Unsung Heroes in Conservation: Evaluating the Limitations Faced by New England Wildlife Rehabilitation Centers and Proposing Solutions for their Support and Recognition

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Unsung Heroes in Conservation: Evaluating the Limitations Faced by New England Wildlife Rehabilitation Centers and Proposing Solutions for their Support and Recognition

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Honors Thesis

Spring 2024
Abstract

Wildlife rehabilitation is an often-unacknowledged practice within the overarching field of wildlife protection and conservation. This practice involves the treatment and hopeful release of wild animals affected by various ailments. With the continued expansion of and interest in the field, it could be assumed that wildlife rehabilitation is supported and funded by government bodies, but this is not the case. Because of the lack of funding and resources, many wildlife rehabilitation centers cannot achieve their full rehabilitative potential and expand their reach in the conservation world. Additionally, an absence of support leads critics to question the ethical standards of wildlife rehabilitation even though the practice is highly regulated and there is no evidence for direct negative consequences on wildlife wellbeing due to wildlife rehabilitation (Cope et al. 2022). This study evaluates the primary limitations facing wildlife rehabilitation centers in New England through quantitative and qualitative data analysis from both a survey and interviews. The results of this study highlighted that funding and resources were the primary limitations that the participating organizations were dealing with, and that staff and access to veterinarians are other potential sources of struggle that can be mitigated with provision of funding and resource aid. These limitations affected many areas of the organizations and reduced the ability for extended programs. From these findings, solutions were proposed to increase access to funding and resources for wildlife rehabilitation centers that included strategies at a smaller scale like self-advocacy and use of third-party organizations and at a larger, more important scale like a direct stream of funding for wildlife rehabilitation under state/federal governments. Implementing one or more of these solutions in the near future could allow wildlife rehabilitation centers to efficiently perform their role in conserving native wildlife.
Introduction

When thinking about biological fields of work pertaining to wildlife conservation and welfare, wildlife rehabilitation rarely comes to mind for most of the general public. Wildlife rehabilitation is the practice of treating and releasing wild animals with various kinds of physical or conditional ailments such as injury, being orphaned, or being displaced with the end goal of bringing them back to their habitat (Hanson et al. 2021). Although wildlife rehabilitation is commonly practiced in the United States and around the world, most of the work goes unnoticed and is on a small scale. However, wildlife rehabilitators are qualified individuals capable of effectively evaluating and treating wild animals with many kinds of ailments and are often relied on by state fish and wildlife/fish and game departments with no public acknowledgement (Washington Department of Fish and Wildlife 2024).

Rehabilitators need to be state licensed with a permit to even perform their respective duties. For example, in Texas alone, prospective wildlife rehabilitators need to complete a training course offered by the IWRC (International Wildlife Rehabilitation Council) or NWRA (National Wildlife Rehabilitator’s Association) or similar (Texas Office of the Secretary of State 2024). They also need a letter of recommendation from a fellow licensed and permitted rehabilitator or a licensed veterinarian who has known the applicant for at least two years (Texas Office of the Secretary of State 2024). Finally, they need to score a 100% on the state wildlife rehabilitation examination in order to get the permit to possess and care for wild animals (Texas Office of the Secretary of State 2024). Rehabilitation facilities can be as small as a single rehabilitator’s home or as large as established centers with multiple staff members. These facilities follow federal regulation standards set for practiced activities and are required to renew
issued permits and certifications every few years to perform wildlife rehabilitation (Texas Office of the Secretary of State 2024). With these federal and state acceptances, the practice of wildlife rehabilitation has become broader and more accessible over time which has allowed the scale of work to increase dramatically.

The scale of wildlife rehabilitation, however, differs geographically based on varying factors like extent of urbanization, economic prosperity, human-induced habitat fragmentation and degradation, and more, which should be considered when thinking about these comparisons. Wildlife rehabilitators are known to treat thousands of animals a year, with numbers escalating to tens of thousands in states like New York in which one study found that there were 58,185 rehabilitation cases reported to the state between 2012-2014 (Hanson et al. 2021). In an Australian study, where wildlife is richer and more diverse, rehabilitation groups and volunteers rescued on average 104,024 animals between 2013-2017 (Haering et al. 2020). Whereas, in Chile, numbers of wildlife rehabilitated were not as high with only 3,418 cases identified between 2011-2015 amongst five wildlife rescue and rehabilitation centers (WRRC) (Romero et al. 2019).

Regarding admissions, native birds are typically the largest demographic of animals received at rehabilitation centers (Haering et al. 2020; Hanson et al. 2021; Romero et al. 2019). One study in the state of Catalonia, Spain that evaluated the morbidity and outcomes of wildlife rehabilitation in the WRCs of Torreferrussa concluded that birds accounted for 89% of admissions (Molina-López et al. 2017). Rehabilitation centers also welcome small mammals, reptiles, and amphibians. However, many centers specialize in one or only a few groups of wildlife depending on their expertise and what is disclosed on their state permits (Texas Parks and Wildlife Department 2024). Admission causes mainly revolve around trauma and orphaned
or displaced juveniles, with most of these admissions having an anthropogenic cause or implication (Willette et al. 2023). Other reasons for patient admission include habitat loss, disease, poisoning, inappropriate human possession, and interactions with other wildlife (Hanson et al. 2021; Romero et al. 2019). Wildlife rehabilitation centers and licensed rehabilitators perform the tasks of diagnoses, treatment, veterinary care, and rehabilitative care for most of the wild animals that they receive. Rehabilitation does not always result in release, although that is the primary goal. Some traumas are too severe to treat, and many injured wildlife get euthanized which licensed rehabilitators have the authority to carry out. Other final dispositions for wildlife that cannot be released have been to remain under the care of the rehabilitator or be sent to a facility to engage in educational programs (Hanson et al. 2021).

Substantial equipment and resources are needed to facilitate the level of work done in wildlife rehabilitation centers. Some of the primary things needed are food to feed healing patients, medication, veterinary services like x-rays and surgeries, medical supplies like gloves and syringes, and enclosures or cages to hold patients during the treatment process (South Bay Wildlife Rehab 2024). In smaller centers, blankets, towels, bowls, and other simple materials are used regularly. Larger facilities could have different departments of care or treatment that need to be stocked with supplies as well. Occasionally wildlife rehabilitators pick up and transport wildlife patients from different areas which means a vehicle and cost of transportation are also included in requirements. Different groups of animals require distinct types of supplies and amounts of food, and this depends on the individual treatment plan. Young, orphaned birds for example need to be fed several times an hour to several times a day, require controlled temperatures, natural materials to construct nests and a temporary habitat as similar to the wild as possible, and special handling materials to prevent imprinting (WildAgain Wildlife
Rehabilitation 2001). Clinical conditions and husbandry protocols for rehabilitation vary among groups as well, all of which impacts the overall cost and time investment (Molina-López et al. 2017).

Apart from direct rehabilitation services, some larger centers perform educational programs, have their own ambassador animals to take care of, work with other facilities or wildlife agencies, and expand their organization via construction of enclosures and interactive education areas which can all contribute to the resources and funding needed for the rehabilitation center (Washington Department of Fish and Wildlife 2024). As the center becomes larger and more established, another valuable resource needed is people and connections. Work done within wildlife rehabilitation centers expands from just rehabilitation itself to training, record keeping, fundraising, community engagement, and educational programs which requires more than just a few individuals to complete (Englefield et al. 2019). Furthermore, time is a major resource for wildlife rehabilitation to succeed. With the distribution of work amongst staff, some individual rehabilitators and volunteers still spend more time than full-time employment on rehabilitation duties. An Australian study depicts these wildlife “carers” as devoting more than 33 working hours and sometimes up to 100 working hours a week caring for animals (Englefield et al. 2019). Wildlife rehabilitation overall requires time, attention, resources, supplies, and people to fulfill the care and treatment of wild animals efficiently and successfully. However, many organizations lack in these areas which can impact the level and quality of care they can provide.

There is much debate on the ethical considerations of wildlife rehabilitation and whether the practice does more harm to natural wildlife communities than good. Some believe that the rehabilitation of wildlife puts them under unnecessary stress and trauma through the unsolicited
interactions with humans, poor animal welfare practices, and risk of being exposed to disease (Hanson et al. 2021; Willette et al. 2023). These factors can increase stress in wildlife which can potentially impact their physical health and wellbeing and their ability to cope in their natural habitat (Willette et al. 2023). However, many steps are taken to ensure the safety of the wild animal and the rehabilitator/volunteer. Many centers employ a minimal contact policy to prevent imprinting and distress. Organizations like the National Wildlife Rehabilitator’s Association and the International Wildlife Rehabilitation Council oversee and standardize the regulatory policies of proper care for wildlife that are required for the certification and establishment of rehabilitators and their centers. Furthermore, risks of disease exposure are limited through state regulatory policy as they require rehabilitated wildlife to be kept separate from domestic or exotic wildlife (Washington Department of Fish and Wildlife 2024). Some state governments additionally require notification of mortality from certain viral diseases like avian cholera and rabies to prevent any spread (Washington Department of Fish and Wildlife 2024).

Other critics attribute rehabilitation related mortalities to human influence of the rehabilitator. While malpractice can occur in rehabilitation facilities, most wildlife deaths stem from the condition that they entered the facility with. Trauma (both anthropogenic and non-anthropogenic) is most often the cause for admission in wildlife rehabilitation centers and some injuries are too severe for rehabilitation to succeed so mortality either occurs naturally in care or is induced via euthanasia (Romero et al. 2019; Hanson et al. 2021; Willette et al. 2023). There are no studies indicating an increase in wildlife mortalities due to direct human rehabilitation opposed to what would occur naturally in the wild. Most survival of rehabilitated wildlife depends on factors that are species-specific like body weight, age, trophic level, social behavior, and activity period according to one study that did a systematic review of wildlife survival.
during rehabilitation and release (Cope et al. 2022). Any rehabilitation associated impacts on survival have to do with habituation to humans and their release environment including timing, quality of habitat, and presence of predators, which shorter periods of rehabilitation and proper, evidence-based protocols can fix (Cope et al. 2022). Wildlife rehabilitation is labelled “a tool for conservation” and can help preserve biodiversity despite some of the potential risks (Romero et al. 2019; Willette et al. 2023). In order to ensure the benefits of wildlife rehabilitation continue to outweigh the risks, steps should be taken soon to provide the necessary resources for wildlife rehabilitation centers in the U.S. and worldwide.

Funding and resources are important limitations for wildlife rehabilitation centers as this field of work is entirely non-profit and volunteer based. The Texas Parks and Wildlife Department directly state on their website that no funding is available from the state for rehabilitation expenses and emphasize to readers “Remember, wildlife rehabilitators are volunteers” (2024). Particularly in the U.S., wildlife rehabilitation is entirely supported by donations and the pockets of rehabilitators and their staff themselves. This causes many aspects of rehabilitation to be put at risk which leads to the common criticism mentioned above. Although standards of care are normalized and regulated, a lack of physical and/or financial resources prevents centers from establishing the best practices for their patients (Willette et al. 2023). Veterinarians are crucial for the diagnosis, surgical care, and safest euthanasia methods of wild animals that come in and a lack of veterinary involvement has partly to do with inability to financially compensate them for their work or required materials (WildAgain Wildlife Rehabilitation 2001). Moreover, extended capabilities of wildlife rehabilitation centers are limited without access to reliable funding and resources. Centers are unable to develop evidence-based rehabilitation methods and welfare measures that could further benefit the treatment of
wildlife and are unable to increase public education programs and outreach that prevent anthropogenic impacts on wildlife in the first place (Willette et al. 2023). In other countries mentioned like Australia and Chile, an increase in funding and resources is also desired based on incentive to keep long-term staff, raising the standards of wildlife care and attention, and ensuring the persistence of wildlife rehabilitation as a valuable service to the community and the environment (Haering et al. 2020; Romero et al. 2019; Englefield et al. 2019). However, in the studies mentioned, wildlife rehabilitation and representative centers are only reviewed to evaluate patterns of species, admission, welfare, and outcomes. Conclusions about funding and resources are only made to explain the statistics. There has yet to be an in-depth study or general interest directly surrounding the limitations facing wildlife rehabilitation and what can be done to combat those limitations.

The field and scope of wildlife rehabilitation continues to expand throughout the country and world but there are little to no identifiable sources of financial and resource support for these organizations. According to the Wildlife Rehabilitator Recruiting Project, government agencies do not contribute to any aspects of wildlife rehabilitation and rehabilitators are almost always volunteers that use their own finances or community donations to support their work (WildAgain Wildlife Rehabilitation 2001). Furthermore, a direct source of revenue allocated to wildlife rehabilitation does not yet exist at the federal or state level in most states in the U.S. (Willette et al. 2023).

This study evaluates the limitations faced by New England wildlife rehabilitation centers and discerns the primary limitations preventing these organizations from efficiently fulfilling their mission. Specifically, this study aims to answer the questions of how drastic these
limitations are, how it may impact rehabilitation success, and subsequently what potential solutions can help mitigate some of these problems at multiple scales.

Methods

Sampling

This study relied on data from credible wildlife rehabilitation centers in the New England area of the United States. Many of the centers were listed under the respective state’s fish and game/fish and wildlife department website but some of the centers were found online individually per their website. All centers, however, are state licensed and certified. The wildlife rehabilitation centers included in this study are both larger, well-established facilities and small, home-based facilities which allowed for a holistic view of what issues these organizations may be facing and at what scales. The individual organizations selected for this study were determined by which centers responded to the data collection modalities in a timely manner.

Data Collection

Data for this study was collected with both a Qualtrics survey, post-survey interview, and supplemental material from one of the organizations that participated. Survey questions were created based off the preliminary literature review conducted which highlighted some of the potential limitations of wildlife rehabilitation in the country and in other nations that impact their success and release rates. Additionally, the survey included basic demographic questions to give some background context about the wildlife rehabilitation centers. There were in total 22 questions comprised of four sections in the survey: 5 questions asking basic information about the centers, 5 questions about funding and resources, 7 questions about staff, and 5 yes/no questions tying the concepts together. For the context of this study, “staff” was viewed as both
paid and unpaid employees working in the center (i.e., both paid employees and volunteers/interns). Survey questions were formulated as a mix of write-in responses, ranking, multiple choice, and slider interactive responses. The organizations that responded were then asked at the end of the survey if they would be willing to participate in a follow-up interview conducted via phone or zoom. The post-survey interviews were catered to each organization’s survey responses and were conducted with the goal of gaining further information that would illuminate the needs of the participating wildlife rehabilitation centers and let the center representatives express what they believe would be the best solutions to support these needs.

**Survey Analysis**

Survey responses were collected and transferred to Excel for data analysis. The demographic questions related to number of wildlife rehabilitated, released, and not released were reported as both year-to-date whole calculations and most-recent-year calculations, and this distinction was conserved in order to compare workload between the organizations. Also, rehabilitation numbers may differ drastically from year to year within organizations simply based on how many animals are brought into the center for that year. Some organizations did not respond to certain questions in the survey. All the survey responses collected were then compiled together for comparisons and to draw patterns.

**Post-survey Interview Analysis**

Verbal responses from the interviews were recorded as transcript notes with qualitative data. The data was organized by the categories of the survey including funding, resources, staff, and then a separate category was made for solutions. The data was filtered to extract major themes and patterns from the interviews, matched with the survey, and were arranged to fit under the study’s research question and sub-questions. Lastly, differences between the wildlife
rehabilitation centers representative’s responses were highlighted to broaden perspective on what the centers want, need, and believe would be most beneficial for their success.

**Formal Data Analysis**

This study collected both quantitative and qualitative data. The quantitative survey data included both raw numbers given by the organizations, percentage data given by the organizations, and percentage or ratio data calculated with qualitative responses. The statement yes/no questions in the survey were analyzed in percentages of organizations that gave each response. Survey ranking questions were analyzed in percentage of organizations that selected the choices in the ranking. Percentages given for budget, resources, and staff questions were displayed using bar graphs. A 95% confidence interval (CI) was calculated for the raw data given for number of wildlife rehabilitated for each organization that participated. Qualitative data was comprised of primarily interview responses and conclusions. The methodology of qualitative data analysis used was thematic content analysis which analyses data transcripts from interviews by identifying themes and organizing responses within those themes to answer the research questions (Burnard et al. 2008). This method helped the main themes of the data collected to emerge and provided a structured way to display the qualitative data in the results and discussion of this paper. Lastly, demographics of the wildlife rehabilitation organizations that participated were organized into a table to showcase key basics that build context for this study.
Results

Participant Demographics

Six wildlife rehabilitation centers responded to the survey representing four New England states including Massachusetts, New Hampshire, Rhode Island, and Maine. Millstone Wildlife Center and Wings of the Dawn were smaller centers based in NH, Saco River Wildlife Center and Center for Wildlife were a smaller and more established facility respectively in ME, Cape Wildlife Center was a branch of the established parent organization New England Wildlife Centers in MA, and the Wildlife Clinic of Rhode Island was a large, established center in RI. Table 1 lists key characteristics about each organization that participated in this study.
Table 1. Characteristics of all six wildlife rehabilitation centers that participated in this study.

<table>
<thead>
<tr>
<th>Organization Name</th>
<th>Date est.</th>
<th>Location</th>
<th>Business</th>
<th>Specialization</th>
<th>Mission (summarized)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Wildlife Center/New England Wildlife Centers</td>
<td>1983</td>
<td>South Weymouth/Barnstable, Massachusetts</td>
<td>501 (c)(3) non-profit</td>
<td>small-medium mammals, birds, reptiles</td>
<td>&quot;to give animals and people a place to thrive&quot;</td>
</tr>
<tr>
<td>Center for Wildlife</td>
<td>1986</td>
<td>Cape Nedick, Maine</td>
<td>501 (c)(3) non-profit</td>
<td>birds, reptiles, amphibians, and select native mammals</td>
<td>&quot;cultivate and strengthen relationship between humans, wildlife, and the environment&quot;</td>
</tr>
<tr>
<td>Millstone Wildlife Center</td>
<td>2015</td>
<td>Windham, New Hampshire</td>
<td>501 (c)(3) non-profit</td>
<td>small mammals</td>
<td>&quot;provide rehabilitation services, educate the public on coexisting with animals, and facilitate outreach programs&quot;</td>
</tr>
<tr>
<td>Saco River Wildlife Center</td>
<td>2015</td>
<td>Limington, Maine</td>
<td>501 (c)(3) non-profit</td>
<td>native mammals</td>
<td>&quot;provide rehabilitative care, promote compassion and awareness through education and programs&quot;</td>
</tr>
<tr>
<td>Wildlife Clinic of Rhode Island</td>
<td>1993</td>
<td>Saugus, Rhode Island</td>
<td>501 (c)(3) non-profit</td>
<td>all native wildlife</td>
<td>&quot;foster an understanding and respect for wildlife and provide quality care for wildlife&quot;</td>
</tr>
<tr>
<td>Wings of the Dawn</td>
<td>2017</td>
<td>Henniker, New Hampshire</td>
<td>501 (c)(3) non-profit</td>
<td>birds and small mammals</td>
<td>&quot;provide professional and humane care in all phases of wildlife rehabilitation and release the animal back into the wild&quot;</td>
</tr>
</tbody>
</table>

Two organizations gave their total number of wildlife rehabilitated since establishment with Wings of the Dawn reporting 2,000 total wildlife rehabilitated and Saco River Wildlife Center reporting 3,266 total wildlife rehabilitated. The other four organizations gave either the most recent full year total or yearly estimates of wildlife rehabilitated. The Wildlife Clinic of Rhode Island and the Center for Wildlife in Maine reported in 2022 4,567 and 2,300 wildlife rehabilitated respectively. Millstone Wildlife Center reported a year-to-date total, from the
beginning of 2023 to November 2023 when this study was conducted, of 5,117 wildlife rehabilitated. Finally, Cape Wildlife Center reported a yearly estimate of about 5,000 wildlife rehabilitated. On average, a wildlife rehabilitation center in New England regardless of size rehabilitates around 3,700 animals (95% CI: 2,702.1 to 4,714.5, n = 6).

In terms of release rates, wildlife was released if they were rehabilitated to successfully survive in the wild. Wildlife not released were either rehabilitated and could not successfully survive in the wild so they in turn became center ambassadors or were not able to be rehabilitated and euthanized. Release rates varied amongst the six organizations and were reported with specific numbers of wildlife released and not released for the total given above but calculated as percentages. The Wildlife Clinic of Rhode Island had a release rate of 31%, Wings of the Dawn had a release rate of 65%, Saco River Wildlife Center also had a release rate of 31%, Cape Wildlife Center had a release rate of 40%, and Center for Wildlife had the highest release rate of 87% of animals sent back to the wild. Millstone Wildlife Center did not report numbers of wildlife released and not released. The organizations were asked for the top three common reasons for admission to get an idea of the kind of rehabilitation required for the animals coming into the center and the potential workload associated. The options given were orphaned (youth separated or abandoned by parents), illegal captivity/misplacement by humans, trauma (anthropogenic = caused by humans), trauma (natural), interactions with other animals (injuries caused by another individual), metabolic or infectious disease/disorder, poisoning, and displacement/habitat loss. These causes for admission were the most common in previous literature, specifically looking at wildlife rehabilitation statistics in New York, so they were selected for this study (Hanson et al. 2021). The top choices for common reasons of admission were orphaned and physical trauma with 3 of 6 organizations choosing orphaned and the other
three choosing one kind of trauma. The most common second choice for admission was interactions with other animals and the rest of the selections were more variable (Table 2).

Table 2. Top three common reasons for admission selected by each organization. Anthropogenic trauma is abbreviated to "Anth. trauma" and naturally occurring trauma is abbreviated to "Nat. trauma".

<table>
<thead>
<tr>
<th>Organization Name</th>
<th>First Choice</th>
<th>Second Choice</th>
<th>Third Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Wildlife Center/New England Wildlife Centers</td>
<td>Orphaned</td>
<td>Interactions with other animals</td>
<td>Poisoning</td>
</tr>
<tr>
<td>Center for Wildlife</td>
<td>Nat. Trauma</td>
<td>Anth. Trauma</td>
<td>Displacement/Habitat loss</td>
</tr>
<tr>
<td>Millstone Wildlife Center</td>
<td>Orphaned</td>
<td>Interactions with other animals</td>
<td>Anth. Trauma</td>
</tr>
<tr>
<td>Saco River Wildlife Center</td>
<td>Anth. Trauma</td>
<td>Orphaned</td>
<td>Nat. Trauma</td>
</tr>
<tr>
<td>Wildlife Clinic of Rhode Island</td>
<td>Anth. Trauma</td>
<td>Displacement/Habitat loss</td>
<td>Orphaned</td>
</tr>
<tr>
<td>Wings of the Dawn</td>
<td>Orphaned</td>
<td>Interactions with other animals</td>
<td>Anth. Trauma</td>
</tr>
</tbody>
</table>

**Funding and Resource Questions**

When asked how each organization primarily obtains their funding, the choices given were donations, personal/internal budget, grants, and private regular donors. 4/6 organizations said that donations are their primary source of funding and the remaining 2 said that grants are their primary source of funding. When asked specifically how much of the internal budget is comprised of donations, the same 4/6 organizations had percentages well over 50% while the same 2/6 that get most funding from grants had percentages less than 50% (Figure 1). In terms of fundraising, only the Wildlife Clinic of Rhode Island spent a good portion of the budget on fundraising efforts with 40% while the rest of the organizations spent only small portions of the budget on fundraising efforts (Figure 2). Time spent fundraising or working on fundraising efforts in hours per week was similarly low with most organizations devoting less than 20 hours per week and a couple of organizations, Cape Wildlife Center and Center for Wildlife, devoting 40 hours per week in the form of designated staff with fundraising as their job at the center. The participating organizations were then asked how much of resources/supplies are bought themselves or donated. Responses were distributed with some organizations having more
donated than bought and others having more bought internally than donated. Nonetheless, however, 4/6 organizations had a higher percentage of resources/supplies bought with internal budget than donated to them (Figure 3).

Figure 1. The percentage of the internal budget for each organization comprised of donations.

Figure 2. The percentage of the internal budget for each organization that is spent on fundraising efforts.
Finally, the participating organizations were asked to rank what they identify as the top three needs for the organization to fulfill its goals and mission. The options given were staff/access to veterinarians, public education (specifically educating the public of human impacts on wildlife), resources/supplies, funding, and advocacy/support (specifically ensuring the public is knowledgeable on the work of the organization). 4/6 wildlife rehabilitation centers selected funding as the primary need for the organization while one organization selected staff/access to veterinarians as the primary need and the last chose resources/supplies (Table 3). Looking at the top 3 choices collectively, all six organizations selected funding somewhere in their top three and 5/6 organizations selected resources/supplies somewhere in their top three (Figure 4). Half of the organizations selected advocacy/support in their top three needs, but it was exclusively in the last place (Table 3). Public education was selected only by 2 organizations in the second and third spot of the top three (Table 3).

![Percentage of Resources/Supplies Donated vs Bought](image)

Figure 3. The percentage of resources/supplies bought with the internal budget vs. donated for each organization.
Figure 4. Frequency of all options of needs selected by each organization somewhere in their top three ranking.

Table 3. Top three needs of each organization for optimal success.

<table>
<thead>
<tr>
<th>Organization</th>
<th>1st Choice</th>
<th>2nd Choice</th>
<th>3rd Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wildlife Clinic of Rhode Island</td>
<td>Funding</td>
<td>Resources</td>
<td>Advocacy/Support</td>
</tr>
<tr>
<td>Millstone Wildlife Center</td>
<td>Resources</td>
<td>Funding</td>
<td>Staff/Access to vets</td>
</tr>
<tr>
<td>Wings of the Dawn</td>
<td>Staff/Access to vets</td>
<td>Funding</td>
<td>Advocacy/support</td>
</tr>
<tr>
<td>Saco River Wildlife Center</td>
<td>Funding</td>
<td>Resources</td>
<td>Advocacy/support</td>
</tr>
<tr>
<td>Cape Wildlife Center/New England Wildlife Centers</td>
<td>Funding</td>
<td>Resources</td>
<td>Public Education</td>
</tr>
<tr>
<td>Center for Wildlife</td>
<td>Funding</td>
<td>Public education</td>
<td>Resources</td>
</tr>
</tbody>
</table>

**Staffing Questions**

The Wildlife Clinic of RI, Millstone Wildlife Center, Wings of the Dawn, and Center for Wildlife all responded that they had one veterinarian on staff. Cape Wildlife Center had 2 or more veterinarians on staff and Saco River Wildlife Center had no veterinarians on staff. Of the five organizations with a vet on staff, only two organizations indicated that they are paid employees working for the center while the other 3 volunteer their time to the organization when
able. Moreover, of the five organizations with a vet on staff, 3/5 said the veterinarian meets the organization's needs while the other two said that the veterinarian does not. These attributes are displayed in Table 4 for a succinct representation.

Table 4. Veterinarian characteristics of each organization based on survey questions.

<table>
<thead>
<tr>
<th>Organization Name</th>
<th>Number of Vets on Staff</th>
<th>Paid vs Volunteer</th>
<th>Meet needs?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Wildlife Center/New England Wildlife Centers</td>
<td>2+</td>
<td>paid</td>
<td>yes</td>
</tr>
<tr>
<td>Center for Wildlife</td>
<td>1</td>
<td>volunteer</td>
<td>yes</td>
</tr>
<tr>
<td>Millstone Wildlife Center</td>
<td>1</td>
<td>volunteer</td>
<td>no</td>
</tr>
<tr>
<td>Saco River Wildlife Center</td>
<td>0</td>
<td>n/a</td>
<td>no (none)</td>
</tr>
<tr>
<td>Wildlife Clinic of Rhode Island</td>
<td>1</td>
<td>paid</td>
<td>yes</td>
</tr>
<tr>
<td>Wings of the Dawn</td>
<td>1</td>
<td>volunteer</td>
<td>no</td>
</tr>
</tbody>
</table>

Regarding the general makeup of staff, there was an even distribution between the organizations having either more paid staff than unpaid staff or more unpaid staff than paid staff. Cape Wildlife Center, Saco River Wildlife Center, and the Center for Wildlife all had a higher percentage of paid staff compared to unpaid volunteers while Wings of the Dawn, Millstone Wildlife Center, and the Wildlife Clinic of Rhode Island had a higher percentage of unpaid volunteers (Figure 5). Wings of the Dawn and Millstone Wildlife Center specifically had a 100% volunteer staff (Figure 5). When asked if the entirety of staff is enough to meet the needs of the organization, 4/6 centers responded yes while the other two responded no. As a final consensus of staff, all six organizations indicated that all their staff is qualified to do their respective work at the center.
Figure 5. The percentage of staff paid vs. unpaid for each organization.

**Statement Questions**

The responding organizations received 5 statement “yes” or “no” questions on the survey about how available funding and resources impacts them as a whole. Figures 6a through 6e show the proportion of responses for each question:

Figure 6a. The percentage of respondents answering "yes" or "no" to Question 1.
Figure 6b. The percentage of respondents answering "yes" or "no" on Question 2.

Figure 6c. The percentage of respondents answering "yes" or "no" on Question 3.

Figure 6d. The percentage of respondents answering "yes" or "no" on Question 4.
Interview Findings

Three of the six organizations followed up the survey with a phone or Zoom interview session, specifically Millstone Wildlife Center, Wings of the Dawn, and Cape Wildlife Center. Center for Wildlife preferred an in-person interview at the facility. Each interview was about an hour long. When elaborating on common reasons for admission, Millstone Wildlife Center and Wings of the Dawn both explained that receiving orphaned individuals still takes time, money, and resources to care for. Although it is not as intense as repairing wounds and treating trauma incidents, young, orphaned wildlife need “constant feeding and attention” which results in typically a longer period of time spent at the rehabilitation center (M. Colby, personal communication, December 6, 2023). Also, caring for ambassador animals takes abundant funding and resources (J. Bower, personal communication, December 8, 2023).

The organization's representatives were asked to explain their reasoning for selecting their top three needs. Those who chose funding as the top need elaborated that money supports every other aspect of the organization and provides the means to get resources, staff, supplies, and allows capacity for fundraising. Specifically, Dr. Priya Patel of Cape Wildlife Center

Figure 6e. The percentage of respondents answering "yes" or "no" on Question 5.
explained that “no funding means no staff,” and having no people limits the expansion of the organization and their ability to support all aspects of wildlife rehabilitation (personal communication, December 12, 2023). Others indicated that resources and staff are the foundation of wildlife rehabilitation, as not having the critical materials and people to effectively and safely perform rehabilitation inhibits the organization from succeeding. In terms of fundraising, Millstone Wildlife Center and Center for Wildlife both agreed that fundraising is important for the success of the organization as it increases outreach to the public and access to donations/donors that help support the facility. However, Frannie Greenberg at Millstone explained that more funding would not necessarily allow more fundraising ability, but more staff is required to do the administrative work needed to organize fundraising events and programs (personal communication, December 7, 2023). In contrast, some argued that initial funding is crucial for facilitating and expanding fundraising events and programs (J. Bower, personal communication, December 8, 2023).

All four organizations agreed that paying staff, especially veterinarians, is ideal to get a reliable set of people for the facility to succeed although some emphasized that primarily there needs to be dedication and commitment to do the work that money would not provide (F. Greenberg, M. Colby, personal communications, December 6 and 7, 2023). Specifically, regarding veterinarians, they have a primary job that takes most of their time and energy and helping wildlife rehabilitation is almost always second priority. The Center for Wildlife indicated that if the budget allowed it, they would secure a paid vet on staff that could dedicate their full time to the organization (J. Bower, personal communication, December 8, 2023). This would need to be a sufficient budget, though, to accommodate for a veterinary salary. Additionally, access to veterinarians is desired as well since other clinics and facilities take priority which
leaves wildlife rehabilitation centers out of the network of connections (M. Colby, personal communication, December 6, 2023).

As seen in the survey results, one organization, Millstone Wildlife Center, has accessed federal/state funding options. The center representative was asked in the interview what options they have accessed, and they responded with the organization CFC, Combined Federal Campaign. This organization overseen by the U.S. Office of Personnel Management matches retired individuals or federal businesses with local charities or non-profit organizations seeking donations (Combined Federal Campaign 2024). Millstone has been able to connect with individual donors with this organization in the past. Besides that, the only funding options that the participants were aware of were grants obtained through state agencies or third-party organizations, but these grants were never accessed. Some organizations relayed the perspective that often time grant options are not taken because the guidelines to access those government funds do not align with the values of wildlife rehabilitation (J. Bower, personal communication, December 8, 2023).

Moreover, the participants were asked at the end of the interview what solutions they think can be proposed to support wildlife rehabilitation organizations. All four organizations said that government funding through federal or state programs would be helpful to succeed in their work and continue to help native animal populations. They all also agreed that the public can help with the needs of wildlife rehabilitation by donating money, time, talents/skills, and providing awareness and advocacy whenever needed. People can act as the community support that the wildlife need by educating themselves on how to interact with animals and raising the profile of wildlife rehabilitation centers as a resource and service to the environment (J. Bower, personal communication, December 8, 2023). Volunteering is just as important as well and many
people can help out the organization by giving their skills of admin work, social media advertising, outreach, etc. to them for free, which is the core philosophy of the organization SCORE (Service Core of Retired Executives) that Wings of the Dawn has accessed and utilized to their benefit (M. Colby, personal communication, December 6, 2023). Although it was indicated that government funding would be helpful these non-profit wildlife rehabilitation centers, all four organizations interviewed said that it would only be beneficial if there are parameters set for them and that appropriate criteria are described for getting funds. There’s always the chance for funds to come with strings attached as explained by Frannie Greenberg, but Dr. Priya Patel highlighted that diversifying sources of funding is the most effective strategy for organizations like these to have a “safety cushion” to always rely on in case of situations of ill intent or questionable deals (personal communications, December 7 and 12, 2023).

Discussion

Survey Patterns

The source of funding for the organizations that participated in this study can provide explanations for the other budgetary findings. The organizations that get grants for their primary source of funding, the Wildlife Clinic of Rhode Island and Cape Wildlife Center, also had high percentages of supplies bought rather than donated since they have a consistent flow of funding to purchase their own materials for the organization (Fig. 3). However, the same two organizations with grants as the primary source of funding were not similar in budget spent on fundraising. The Wildlife Clinic of Rhode Island spent the highest amount on fundraising, 40%, while Cape Wildlife Center was on the lower end of budget spent on fundraising with only 10% (Fig. 2). A means of reliable funding enables the Wildlife Clinic of RI to spend more on
fundraising programs and although Cape Wildlife Center has similar means, fundraising is not a big priority monetarily to the organization. This could be due to other programs or aspects of the organization needing more monetary support and resources, like educational programs that the Cape Wildlife Center provides to the community. Many wildlife rehabilitation centers perform a wide variety of functions besides wildlife rehabilitation as a service to the state and public sphere such as public education, outreach about native wildlife, disease monitoring, and conservation research that would need financial support to carry out (Hanson et al. 2021). The Center for Wildlife had the second highest percent of budget spent on fundraising at 25% even though they are primarily funded by donations from the public, which shows that allocation of funds highly depends on the organization’s scope and prioritization of work. Additionally, more than half of the organizations relayed the fact that most of the resources and supplies needed are bought with the internal budget. Although two of the organizations that said this had grant funding, the others relied on donations for funding. Purchasing resources/supplies out of pocket using donation funds is risky for organizations since funding from donations is unpredictable (WildAgain Wildlife Rehabilitation 2001). Many simple supplies used for wildlife rehabilitation can be donated by the public to prevent the organization from spending limited funds reserved for crucial necessities like veterinary care, equipment, and animal enclosures.

Based on the demographics and identified needs of the organizations, a need for funding and resources is not necessarily based on the number of wildlife rehabilitated or the number of wildlife the organization typically gets every year. Both Millstone Wildlife Center and Cape Wildlife Center had around 5000 wildlife rehabilitated in the most recent year and differ greatly in financial stability and scale of the organization, but selected funding and resources as their top two needs for the organization. This demonstrates that the number of wildlife rehabilitated by the
center does not determine the access to funding and resources. The Wildlife Clinic of RI rehabilitated around 1000 less wildlife than the two organizations mentioned above but they have a consistent source of funding to support their organization. If the quantitative scale of wildlife rehabilitated was important for allocating funding and resources, then all three of these organizations should have equal or similar financial stability and resource access. However, even with the inequality established among rehabilitation centers, most of them still need funding and resources to support their work. In a survey of people volunteering in the wildlife rehab/rescue sector in New South Wales, Australia of various experiences, ages, and licensed group affiliations, most respondents collectively said that a greater allocation of funding, better strategic tools and systems, and the access to animal release sites are key issues that are faced (Haering et al. 2020). Regardless of demographics and status, most rehabilitation centers and groups are limited by the same funding and resource constraints. This is also solidified with the survey results of 4/6 organizations agreeing that the organization’s ability to efficiently rehabilitate wildlife is impacted by available funding and half of the organizations saying they are impacted by available resources (Figs. 6a and 6b).

The information on staffing given in the survey indicates that staff are not the primary limitation for wildlife rehabilitation centers. Most of the organizations, 4/6, said they have enough staff for their needs and all the staff are qualified to do their work. The two organizations that responded that staff does not meet their needs were Wings of the Dawn and Saco River Wildlife Center but only Wings of the Dawn selected staff/access to veterinarians as their top need (Table 3). Saco River Wildlife Center also has 95% of staff that are paid so this allows for a secure, reliable set of people willing to support the organization and there is not a dire need for additional staff. Englefield et al. demonstrated that volunteer wildlife carers feel
underappreciated and unsupported emphasizing a need for financial support rather than more staff to minimize internal threats to the Australian wildlife rescue sector (2019). In order to pay staff, additional funding is needed for the organization which could be a reason Saco River Wildlife Center highlighted that as the primary need rather than staff/access to veterinarians. There was an equal distribution of organizations having mostly paid and unpaid staff (Fig 5). However, two of the organizations with the highest number of wildlife rehabilitated, Millstone Wildlife Center and the Wildlife Clinic of Rhode Island, had mostly unpaid staff depicting that a reliable set of people doing a large amount of rehabilitative work can be maintained without the promise of a salary. Willingness to participate in the wildlife rehabilitation sector is crucial for having dependable staff and that does not seem to be a problem for wildlife rehabilitation centers. In the study done by Haering et al., despite the negative influences and lack of help, 80% of the volunteer wildlife rehabilitators in New South Wales, Australia were “very” to “extremely” likely to be in the field in the future (2020).

Only one organization, Saco River Wildlife Center, did not have a veterinarian on staff but selected funding as their top need and did not put staff/access to veterinarians anywhere in their top 3 selections. Although there was a split between the veterinarian on staff meeting and not meeting the needs for the organizations, access to veterinarians was not a common choice selected for primary needs, only appearing twice in the top 3 of all six organizations (Table 3). However, veterinarians are a valuable resource for wildlife rehabilitation centers for several purposes and they all should have access to at least one. Having a veterinarian on staff allows rehabilitation facilities to have better outcomes for successfully releasing wildlife and it would be beneficial for there to be training and support mechanisms to facilitate collaboration and bridge efforts amongst the two fields (Cerda and Webb 2023). Furthermore, being able to pay a
veterinarian to have a strong, stable relationship with the veterinarian to ensure a consistent provision of care and appropriate protocols for the wildlife at the center. To the New England organizations participating in this study, funding and resources are the dominant limitations faced while staff and access to veterinarians are additional sources of struggle but are not the primary needs. An increased access to funding and resources would provide the materials needed to overcome all other limitations presented in the survey results and would provide a stability for the wildlife rehabilitation center to focus on the goals at hand, which are rehabilitation and release.

Further Interview Conclusions

In general, access to veterinarians was a highlighted limitation, but wildlife rehabilitation centers can function without one directly on staff. Wildlife rehabilitators can perform most necessary veterinary functions for several types of wildlife coming in if trained, which is the status of Frannie Greenberg at Millstone Wildlife Center who identifies themself as knowledgeable and trained. More rehabilitators can potentially engage in training and certification of veterinary skills since veterinary involvement would improve wildlife welfare (Willette et al. 2023). Additionally, rehabilitators can bring affected wildlife to other wildlife or veterinary clinics in the area that are willing to help, minimizing the need for a veterinarian on staff.

Staff are important for the function and success of the wildlife rehabilitation center. Although they are not always paid, the Center for Wildlife emphasized that volunteer staff have their own role to the organization and an increase in funding would not necessarily mean paying more staff (J. Bower, personal communication, December 8, 2023). Volunteers are useful for wildlife rehabilitation to have increased help performing services without the worry of allocating
funding crucial for rehabilitative resources towards salaries. This tends to work out for volunteer wildlife “carers” as they are motivated to work in the field not for money, but through feelings of moral responsibility to preserving biodiversity, appreciation of nature, and a concern of animal welfare (Tribe and Brown 2000). Many rehabilitation centers actively seek out volunteers and find it especially important for future expansion of the organization to “find” and “keep” new volunteers (Haering et al. 2020).

There were several reasons stated as to why receiving state or federal funding would benefit wildlife rehabilitation centers besides improving rehabilitation itself and providing center resources. The first was specified by Wings of the Dawn with the fact that wildlife rehabilitation centers could provide a service to fish and wildlife/fish and game departments in return for funding by handling and solving cases of anthropogenic impacts and disturbance on wildlife (M. Colby, personal communication, December 6, 2023). In instances of vehicle incidents, oil spillage, etc., rehabilitators and their respective team could aid in these situations by leading, formulating plans, educating the public, and doing rehabilitative work. In New South Wales, Australia, wildlife rehabilitation volunteers take around 180,000 calls yearly from the public regarding mainly wildlife rescues but also wildlife damage mitigation, unusual wildlife sightings, and general wildlife information (Haering et al. 2020). This is over twice as many that the governmental Office of Environment and Heritage (OEH) receives yearly, highlighting the invaluable economic and community service that the sector provides (Haering et al. 2020). Typically, hunting organizations, particularly for big game species, or other wildlife organizations are enlisted by the state to deal with anthropogenic disturbances to wildlife and subsequently get funded to do so (M. Colby, personal communication, December 6, 2023).
In addition, reliable state or federal funding for wildlife rehabilitation would prevent the excessive time, money, and energy needed to apply for grants that takes away from rehabilitative work. Receiving grants is difficult as the selection process is skewed towards organizations with certain services and goals, as well as having a higher scale of establishment (M. Colby, personal communication, December 6, 2023). Cape Wildlife Center and Center for Wildlife have specific staff for fundraising in terms of grant writers which is a privilege that they acknowledge, since rehabilitators and veterinary staff are not burdened with these administrative tasks (Dr. P. Patel, J. Bower, personal communication, December 8 and 12, 2023). Receiving state or federal funding for wildlife rehabilitation would also allow centers to expand educational programs and outreach to the public that would teach appropriate interaction and existence with wildlife. Cape Wildlife Center prioritizes education as much as rehabilitation and believe that wildlife patients can be used as a platform to educate the public on anthropogenic impacts on wildlife, something that state departments cannot do at a community level (Dr. P. Patel, personal communication, December 12, 2023). The type, condition, and number of wildlife rehabilitated at these centers can also serve as an early warning system for monitoring ecosystem health of native species in local areas and can make the public aware of risks to population decline (Romero et al. 2019).

Finally, state or federal funding options could help bridge the gap between centers, important organizations, and governmental bodies. The National Wildlife Rehabilitators Association and International Wildlife Rehabilitation Council provide important regulatory policies and standards to rehabilitators, membership access to get resources and attend conferences, and training and other programs to people looking to enter the field and get certified (International Wildlife Rehabilitation Council 2024). However, only one organization participating in the interview process mentioned these kinds of organizations and did so to
support the background literature of this study. State or federal funding could allow these larger organizations to connect with and support all wildlife rehabilitation centers regardless of size or scale. Wildlife rehabilitation organizations themselves could connect with each other to share resources and aid. Additional funding from the state or federal government could also increase the generation of rehabilitation data amongst the rehabilitator community that could be uploaded to different databases for research and conservation purposes. The continued accumulation of rehabilitation data can help address concerns with ecological health, public wildlife policy, treatment methods, resource allocation, and decision making within state or federal departments (Hanson et al. 2021). It could additionally contribute to expanding training and certification processes as well as continued research into the best standards of care for wildlife rehabilitation, which should be reviewed and updated regularly with recent evidence-based science (Willette et al. 2023).

**Potential Solutions for Access to Funding and Resources**

There are many solutions that can be implemented for increasing access to funding and resources suggested by the organizations participating in this study, from previous literature, and from separate research. A lot of options are on a larger governmental or organizational scale, but some are also on smaller scales that can be easily obtained by wildlife rehabilitation centers in New England and worldwide. Each solution will be broken down in the following paragraphs.

i. **State/federal government funding:** The most beneficial option for wildlife rehabilitation centers is a direct stream of funding from the state and/or federal government. Cape Wildlife Center is currently working towards establishing “earmark” funding under the Massachusetts government for wildlife rehabilitation, which is money allocated towards specific projects at the local
level (Dr. P. Patel, personal communication, December 12, 2023; Peter G. Peterson Foundation, 2024). Since the state and federal government technically own wildlife, it would make logical sense for the government to contribute to paying for their care as already done for specific native and endangered species. Wildlife rehabilitation expenses can reach tens of thousands of dollars that donations cannot meet. One financial audit from the Wildlife Rehabilitation Center of Minnesota showed their medical expenses for program services reaching $120,789, lab expenses reaching $32,935, and equipment rental and maintenance costing $64,157 in 2021 (Mahoney CPAS and Advisors 2021). Other factors not considered are the utilities crucial to run the facility which came up to $92,117 for the Wildlife Rehabilitation Center of Minnesota (Mahoney CPAS and Advisors 2021). Cape Wildlife Center openly shared the cost of care for just one injured mother opossum with nine offspring in which veterinary expenses including radiographs, surgical procedures, hospitalization, antibiotics, and pain medication totaled almost ten thousand dollars (Cape Wildlife Center 2019). Direct state or federal funding could be extremely useful to cover the immense costs for wildlife rehabilitation.

Government agencies have shown to support conservation and wildlife care efforts but mainly for zoos, aquariums, and similar facilities. The U.S. Fish and Wildlife Service (USFWS) and the Association of Zoos and Aquariums (AZA) provided $10 million in funding for eligible zoos and aquariums that care for endangered and rescued species after the pandemic due to a decline in revenue
from closures, highlighting those selected facilities “provide a valuable service to the federal government, often at their own expense” (Association of Zoos and Aquariums News Releases 2023). Some of the non-zoo or aquarium facilities that received funds were the Colorado Butterfly Pavilion, Phillip and Patricia Frost Museum of Science in Florida, and National Aviary in Pennsylvania but no wildlife rehabilitation centers (U.S. Fish and Wildlife Service Press Release 2022). Although this funding was provided for facilities caring for species under the Endangered Species Act (ESA) or rescued wildlife at risk, a similar means of support can be provided for rehabilitation centers that care for native wildlife communities equally affected by global pandemics and economic distress. The state of New York also provides grant funding for zoos, botanical gardens, and aquaria but specifically discriminates against wildlife rehabilitation and rescue as “ineligible activities” (New York State Office of Parks, Recreation, and Historic Preservation 2024). Government agencies prioritize facilities and programs that provide them an economic benefit rather unlike wildlife rehabilitation centers that work on native species conservation year-round with no recognition.

State or federal governments could begin funding wildlife rehabilitation at a smaller level through department grants and specifically ensuring wildlife rehabilitation centers are included in pre-existing programs. The Australasia division of Zoo and Aquarium Association (ZAA) collaborate with Australian government bodies to provide million-dollar government packages to support not just zoos and aquariums but also wildlife parks, rehabilitation centers, and
sanctuaries (Zoo and Aquarium Association Australasia 2022). Some states in the U.S. already have grant programs for wildlife rehabilitation as well. The Washington Department of Fish and Wildlife support licensed wildlife rehabilitators by providing reimbursement for expenditures related to veterinary services, food, medication, equipment, and construction costs (Washington Department of Fish and Wildlife 2024). In New Hampshire, the Fish and Game Department have a nongame funding program to develop and carry out conservation strategies to protect the diverse group of native NH wildlife, although the description of this program did not indicate specific allocation of funding to wildlife rehabilitation (New Hampshire Fish and Game Department 2024). Recently, the Pennsylvania House of Representatives passed a bill to directly create a wildlife rehabilitation grant fund as an appropriation in the state budget within the state’s Game and Fisheries Department, one of the first of its kind (Pennsylvania General Assembly 2023; Pennsylvania House Democrats 2023). More initiatives like this can be taken in these states and other states to support wildlife rehabilitation. In terms of how to obtain the funding for wildlife rehabilitation, many states have pre-existing methodologies that use the money from other programs like personalized license plate sales, hunting licenses, hunting equipment sales, and wildlife recreation activity sales to fund conservation efforts (Washington Department of Fish and Wildlife 2024). Government bodies can also allocate a subset of funding provided towards wildlife and environmental conservation efforts for wildlife rehabilitation. Having a baseline financial support system from government agencies would help to raise
the standards of wildlife care and to fulfill goals and objectives created for wildlife conservation (Romero et al. 2019).

Finally, and importantly, state and/or federal funding would need to be achieved with a compromise of what wildlife rehabilitation centers want and need. As the participating organizations in this study highlighted, parameters need to be set for allocating funding to wildlife rehabilitation centers that consider the beliefs and morals of their work while still supporting initiatives.

ii. **Public support:** The general public can increase funding and resources for wildlife rehabilitation in a variety of ways. Direct monetary donations from private citizens are the primary source of aid to rehabilitation centers (Willette et al. 2023) and this supports many aspects of wildlife rehabilitation. Besides this, people can donate gently used materials from home to wildlife rehabilitation centers like the donations received at animal shelters. Bigger groups and businesses like thrift shops, animal shelters, pet stores, and department stores can donate materials no longer needed to wildlife rehabilitation centers for treatment. Veterinary clinics and hospitals or regular human hospitals can donate simple medical supplies that easily come in bulk and can be shared. Some centers directly list out what they need on their website ranging from more complex veterinary supplies to simple things that can be bought or donated by the public (South Bay Wildlife Rehab 2024).

Also, local communities can help spread awareness of wildlife rehabilitation centers in the area through social media, which is the main mode of interpersonal
communication today. Following, liking posts, and sharing information about these centers through social media can help build momentum and recognition for the work that they do. Many wildlife rehabilitation centers post success stories on social media like Facebook and Instagram to let the public be more engaged with the center and often allow followers to choose the kind of content they would like to see to increase incentive for support and donations (F. Greenberg, personal communication, December 7, 2023). The more people learn and engage with these centers, the more the chance increases for the center to receive funding and resources from the public and from local governing bodies. Furthermore, advocacy for wildlife rehabilitation includes not just support on social media but support through community councils, town meetings, and other formal or informal means of assembly and discourse. Often efforts towards wildlife conservation and protection are achieved through the collaborative actions of federal agencies, state and local government, tribes, smaller organizations, and private citizens (Association of Zoos and Aquariums News Releases 2023). Enough public support can make a significant difference but that starts with the local community.

iii. Public education programs: As already done by many wildlife rehabilitation centers, public education programs can be incredibly useful for increasing incentive for access to funding by both the public and state/federal governments. By educating the public anywhere from local visitors to schools, centers exchange valuable knowledge and skills for support. Established wildlife rehabilitation centers can charge for regulated, distanced tours that mitigate human influence on
rehabilitative care for people to be exposed to the field of wildlife rehabilitation and connect with the natural world around them. Representatives can travel to schools, potentially with companion ambassador animals, to stimulate interest in young children or young adults about local wildlife (Willette et al. 2023). This can provide the basis for successful coexistence with wildlife by countering misinformation about animal behavior and ultimately preventing conflict in the future (Willette et al. 2023). Educational programs can appeal to state departments as they recognize that rehabilitation is important for public outreach on wildlife interactions (Hashem 2019). It can also extend into professional and governmental sectors as wildlife rehabilitation representatives can help show rehabilitation as a viable management option for conservation efforts, particularly for local populations at risk (Hashem 2019). Initiatives like these can increase incentive and willingness to provide access to funding and resources.

**iv. Building social capital:** Social capital as defined by Pretty and Ward “comprises the relations of trust, reciprocity, common rules, norms and sanctions, and connectedness in institutions” and over the past few decades has become a powerful way to collectively group people together in environmental fields related to forest, pest, and irrigation management and more (2001). The concept of social capital facilitates cooperation between individuals and groups while emphasizing the importance of trust, social bonds, and equal exchange of services or support (Pretty and Ward 2001). Wildlife rehabilitation centers of assorted sizes can build social capital to create partnerships with governmental bodies and organizations with similar goals. The U.S. Fish and Wildlife Service partner with over 600 non-
governmental organizations on projects to meet shared conservation goals but very few wildlife rehabilitation centers are included on this list (U.S. Fish and Wildlife Service 2024). If parameters are set for partnership and an environment of trust is established, wildlife rehabilitation organizations can work with many diverse groups to expand the scope of rehabilitation and conservation. It can also increase harmonization of best policies and strategies for protecting wildlife populations (Willette et al. 2023). Utilizing solutions mentioned above, rehabilitation organizations can provide different services like education and public outreach to partner with governmental bodies and other wildlife organizations in exchange for beneficial relationships based on social capital.

v. **Use of third-party groups:** Two of the organizations that participated in this study mentioned the organizations SCORE (Service Core of Retired Executives) and CFC (Combined Federal Campaign) that have been used to access extra funding and volunteer work. Many businesses and groups of people are willing to support non-profit organizations in need, and since wildlife rehabilitation is non-profit work, rehabilitation centers and individual rehabilitators can be brought into networks of charity connections. Many corporate businesses look for organizations to fundraise for if it aligns with company philosophies as an attempt to generate goodwill among employees, customers, and the local community (Porter and Kramer 2002). Partnerships between corporations and wildlife rehabilitation centers could help expand sources of funding and volunteers. Sustainable energy company, Avangrid, has given grant funding for the past eight years to wildlife rehabilitation centers nationwide and recently announced a
record total of $140,000, highlighting that “a future of clean energy resources is not possible without investments in wildlife protection and conservation” (Avangrid Press Releases 2024). Another way of expanding third-party connections is to schools and after-school programs, which could partner with wildlife rehabilitation organizations to increase youth engagement with volunteer work and create fundraising events.

vi. **Bridging gaps between rehabilitators, veterinarians, and clinics:** There should be more relationships and connections between rehabilitation centers and veterinarians/wildlife clinics to increase resources and support. As mentioned, veterinary services are extremely important for the success of rehabilitation and although rehabilitators can be qualified to perform veterinary procedures themselves, most wildlife rehabilitation centers require the help of a veterinarian and/or veterinary technicians. Some centers have them on staff like the Wildlife Clinic of RI and Cape Wildlife Center but others, like the Center for Wildlife, have a partnership with veterinarians that donate their time whenever needed (J. Bower, personal communication, December 8, 2023). More initiatives can be taken for the veterinary profession to donate their time and/or provide training to rehabilitation staff. There is a growing interest in the field of veterinary science to get experience with wild animal species rather than solely domestic animals, and working with wildlife rehabilitation is an effective way for veterinarians, vet techs, and veterinary students to get involved (Cerda and Webb 2023). There could also be programs created in veterinary school and within internships for
veterinary students to develop and practice their skills while supporting the work of wildlife rehabilitation.

Additionally, Wings of the Dawn proposed an idea to have a central facility to connect rehabilitators, wildlife clinics, and veterinarians across the state of New Hampshire to facilitate collaboration and resource distribution (M. Colby, personal communication, December 6, 2023). Some states already have a rehabilitation association, like the Wildlife Rehabilitator’s Association of Massachusetts (WRAM) and Wildlife Rehabilitators of Rhode Island (WRARI) which the organizations featured in this study may be a part of. This could be implemented in many other states, as there are only 17 associations nationwide, and around the world so that wildlife rehabilitation centers are included in necessary networks to ensure equitable access to resources and aid (National Wildlife Rehabilitator’s Association 2024). The NWRA or IWRC can also bridge some of these gaps by establishing small branches in states across the U.S. to provide local access to resources, funding, training, and collaborative programs to rehabilitators that need them. State and local governments can participate in this network of connection as well by providing the funding and regulation for these efforts.

vii. **Access of rehabilitators to ESA conservation efforts:** Another method for wildlife rehabilitation centers to access resources and funding would be for rehabilitators to work with state wildlife agencies in conservation programs of species within the U.S. Endangered Species Act (ESA). As mentioned previously, many zoos,
aquariums, and associated organizations receive government funding since they work towards rescuing and protecting federally protected imperiled species that are captive in their care (U.S. Fish and Wildlife Service Press Release 2022). However, many zoos do not prioritize conservation efforts especially when it comes to financial struggle with visitor revenue and needing to support the captive wildlife already at the facility (Brulliard and Oldham 2020). This is a potential opportunity for wildlife rehabilitation centers and individual rehabilitators to step in and join efforts towards rescuing and rehabilitating endangered species. The burden of conservation programs can be alleviated from zoos and aquariums to ensure the best care and treatment of captive individuals, while wildlife rehabilitators can take on these responsibilities to expand their reach and get funding and resources in return for their work.

viii. Self-advocacy: Finally, a crucial factor for rehabilitation centers to gain access to increased funding and resources is for them to advocate for themselves in any way possible. Social media presence and community connections were two things already established that can help these facilities grow recognition. Besides this, other strategies for self-advocacy include appealing gifts to donors, events, and conversation with leaders and politicians that can help the organization. The Center for Wildlife employs two unique outreach methods to their donors and supportive community members. The first is a seasonal newsletter (simple, two pages, double sided) sent out to donors that holistically depicts the work done by the center through talking about current projects they are working on, wildlife success stories, educational opportunities, upcoming events, and staff spotlights
At the same time, the newsletter also emphasizes what the center needs from their supporters and many ways to donate and get involved (Center for Wildlife 2023). This is an easy and efficient way for the organization to advocate for themselves and demonstrate the work they are doing without directly asking for funding. It also keeps donors knowledgeable on what is going on behind the scenes so that they can make educated decisions on how they want to help the organization (J. Bower, personal communication, December 8, 2023).

Additionally, the Center for Wildlife holds a formal auction every year to fundraise called the Call of the Wild which is a large, in-person event that gives the opportunity for socialization, connection, learning, and support (J. Bower, personal communication, December 8, 2023). Social events like these can help boost the reputation of the organization while also reaching financial goals. Cape Wildlife Center stays in contact with Massachusetts House Representatives to remain updated on legislation and to consistently advocate for the needs of wildlife rehabilitation (Dr. P. Patel, personal communication, December 12, 2023). Encouraging and supporting wildlife rehabilitation centers during these initiatives is crucial for their success and outreach.

Limitations and Future Recommendations

This study could have been improved in a few ways which can hopefully be a steppingstone for future studies evaluating the needs and limitations of wildlife rehabilitation centers. First, the sample size of wildlife rehabilitation centers in this study was small, and this was due to a lack of responses and time to conduct the research. Additionally, some organizations
that did respond did not respond to some survey or interview questions because they did not have that information or chose not to answer. An expansive, thorough sample would have produced a larger set of data that more broadly captured the financial and resource limitations of wildlife rehabilitation centers in New England, allowing for a stronger comparative analysis. Hanson et al. looked at data from 696 identifiable rehabilitators across the state of New York which gave them the ability to make solid conclusions about species composition, causes for admission, and final dispositions of rehabilitated wildlife (2021). Future studies could use more rehabilitation centers in New England to conduct a more thorough regional analysis. Furthermore, extending studies across the country would have been useful to analyze differences in resource and fund allocation for wildlife rehabilitation centers based on region, and compare methodologies that could be shared between government bodies. Romero et al. did this in Chile, looking at five wildlife rescue and rehabilitation centers in different regions of the country, and this allowed them to see a variation in record keeping on rehabilitation data emphasizing the need for a standardized online database that bridges the gaps between centers (2019).

Additionally, this study only looked at the impact of financial and resource limitations on wildlife rehabilitation itself and other functions of the facility. There needs to be further research into the impacts of financial and resource limitations on the mental and physical health of rehabilitators and staff. With little financial and community support in the field, this can translate into spiraling health effects for staff which can lead to compassion fatigue and a reduction in the quality of care. Compassion fatigue is the onset of burnout and secondary traumatic stress on workers in human care fields such as nurses, counselors, and disaster rescue workers, and this can also be applied to wildlife rescue and rehabilitation (WRR) workers (Caro 2019). In a study done in South Africa, most WRR workers experienced compassion fatigue unknowingly and
received no help for it which led to recommendations for the creation of advocacy programs and development of policies to assist WRR workers (Caro 2019). The preexisting stress occurring from rehabilitative work plays a significant role for the presence of compassion fatigue in rehabilitators, but future studies can investigate how financial and resource constraints worsen these mental and physical health effects.

This study collected basic information about the status of staff, veterinarians, resources, and funding of wildlife rehabilitation centers in New England. To get a more holistic view on the needs of wildlife rehabilitation centers, more information can be collected that was not included in this study. Training procedures and programs, organizational affiliations, the level of rehabilitative and veterinary care, and release protocols would be useful attributes to gather data on. This study did not focus much on the differences in scale of rehabilitative work besides simple size of the organization, and this information and more could help gain a better sense of the specific work done in each facility so that potential solutions can be catered accordingly.

Lastly, future studies could do more research on the role of wildlife rehabilitation in society and the expansion of functions of the field. Cerda and Webb evaluated how veterinarians can use their skills for distinct roles in wildlife conservation and biodiversity preservation including wildlife extraction and rescue during natural disasters, team leading during ecosystem health and rewilding projects, becoming more sustainable at their clinics, engaging in scientific communication and advocacy, and working with wildlife rehabilitators (2023). A similar approach can be taken for wildlife rehabilitation that proposes rehabilitator involvement in disaster events, government conservation planning, ecosystem projects, and more. Recognizing the benefits of wildlife rehabilitators as a resource will help provide them with more access to funding and resources in the future.
Conclusions

The field of wildlife rehabilitation is ever expanding across the United States and the globe. Despite this, many centers and individual rehabilitators are faced with financial and resource limitations that prevent them from being able to fulfill respective missions and extend their reach towards other disciplines. This comprehensive study demonstrated for the first time how funding and resources are the primary limitations for wildlife rehabilitation centers of various scales in New England and that it impacts the stability of other areas of the center like staff, access to veterinarians, and consistent fundraising. Although there is criticism on the ethical considerations of wildlife rehabilitation, the work done by rehabilitators and associated staff is important and beneficial for animal welfare, disease monitoring, and conservation and should be supported by local communities and overarching government bodies (Hanson et al. 2021). Solutions that can be implemented include direct funding by the state or federal government, more active public support and education, building social capital, providing more opportunities for rehabilitators to be involved in conservation efforts through ESA, the use of third-party organizations, bridging the gaps between rehabilitators/centers and veterinarians/wildlife clinics, and increasing self-advocacy strategies. However, the most crucial first step is to establish government funding for wildlife rehabilitation as it provides invaluable services to natural wildlife populations through donated time, energy, and resources. Ensuring this occurs in the near future will allow wildlife rehabilitation centers to efficiently perform their role in conserving native wildlife.
Acknowledgements

I would like to primarily thank all of the organizations that agreed to participate in my study and graciously took the time and energy to give me the information I needed to advocate for them: Cape Wildlife Center, Center for Wildlife, Millstone Wildlife Center, Saco River Wildlife Center, Wildlife Clinic of Rhode Island, and Wings of the Dawn. I thank Dr. Janet Anderson, my thesis advisor, for all her help and support during this process and for believing in my vision. I want to thank faculty members in the Department of Biological Sciences, Dr. Patty Jarema and Dr. Maegan Gagne, for giving me advice in different aspects of my research. Of course, I want to thank my family and friends for always lifting me up and making me feel heard. Lastly, I would like to thank those that supported my view of students in STEM choosing advocacy and fighting for real issues that matter in the world. I hope to inspire future students, especially women, in STEM that might be doubting themselves like I was to believe in your vision and do what you are passionate about, no matter what is the norm.
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Appendix A – Survey Questions

Intro and Basics

Q1. Number of wildlife rehabilitated since established (if not since established, most recent year is fine; if not an exact total, rough estimate is fine).

- Textbox response

Q2. Number of wildlife released and not released after rehabilitation since established (if not since established, most recent year is fine; if not an exact total, rough estimate is fine).

- Textbox response

Q3. Please select the top common reasons for admission (by placing numbers 1-3 by the top choices)

- Ranking response
  - Orphaned
  - Illegal captivity/misplacement by humans
  - Trauma (anthropogenic)
  - Trauma (natural)
  - Interactions with other animals
  - Metabolic or infectious disease/disorder
  - Poisoning
  - Displacement/habitat loss

Funding and Resource Questions/”Yes” and “No” Statement Questions

Q4. Where does funding for this organization primarily come from?

- Multiple choice selection
  - Donations
  - Personal/Internal Budget
  - Grants
  - Private regular donors

Q5. On average, what percentage of your budget comes from donations?

- Slider response
Q6. On average, how much of the organization’s resources and supplies are donated vs bought with the internal budget?

- 2 slider responses
  - Donated, intervals of 10 from 0-100
  - Bought, intervals of 10 from 0-100

Q7. On average, what percentage of the organization’s budget is put into fundraising efforts?

- Slider response
  - Intervals of 10 from 0-100

Q8. On average, how much time is put into fundraising efforts for this organization (in hours per week)?

- Textbox response

Q9. Please choose the best response for each of the questions below related to available funding and resources for the organization.

- Matrix table response with five questions and “yes” or “no” choices
  - Is the organization’s ability to efficiently rehabilitate wildlife impacted by the budget/available funding?
  - Is the organization’s ability to efficiently rehabilitate wildlife impacted by the availability of resources?
  - Has the organization ever had to refuse admissions based on funding and resource constraints?
  - Is this organization aware of any state/federal funding options?
  - Has this organization accessed any state/federal funding options?

**Staffing Questions**

Q10. Does this organization have (a) veterinarian(s) on staff?

- Multiple choice selection
  - Yes, 1
  - Yes, 2+
  - No
Q11. If answered yes to the previous question is/are the veterinarian(s) on staff paid employees or volunteers?

- Multiple choice selection
  - Paid employees
  - Volunteers

Q12. If answered yes to question 10, does the veterinarian(s) on staff meet the needs of the organization?

- Multiple choice selection
  - Yes
  - No

Q13. On average, what percentage of staff are paid employees?

- Slider response
  - Intervals of 10, from 0-100

Q14. On average, what percentage of staff are unpaid volunteers/interns?

- Slider response
  - Intervals of 10, from 0-100

Q15. Is there currently a sufficient number of staff members to meet the goals/needs of the organization?

- Multiple choice selection
  - Yes
  - No

Q16. Are ALL staff members qualified to do their respective work at the organization?

- Multiple choice selection
  - Yes
  - No

Needs of the organization

Q17. Please select the top 3 needs of this organization in order to succeed in its goals and mission (by placing the numbers 1-3 by the top choices).
Follow-up questions

Q18. Would you be willing to participate in a follow-up interview?

- Multiple choice selection
  - Yes
  - No

Q19. Would you be willing to provide any supplemental documentation regarding budgeting and/or resource allocation (or anything deemed to be useful to me) to further support the answers given in this survey?

- Multiple choice selection
  - Yes
  - No
Appendix B – Interview Transcripts

<table>
<thead>
<tr>
<th>Key</th>
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<tbody>
<tr>
<td>Staff</td>
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<tr>
<td>Funding/Resources</td>
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<tr>
<td>Solutions/general details</td>
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<tr>
<td>Additional information given</td>
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</tbody>
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Millstone Wildlife Center (2015)

○ Ask for if they have release/non-release data?
  • Rough estimates for Eastern cottontail -> 40% release
  • No specific numbers since they are given to the state fish and game department

○ Further explain top 3 needs
  • 3 - Vet assistance/staffing is not a primary need since head of org is well knowledgeable + trained
  • Resources often are went through quickly, funding depends on needs temporally

○ Is funding sufficient? Always? Sometimes?
  • Pretty much sufficient most of the time, allows for more animals to come in though
  • Resources needed more often, funding can help expand on this more

○ What are the federal/state funding options that you are aware of?
  • CFC - Combined Federal Charities -> people that donate to organizations
  • Businesses/orgs that donate or match donations

○ What are the federal/state funding options that you have accessed? How and why?
  • CFC
  • More so individual businesses/individual donors

○ This org had the most wildlife rehabilitated out of all 6. Congrats, that is amazing! How do you believe the org is able to rehab that many animals with a high need for funding and resources? What is the methodology?
  • People willing to do the work!
  • Key to success is staff

○ The main reason for admission is orphaned. Are these orphaned animals typically injured in any way or totally healthy? Is this why the rehabbed animal count is very high since they are mostly orphaned, healthy animals that you just release? Does this make it easier on funding/resources?
  • Orphaned individuals still need time to recover and be released
  • Rehab success depends on species and injury
  • Not necessarily easier or harder

○ Do you believe fundraising would benefit the org/is important? If there was more funding, would you spend more time and money on fundraising?
  • Fundraising is important
• More fundraising would be more accessible with more staff willing to do admin work
  • Funding does not really impact this
    □ Why does the vet on staff not meet the needs of the org? Are they frequently available, or not?
      • Primary business comes first for vet
      • Funding (a lot to meet a vet's salary) would be required to have a vet on staff full time
    □ If enough funding, would you pay staff? Would they want to be employed?
      • Paying staff is ideal (volunteers and vet)
      • Dedication to do the work is key, however, not the money
    □ Are the stresses from maintaining this org financially and sustainably affecting the mental/physical health of staff? Is this impacting rehab performance?
      • Not financial burden
      • Emotional/mental burden on volunteers
    □ Regarding solutions - government support? Specific consideration in U.S./state dep. Of fish and wildlife? More access to veterinarians? Per state - support of any act with state protected species (Would this establishment benefit from inclusion into federal wildlife protection laws or creating one specifically for wildlife rehabilitation)?
      • Yes
      • National org of rehabilitators
      • Does not see a way for government to bridge gaps between orgs and clinics
    □ Is there a way the public can help with your needs? Would it be beneficial?
      • Donations + funding
      • Cannot expect public to be advocates
      • Staff to help with advocacy and outreach
    □ Finally, in general, would more sources of funding mean more problems and regulations?
      • Chance of funding coming with strings attached
      • Parameters need to be set to make accessibility equal

Center for Wildlife
    □ What is the general reason as to why some animals are not released?
      • Quality of life made them not released -> euthanized
      • Become ambassadors if healthy but cannot go back -> need money and resources to care for ambassadors
    □ Are resources sufficient? Always? Sometimes?
      • Pretty sufficient with supplies
      • Outreach plays big role in gaining supplies/materials
- Try to keep broad social media presence so that it is not just asking for money
  - How does lack of funding impact wildlife rehab? What aspects of it (medical/post-care/enclosures, etc.)?
    - Direct and in-direct impacts
    - Operation-wise -> what care can be offered
    - Consistent cash flow needed for best level of care
  - Further explain top 3 needs
    - Funding top priority to best help animals and pay staff -> able to achieve more for the animals and community
    - More people aware and supporting can fuel the organization -> let them know what they can do to help (giving donations)
    - Public resources to connect with
    - Fighting stereotypes about certain animals to increase advocacy and awareness
    - Resources are the base need to support the organization (donations, staff, materials, supplies, inter-agency, etc.)
  - Only one other org had a relatively high percentage of budget spent on fundraising and CFW had the highest hours per week spent on fundraising. Is this something deemed important to do to support the org or is it just done to increase exposure of the org?
    - Very important to the success of the organization and to actually have a stable building and staff
    - Able to support staff and give them benefits
    - Call of the wild fundraising event -> formal auction
    - Increase in funding helps extend reach to public and helps further fundraising abilities
  - Would you eventually pay more of your staff?
    - Eventually if needed
    - Need to make sure positions are fulfilled
    - Volunteer staff have their own role
  - Would you eventually need more vets? Would you be willing to get a paid vet on staff? Does the budget allow for this?
    - 1 day a week (retired now so they can spend more time)
    - If budget allowed, paid vet on staff
    - Would need more veterinary trauma coming in for this to be beneficial
    - Part-time veterinarian
    - 1 is sufficient for now, has other medical staff to help as well
  - What state/federal funding options is the org aware of? Is there a reason the org has not accessed it/them?
    - Closely tied with government-funded agencies but do not receive any funding
    - Looks at how it will impact mission and values
    - Guidelines for government funding that would be placed that does not align with values
o Are the stresses from maintaining this org financially and sustainably affecting the mental/physical health of staff? Is this impacting rehab performance?
  • Pretty stable environment and work culture that prevents mental/physical health from deteriorating
  • The type of field helps with maintaining positive environment
  • Culture in place that uplifts staff
  • Orgs less supported financially feel more impacts

o Regarding solutions -> government support? Specific consideration in U.S./state dep. Of fish and wildlife? More access to veterinarians? Per state - support of any act with state protected species (Would this establishment benefit from inclusion into federal wildlife protection laws or creating one specifically for wildlife rehabilitation)?
  • ESA consideration would be helpful if that is the case
  • Direct stream of funding (state wildlife rehab fund)
  • Can help with compartmentalization and staff structure -> easier to handle

o Is there a way the public can help with your needs? Would it be beneficial?
  • Public awareness
  • Should be well-known, raising profile
  • Can act as community support that the wildlife need
  • Lessens impact that orgs see coming in

o Finally, in general, would more sources of funding mean more problems and regulations?
  • Yes, if no business plan
  • Need to set parameters and regulations for the funding
  • Mishandling could impact reputation and could impact funding received in the future

o Supplemental doc -> what did you have in mind? Anything that will help solidify some of these responses?
  • Winter newsletter

Cape Wildlife Center

o Does the org not have/need any volunteers? Is this a reason why funding is needed since all staff are paid?
  • Do have volunteers
  • 1/4 as many volunteers, student volunteers
  • Volunteers focus on husbandry, medical work would not be affected

o This org has the most vets on staff and one of only 2 that are paid. Is it important that vets on staff are paid? Is having paid vets a reason why rehab is successful at this org?
  • More consistency
  • Veterinary hospital as well -> different from other rehab centers
  • More privileged compared to other orgs

o How does lack of funding impact wildlife rehab? What aspects of it (medical/post-care/enclosures, etc.)?
  • No money -> no staff
  • All aspects

o Further explain top 3 needs
- Funding/resources/public education pretty equal
  - Are the stresses from maintaining this org financially and sustainably affecting the mental/physical health of staff? Is this impacting rehab performance?
    - Higher ups involved in fundraising are more feeling stress
    - Does not impact rehab performance
  - Regarding solutions -> government support? Specific consideration in U.S./State dep. Of fish and wildlife? More access to veterinarians? Per state - support of any act with state protected species (Would this establishment benefit from inclusion into federal wildlife protection laws or creating one specifically for wildlife rehabilitation)?
    - State/federal government owns wildlife but do not pay for care
    - Working on getting funding with state government -> definitely getting the funding in the future
    - Difficult in allocation
    - Funding from conservation aid programs in the state ("ear-mark" funding)
    - Working with state reps -> orgs like CWC can provide public education for things like environmental impacts on animals
  - Is there a way the public can help with your needs? Would it be beneficial?
    - Educating the public #1
    - Being more conscience of wildlife around you
    - Volunteering/donating time/resources to wildlife rehab orgs
    - Not just giving money
  - Finally, in general, would more sources of funding mean more problems and regulations?
    - Diversifying funding
    - Educational grants
    - Use patients as platform to educate
    - Better safety cushion for the organization to rely on
    - Odd Pet Vet gives constant revenue
  - Under humane society of US -> New England Wildlife Center took over CFW 6 years ago

Wings of the Dawn
- Clarification on % resources bought vs. donated
  - 90% donated, 10% bought
- Clarification on staff paid vs. volunteer
  - 100% volunteer
- Time spent fundraising per week?
  - Varies during the year, June + December 40-60 hours a month, thanking for donations
- Do you believe fundraising would benefit the org/is important? If more funding, would you spend more time and money on fundraising?
  - No, trying to change or expand scope of organization would mean more time + money spent on fundraising
- Why does the vet on staff not meet the needs of the org? Are they frequently available or no?
  - Not willing to donate time (other orgs)
  - Vets occupied with other facilities
○ Why is the staff insufficient for the needs of the org? (depending on answer above) would you be willing to use some budget to pay staff if meaning a more reliable set of people?
  - Short staff
  - Job does not provide many benefits or positives so little people willing, needs intrinsic rewards
  - Paying staff would not impact desire to do the work, do not want to commit to work and hours
  - High burnout and consuming work

○ Would you eventually need more vets? Would you be willing to get a paid vet on staff? Does the budget allow for this?
  - Need more vets (ACCESS!!) to take on the workload
  - Need to meet obligations of their company first and wildlife rehab is on the side
  - Hoping to pay vets in the future, hoping for interest in the field

○ What is the general reason for why some animals are not released?
  - Too injured or low quality of life
  - Typically euthanized or become education animals

○ The main reason for admission is orphaned. Are these orphaned animals typically injured in any way or totally healthy? Is this why the rehabbed animal count is very high since its mostly orphaned, healthy animals that you just release? Does this make it easier on budget/resources?
  - More time consuming actually
  - Baby wildlife need constant feeding and attention
  - Injured animal is quicker and easier to handle (either fixed up or euthanized)

○ Is funding sufficient? Always? Sometimes?
  - Relatively sufficient, more staff/vets is more of a dire need

○ Further explain top 3 needs
  - No paid staff or vets so no people willing to donate time
  - Limits ability of rehab if no vets or staff to do the work

○ Are the stresses from maintaining this org financially and sustainably affecting the mental/physical health of staff? Is this impacting rehab performance?
  - Yes, main priority is animal but need to consider keeping the org up and running to do so -> not able to focus on the animals half the time

○ Regarding solutions -> government support? Specific consideration in U.S./state dep. Of fish and wildlife? More access to veterinarians? Per state - support of any act with state protected species (Would this establishment benefit from inclusion into federal wildlife protection laws or creating one specifically for wildlife rehabilitation?)
  - Yes
  - Especially anthropogenic disturbance and impacts, hunting orgs and wildlife organizations typically get money for these things -> not rehabbers
  - Field of work is volunteer so government does not think they need any money since they choose to do it
  - Source to access funds without much paperwork
  - More access to vets
  - Network to connect facilities
  - Applying for grants costs money and getting grants is difficult

○ Is there a way the public can help with your needs? Would it be beneficial?
• Can donate talents (financial skills, vet techs, volunteer time) and/or money or resources
• Admin things
• Spreading the word
• Service core of retired executives (SCORE) -> retired individuals donate time and skills to help organizations

○ Finally, in general, would more sources of funding mean more problems and regulations?
  • It would be beneficial as long as its structured right
  • Certain rules and regulations
  • Criteria for getting funds

○ Supplemental doc -> what did you have in mind? Anything that will help solidify some of these responses?
  • Budget planning

○ Idea of central facility of rehab that takes care of vet needs and wildlife rehabbers take care of orphaned wildlife
  • NH Fish and Game
  • Getting equipment and vet techs
  • Training for rehabbers to do testing and veterinary procedures

○ VCA and AVA buying out wildlife hospitals so vets are only available there

○ Group in New York trying to get funding for wildlife rehabilitators in the state
  • New York wildlife rehabilitation association

○ Mass company took over two facilities

○ Tried to gather wildlife rehabilitators in a union and did not work out

○ Rehabbed 120 eagles and peregrine falcons over the years

○ Take pics of people coming into the facility with an animal
  • Advocates for both the org and the public