	4/25	0.0024	TSUCAN	7
CW 6	4/24	0.0024	TSUCAN	4.8	CW 6	4/25	0.0024	TSUCAN	7.2
CW 6	4/24	0.0024	TSUCAN	5	CW 6	4/25	0.0050	TSUCAN	8.3
CW 6	4/24	0.0024	TSUCAN	5.3	CW 6	4/25	0.0050	TSUCAN	8.5
CW 6	4/24	0.0024	TSUCAN	5.3	CW 6	4/25	0.0050	TSUCAN	8.6
CW 6	4/24	0.0024	TSUCAN	5.5	CW 6	4/25	0.0050	TSUCAN	9.3
CW 6	4/24	0.0024	TSUCAN	5.8	CW 6	4/25	0.0050	TSUCAN	9.4
CW 6	4/24	0.0024	TSUCAN	6.8	CW 6	4/25	0.0050	TSUCAN	10.1
CW 6	4/24	0.0024	TSUCAN	7.4	CW 6	4/25	0.0050	TSUCAN	10.1
CW 6	4/24	0.0050	TSUCAN	8.3	CW 6	4/25	0.0050	TSUCAN	11.1
CW 6	4/24	0.0050	TSUCAN	8.4	CW 6	4/25	0.0050	TSUCAN	11.4
CW 6	4/24	0.0050	TSUCAN	8.8	CW 6	4/25	0.0050	TSUCAN	12.2
CW 6	4/24	0.0050	TSUCAN	9.4	CW 6	4/25	0.0050	TSUCAN	13
CW 6	4/24	0.0050	TSUCAN	9.9	CW 6	4/25	0.0050	TSUCAN	14.1
CW 6	4/24	0.0050	TSUCAN	10.2	CW 6	4/25	0.0050	TSUCAN	19.9
CW 6	4/24	0.0050	TSUCAN	10.7	CW 6	4/25	0.0050	TSUCAN	22.3
CW 6	4/24	0.0050	TSUCAN	10.8	CW 6	4/25	0.0050	TSUCAN	38.8
CW 6	4/24	0.0050	TSUCAN	11.1	CW 6	4/25	0.0050	ACERUB	12.1
CW 6	4/24	0.0050	TSUCAN	12.2	CW 6	4/25	0.0050	ACERUB	22.3
CW 6	4/24	0.0050	TSUCAN	12.2	CW 6	4/25	0.0050	ACERUB	22.7
CW 6	4/24	0.0050	TSUCAN	13.1	CW 6	4/25	0.0050	QUERUB	24.8
CW 6	4/24	0.0050	TSUCAN	13.2	CW 6	4/25	0.0024	ACESAC	7.9
CW 6	4/24	0.0050	TSUCAN	14	CW 6	4/25	0.0050	ACESAC	8.1
CW 6	4/24	0.0050	TSUCAN	16.4	CW 6	4/25	0.0050	ACESAC	10.9
CW 6	4/24	0.0050	TSUCAN	19	CW 6	4/25	0.0050	ACESAC	12.9
CW 6	4/24	0.0050	TSUCAN	26.2	CW 6	4/25	0.0050	ACESAC	14.5
CW 6	4/24	0.0024	CARCAR	6.8	CW 6	4/25	0.0050	ACESAC	16.5
CW 6	4/24	0.0024	CARCAR	7.2	CW 6	4/25	0.0050	BETALL	8.5
CW 6	4/24	0.0024	ACERUB	4.5	CW 6	4/25	0.0050	BETALL	10.8
CW 6	4/24	0.0050	ACERUB	11.1	CW 6	4/25	0.0050	BETALL	13
CW 6	4/24	0.0050	ACERUB	11.7	CW 6	4/26	0.0024	FAGGRA	2.8
CW 6	4/24	0.0050	ACERUB	16.3	CW 6	4/26	0.0024	FAGGRA	2.9
CW 6	4/24	0.0050	ACERUB	16.9	CW 6	4/26	0.0024	FAGGRA	3.2
CW 6	4/25	0.0024	BETLEN	5.1	CW 6	4/26	0.0024	FAGGRA	4.1
CW 6	4/25	0.0024	BETLEN	6	CW 6	4/26	0.0024	FAGGRA	6.7
CW 6	4/25	0.0024	BETLEN	7.2	CW 6	4/26	0.0050	FAGGRA	17.5
CW 6	4/25	0.0050	BETLEN	12.1	CW 6	4/26	0.0050	FAGGRA	18.5
CW 6	4/25	0.0024	TSUCAN	2	CW 6	4/26	0.0050	FAGGRA	42
CW 6	4/25	0.0024	TSUCAN	2.1	CW 6	4/26	0.0050	FAGGRA	42.8
CW 6	4/25	0.0024	TSUCAN	2.1	CW 6	4/26	0.0050	BETLEN	16.9
CW 6	4/25	0.0024	TSUCAN	2.9	CW 6	4/26	0.0050	BETLEN	17.4
CW 6	4/26	0.0024	TSUCAN	2.5	CW 6	4/27	0.0050	ACERUB	22.4
CW 6	4/26	0.0024	TSUCAN	2.5	CW 6	4/27	0.0050	ACERUB	23.3
CW 6	4/26	0.0024	TSUCAN	5.9	CW 6	4/27	0.0050	QUERUB	33.7
CW 6	4/26	0.0024	TSUCAN	6.7	CW 6	4/27	0.0050	QUERUB	33.8
CW 6	4/26	0.0050	TSUCAN	18.4	CW 6	4/27	0.0050	QUERUB	45
CW 6	4/26	0.0050	TSUCAN	24.8	CW 6	4/27	0.0050	FRAAME	22.4
CW 6	4/26	0.0050	TSUCAN	29.2	CW 6	4/28	0.0050	BETLEN	48.4
CW 6	4/26	0.0050	ACERUB	10.6	CW 6	4/28	0.0024	TSUCAN	2.7

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 6	4/24	0.0024	TSUCAN	4.7	CW 6	4/25	0.0024	TSUCAN	7
CW 6	4/24	0.0024	TSUCAN	4.8	CW 6	4/25	0.0024	TSUCAN	7.2
CW 6	4/24	0.0024	TSUCAN	5	CW 6	4/25	0.0050	TSUCAN	8.3
CW 6	4/24	0.0024	TSUCAN	5.3	CW 6	4/25	0.0050	TSUCAN	8.5
CW 6	4/24	0.0024	TSUCAN	5.3	CW 6	4/25	0.0050	TSUCAN	8.6
CW 6	4/24	0.0024	TSUCAN	5.5	CW 6	4/25	0.0050	TSUCAN	9.3
CW 6	4/24	0.0024	TSUCAN	5.8	CW 6	4/25	0.0050	TSUCAN	9.4
CW 6	4/24	0.0024	TSUCAN	6.8	CW 6	4/25	0.0050	TSUCAN	10.1
CW 6	4/24	0.0024	TSUCAN	7.4	CW 6	4/25	0.0050	TSUCAN	10.1
CW 6	4/24	0.0050	TSUCAN	8.3	CW 6	4/25	0.0050	TSUCAN	11.1
CW 6	4/24	0.0050	TSUCAN	8.4	CW 6	4/25	0.0050	TSUCAN	11.4
CW 6	4/24	0.0050	TSUCAN	8.8	CW 6	4/25	0.0050	TSUCAN	12.2
CW 6	4/24	0.0050	TSUCAN	9.4	CW 6	4/25	0.0050	TSUCAN	13
CW 6	4/24	0.0050	TSUCAN	9.9	CW 6	4/25	0.0050	TSUCAN	14.1
CW 6	4/24	0.0050	TSUCAN	10.2	CW 6	4/25	0.0050	TSUCAN	19.9
CW 6	4/24	0.0050	TSUCAN	10.7	CW 6	4/25	0.0050	TSUCAN	22.3
CW 6	4/24	0.0050	TSUCAN	10.8	CW 6	4/25	0.0050	TSUCAN	38.8
CW 6	4/24	0.0050	TSUCAN	11.1	CW 6	4/25	0.0050	ACERUB	12.1
CW 6	4/24	0.0050	TSUCAN	12.2	CW 6	4/25	0.0050	ACERUB	22.3
CW 6	4/24	0.0050	TSUCAN	12.2	CW 6	4/25	0.0050	ACERUB	22.7
CW 6	4/24	0.0050	TSUCAN	13.1	CW 6	4/25	0.0050	QUERUB	24.8
CW 6	4/24	0.0050	TSUCAN	13.2	CW 6	4/25	0.0024	ACESAC	7.9
CW 6	4/24	0.0050	TSUCAN	14	CW 6	4/25	0.0050	ACESAC	8.1
CW 6	4/24	0.0050	TSUCAN	16.4	CW 6	4/25	0.0050	ACESAC	10.9
CW 6	4/24	0.0050	TSUCAN	19	CW 6	4/25	0.0050	ACESAC	12.9
CW 6	4/24	0.0050	TSUCAN	26.2	CW 6	4/25	0.0050	ACESAC	14.5
CW 6	4/24	0.0024	CARCAR	6.8	CW 6	4/25	0.0050	ACESAC	16.5
CW 6	4/24	0.0024	CARCAR	7.2	CW 6	4/25	0.0050	BETALL	8.5
CW 6	4/24	0.0024	ACERUB	4.5	CW 6	4/25	0.0050	BETALL	10.8
CW 6	4/24	0.0050	ACERUB	11.1	CW 6	4/25	0.0050	BETALL	13
CW 6	4/24	0.0050	ACERUB	11.7	CW 6	4/26	0.0024	FAGGRA	2.8
CW 6	4/24	0.0050	ACERUB	16.3	CW 6	4/26	0.0024	FAGGRA	2.9
CW 6	4/24	0.0050	ACERUB	16.9	CW 6	4/26	0.0024	FAGGRA	3.2
CW 6	4/25	0.0024	BETLEN	5.1	CW 6	4/26	0.0024	FAGGRA	4.1
CW 6	4/25	0.0024	BETLEN	6	CW 6	4/26	0.0024	FAGGRA	6.7
CW 6	4/25	0.0024	BETLEN	7.2	CW 6	4/26	0.0050	FAGGRA	17.5
CW 6	4/25	0.0050	BETLEN	12.1	CW 6	4/26	0.0050	FAGGRA	18.5
CW 6	4/25	0.0024	TSUCAN	2	CW 6	4/26	0.0050	FAGGRA	42
CW 6	4/25	0.0024	TSUCAN	2.1	CW 6	4/26	0.0050	FAGGRA	42.8
CW 6	4/25	0.0024	TSUCAN	2.1	CW 6	4/26	0.0050	BETLEN	16.9
CW 6	4/25	0.0024	TSUCAN	2.9	CW 6	4/26	0.0050	BETLEN	17.4
CW 6	4/26	0.0024	TSUCAN	2.5	CW 6	4/27	0.0050	ACERUB	22.4
CW 6	4/26	0.0024	TSUCAN	2.5	CW 6	4/27	0.0050	ACERUB	23.3
CW 6	4/26	0.0024	TSUCAN	5.9	CW 6	4/27	0.0050	QUERUB	33.7
CW 6	4/26	0.0024	TSUCAN	6.7	CW 6	4/27	0.0050	QUERUB	33.8
CW 6	4/26	0.0050	TSUCAN	18.4	CW 6	4/27	0.0050	QUERUB	45
CW 6	4/26	0.0050	TSUCAN	24.8	CW 6	4/27	0.0050	FRAAME	22.4
CW 6	4/26	0.0050	TSUCAN	29.2	CW 6	4/28	0.0050	BETLEN	48.4
CW 6	4/26	0.0050	ACERUB	10.6	CW 6	4/28	0.0024	TSUCAN	2.7

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 6	4/26	0.0050	QUERUB	15.5	CW 6	4/28	0.0024	TSUCAN	4.4
CW 6	4/26	0.0050	QUERUB	25	CW 6	4/28	0.0050	TSUCAN	10.9
CW 6	4/26	0.0050	QUERUB	25.7	CW 6	4/28	0.0050	TSUCAN	15.6
CW 6	4/26	0.0050	QUERUB	26.5	CW 6	4/28	0.0050	TSUCAN	17.6
CW 6	4/26	0.0050	QUERUB	28.9	CW 6	4/28	0.0050	TSUCAN	28.4
CW 6	4/26	0.0050	CAROVA	9.1	CW 6	4/28	0.0050	TSUCAN	34.3
CW 6	4/27	0.0050	FAGGRA	10.4	CW 6	4/28	0.0050	TSUCAN	51.2
CW 6	4/27	0.0050	FAGGRA	15	CW 6	4/28	0.0050	TSUCAN	65
CW 6	4/27	0.0024	BETLEN	3.9	CW 6	4/28	0.0050	ACERUB	10.8
CW 6	4/27	0.0050	BETLEN	12.3	CW 6	4/28	0.0050	QUERUB	10.8
CW 6	4/27	0.0024	TSUCAN	2.4	CW 6	4/29	0.0024	FAGGRA	4.5
CW 6	4/27	0.0024	TSUCAN	2.4	CW 6	4/29	0.0050	FAGGRA	12.3
CW 6	4/27	0.0024	TSUCAN	2.5	CW 6	4/29	0.0050	FAGGRA	12.3
CW 6	4/27	0.0024	TSUCAN	2.6	CW 6	4/29	0.0050	FAGGRA	20
CW 6	4/27	0.0024	TSUCAN	2.6	CW 6	4/29	0.0050	FAGGRA	25
CW 6	4/27	0.0024	TSUCAN	3.4	CW 6	4/29	0.0050	BETLEN	12.5
CW 6	4/27	0.0024	TSUCAN	3.4	CW 6	4/29	0.0050	BETLEN	21.6
CW 6	4/27	0.0024	TSUCAN	3.6	CW 6	4/29	0.0050	BETLEN	30
CW 6	4/27	0.0024	TSUCAN	3.9	CW 6	4/29	0.0024	TSUCAN	2
CW 6	4/27	0.0024	TSUCAN	3.9	CW 6	4/29	0.0024	TSUCAN	2.2
CW 6	4/27	0.0024	TSUCAN	4.7	CW 6	4/29	0.0024	TSUCAN	2.4
CW 6	4/27	0.0024	TSUCAN	4.7	CW 6	4/29	0.0024	TSUCAN	4
CW 6	4/27	0.0024	TSUCAN	4.9	CW 6	4/29	0.0024	TSUCAN	4
CW 6	4/27	0.0024	TSUCAN	5.4	CW 6	4/29	0.0024	TSUCAN	4.1
CW 6	4/27	0.0024	TSUCAN	5.5	CW 6	4/29	0.0024	TSUCAN	4.1
CW 6	4/27	0.0024	TSUCAN	5.8	CW 6	4/29	0.0024	TSUCAN	4.1
CW 6	4/27	0.0024	TSUCAN	6.3	CW 6	4/29	0.0024	TSUCAN	4.5
CW 6	4/27	0.0050	TSUCAN	8	CW 6	4/29	0.0024	TSUCAN	4.5
CW 6	4/27	0.0050	TSUCAN	8.4	CW 6	4/29	0.0024	TSUCAN	4.5
CW 6	4/27	0.0050	TSUCAN	8.9	CW 6	4/29	0.0024	TSUCAN	4.6
CW 6	4/27	0.0050	TSUCAN	9	CW 6	4/29	0.0024	TSUCAN	5
CW 6	4/27	0.0050	TSUCAN	10	CW 6	4/29	0.0024	TSUCAN	5
CW 6	4/27	0.0050	TSUCAN	10.1	CW 6	4/29	0.0024	TSUCAN	5
CW 6	4/27	0.0050	TSUCAN	10.4	CW 6	4/29	0.0024	TSUCAN	5.1
CW 6	4/27	0.0050	TSUCAN	11.2	CW 6	4/29	0.0024	TSUCAN	5.1
CW 6	4/27	0.0050	TSUCAN	14.5	CW 6	4/29	0.0024	TSUCAN	5.2
CW 6	4/27	0.0050	TSUCAN	16.3	CW 6	4/29	0.0024	TSUCAN	5.2
CW 6	4/27	0.0050	TSUCAN	37.1	CW 6	4/29	0.0024	TSUCAN	5.3
CW 6	4/27	0.0050	TSUCAN	45.9	CW 6	4/29	0.0024	TSUCAN	5.6
CW 6	4/27	0.0050	ACERUB	10.3	CW 6	4/29	0.0024	TSUCAN	5.8
CW 6	4/27	0.0050	ACERUB	11.4	CW 6	4/29	0.0024	TSUCAN	6
CW 6	4/27	0.0050	ACERUB	22.2	CW 6	4/30	0.0024	TSUCAN	5.4
CW 6	4/27	0.0050	ACERUB	15.4	CW 6	4/30	0.0024	TSUCAN	6.4
CW 6	4/29	0.0024	TSUCAN	6.6	CW 6	4/30	0.0024	TSUCAN	6.7
CW 6	4/29	0.0024	TSUCAN	7	CW 6	4/30	0.0024	TSUCAN	7.4
CW 6	4/29	0.0024	TSUCAN	7.1	CW 6	4/30	0.0050	TSUCAN	8.5
CW 6	4/29	0.0050	TSUCAN	8.4	CW 6	4/30	0.0050	TSUCAN	8.7
CW 6	4/29	0.0050	TSUCAN	8.7	CW 6	4/30	0.0050	TSUCAN	9.6
CW 6	4/29	0.0050	TSUCAN	8.8	CW 6	4/30	0.0050	TSUCAN	9.6

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 6	4/29	0.0050	TSUCAN	8.9	CW 6	4/30	0.0050	TSUCAN	9.8
CW 6	4/29	0.0050	TSUCAN	9	CW 6	4/30	0.0050	TSUCAN	11
CW 6	4/29	0.0050	TSUCAN	9.3	CW 6	4/30	0.0050	TSUCAN	12.4
CW 6	4/29	0.0050	TSUCAN	9.5	CW 6	4/30	0.0050	TSUCAN	14.3
CW 6	4/29	0.0050	TSUCAN	9.6	CW 6	4/30	0.0050	TSUCAN	22.2
CW 6	4/29	0.0050	TSUCAN	9.7	CW 6	4/30	0.0050	TSUCAN	46.5
CW 6	4/29	0.0050	TSUCAN	9.8	CW 6	4/30	0.0050	ACERUB	11
CW 6	4/29	0.0050	TSUCAN	10.8	CW 6	4/30	0.0050	ACERUB	29.8
CW 6	4/29	0.0050	TSUCAN	11.2	CW 6	4/30	0.0050	QUERUB	27.7
CW 6	4/29	0.0050	TSUCAN	12	CW 6	4/30	0.0050	ACESAC	17.8
CW 6	4/29	0.0050	TSUCAN	12.3	CW 6	4/30	0.0050	BETALL	12.6
CW 6	4/29	0.0050	TSUCAN	12.3	CW 6	4/31	0.0050	BETLEN	9.1
CW 6	4/29	0.0050	TSUCAN	12.6	CW 6	4/31	0.0050	BETLEN	31.2
CW 6	4/29	0.0050	TSUCAN	15.2	CW 6	4/31	0.0024	TSUCAN	2.1
CW 6	4/29	0.0050	ACERUB	8.8	CW 6	4/31	0.0024	TSUCAN	2.5
CW 6	4/29	0.0050	ACESAC	15.6	CW 6	4/31	0.0024	TSUCAN	2.8
CW 6	4/29	0.0050	ACESAC	18.7	CW 6	4/31	0.0024	TSUCAN	3
CW 6	4/29	0.0050	BETALL	13.8	CW 6	4/31	0.0024	TSUCAN	4.5
CW 6	4/29	0.0050	BETALL	15.3	CW 6	4/31	0.0024	TSUCAN	5.3
CW 6	4/29	0.0050	BETALL	16.2	CW 6	4/31	0.0024	TSUCAN	5.4
CW 6	4/29	0.0050	BETALL	17.8	CW 6	4/31	0.0024	TSUCAN	5.6
CW 6	4/29	0.0050	BETALL	22.8	CW 6	4/31	0.0024	TSUCAN	5.9
CW 6	4/30	0.0024	FAGGRA	5.3	CW 6	4/31	0.0024	TSUCAN	6.4
CW 6	4/30	0.0024	FAGGRA	5.5	CW 6	4/31	0.0024	TSUCAN	6.4
CW 6	4/30	0.0024	FAGGRA	7.4	CW 6	4/31	0.0024	TSUCAN	7.8
CW 6	4/30	0.0050	FAGGRA	47.8	CW 6	4/31	0.0050	TSUCAN	8.4
CW 6	4/30	0.0050	BETLEN	15.8	CW 6	4/31	0.0050	TSUCAN	10.3
CW 6	4/30	0.0024	TSUCAN	2.1	CW 6	4/31	0.0050	TSUCAN	10.8
CW 6	4/30	0.0024	TSUCAN	2.2	CW 6	4/31	0.0050	TSUCAN	11
CW 6	4/30	0.0024	TSUCAN	2.4	CW 6	4/31	0.0050	TSUCAN	11.6
CW 6	4/30	0.0024	TSUCAN	2.6	CW 6	4/31	0.0050	TSUCAN	11.9
CW 6	4/30	0.0024	TSUCAN	2.6	CW 6	4/31	0.0050	TSUCAN	13.2
CW 6	4/30	0.0024	TSUCAN	2.7	CW 6	4/31	0.0050	TSUCAN	14
CW 6	4/30	0.0024	TSUCAN	2.9	CW 6	4/31	0.0050	TSUCAN	17.5
CW 6	4/30	0.0024	TSUCAN	3.2	CW 6	4/31	0.0050	TSUCAN	17.6
CW 6	4/30	0.0024	TSUCAN	3.3	CW 6	4/31	0.0050	TSUCAN	23.4
CW 6	4/30	0.0024	TSUCAN	3.6	CW 6	4/31	0.0024	ACERUB	6.7
CW 6	4/30	0.0024	TSUCAN	3.6	CW 6	4/31	0.0050	ACERUB	8.3
CW 6	4/30	0.0024	TSUCAN	4.1	CW 6	4/31	0.0050	ACERUB	10.8
CW 6	4/30	0.0024	TSUCAN	4.4	CW 6	4/31	0.0050	QUERUB	11
CW 6	4/30	0.0024	TSUCAN	5.3	CW 6	4/31	0.0050	QUERUB	12.7
CW 6	4/30	0.0024	TSUCAN	5.4	CW 6	4/31	0.0050	QUERUB	24.7
CW 6	4/31	0.0050	QUERUB	30.8	CW 6	4/33	0.0024	TSUCAN	4.1
CW 6	4/31	0.0050	QUERUB	32.8	CW 6	4/33	0.0024	TSUCAN	4.7
CW 6	4/31	0.0050	ACESAC	13.6	CW 6	4/33	0.0024	TSUCAN	5.1
CW 6	4/32	0.0050	FAGGRA	10.8	CW 6	4/33	0.0024	TSUCAN	6.3
CW 6	4/32	0.0050	FAGGRA	12.2	CW 6	4/33	0.0024	TSUCAN	6.4
CW 6	4/32	0.0050	FAGGRA	15.1	CW 6	4/33	0.0024	TSUCAN	6.8
CW 6	4/32	0.0050	FAGGRA	42.8	CW 6	4/33	0.0024	TSUCAN	7.3

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 6	4/32	0.0050	BETLEN	11	CW 6	4/33	0.0024	TSUCAN	7.5
CW 6	4/32	0.0050	BETLEN	11.5	CW 6	4/33	0.0050	TSUCAN	8.2
CW 6	4/32	0.0050	BETLEN	12.5	CW 6	4/33	0.0050	TSUCAN	8.2
CW 6	4/32	0.0050	BETLEN	12.9	CW 6	4/33	0.0050	TSUCAN	8.2
CW 6	4/32	0.0050	BETLEN	12.9	CW 6	4/33	0.0050	TSUCAN	8.3
CW 6	4/32	0.0050	BETLEN	13.4	CW 6	4/33	0.0050	TSUCAN	8.5
CW 6	4/32	0.0024	TSUCAN	4.5	CW 6	4/33	0.0050	TSUCAN	8.6
CW 6	4/32	0.0024	TSUCAN	5.4	CW 6	4/33	0.0050	TSUCAN	8.8
CW 6	4/32	0.0024	TSUCAN	6	CW 6	4/33	0.0050	TSUCAN	9.4
CW 6	4/32	0.0050	TSUCAN	8.2	CW 6	4/33	0.0050	TSUCAN	9.6
CW 6	4/32	0.0050	TSUCAN	8.3	CW 6	4/33	0.0050	TSUCAN	9.8
CW 6	4/32	0.0050	TSUCAN	8.7	CW 6	4/33	0.0050	TSUCAN	10
CW 6	4/32	0.0050	TSUCAN	9.2	CW 6	4/33	0.0050	TSUCAN	10.3
CW 6	4/32	0.0050	TSUCAN	9.4	CW 6	4/33	0.0050	TSUCAN	10.7
CW 6	4/32	0.0050	TSUCAN	11	CW 6	4/33	0.0050	TSUCAN	11.8
CW 6	4/32	0.0050	TSUCAN	11.4	CW 6	4/33	0.0050	TSUCAN	12.3
CW 6	4/32	0.0050	TSUCAN	11.9	CW 6	4/33	0.0050	TSUCAN	12.3
CW 6	4/32	0.0050	TSUCAN	12	CW 6	4/33	0.0050	TSUCAN	13.4
CW 6	4/32	0.0050	TSUCAN	12.1	CW 6	4/33	0.0050	TSUCAN	13.5
CW 6	4/32	0.0050	TSUCAN	18.2	CW 6	4/33	0.0050	TSUCAN	14.1
CW 6	4/32	0.0050	TSUCAN	18.9	CW 6	4/33	0.0050	TSUCAN	14.9
CW 6	4/32	0.0050	TSUCAN	27.5	CW 6	4/33	0.0050	TSUCAN	15
CW 6	4/32	0.0050	ACERUB	10.9	CW 6	4/33	0.0050	TSUCAN	15.4
CW 6	4/32	0.0050	ACERUB	12.4	CW 6	4/33	0.0050	TSUCAN	16.5
CW 6	4/32	0.0050	ACERUB	17.5	CW 6	4/33	0.0050	TSUCAN	17.9
CW 6	4/32	0.0050	ACERUB	20.3	CW 6	4/33	0.0050	TSUCAN	20.5
CW 6	4/32	0.0050	ACERUB	26.2	CW 6	4/33	0.0050	TSUCAN	20.6
CW 6	4/32	0.0050	ACERUB	30.2	CW 6	4/33	0.0050	TSUCAN	27.1
CW 6	4/32	0.0050	QUERUB	21.1	CW 6	4/33	0.0050	QUERUB	9.2
CW 6	4/32	0.0050	QUERUB	26.4	CW 6	4/33	0.0050	QUERUB	16.4
CW 6	4/32	0.0050	QUERUB	36.5	CW 6	4/33	0.0050	QUERUB	20.2
CW 6	4/33	0.0024	FAGGRA	5.5	CW 6	4/33	0.0050	QUERUB	24.4
CW 6	4/33	0.0050	FAGGRA	14	CW 6	4/33	0.0050	QUERUB	28.4
CW 6	4/33	0.0050	BETLEN	8.1	CW 6	4/33	0.0050	QUERUB	36.2
CW 6	4/33	0.0050	BETLEN	11.9	CW 6	4/33	0.0050	ACESAC	8
CW 6	4/33	0.0024	TSUCAN	2	CW 6	4/33	0.0050	ACESAC	10.3
CW 6	4/33	0.0024	TSUCAN	2.6	CW 6	4/33	0.0050	ACESAC	12.3
CW 6	4/33	0.0024	TSUCAN	3	CW 6	4/33	0.0050	QUEALB	8.6
CW 6	4/33	0.0024	TSUCAN	3.4	CW 6	4/33	0.0050	QUEALB	14.5
CW 6	4/33	0.0024	TSUCAN	3.4	CW 6	4/34	0.0024	BETLEN	5.8
CW 6	4/33	0.0024	TSUCAN	3.7	CW 6	4/34	0.0050	BETLEN	8.2
CW 6	4/33	0.0024	TSUCAN	4	CW 6	4/34	0.0050	BETLEN	9.4
CW 6	4/34	0.0050	BETLEN	10	CW 6	4/35	0.0050	BETLEN	14.9
CW 6	4/34	0.0050	BETLEN	11.3	CW 6	4/35	0.0050	BETLEN	15.5
CW 6	4/34	0.0050	BETLEN	12	CW 6	4/35	0.0050	BETLEN	15.7
CW 6	4/34	0.0050	BETLEN	12.2	CW 6	4/35	0.0050	BETLEN	15.7
CW 6	4/34	0.0050	BETLEN	12.9	CW 6	4/35	0.0050	BETLEN	15.8
CW 6	4/34	0.0050	BETLEN	13.2	CW 6	4/35	0.0050	BETLEN	17.1
CW 6	4/34	0.0050	BETLEN	16.6	CW 6	4/35	0.0050	BETLEN	19.2

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 6	4/34	0.0024	TSUCAN	7.7	CW 6	4/35	0.0050	BETLEN	26.5
CW 6	4/34	0.0024	TSUCAN	7.8	CW 6	4/35	0.0024	TSUCAN	4.4
CW 6	4/34	0.0050	TSUCAN	8.8	CW 6	4/35	0.0024	TSUCAN	4.8
CW 6	4/34	0.0050	TSUCAN	9.1	CW 6	4/35	0.0024	TSUCAN	5
CW 6	4/34	0.0050	TSUCAN	9.6	CW 6	4/35	0.0024	TSUCAN	5.9
CW 6	4/34	0.0050	TSUCAN	10.1	CW 6	4/35	0.0024	TSUCAN	6.4
CW 6	4/34	0.0050	TSUCAN	10.2	CW 6	4/35	0.0024	TSUCAN	7.3
CW 6	4/34	0.0050	TSUCAN	10.7	CW 6	4/35	0.0050	TSUCAN	8.7
CW 6	4/34	0.0050	TSUCAN	11.2	CW 6	4/35	0.0050	TSUCAN	11.8
CW 6	4/34	0.0050	TSUCAN	12.2	CW 6	4/35	0.0050	TSUCAN	12.5
CW 6	4/34	0.0050	TSUCAN	12.3	CW 6	4/35	0.0050	TSUCAN	14.5
CW 6	4/34	0.0050	TSUCAN	12.5	CW 6	4/35	0.0050	TSUCAN	15.3
CW 6	4/34	0.0050	TSUCAN	12.6	CW 6	4/35	0.0050	TSUCAN	16.1
CW 6	4/34	0.0050	TSUCAN	12.8	CW 6	4/35	0.0050	TSUCAN	19
CW 6	4/34	0.0050	TSUCAN	13.3	CW 6	4/35	0.0050	TSUCAN	20.8
CW 6	4/34	0.0050	TSUCAN	14.1	CW 6	4/35	0.0050	TSUCAN	23.9
CW 6	4/34	0.0050	TSUCAN	14.8	CW 6	4/35	0.0050	ACERUB	15.1
CW 6	4/34	0.0050	TSUCAN	14.8	CW 6	4/35	0.0050	ACERUB	20.8
CW 6	4/34	0.0050	TSUCAN	14.8	CW 6	4/35	0.0050	ACERUB	21.3
CW 6	4/34	0.0050	TSUCAN	16.3	CW 6	4/35	0.0050	QUERUB	16.3
CW 6	4/34	0.0050	TSUCAN	20.6	CW 6	4/35	0.0050	QUERUB	34.9
CW 6	4/34	0.0050	TSUCAN	21.8	CW 6	4/35	0.0050	QUERUB	36.8
CW 6	4/34	0.0050	TSUCAN	26.8	CW 6	4/35	0.0050	CAROVA	9.5
CW 6	4/34	0.0050	ACERUB	8.1	CW 6	4/36	0.0024	FAGGRA	2.5
CW 6	4/34	0.0050	ACERUB	9.8	CW 6	4/36	0.0024	FAGGRA	3
CW 6	4/34	0.0050	ACERUB	11.2	CW 6	4/36	0.0024	FAGGRA	3.6
CW 6	4/34	0.0050	ACERUB	11.7	CW 6	4/36	0.0024	FAGGRA	4.6
CW 6	4/34	0.0050	ACERUB	14.8	CW 6	4/36	0.0024	FAGGRA	4.6
CW 6	4/34	0.0050	ACERUB	18.4	CW 6	4/36	0.0024	FAGGRA	5
CW 6	4/34	0.0050	ACERUB	19.4	CW 6	4/36	0.0050	FAGGRA	9
CW 6	4/34	0.0050	QUERUB	20.2	CW 6	4/36	0.0050	BETLEN	8.9
CW 6	4/34	0.0050	QUERUB	25.4	CW 6	4/36	0.0050	BETLEN	9.9
CW 6	4/34	0.0050	QUERUB	27	CW 6	4/36	0.0050	BETLEN	10.3
CW 6	4/34	0.0050	QUERUB	27.8	CW 6	4/36	0.0050	BETLEN	11.7
CW 6	4/35	0.0024	BETLEN	4.5	CW 6	4/36	0.0050	BETLEN	12.1
CW 6	4/35	0.0024	BETLEN	5.1	CW 6	4/36	0.0050	BETLEN	12.8
CW 6	4/35	0.0050	BETLEN	8	CW 6	4/36	0.0050	BETLEN	13.1
CW 6	4/35	0.0050	BETLEN	9.3	CW 6	4/36	0.0050	BETLEN	13.7
CW 6	4/35	0.0050	BETLEN	9.6	CW 6	4/36	0.0050	BETLEN	26.8
CW 6	4/35	0.0050	BETLEN	10.9	CW 6	4/36	0.0050	BETLEN	32.2
CW 6	4/35	0.0050	BETLEN	13.1	CW 6	4/36	0.0050	QUENIG	19.9
CW 6	4/35	0.0050	BETLEN	13.5	CW 6	4/37	0.0050	TSUCAN	9
CW 6	4/35	0.0050	BETLEN	14.2	CW 6	4/37	0.0024	ACERUB	4
CW 6	4/36	0.0024	TSUCAN	5	CW 6	4/37	0.0024	ACERUB	4.6
CW 6	4/36	0.0024	TSUCAN	5.3	CW 6	4/37	0.0050	ACERUB	13
CW 6	4/36	0.0050	TSUCAN	8.2	CW 6	4/37	0.0050	ACERUB	19.6
CW 6	4/36	0.0050	TSUCAN	8.9	CW 6	4/37	0.0050	ACERUB	28.2
CW 6	4/36	0.0050	TSUCAN	11.7	CW 6	4/37	0.0050	ACERUB	32.7
CW 6	4/36	0.0050	TSUCAN	12.2	CW 6	4/37	0.0050	ACESAC	15.7

Tract	Plot #	Plot size (ha)	Species	DBH (cm)	Tract	Plot #	Plot size (ha)	Species	DBH (cm)
CW 6	4/36	0.0050	TSUCAN	12.2	CW 6	4/37	0.0050	ACESAC	17.5
CW 6	4/36	0.0050	TSUCAN	12.7	CW 6	4/37	0.0050	ACESAC	28.7
CW 6	4/36	0.0050	TSUCAN	13.4	CW 6	4/37	0.0050	ACESAC	31.8
CW 6	4/36	0.0050	TSUCAN	13.6	CW 6	4/38	0.0024	BETLEN	2.5
CW 6	4/36	0.0050	TSUCAN	14	CW 6	4/38	0.0050	BETLEN	8.2
CW 6	4/36	0.0050	TSUCAN	14.6	CW 6	4/38	0.0050	BETLEN	9
CW 6	4/36	0.0050	TSUCAN	15.4	CW 6	4/38	0.0050	BETLEN	9.7
CW 6	4/36	0.0050	TSUCAN	17.5	CW 6	4/38	0.0050	BETLEN	11.4
CW 6	4/36	0.0050	TSUCAN	18.2	CW 6	4/38	0.0050	BETLEN	11.5
CW 6	4/36	0.0050	TSUCAN	18.7	CW 6	4/38	0.0050	BETLEN	15.6
CW 6	4/36	0.0050	TSUCAN	22.6	CW 6	4/38	0.0050	QUENIG	27.2
CW 6	4/36	0.0050	ACERUB	9.3	CW 6	4/38	0.0024	TSUCAN	2
CW 6	4/36	0.0050	ACERUB	12.2	CW 6	4/38	0.0024	TSUCAN	2.7
CW 6	4/36	0.0050	ACERUB	16.4	CW 6	4/38	0.0024	TSUCAN	2.7
CW 6	4/36	0.0050	QUERUB	17.6	CW 6	4/38	0.0024	TSUCAN	3
CW 6	4/36	0.0050	QUERUB	24.1	CW 6	4/38	0.0024	TSUCAN	3.4
CW 6	4/36	0.0050	CAROVA	14.9	CW 6	4/38	0.0024	TSUCAN	4
CW 6	4/36	0.0050	QUEALB	8.8	CW 6	4/38	0.0024	TSUCAN	4
CW 6	4/36	0.0050	PINSTR	11.6	CW 6	4/38	0.0024	TSUCAN	4.2
CW 6	4/37	0.0024	FAGGRA	2.1	CW 6	4/38	0.0024	TSUCAN	5
CW 6	4/37	0.0024	FAGGRA	2.9	CW 6	4/38	0.0024	TSUCAN	6.7
CW 6	4/37	0.0024	FAGGRA	3.1	CW 6	4/38	0.0024	TSUCAN	6.7
CW 6	4/37	0.0024	FAGGRA	3.4	CW 6	4/38	0.0050	TSUCAN	8.1
CW 6	4/37	0.0024	FAGGRA	3.6	CW 6	4/38	0.0050	TSUCAN	8.1
CW 6	4/37	0.0024	FAGGRA	4	CW 6	4/38	0.0050	TSUCAN	8.2
CW 6	4/37	0.0024	FAGGRA	4.3	CW 6	4/38	0.0050	TSUCAN	8.7
CW 6	4/37	0.0024	FAGGRA	5.6	CW 6	4/38	0.0050	TSUCAN	9.8
CW 6	4/37	0.0024	FAGGRA	7	CW 6	4/38	0.0050	TSUCAN	13.3
CW 6	4/37	0.0050	FAGGRA	34.1	CW 6	4/38	0.0050	TSUCAN	14
CW 6	4/37	0.0050	FAGGRA	41.5	CW 6	4/38	0.0050	TSUCAN	15.3
CW 6	4/37	0.0050	FAGGRA	44.9	CW 6	4/38	0.0050	TSUCAN	18.6
CW 6	4/37	0.0024	TSUCAN	2.2	CW 6	4/38	0.0050	TSUCAN	19.1
CW 6	4/37	0.0024	TSUCAN	2.4	CW 6	4/38	0.0050	BETPAP	15.2
CW 6	4/37	0.0024	TSUCAN	2.6	CW 6	4/38	0.0050	ACERUB	12.5
CW 6	4/37	0.0024	TSUCAN	2.6	CW 6	4/38	0.0050	ACERUB	17.7
CW 6	4/37	0.0024	TSUCAN	3.2	CW 6	4/38	0.0050	QUERUB	12.9
CW 6	4/37	0.0024	TSUCAN	3.2	CW 6	4/38	0.0050	QUERUB	22.2
CW 6	4/37	0.0024	TSUCAN	3.9	CW 6	4/38	0.0050	QUERUB	22.3
CW 6	4/37	0.0050	TSUCAN	8.6	CW 6	4/38	0.0050	QUERUB	27.1
CW 6	4/37	0.0050	TSUCAN	8.8					

Appendix J
Point-centered Quarter
Data for College Woods
Collected June 2001

Transect	Point/Quadrant	SpeciesCode	DBH(cm)	Distance(m)	Transect	Point/Quadrant	SpeciesCode	DBH(cm)	Distance(m)
CW1-1	1/1	FAGGRA	15.1	2.39	CW1-2	10/3	TSUCAN	10.7	4.28
CW1-1	1/2	TSUCAN	6.7	1.95	CW1-2	10/4	TSUCAN	4.5	2.24
CW1-1	1/3	TSUCAN	11.8	3.67	CW1-2	11/1	TSUCAN	6.5	1.71
CW1-1	1/4	TSUCAN	27.4	0.93	CW1-2	11/2	BETLEN	7.5	9.40
CW1-1	2/1	TSUCAN	12.7	1.95	CW1-2	11/3	TSUCAN	6.1	1.27
CW1-1	2/2	TSUCAN	11.4	2.55	CW1-2	11/4	TSUCAN	4.2	2.68
CW1-1	2/3	ACERUB	14.4	4.08	CW1-2	12/1	TSUCAN	18.3	3.11
CW1-1	2/4	TSUCAN	9.2	2.28	CW1-2	12/2	TSUCAN	3.8	1.66
CW1-1	3/1	BETLEN	26.0	1.86	CW1-2	12/3	FAGGRA	11.0	3.06
CW1-1	3/2	TSUCAN	3.2	1.23	CW1-2	12/4	FAGGRA	23.7	1.16
CW1-1	3/3	TSUCAN	3.8	3.32	CW1-2	13/1	BETLEN	22.3	4.46
CW1-1	3/4	TSUCAN	30.5	0.88	CW1-2	13/2	TSUCAN	3.9	0.85
CW1-1	4/1	TSUCAN	12.9	2.06	CW1-2	13/3	TSUCAN	9.4	0.42
CW1-1	4/2	TSUCAN	5.7	1.18	CW1-2	13/4	BETLEN	4.1	3.73
CW1-1	4/3	TSUCAN	46.4	1.56	CW1-2	14/1	TSUCAN	40.2	0.93
CW1-1	4/4	TSUCAN	10.4	3.69	CW1-2	14/2	TSUCAN	20.0	2.20
CW1-1	5/1	QUENIG	46.3	2.36	CW1-2	14/3	FAGGRA	33.4	3.38
CW1-1	5/2	TSUCAN	9.8	0.95	CW1-2	14/4	TSUCAN	8.6	4.97
CW1-1	5/3	TSUCAN	40.8	3.73	CW1-5	26/1	TSUCAN	8.6	4.24
CW1-1	5/4	TSUCAN	8.0	2.07	CW1-5	26/2	ACERUB	30.8	1.01
CW1-1	6/1	TSUCAN	14.1	2.07	CW1-5	26/3	TSUCAN	18.1	4.33
CW1-1	6/2	TSUCAN	1.9	2.91	CW1-5	26/4	TSUCAN	22.5	4.89
CW1-1	6/3	PINSTR	14.8	2.86	CW1-5	27/1	BETLEN	7.2	1.96
CW1-1	6/4	TSUCAN	17.9	3.17	CW1-5	27/2	TSUCAN	4.7	4.44
CW1-1	7/1	TSUCAN	10.3	6.90	CW1-5	27/3	FRAAME	8.5	2.37
CW1-1	7/2	TSUCAN	15.8	3.67	CW1-5	27/4	TSUCAN	17.1	1.93
CW1-1	7/3	QUERUB	35.7	1.20	CW1-5	28/1	BETLEN	22.0	1.66
CW1-1	7/4	TSUCAN	2.8	1.40	CW1-5	28/2	QUENIG	26.0	0.75
CW1-2	8/1	TSUCAN	13.4	1.18	CW1-5	28/3	BETLEN	7.7	2.04
CW1-2	8/2	TSUCAN	12.6	2.11	CW1-5	28/4	TSUCAN	16.3	1.08
CW1-2	8/3	TSUCAN	8.3	0.67	CW1-5	29/1	TSUCAN	16.3	1.08
CW1-2	8/4	QUENIG	26.0	1.99	CW1-5	29/2	BETLEN	9.6	4.57
CW1-2	9/1	TSUCAN	23.1	2.82	CW1-5	29/3	BETLEN	14.9	1.77
CW1-2	9/2	TSUCAN	19.5	1.22	CW1-5	29/4	BETLEN	15.5	2.37
CW1-2	9/3	TSUCAN	16.8	4.25	CW1-5	30/1	TSUCAN	8.3	0.76
CW1-2	9/4	BETLEN	29.6	2.93	CW1-5	30/2	TSUCAN	4.4	0.35
CW1-2	10/1	TSUCAN	3.2	2.91	CW1-5	30/3	TSUCAN	4.8	0.45
CW1-2	10/2	TSUCAN	5.4	2.35	CW1-5	30/4	TSUCAN	13.1	0.98

Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)	Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)
CW1-5	31/1	TSUCAN	4.0	0.72	CW1-7	42/1	TSUCAN	6.7	2.94
CW1-5	31/2	TSUCAN	9.5	2.88	CW1-7	42/2	FAGGRA	14.5	4.88
CW1-5	31/3	TSUCAN	10.0	2.57	CW1-7	42/3	TSUCAN	17.4	6.93
CW1-5	31/4	FAGGRA	35.9	1.99	CW1-7	42/4	FAGGRA	43.6	2.88
CW1-5	32/1	TSUCAN	2.6	2.33	CW1-7	43/1	TSUCAN	3.2	0.28
CW1-5	32/2	TSUCAN	15.9	1.55	CW1-7	43/2	TSUCAN	7.2	1.44
CW1-5	32/3	TSUCAN	4.3	4.11	CW1-7	43/3	TSUCAN	32.6	3.34
CW1-5	32/4	TSUCAN	10.4	0.98	CW1-7	43/4	QUENIG	21.3	1.14
CW1-5	33/1	TSUCAN	3.4	1.32	CW1-7	44/1	TSUCAN	5.7	1.51
CW1-5	33/2	TSUCAN	16.7	2.41	CW1-7	44/2	FAGGRA	5.1	2.43
CW1-5	33/3	TSUCAN	5.0	3.53	CW1-7	44/3	FAGGRA	10.7	1.58
CW1-5	33/4	TSUCAN	4.1	2.38	CW1-7	44/4	TSUCAN	3.0	0.86
CW1-5	34/1	FAGGRA	7.2	1.90	CW1-7	45/1	TSUCAN	5.1	2.13
CW1-5	34/2	TSUCAN	3.7	2.83	CW1-7	45/2	BETLEN	26.9	1.93
CW1-5	34/3	TSUCAN	5.5	3.80	CW1-7	45/3	TSUCAN	3.9	2.82
CW1-5	34/4	TSUCAN	12.2	5.47	CW1-7	45/4	FAGGRA	8.4	3.63
CW1-7	41/1	TSUCAN	21.7	2.01	CW1-7	46/1	ACERUB	36.5	1.24
CW1-7	41/2	TSUCAN	13.7	1.30	CW1-7	46/2	FAGGRA	5.0	2.30
CW1-7	41/3	QUENIG	26.7	2.29	CW1-7	46/3	TSUCAN	5.9	1.62
CW1-7	41/4	TSUCAN	4.2	3.18	CW1-7	46/4	TSUCAN	7.4	1.60
CW2-3	15/1	TSUCAN	31.2	1.18	CW2-4	22/1	TSUCAN	2.7	1.56
CW2-3	15/2	TSUCAN	3.3	3.73	CW2-4	22/2	TSUCAN	8.0	1.58
CW2-3	15/3	FAGGRA	12.9	12.20	CW2-4	22/3	TSUCAN	22.6	0.80
CW2-3	15/4	OSTVIR	36.4	1.08	CW2-4	22/4	TSUCAN	11.3	0.30
CW2-3	16/1	TSUCAN	5.1	0.33	CW2-4	23/1	TSUCAN	17.5	2.53
CW2-3	16/2	BETLEN	7.9	3.36	CW2-4	23/2	BETPOP	5.1	2.47
CW2-3	16/3	TSUCAN	15.4	11.60	CW2-4	23/3	ACERUB	9.7	2.67
CW2-3	16/4	TSUCAN	4.9	0.53	CW2-4	23/4	TSUCAN	18.1	1.88
CW2-3	17/1	TSUCAN	4.1	3.08	CW2-4	24/1	TSUCAN	10.8	4.43
CW2-3	17/2	TSUCAN	4.7	2.96	CW2-4	24/2	TSUCAN	10.5	3.19
CW2-3	17/3	ACERUB	30.9	0.77	CW2-4	24/3	TSUCAN	3.7	1.72
CW2-3	17/4	FAGGRA	5.2	2.06	CW2-4	24/4	TSUCAN	5.8	3.85
CW2-3	18/1	FAGGRA	6.0	1.75	CW2-4	25/1	TSUCAN	17.9	3.06
CW2-3	18/2	ACESAC	9.4	1.93	CW2-4	25/2	TSUCAN	15.2	3.27
CW2-3	18/3	QUERUB	50.9	3.66	CW2-4	25/3	TSUCAN	15.7	2.70
CW2-3	18/4	FAGGRA	3.6	2.55	CW2-4	25/4	TSUCAN	36.7	3.59
CW2-3	19/1	FAGGRA	27.5	1.67	CW2-6	35/1	TSUCAN	3.4	1.49
CW2-3	19/2	ACERUB	11.7	4.63	CW2-6	35/2	TSUCAN	3.4	0.77
CW2-3	19/3	TSUCAN	15.8	0.19	CW2-6	35/3	ACERUB	11.0	4.80
CW2-3	19/4	FAGGRA	8.7	2.93	CW2-6	35/4	TSUCAN	2.9	0.60
CW2-4	20/1	BETLEN	7.7	3.18	CW2-6	36/1	TSUCAN	3.0	3.58
CW2-4	20/2	TSUCAN	10.5	0.90	CW2-6	36/2	TSUCAN	4.2	1.13
CW2-4	20/3	TSUCAN	10.1	1.57	CW2-6	36/3	QUENIG	36.5	1.08
CW2-4	20/4	TSUCAN	8.3	1.18	CW2-6	36/4	TSUCAN	3.0	1.76
CW2-4	21/1	FAGGRA	27.5	1.60	CW2-6	37/1	TSUCAN	7.2	2.96
CW2-4	21/2	TSUCAN	18.1	1.79	CW2-6	37/2	FAGGRA	36.0	0.85
CW2-4	21/3	TSUCAN	6.9	3.24	CW2-6	37/3	FAGGRA	39.9	0.75
CW2-4	21/4	QUERUB	33.6	2.06	CW2-6	37/4	ACERUB	12.8	0.30
CW2-6	38/1	TSUCAN	15.8	3.11	CW2-6	39/3	QUERUB	25.9	1.53

Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)	Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)
CW2-6	38/2	FAGGRA	29.2	4.38	CW2-6	39/4	TSUCAN	11.2	3.48
CW2-6	38/3	TSUCAN	3.1	2.80	CW2-6	40/1	BETLEN	16.7	1.18
CW2-6	38/4	QUERUB	35.6	3.56	CW2-6	40/2	TSUCAN	5.9	3.01
CW2-6	39/1	TSUCAN	4.6	3.38	CW2-6	40/3	TSUCAN	10.6	0.55
CW2-6	39/2	TSUCAN	3.6	1.53	CW2-6	40/4	TSUCAN	5.5	0.35
CW3-1	1/1	TSUCAN	13.2	5.44	CW3-2	7/3	TSUCAN	29.7	4.84
CW3-1	1/2	QUERUB	42.9	3.34	CW3-2	7/4	TSUCAN	61.4	1.38
CW3-1	1/3	TSUCAN	2.6	3.71	CW3-2	8/1	ACERUB	23.3	5.18
CW3-1	1/4	FAGGRA	3.0	3.42	CW3-2	8/2	TSUCAN	7.4	2.01
CW3-1	2/1	ACERUB	15.8	1.77	CW3-2	8/3	TSUCAN	6.0	1.13
CW3-1	2/2	TSUCAN	2.9	0.81	CW3-2	8/4	BETLEN	30.7	1.18
CW3-1	2/3	TSUCAN	18.1	2.57	CW3-2	9/1	TSUCAN	1.5	1.75
CW3-1	2/4	TSUCAN	3.7	3.31	CW3-2	9/2	TSUCAN	11.8	2.81
CW3-1	3/1	TSUCAN	20.3	0.38	CW3-2	9/3	TSUCAN	5.1	2.68
CW3-1	3/2	ACERUB	7.9	2.89	CW3-2	9/4	PINSTR	45.5	2.28
CW3-1	3/3	BETLEN	3.5	3.81	CW3-6	32/1	TSUCAN	5.4	2.16
CW3-1	3/4	TSUCAN	20.8	1.40	CW3-6	32/2	TSUCAN	44.6	2.58
CW3-1	4/1	QUERUB	25.2	2.43	CW3-6	32/3	TSUCAN	9.3	4.08
CW3-1	4/2	TSUCAN	9.3	2.45	CW3-6	32/4	TSUCAN	24.0	4.31
CW3-1	4/3	TSUCAN	32.7	2.15	CW3-6	33/1	TSUCAN	4.8	0.65
CW3-1	4/4	TSUCAN	18.6	5.18	CW3-6	33/2	CARCAR	5.9	2.68
CW3-1	5/1	PINSTR	62.0	1.08	CW3-6	33/3	TSUCAN	4.4	1.21
CW3-1	5/2	TSUCAN	6.7	1.03	CW3-6	33/4	TSUCAN	7.6	1.75
CW3-1	5/3	TSUCAN	9.3	2.78	CW3-6	34/1	TSUCAN	5.3	2.24
CW3-1	5/4	PINSTR	64.8	2.43	CW3-6	34/2	OSTVIR	3.5	3.24
CW3-1	6/1	BETLEN	12.1	0.88	CW3-6	34/3	TSUCAN	5.8	2.58
CW3-1	6/2	BETLEN	26.4	1.86	CW3-6	34/4	TSUCAN	3.1	2.65
CW3-1	6/3	TSUCAN	6.3	2.72	CW3-6	35/1	PINSTR	45.6	4.65
CW3-1	6/4	TSUCAN	6.8	1.92	CW3-6	35/2	OSTVIR	5.5	2.85
CW3-2	10/1	QUERUB	37.3	1.38	CW3-6	35/3	FRAAME	67.2	3.05
CW3-2	10/2	PINSTR	55.8	1.23	CW3-6	35/4	TSUCAN	39.6	3.65
CW3-2	10/3	TSUCAN	1.3	4.58	CW3-6	36/1	OSTVIR	5.1	3.01
CW3-2	10/4	TSUCAN	5.2	2.96	CW3-6	36/2	TSUCAN	3.9	2.42
CW3-2	11/1	TSUCAN	13.0	1.41	CW3-6	36/3	TSUCAN	5.6	2.74
CW3-2	11/2	TSUCAN	11.0	2.23	CW3-6	36/4	TILAME	2.0	2.35
CW3-2	11/3	TSUCAN	16.2	3.91	CW3-6	37/1	TILAME	22.5	1.61
CW3-2	11/4	TSUCAN	5.6	2.76	CW3-6	37/2	ACERUB	11.7	4.01
CW3-2	12/1	PINSTR	51.0	3.08	CW3-6	37/3	ACESAC	22.6	3.13
CW3-2	12/2	TSUCAN	22.1	3.18	CW3-6	37/4	TSUCAN	4.6	2.97
CW3-2	12/3	ACERUB	1.7	5.03	CW3-6	38/1	OSTVIR	11.2	0.39
CW3-2	12/4	FAGGRA	10.7	1.36	CW3-6	38/2	TILAME	31.5	3.25
CW3-2	7/1	QUERUB	52.1	3.04	CW3-6	38/3	OSTVIR	4.5	2.37
CW3-2	7/2	TSUCAN	10.7	3.66	CW3-6	38/4	ACESAC	18.2	2.58
CW4-3	13/1	TSUCAN	7.3	0.85	CW4-3	14/3	TSUCAN	3.6	4.63
CW4-3	13/2	TSUCAN	13.7	4.18	CW4-3	14/4	TSUCAN	34.9	3.15
CW4-3	13/3	TSUCAN	5.1	2.92	CW4-3	15/1	FAGGRA	3.2	1.42
CW4-3	13/4	TSUCAN	9.7	1.62	CW4-3	15/2	TSUCAN	3.2	0.75
CW4-3	14/1	TSUCAN	13.9	3.19	CW4-3	15/3	TSUCAN	8.4	1.56
CW4-3	14/2	TSUCAN	11.1	1.00	CW4-3	15/4	TSUCAN	8.4	1.56

Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)	Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)
CW4-3	16/1	TSUCAN	20.0	1.83	CW4-4	24/1	ACERUB	30.4	4.23
CW4-3	16/2	TSUCAN	7.2	2.67	CW4-4	24/2	QUERUB	30.3	1.58
CW4-3	16/3	TSUCAN	9.0	4.05	CW4-4	24/3	TSUCAN	35.2	4.20
CW4-3	16/4	TSUCAN	13.2	0.86	CW4-4	24/4	ACERUB	18.9	5.05
CW4-3	17/1	TSUCAN	12.4	3.41	CW4-5	25/1	QUERUB	42.9	2.33
CW4-3	17/2	TSUCAN	27.6	1.86	CW4-5	25/2	FAGGRA	21.7	2.93
CW4-3	17/3	TSUCAN	19.8	3.45	CW4-5	25/3	PINSTR	23.5	1.52
CW4-3	17/4	TSUCAN	4.8	2.67	CW4-5	25/4	BETLEN	10.9	3.03
CW4-3	18/1	FAGGRA	54.1	3.38	CW4-5	26/1	TSUCAN	33.5	1.89
CW4-3	18/2	TSUCAN	6.4	1.85	CW4-5	26/2	TSUCAN	24.9	5.53
CW4-3	18/3	TSUCAN	17.5	3.42	CW4-5	26/3	QUERUB	45.4	0.95
CW4-3	18/4	TSUCAN	20.8	2.43	CW4-5	26/4	QUENIG	22.8	3.57
CW4-4	19/1	TSUCAN	15.3	1.86	CW4-5	27/1	PINSTR	20.5	1.12
CW4-4	19/2	FAGGRA	34.2	0.78	CW4-5	27/2	TSUCAN	6.5	3.06
CW4-4	19/3	TSUCAN	5.3	0.43	CW4-5	27/3	TSUCAN	5.7	0.85
CW4-4	19/4	TSUCAN	2.8	2.48	CW4-5	27/4	TSUCAN	41.5	3.08
CW4-4	20/1	FAGGRA	9.7	1.90	CW4-5	28/1	TSUCAN	6.8	3.26
CW4-4	20/2	TSUCAN	5.6	1.30	CW4-5	28/2	TSUCAN	4.1	0.95
CW4-4	20/3	TSUCAN	7.7	5.08	CW4-5	28/3	TSUCAN	4.3	2.39
CW4-4	20/4	TSUCAN	7.5	1.86	CW4-5	28/4	PINSTR	24.4	2.15
CW4-4	21/1	QUERUB	47.4	0.63	CW4-5	29/1	TSUCAN	3.5	0.85
CW4-4	21/2	TSUCAN	9.5	1.95	CW4-5	29/2	TSUCAN	22.3	3.45
CW4-4	21/3	TSUCAN	6.7	0.13	CW4-5	29/3	TSUCAN	6.1	2.58
CW4-4	21/4	TSUCAN	4.2	0.65	CW4-5	29/4	TSUCAN	6.9	0.61
CW4-4	22/1	BETPOP	30.5	0.66	CW4-5	30/1	FAGGRA	6.3	1.50
CW4-4	22/2	TSUCAN	3.5	1.39	CW4-5	30/2	BETPOP	15.5	1.71
CW4-4	22/3	TSUCAN	7.3	0.49	CW4-5	30/3	TSUCAN	7.9	4.15
CW4-4	22/4	TSUCAN	6.2	4.48	CW4-5	30/4	TSUCAN	5.5	2.80
CW4-4	23/1	TSUCAN	8.1	3.48	CW4-5	31/1	BETLEN	18.4	0.93
CW4-4	23/2	BETLEN	7.4	3.92	CW4-5	31/2	FAGGRA	27.7	3.34
CW4-4	23/3	PINSTR	30.7	1.68	CW4-5	31/3	TSUCAN	23.4	0.90
CW4-4	23/4	PINSTR	23.7	2.69	CW4-5	31/4	TSUCAN	11.3	4.32
CW5-1	1/1	ACESAC	19.2	1.30	CW5-1	5/4	TSUCAN	5.3	0.37
CW5-1	1/2	TSUCAN	11.4	0.66	CW5-1	6/1	TSUCAN	20.4	4.32
CW5-1	1/3	FAGGRA	14.9	9.80	CW5-1	6/2	TSUCAN	12.8	3.70
CW5-1	1/4	TSUCAN	12.6	1.22	CW5-1	6/3	TSUCAN	3.5	1.60
CW5-1	2/1	TSUCAN	3.8	1.65	CW5-1	6/4	TSUCAN	3.5	1.82
CW5-1	2/2	TSUCAN	16.5	9.60	CW5-1	7/1	TSUCAN	31.2	2.44
CW5-1	2/3	TSUCAN	18.4	1.16	CW5-1	7/2	TSUCAN	3.2	3.83
CW5-1	2/4	BETLEN	23.5	0.67	CW5-1	7/3	TSUCAN	52.8	2.02
CW5-1	3/1	TSUCAN	22.4	1.46	CW5-1	7/4	TSUCAN	6.0	3.79
CW5-1	3/2	BETLEN	23.5	1.70	CW5-2	8/1	TSUCAN	6.0	1.09
CW5-1	3/3	BETLEN	24.0	1.90	CW5-2	8/2	TSUCAN	12.6	2.23
CW5-1	3/4	QUERUB	38.1	1.43	CW5-2	8/3	TSUCAN	7.9	4.81
CW5-1	4/1	TSUCAN	16.1	2.33	CW5-2	8/4	TSUCAN	6.9	1.00
CW5-1	4/2	BETLEN	23.9	5.49	CW5-2	9/1	TSUCAN	6.7	0.56
CW5-1	4/3	ACESAC	15.3	2.12	CW5-2	9/2	TSUCAN	6.6	3.36
CW5-1	4/4	TSUCAN	20.9	6.49	CW5-2	9/3	TSUCAN	5.0	1.26
CW5-1	5/1	TSUCAN	25.5	1.69	CW5-2	9/4	TSUCAN	5.6	1.23

Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)	Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)
CWS-1	5/3	TSUCAN	11.8	3.28	CWS-3	19/2	TSUCAN	9.2	0.43
CWS-1	5/2	TSUCAN	7.6	3.16	CWS-3	19/3	TSUCAN	17.6	2.56
CWS-2	10/1	FAGGRA	4.2	0.88	CWS-3	19/4	TSUCAN	15.1	3.07
CWS-2	10/2	TSUCAN	4.9	1.78	CWS-3	20/1	TSUCAN	2.5	1.03
CWS-2	10/3	FAGGRA	16.3	1.13	CWS-3	20/2	TSUCAN	3.0	3.08
CWS-2	10/4	ACERUB	17.5	3.59	CWS-3	20/3	TSUCAN	8.8	1.35
CWS-2	11/1	TSUCAN	14.7	3.98	CWS-3	20/4	TSUCAN	3.8	2.13
CWS-2	11/2	TSUCAN	3.8	3.05	CWS-3	21/1	TSUCAN	10.9	3.83
CWS-2	11/3	TSUCAN	14.8	1.39	CWS-3	21/2	TSUCAN	10.8	1.89
CWS-2	11/4	ACERUB	18.5	2.46	CWS-3	21/3	TSUCAN	8.0	3.97
CWS-2	12/1	TSUCAN	13.4	1.75	CWS-3	21/4	TSUCAN	14.6	2.16
CWS-2	12/2	TSUCAN	5.9	1.25	CWS-7	44/1	TSUCAN	19.0	6.22
CWS-2	12/3	CAROVA	16.1	1.33	CWS-7	44/2	TSUCAN	44.4	4.13
CWS-2	12/4	ACESAC	19.6	1.23	CWS-7	44/3	PINSTR	71.2	6.55
CWS-2	13/1	TSUCAN	10.9	1.29	CWS-7	44/4	PINSTR	52.4	2.33
CWS-2	13/2	CAROVA	16.1	2.11	CWS-7	45/1	TSUCAN	19.1	6.63
CWS-2	13/3	TSUCAN	15.0	1.13	CWS-7	45/2	TSUCAN	46.5	0.75
CWS-2	13/4	TSUCAN	25.7	2.90	CWS-7	45/3	BETLEN	24.2	3.60
CWS-2	14/1	QUERUB	35.7	1.67	CWS-7	45/4	QUERUB	43.2	3.57
CWS-2	14/2	BETLEN	15.5	2.33	CWS-7	46/1	TSUCAN	12.5	1.78
CWS-2	14/3	TSUCAN	10.3	2.99	CWS-7	46/2	TSUCAN	3.6	4.90
CWS-2	14/4	QUERUB	35.3	3.22	CWS-7	46/3	ACERUB	16.0	1.14
CWS-2	15/1	TSUCAN	41.5	2.72	CWS-7	46/4	TSUCAN	37.0	5.01
CWS-2	15/2	QUERUB	47.2	3.50	CWS-7	47/1	TSUCAN	5.9	1.42
CWS-2	15/3	TSUCAN	3.6	1.41	CWS-7	47/2	TSUCAN	10.5	4.42
CWS-2	15/4	TSUCAN	16.2	2.65	CWS-7	47/3	TSUCAN	13.4	0.50
CWS-3	16/1	CARCAR	7.5	3.03	CWS-7	47/4	ACERUB	24.6	3.35
CWS-3	16/2	ULMRUB	30.1	4.43	CWS-7	48/1	TSUCAN	2.8	2.20
CWS-3	16/3	FRAPEN	7.9	1.58	CWS-7	48/2	TSUCAN	5.1	2.15
CWS-3	16/4	TSUCAN	3.7	1.79	CWS-7	48/3	TSUCAN	13.4	3.50
CWS-3	17/1	ULMRUB	33.1	1.27	CWS-7	48/4	TSUCAN	5.7	2.67
CWS-3	17/2	ACERUB	7.7	3.40	CWS-7	49/1	TSUCAN	4.3	4.65
CWS-3	17/3	TSUCAN	8.1	1.17	CWS-7	49/2	TSUCAN	21.9	1.33
CWS-3	17/4	TSUCAN	4.0	1.82	CWS-7	49/3	ACERUB	19.8	1.96
CWS-3	18/1	FAGGRA	9.0	1.54	CWS-7	49/4	TSUCAN	4.4	4.33
CWS-3	18/2	QUERUB	51.1	1.10	CWS-7	50/1	TSUCAN	10.0	1.62
CWS-3	18/3	TSUCAN	4.3	3.17	CWS-7	50/2	BETLEN	16.5	2.25
CWS-3	18/4	TSUCAN	7.5	2.30	CWS-7	50/3	TSUCAN	8.1	3.32
CWS-3	19/1	TSUCAN	10.3	1.69	CWS-7	50/4	TSUCAN	9.3	1.83
CWS-1	1/1	ACESAC	19.2	1.30	CWS-1	3/3	BETLEN	24.0	1.90
CWS-1	1/2	TSUCAN	11.4	0.66	CWS-1	3/4	QUERUB	38.1	1.43
CWS-1	1/3	FAGGRA	14.9	9.80	CWS-1	4/1	TSUCAN	16.1	2.33
CWS-1	1/4	TSUCAN	12.6	1.22	CWS-1	4/2	BETLEN	23.9	5.49
CWS-1	2/1	TSUCAN	3.8	1.65	CWS-1	4/3	ACESAC	15.3	2.12
CWS-1	2/2	TSUCAN	16.5	9.60	CWS-1	4/4	TSUCAN	20.9	6.49
CWS-1	2/3	TSUCAN	18.4	1.16	CWS-1	5/1	TSUCAN	25.5	1.69
CWS-1	2/4	BETLEN	23.5	0.67	CWS-1	5/2	TSUCAN	7.6	3.16
CWS-1	3/1	TSUCAN	22.4	1.46	CWS-1	5/3	TSUCAN	11.8	3.28
CWS-1	3/2	BETLEN	23.5	1.70	CWS-1	5/4	TSUCAN	5.3	0.37

Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)	Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)
CW5-1	6/1	TSUCAN	20.4	4.32	CW5-3	18/2	QUERUB	51.1	1.10
CW5-1	6/2	TSUCAN	12.8	3.70	CW5-3	18/3	TSUCAN	4.3	3.17
CW5-1	6/3	TSUCAN	3.5	1.60	CW5-3	18/4	TSUCAN	7.5	2.30
CW5-1	6/4	TSUCAN	3.5	1.82	CW5-3	19/1	TSUCAN	10.3	1.69
CW5-1	7/1	TSUCAN	31.2	2.44	CW5-3	19/2	TSUCAN	9.2	0.43
CW5-1	7/2	TSUCAN	3.2	3.83	CW5-3	19/3	TSUCAN	17.6	2.56
CW5-1	7/3	TSUCAN	52.8	2.02	CW5-3	19/4	TSUCAN	15.1	3.07
CW5-1	7/4	TSUCAN	6.0	3.79	CW5-3	20/1	TSUCAN	2.5	1.03
CW5-2	8/1	TSUCAN	6.0	1.09	CW5-3	20/2	TSUCAN	3.0	3.08
CW5-2	8/2	TSUCAN	12.6	2.23	CW5-3	20/3	TSUCAN	8.8	1.35
CW5-2	8/3	TSUCAN	7.9	4.81	CW5-3	20/4	TSUCAN	3.8	2.13
CW5-2	8/4	TSUCAN	6.9	1.00	CW5-3	21/1	TSUCAN	10.9	3.83
CW5-2	9/1	TSUCAN	6.7	0.56	CW5-3	21/2	TSUCAN	10.8	1.89
CW5-2	9/2	TSUCAN	6.6	3.36	CW5-3	21/3	TSUCAN	8.0	3.97
CW5-2	9/3	TSUCAN	5.0	1.26	CW5-3	21/4	TSUCAN	14.6	2.16
CW5-2	9/4	TSUCAN	5.6	1.23	CW6-4	22/1	TSUCAN	8.2	1.47
CW5-2	10/1	FAGGRA	4.2	0.88	CW6-4	22/2	TSUCAN	3.0	2.13
CW5-2	10/2	TSUCAN	4.9	1.78	CW6-4	22/3	TSUCAN	4.8	0.79
CW5-2	10/3	FAGGRA	16.3	1.13	CW6-4	22/4	TSUCAN	5.4	1.50
CW5-2	10/4	ACERUB	17.5	3.59	CW6-4	23/1	TSUCAN	18.8	3.00
CW5-2	11/1	TSUCAN	14.7	3.98	CW6-4	23/2	TSUCAN	8.0	2.34
CW5-2	11/2	TSUCAN	3.8	3.05	CW6-4	23/3	TSUCAN	9.9	1.21
CW5-2	11/3	TSUCAN	14.8	1.39	CW6-4	23/4	TSUCAN	12.6	1.05
CW5-2	11/4	ACERUB	18.5	2.46	CW6-4	24/1	TSUCAN	23.0	1.73
CW5-2	12/1	TSUCAN	13.4	1.75	CW6-4	24/2	TSUCAN	6.9	1.93
CW5-2	12/2	TSUCAN	5.9	1.25	CW6-4	24/3	TSUCAN	16.2	3.43
CW5-2	12/3	CAROVA	16.1	1.33	CW6-4	24/4	TSUCAN	9.0	2.33
CW5-2	12/4	ACESAC	19.6	1.23	CW6-4	25/1	TSUCAN	9.0	0.83
CW5-2	13/1	TSUCAN	10.9	1.29	CW6-4	25/2	TSUCAN	16.2	1.61
CW5-2	13/2	CAROVA	16.1	2.11	CW6-4	25/3	TSUCAN	4.6	2.87
CW5-2	13/3	TSUCAN	15.0	1.13	CW6-4	25/4	TSUCAN	29.5	2.65
CW5-2	13/4	TSUCAN	25.7	2.90	CW6-4	26/1	TSUCAN	13.6	1.46
CW5-2	14/1	QUERUB	35.7	1.67	CW6-4	26/2	ACERUB	20.6	2.32
CW5-2	14/2	BETLEN	15.5	2.33	CW6-4	26/3	BETLEN	23.0	1.23
CW5-2	14/3	TSUCAN	10.3	2.99	CW6-4	26/4	TSUCAN	8.5	0.61
CW5-2	14/4	QUERUB	35.3	3.22	CW6-4	27/1	TSUCAN	8.4	1.55
CW5-2	15/1	TSUCAN	41.5	2.72	CW6-4	27/2	TSUCAN	20.3	0.85
CW5-2	15/2	QUERUB	47.2	3.50	CW6-4	27/3	TSUCAN	7.7	1.47
CW5-2	15/3	TSUCAN	3.6	1.41	CW6-4	27/4	TSUCAN	15.3	1.30
CW5-2	15/4	TSUCAN	16.2	2.65	CW6-4	28/1	TSUCAN	15.3	1.76
CW5-3	16/1	CARCAR	7.5	3.03	CW6-4	28/2	TSUCAN	7.8	1.61
CW5-3	16/2	ULMRUB	30.1	4.43	CW6-4	28/3	TSUCAN	3.3	2.76
CW5-3	16/3	FRAPEN	7.9	1.58	CW6-4	28/4	TSUCAN	12.4	3.61
CW5-3	16/4	TSUCAN	3.7	1.79	CW6-4	29/1	TSUCAN	5.0	1.83
CW5-3	17/1	ULMRUB	33.1	1.27	CW6-4	29/2	TSUCAN	6.7	3.60
CW5-3	17/2	ACERUB	7.7	3.40	CW6-4	29/3	FAGGRA	6.7	2.92
CW5-3	17/3	TSUCAN	8.1	1.17	CW6-4	29/4	TSUCAN	3.0	2.26
CW5-3	17/4	TSUCAN	4.0	1.82	CW6-4	30/1	TSUCAN	12.1	3.69
CW5-3	18/1	FAGGRA	9.0	1.54	CW6-4	30/2	TSUCAN	6.8	3.19

Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)	Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)
CW5-1	6/1	TSUCAN	20.4	4.32	CW5-3	18/2	QUERUB	51.1	1.10
CW5-1	6/2	TSUCAN	12.8	3.70	CW5-3	18/3	TSUCAN	4.3	3.17
CW5-1	6/3	TSUCAN	3.5	1.60	CW5-3	18/4	TSUCAN	7.5	2.30
CW5-1	6/4	TSUCAN	3.5	1.82	CW5-3	19/1	TSUCAN	10.3	1.69
CW5-1	7/1	TSUCAN	31.2	2.44	CW5-3	19/2	TSUCAN	9.2	0.43
CW5-1	7/2	TSUCAN	3.2	3.83	CW5-3	19/3	TSUCAN	17.6	2.56
CW5-1	7/3	TSUCAN	52.8	2.02	CW5-3	19/4	TSUCAN	15.1	3.07
CW5-1	7/4	TSUCAN	6.0	3.79	CW5-3	20/1	TSUCAN	2.5	1.03
CW5-2	8/1	TSUCAN	6.0	1.09	CW5-3	20/2	TSUCAN	3.0	3.08
CW5-2	8/2	TSUCAN	12.6	2.23	CW5-3	20/3	TSUCAN	8.8	1.35
CW5-2	8/3	TSUCAN	7.9	4.81	CW5-3	20/4	TSUCAN	3.8	2.13
CW5-2	8/4	TSUCAN	6.9	1.00	CW5-3	21/1	TSUCAN	10.9	3.83
CW5-2	9/1	TSUCAN	6.7	0.56	CW5-3	21/2	TSUCAN	10.8	1.89
CW5-2	9/2	TSUCAN	6.6	3.36	CW5-3	21/3	TSUCAN	8.0	3.97
CW5-2	9/3	TSUCAN	5.0	1.26	CW5-3	21/4	TSUCAN	14.6	2.16
CW5-2	9/4	TSUCAN	5.6	1.23	CW6-4	22/1	TSUCAN	8.2	1.47
CW5-2	10/1	FAGGRA	4.2	0.88	CW6-4	22/2	TSUCAN	3.0	2.13
CW5-2	10/2	TSUCAN	4.9	1.78	CW6-4	22/3	TSUCAN	4.8	0.79
CW5-2	10/3	FAGGRA	16.3	1.13	CW6-4	22/4	TSUCAN	5.4	1.50
CW5-2	10/4	ACERUB	17.5	3.59	CW6-4	23/1	TSUCAN	18.8	3.00
CW5-2	11/1	TSUCAN	14.7	3.98	CW6-4	23/2	TSUCAN	8.0	2.34
CW5-2	11/2	TSUCAN	3.8	3.05	CW6-4	23/3	TSUCAN	9.9	1.21
CW5-2	11/3	TSUCAN	14.8	1.39	CW6-4	23/4	TSUCAN	12.6	1.05
CW5-2	11/4	ACERUB	18.5	2.46	CW6-4	24/1	TSUCAN	23.0	1.73
CW5-2	12/1	TSUCAN	13.4	1.75	CW6-4	24/2	TSUCAN	6.9	1.93
CW5-2	12/2	TSUCAN	5.9	1.25	CW6-4	24/3	TSUCAN	16.2	3.43
CW5-2	12/3	CAROVA	16.1	1.33	CW6-4	24/4	TSUCAN	9.0	2.33
CW5-2	12/4	ACESAC	19.6	1.23	CW6-4	25/1	TSUCAN	9.0	0.83
CW5-2	13/1	TSUCAN	10.9	1.29	CW6-4	25/2	TSUCAN	16.2	1.61
CW5-2	13/2	CAROVA	16.1	2.11	CW6-4	25/3	TSUCAN	4.6	2.87
CW5-2	13/3	TSUCAN	15.0	1.13	CW6-4	25/4	TSUCAN	29.5	2.65
CW5-2	13/4	TSUCAN	25.7	2.90	CW6-4	26/1	TSUCAN	13.6	1.46
CW5-2	14/1	QUERUB	35.7	1.67	CW6-4	26/2	ACERUB	20.6	2.32
CW5-2	14/2	BETLEN	15.5	2.33	CW6-4	26/3	BETLEN	23.0	1.23
CW5-2	14/3	TSUCAN	10.3	2.99	CW6-4	26/4	TSUCAN	8.5	0.61
CW5-2	14/4	QUERUB	35.3	3.22	CW6-4	27/1	TSUCAN	8.4	1.55
CW5-2	15/1	TSUCAN	41.5	2.72	CW6-4	27/2	TSUCAN	20.3	0.85
CW5-2	15/2	QUERUB	47.2	3.50	CW6-4	27/3	TSUCAN	7.7	1.47
CW5-2	15/3	TSUCAN	3.6	1.41	CW6-4	27/4	TSUCAN	15.3	1.30
CW5-2	15/4	TSUCAN	16.2	2.65	CW6-4	28/1	TSUCAN	15.3	1.76
CW5-3	16/1	CARCAR	7.5	3.03	CW6-4	28/2	TSUCAN	7.8	1.61
CW5-3	16/2	ULMRUB	30.1	4.43	CW6-4	28/3	TSUCAN	3.3	2.76
CW5-3	16/3	FRAPEN	7.9	1.58	CW6-4	28/4	TSUCAN	12.4	3.61
CW5-3	16/4	TSUCAN	3.7	1.79	CW6-4	29/1	TSUCAN	5.0	1.83
CW5-3	17/1	ULMRUB	33.1	1.27	CW6-4	29/2	TSUCAN	6.7	3.60
CW5-3	17/2	ACERUB	7.7	3.40	CW6-4	29/3	FAGGRA	6.7	2.92
CW5-3	17/3	TSUCAN	8.1	1.17	CW6-4	29/4	TSUCAN	3.0	2.26
CW5-3	17/4	TSUCAN	4.0	1.82	CW6-4	30/1	TSUCAN	12.1	3.69
CW5-3	18/1	FAGGRA	9.0	1.54	CW6-4	30/2	TSUCAN	6.8	3.19

Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)	Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)
CW6-4	30/3	TSUCAN	37.9	0.85	CW6-6	43/2	TSUCAN	6.7	1.75
CW6-4	30/4	TSUCAN	11.6	1.46	CW6-6	43/3	TSUCAN	3.9	1.80
CW6-5	31/1	TSUCAN	10.9	0.94	CW6-6	43/4	BETLEN	12.9	3.69
CW6-5	31/2	TSUCAN	6.0	1.76	CW6-7	44/1	TSUCAN	19.0	6.22
CW6-5	31/3	TSUCAN	4.8	2.08	CW6-7	44/2	TSUCAN	44.4	4.13
CW6-5	31/4	FAGGRA	31.7	0.91	CW6-7	44/3	PINSTR	71.2	6.55
CW6-5	32/1	ACERUB	8.5	2.36	CW6-7	44/4	PINSTR	52.4	2.33
CW6-5	32/2	TSUCAN	39.8	2.25	CW6-7	45/1	TSUCAN	19.1	6.63
CW6-5	32/3	ACESAC	26.6	0.62	CW6-7	45/2	TSUCAN	46.5	0.75
CW6-5	32/4	TSUCAN	6.4	2.85	CW6-7	45/3	BETLEN	24.2	3.60
CW6-5	33/1	TSUCAN	6.4	2.05	CW6-7	45/4	QUERUB	43.2	3.57
CW6-5	33/2	ACESAC	12.4	0.78	CW6-7	46/1	TSUCAN	12.5	1.78
CW6-5	33/3	TSUCAN	7.8	2.84	CW6-7	46/2	TSUCAN	3.6	4.90
CW6-5	33/4	TSUCAN	11.5	1.35	CW6-7	46/3	ACERUB	16.0	1.14
CW6-5	34/1	TSUCAN	3.4	1.76	CW6-7	46/4	TSUCAN	37.0	5.01
CW6-5	34/2	TSUCAN	6.9	1.30	CW6-7	47/1	TSUCAN	5.9	1.42
CW6-5	34/3	TSUCAN	3.7	2.45	CW6-7	47/2	TSUCAN	10.5	4.42
CW6-5	34/4	BETALL	8.7	3.83	CW6-7	47/3	TSUCAN	13.4	0.50
CW6-5	35/1	TSUCAN	8.3	1.38	CW6-7	47/4	ACERUB	24.6	3.35
CW6-5	35/2	TSUCAN	2.7	2.15	CW6-7	48/1	TSUCAN	2.8	2.20
CW6-5	35/3	BETLEN	6.1	2.04	CW6-7	48/2	TSUCAN	5.1	2.15
CW6-5	35/4	TSUCAN	6.0	4.61	CW6-7	48/3	TSUCAN	13.4	3.50
CW6-5	36/1	TSUCAN	7.5	2.46	CW6-7	48/4	TSUCAN	5.7	2.67
CW6-5	36/2	TSUCAN	5.8	1.27	CW6-7	49/1	TSUCAN	4.3	4.65
CW6-5	36/3	TSUCAN	4.1	3.45	CW6-7	49/2	TSUCAN	21.9	1.33
CW6-5	36/4	FAGGRA	3.4	2.76	CW6-7	49/3	ACERUB	19.8	1.96
CW6-5	37/1	TSUCAN	7.7	4.35	CW6-7	49/4	TSUCAN	4.4	4.33
CW6-5	37/2	TSUCAN	32.5	5.63	CW6-7	50/1	TSUCAN	10.0	1.62
CW6-5	37/3	QUERUB	13.2	1.16	CW6-7	50/2	BETLEN	16.5	2.25
CW6-5	37/4	TSUCAN	7.7	2.61	CW6-7	50/3	TSUCAN	8.1	3.32
CW6-6	38/1	TSUCAN	21.4	2.21	CW6-7	50/4	TSUCAN	9.3	1.83
CW6-6	38/2	TSUCAN	7.8	1.36	CW6-8	51/1	QUERUB	34.3	1.35
CW6-6	38/3	TSUCAN	7.2	0.12	CW6-8	51/2	TSUCAN	4.3	2.59
CW6-6	38/4	TSUCAN	3.8	1.50	CW6-8	51/3	TSUCAN	9.7	1.39
CW6-6	39/1	TSUCAN	3.2	0.89	CW6-8	51/4	TSUCAN	3.4	4.11
CW6-6	39/2	TSUCAN	8.4	2.34	CW6-8	52/1	BETLEN	12.1	1.35
CW6-6	39/3	TSUCAN	16.5	3.00	CW6-8	52/2	BETLEN	7.1	3.60
CW6-6	39/4	QUERUB	36.6	2.54	CW6-8	52/3	ACERUB	22.6	3.18
CW6-6	40/1	QUERUB	36.1	2.54	CW6-8	52/4	ACERUB	9.4	3.98
CW6-6	40/2	ACESAC	4.9	1.03	CW6-8	53/1	BETLEN	20.1	6.27
CW6-6	40/3	TSUCAN	4.7	2.80	CW6-8	53/2	TSUCAN	48.0	4.57
CW6-6	40/4	BETLEN	8.0	1.68	CW6-8	53/3	CAROVA	13.6	1.22
CW6-6	41/1	TSUCAN	11.8	0.85	CW6-8	53/4	ACERUB	26.0	2.46
CW6-6	41/2	TSUCAN	18.6	1.04	CW6-8	54/1	QUERUB	23.8	5.25
CW6-6	41/3	TSUCAN	5.1	2.15	CW6-8	54/2	TSUCAN	11.1	4.42
CW6-6	41/4	TSUCAN	4.5	0.54	CW6-8	54/3	TSUCAN	13.3	2.94
CW6-6	42/1	TSUCAN	11.9	1.13	CW6-8	54/4	ACERUB	26.9	15.40
CW6-6	42/2	TSUCAN	4.6	2.80	CW6-8	55/1	BETLEN	14.5	5.29
CW6-6	42/3	TSUCAN	7.6	1.75	CW6-8	55/2	TSUCAN	14.5	2.28

Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)	Transect	Point/Quadrat	SpeciesCode	DBH(cm)	Distance(m)
CW6-6	42/4	TSUCAN	11.2	3.54	CW6-8	56/1	TSUCAN	34.6	3.25
CW6-6	43/1	TSUCAN	40.7	0.78	CW6-8	56/2	BETLEN	10.6	2.59
CW6-8	55/3	TSUCAN	11.9	3.62	CW6-8	56/3	FAGGRA	5.8	3.98
CW6-8	55/4	BETLEN	11.7	5.55	CW6-8	56/4	FAGGRA	45.9	0.97