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SYNONYMIES AND NOTES ON THE
REICHENBACHIA OF EASTERN NORTH AMERICA
(COLEOPTERA: PSELAPHIDAE)¹

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ABSTRACT

New synonymies of Reichenbachia Leach from eastern North America are presented: 
Bryaxis bicolor Brendel (= R. subsimilis Casey); R. borealis Casey (= R. distans Casey); 
B. complectens LeConte (= R. dilatipes Schaeffer, = R. latipes Fletcher); B. divergens 
LeConte (= B. cribricollis Brendel, = R. furtiva Casey, = R. fusciventeris Casey); B. gem-
mifer LeConte (= B. canadensis Brendel); B. gracilis Casey (= R. ursina Casey); B. litoralis 
Brendel (= R. turba Park); R. peregrinator Casey (= R. shenefelti Park); B. polita Brendel 
(= R. procer a Casey, = pygidialis Raffray); B. puncticollis LeConte (= R. howdeni Park); 
B. radians LeConte (= B. trigona LeConte, = R. pluridentata Park); and B. tumida 
LeConte (= R. pattersoni Park). Male genitalia are figured for the species that have not 
been previously illustrated. Lectotypes are designated for R. subsimilis Casey, R. borealis 
Casey, B. complectens LeConte, R. furtiva Casey, B. gracilis Casey, and R. peregrinator 
Casey. The 33 species of Reichenbachia from eastern North America are listed with state 
and provincial records and are placed in the groups of Bowman, and R. rubricunda 
(Aubé) is placed as incertae sedis.

During faunal surveys of some natural areas in New Hampshire, several 
species of Reichenbachia Leach were discovered that could not be readily 
identified. This genus has been largely untouched since the last major work by 
Casey (1897) on pselaphids, with the exception of a number of new species 
described by Park (1949, 1958), and the revision of the species of western 
North America by Grigarick and Schuster (1967). Work with the eastern taxa 
has been difficult, primarily because the species are often separated by subtle 
external characters. I have found over twenty undescribed species mixed with 
“identified” series in collections. In pursuing the identification of these taxa, 
I examined all the types of the 51 taxa described from eastern North America 
except one (Bryaxis rubricunda Aubé). I was able to resolve the identities of 
all but two taxa based on female holotypes (R. inopia Casey and B. semirugosa 
Brendel). Seventeen new synonymies were discovered, 33 species are treated 
here as valid, and one species is placed as incertae sedis. To facilitate further 
work on the eastern Reichenbachia, I have summarized my findings on syn-
onymies and distribution records.

Bowman (1934) placed the North American species of Reichenbachia in his 
system of six groups, and with his accompanying keys increased the chances 
for correct identification of species. However, his work was based largely on 
the descriptions of Casey and other authors, and thus was dependent upon 
their written interpretation of characters. The primary feature used by Bowman

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to group species is the degree of separation of the basal longitudinal carinae of the first visible abdominal tergite. He and the other earlier authors did not appreciate the sexual or distributional variation exhibited by some species for this feature. Park et al. (1949:pl. II) was the first to note the sexual variation that in a few species can lead to the hesitant placement of some male or female specimens in different groups. The distributional aspect of this problem has not been noticed before, and is most acute in *R. corporalis* Casey, where approximately half of the specimens from New England would clearly be placed in Group II rather than Group III where this species is traditionally placed. The degree of separation of these carinae is stable in most species, and in general permits group placement. Bowman's groups are defined and are used for species placement in the accompanying checklist. It is apparent to me that these groupings are artificial, but until a more phylogenetically sound system may be developed I follow them here.

Type repositories are indicated by codons that may be found associated with the collection curators in the acknowledgments. Abbreviations of states and provinces follow those used by the United States and Canadian postal services.

*Reichenbachia bicolor* (Brendel)  
(Fig. 1)

*Bryaxis bicolor* Brendel 1890:294. Type locality: near Cedar Rapids, Iowa. Type #8308, lectotype female examined (ANSP).

*Reichenbachia subsimilis* Casey 1897:594. Type locality: Iowa City, Iowa. Lectotype male designated here with the following labels: //Iowa City Wickham/ male/ Casey bequest 1926/ subsimilis 2 PARATYPE 38697/ subsimilis/ Lectotype Reichenbachia subsimilis Casey, desig. DSChandler '88// (USNM). A paralectotype female with similar labels except /TYPE USNM 38697/ is also here designated. **New synonymy.**

*Reichenbachia borealis* Casey  
(Fig. 2)

*Reichenbachia borealis* Casey 1897:601. Type localities: Ottawa, Ontario; Massachusetts. Lectotype male designated here with the following labels: // W.H.H. Ottawa Ont./ male/ Casey bequest 1925/ TYPE USNM 38710/ borealis/ Lectotype Reichenbachia borealis Casey, desig. DSChandler '88//. Three females with similar label information, and one male from "Lowell Ms" are designated as paralectotypes.

*Reichenbachia distans* Casey 1897:602. Type locality: Ottawa, Ontario. Type #38712, holotype male examined (USNM). **New synonymy.**

*Reichenbachia complectens* (LeConte)  
(Fig. 3)

*Bryaxis complectens* LeConte 1880:183. Type localities: Texas and Florida. Lectotype male designated here bearing the following labels: //Tex/ male/ Type 6144/ Lectotype Bryaxis complectens LeConte, desig. DSChandler '88// (MCZC). The paralectotype female with the following labels // Tampa 12.4 Fla/ 1501/ complectens 2/ PARALECTOTYPE Bryaxis

*complectens* LeConte desig. DSChandler '88 is here designated, and is not conspecific.

*Reichenbachia dilatipes* Schaeffer 1906:262. Type locality: New Braunfels, Texas. Type #62326, holotype male examined (USNM). **New synonymy.**

*Reichenbachia latipes* Fletcher 1928:212. Type locality: Veracruz, Veracruz, Mexico. Type #815, holotype male examined (CUIC). **New synonymy.**
Reichenbachia divergens (LeConte)
(Fig. 4)

Bryaxis divergens LeConte 1880:182. Type locality: Cambridge, Massachusetts. Type #6131, holotype female examined (MCZC). LeConte believed this specimen to be a male.


Reichenbachia furtiva Casey 1894:483. Type locality: Pennsylvania. Lectotype male designated here bearing the following labels: //Pa./ male/ Casey bequest 1925/ TYPE USNM 38708/ furtiva/ Lectotype Reichenbachia furtiva Casey, desig. DSChandler '88// (USNM). The paralectotype female is labeled similarly, and appears to be a specimen of R. facilis Casey. New synonymy.

Reichenbachia fusciventris Casey 1897:599. Type locality: New York. Type #38706, holotype male examined (USNM). New synonymy.

Reichenbachia gemmifer (LeConte)
(Fig. 5)

Bryaxis gemmifer LeConte 1880:182. Type locality: Michigan. Type #6138, holotype male examined (MCZC).

Bryaxis canadensis Brendel 1887:206. Type locality: Canada. Type #8305, lectotype female examined (ANSP). Casey (1897:593) believed that R. canadensis was a synonym of R. gemmifer, but did not formally synonymize the two. New synonymy.

Reichenbachia gracilis (Casey)
(Fig. 13)

Bryaxis gracilis Casey 1884:32. Type locality: Detroit, Michigan. Lectotype female here designated bearing the following labels: //Detroit, Mich/ male/ Casey bequest 1925/ TYPE USNM 38700/ gracilis Cas/ Lectotype Bryaxis gracilis Casey, desig. DSChandler '89// (USNM). The paralectotype female bears similar labels except: /gracilis-4, PARATYPE USNM 38700/. Casey believed both specimens to be males.

Reichenbachia ursina Casey 1897:596. Type locality: western Missouri. Type #38701, holotype male examined (USNM). New synonymy.

Reichenbachia litoralis (Brendel)


Reichenbachia peregrinator Casey

Reichenbachia peregrinator Casey 1897:599. Type localities: Iowa City, Iowa; Nebraska; South Dakota. Lectotype male here designated bearing the following labels: //Ia./ male/ USNM TYPE #38704/ peregrinator/ Lectotype Reichenbachia peregrinator Casey, desig. DSChandler '88//
Seven paralectotypes are also designated: five females from Iowa, one male from South Dakota, and one male from Nebraska.

*Reichenbachia shenefelti* Park 1958:50, fig. 13. Type locality: Boscobel, Wisconsin. Types not examined, aedeagus figured by Park. **New synonymy.**

*Reichenbachia polita* (Brendel)  
(Fig. 6)

*Bryaxis polita* Brendel 1890:297. Type locality: New York. Type #8316, lectotype female examined (ANSP). Moxey (1962) only designated lectotypes from Brendel's material, with the remaining syntypes being sent to Harvard University as part of the Horn Collection and labeled as "paratypes." Three of the four "paratypes" in the Horn Collection are here designated as paralectotypes, with the specimen not so designated bearing a "Canada" locality label: //N.Y./ female (a male!)/ Brend/ Horn Coll. H9395/ 8316.1 PARATYPE/ PARALECTOTYPE Bryaxis polita Brendel desig. DSChandler 88'// (MCZC). Another male here designated lacks the locality label and is correctly sexed, and a female similarly lacks a locality label and is not labeled as to sex.

*Reichenbachia procera* Casey 1897:603. Type locality: Iowa? Type #38714, holotype male examined (USNM). **Not:** *R. procera*, Park 1958:50, fig. 12 (aedeagus figured). **New synonymy.**

Casey indicated some question about the locality record of Iowa for his type of *R. procera* in his description.

*Reichenbachia pygidialis* Raffray 1904:160. Type locality: Missouri. Holotype female examined (MNHN). The holotype of *R. pygidialis* was recently sent to me, and found to be a female and not a male as Raffray (1904: 160) believed. It is conspecific with and a junior synonym of *Bryaxis polita* Brendel. **New synonymy.**

The type locality of "Missouri" for *R. pygidialis* adds credence to the type locality of "Iowa" for the other junior synonym of *R. polita*, *R. procera* Casey, which was listed with a question mark by Casey (1897) in his original description.

*Reichenbachia puncticollis* (LeConte)

*Bryaxis puncticollis* LeConte 1849:87. Type locality: New Orleans. Type #6137, male holotype examined (MCZC).

*Reichenbachia howdeni* Park 1958:47, fig. 6. Type locality: Swanquarter, North Carolina. Paratype male and females examined (CNCI), aedeagus figured by Park. **New synonymy.**

*Reichenbachia inopia*, Park 1958:48, fig. 7 (aedeagus figured), not *R. inopia* Casey 1884:33.

*Reichenbachia radians* (LeConte)

*Bryaxis radians* LeConte 1880:182. Type locality: Illinois. Type #6139, holotype male examined (MCZC).

*Bryaxis trigona* LeConte 1880:183. Type locality: Missouri. Type #6140, holotype female examined (MCZC). **New synonymy.**
**Reichenbachia pluridentata** Park 1949:322, pl. III (aedeagus figured in Park 1958:47, fig. 5). Type locality: Urbana, Illinois. Park (1942:pl. 1, figs. 2, 3) figured the aedeagus of “pluridentata n. sp.”; however, this was not a valid description since it was lacking an accompanying written description. **New synonymy.**
Reichenbachia rubricunda (Aubé) (incertae sedis)

Bryaxis rubricunda Aubé 1844:116. Type locality: “Pennsylvanie.” Types not examined (see below).

Aubé based R. rubricunda on two males from “Pennsylvanie.” Three specimens marked as cotypes were found in the Paris collection (MNHN), all from Iowa. Based on the original description, R. rubricunda is clearly a member of Bowman’s (1934) Group II, as are two of the “cotypes.” However, these two specimens are a male and female of R. gracilis (Casey), a midwestern species not known from Pennsylvania. The third “cotype” is a specimen of R. divergens (LeConte). The cotype labels for these three specimens are clearly an error.

The specimens of rubricunda were sent to Aubé by H. R. Schaum, with the Schaum collection being combined with the Clemens Müller collection and deposited in Munich in 1905. The Müller specimens of R. rubricunda were borrowed and found to represent four species of Reichenbachia and one of Brachygluta Thomson. None of these possessed the correct label data, and only a male from New York was a member of the correct species group. The syntypes of rubricunda must be regarded as missing, and the species is here placed as incertae sedis.

Reichenbachia tumida (LeConte)

Bryaxis tumida LeConte 1880:183. Type locality: Texas. Type #6148, holotype male examined (MCZC).

Reichenbachia pattersoni Park 1958:49, figs. 9–11. Type locality: Porvenir, Texas. Types not examined; male head, antenna, and genitalia figured by Park. New synonymy.

CHECKLIST OF REICHENBACHIA FROM EASTERN NORTH AMERICA

All species from eastern North America are placed in Bowman’s (1934) groups, listed with their synonyms, and references to figures for identification are indicated. The following state and provincial records are based on specimens that I have seen.

Group I

Basal separation of longitudinal carinae of tergite I no wider than maximum distance between elytral striae; setae over body short and decumbent (long and suberect for radians).

bicolor (Brendel); Fig. 1 MA, NY, MD, IL, MN, IA, NE

subsimilis Casey

congener (Brendel); Fig. 7 MA, NY, NJ, PA, FL, MS, OK, IL, IA

cylindrartus (Brendel); Fig. 8 DC, ON, OH, IL, MS
divergens (LeConte); Fig. 4 NH, MA, NY, PA, DC, VA, ON, OH, MI, IN, IL, IA, MS
cribicollis (Brendel) furtiva Casey

fusciventris Casey
ectofacilis Park; Park 1956:93 FL, AL, LA, TX
facilis (Casey); Park 1956:91 MA, CT, NY, NJ, ON, IL, IA, GA
gemmifer (LeConte); Fig. 5 DC, VA, NY, ON, MI, IN, IL, IA, AR, MS, LA
hardyi Park; Park 1956:90 PA, DC, VA, SC, FL, LA, AR, OK, TX
insolita Casey; Fig. 9 RI
peregrinator Casey; Park 1958:51 shenefelti Park
radians (LeConte); Park 1958:47 NH, MI, IL, MO pluridentata Park
trigona (LeConte)
sodalis Casey; Fig. 10 SC, MS, AR

Group II

Basal separation of longitudinal carinae of tergite I greater than strial interspace of elytra and no more than one-fourth abdominal width; setae over body long, suberect to erect (short and decumbent for scabra).

atlantica (Brendel); Fig. 11 DC, SC, FL, LA
gracilicornis Casey; Fig. 12 MS, OK, TX
gracilis (Casey); Fig. 13 MI, OH, MO ursina Casey
kansana Casey; Fig. 14 KS, MS
semirugosa (Brendel) PA
scabra (Brendel); Fig. 15 RI, CT, NY, NJ, ON, OH, MI, IN, IL, WI, MN

Group III

Basal separation of longitudinal carinae of tergite I greater than one-fourth abdominal width, male antennae and tibiae not obviously modified; setae over body short and decumbent.

arcifer Casey; Fig. 16 PQ, KS, OK
borealis Casey; Fig. 2 NB, ME, NH, MA, CT, NY, PA, NJ, DC, VA, NC, PQ, ON, MI, IL, WI, MN, NE, MB
distans Casey
corporalis Casey; Fig. 17  ME, MA, CT, NJ, NY, PQ, ON, MI, WI, TN
demissa Casey; Fig. 18  DC, FL
howardi Park; Park 1958:47  IL, KY, TN, FL, LA, TX
inepa Casey; Fig. 19  NJ, OK
inopia (Casey)  FL
litoralis (Brendel); Park 1958:53DC, VA, FL, TN, IL, OK, LA, TX
turba Park
polita (Brendel); Fig. 6procera Caseypygialis Raffray
puncticollis (LeC.); Park 1958:48PA, NC, GA, FL, MS, LA, TX
howdeni Park

Group V
Basal separation of longitudinal carinae greater than one-fourth abdominal width, male antennae and metatibiae modified; setae over body short and decumbent.

propingua (LeConte); Fig. 20NS, NH, MA, CT, PA, MD, PQ, ON, MI
spatulifer Casey; Grigarick and Schuster 1967:36NF, NB, ME, PQ, ON, MI, IL, WI, IA, WI, MS, MB

Group VI
Basal separation of longitudinal carinae of tergite I greater than one-fourth abdominal width, male antennae modified and metatibiae simple (except complectens); setae over body short and decumbent.

appendiculata Raffray; Park 1945, pl. III TX, Tamaulipas to Panama
complectens (LeConte); Fig. 3 TX, San Luis Potosi to Chiapas
dilatipes Schaeffer
dilatipes Fletcher
latipes Fletcher
tumida (LeConte); Park 1958:50 TX, San Luis Potosi
pattersoni Park

Incertae sedis
rubricunda (Aubé) PA
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LITERATURE CITED


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