



On behalf of all the members of the Delaware Council of Wildlife Rehabilitators and Educators and especially the wildlife you will help, we welcome you.

By wanting to rehabilitate and help the native wildlife of Delaware, you have shown that you care about their populations and are aware that several problems exist. Thank you for your decision to help.

This document will introduce you to becoming a wildlife rehabilitator and inform you of our goals as an organization. We will address some items of interest concerning the developmental growth within the state of Delaware and its effects on wildlife. And you'll learn about the help that is available to you giving you the tools necessary to become a successful wildlife rehabilitator in the state of Delaware.

So, if you're ready to become a wildlife rehabilitator, let's get started!

What is the Delaware Council of Wildlife Rehabilitators and Educators?

The Delaware Council of Wildlife Rehabilitators and Educators (hereafter referred to as DCWRE) is a diverse group of individuals of all age groups and experience levels who come together to help the wildlife of Delaware. They share their experience with one another and promote wildlife awareness within the state. DCWRE is an incorporated 501(c)(3) non-profit organization registered in the state of Delaware. It was established in 1995 to care for sick, injured and abandoned wildlife with the goal of returning them to the wild.

What does the DCWRE hope to accomplish?

Best defined by our goals:

- To educate the public about wildlife habits, habitats, and values.
- To promote respect for wildlife species throughout the State of Delaware.
- To rehabilitate orphaned or injured wildlife by providing the necessary care required to release them back into their natural habitats.
- To provide continuing education and training opportunities to our members. This ensures that the animals in our care are receiving the best quality care possible.

Is there a need for wildlife rehabilitation?

Before we go further about the DCWRE, it might be helpful to get a little background information on why many people feel there is even a need for an organization like this. To do this we need to look at some information extracted from a brief that was compiled by Constance C. Holland, Director of Delaware State Planning along with her staff in the office of State Planning Coordination. This information was presented to Governor John Carney and the members of the 149th General Assembly. For the sake of brevity, only the growth items for housing, land use and environmental impact have been extracted.

Population and development trends data show that Delaware's growth is approaching levels not seen since the great recession in the late 2000's. Some highlights are:

- Population growth: since 2010 an additional 55,000 call Delaware home.
- Building permits: since 2011 builders have pulled (submitted) over 28,000 housing units throughout Delaware. In fact, the 5,900 building permits issued in 2016 is an amount not seen since the housing crisis of 2007-2008.

It is projected that an additional 177,000 people will live in Delaware by the year 2050, necessitating the construction of over 77,000 new housing units. These housing units will be needed in order to house an additional 131,000 from now until the year 2050. That's more than **twice** the housing units that were in the city of Wilmington in 2010.

With this volume of activity projected throughout Delaware, it is critical that state agencies and local governments work together to plan a future that includes economic development as well as the preservation of our quality of life. And it needs to include our natural environment.

Delaware is growing faster than our neighboring states and **the nation as a whole**. The projected population growth by county for Delaware 2015-2050:

New Castle County: 44,506 or 7.9%

Kent County: 36,733 or 21.1%

Sussex County: 49,748 or 23%

The maps on the next pages will provide you with an actual visualization of what this growth will look like. As you can see it is quite extensive.

There has been a substantial amount of growth and development within Delaware, therefore the need for wildlife rehabilitation is great.

As we started gathering information to produce this document, we became aware of how complex this growth is. Not only does the planning involve housing for people, but additional things have to be considered. Infrastructure; roads need to be put in, utilities such as water, electricity and sewage must be supplied. Plus, various land easements need to be granted. Police and fire protection must be planned along with adding schools, grocery stores and gas stations. There is a lot that goes into a new community. Unfortunately, this type of growth fragments, if not destroys the natural habitats that wildlife need to survive.

Now that you have some basic information on the rapid growth and development in Delaware, we'll provide you additional information on the Delaware Council of Wildlife Rehabilitators and Educators.

Members of DCWRE receive approximately 2,500 calls from the public as a whole annually for an animal they've encountered. From this, members receive approximately 1,500 animals needing care. Squirrels, turtles, possums, raccoons, rabbits, snakes, foxes, mice, moles, voles, bats, chipmunks, flying squirrels, muskrats, otters, weasel, beaver, whitetail deer, salamanders, frogs, and toads make up the animals that rehabilitators receive. Please note that no birds are listed. This is because of an additional requirement for Federal permits is needed to rehabilitate migratory birds. The DCWRE recommends that all birds be referred to Tri-State Bird Rescue which is a well-established facility in northern Delaware.

Growth and Development within Delaware is increasing fast. Have state officials addressed this growth and its affects wildlife?

Yes, they have, and they are just as concerned about the loss of wildlife habitat as all the rehabilitators are. They are fully aware of how the fragmented development can impact wildlife health and populations.

The following excerpt is from the Department of Natural Resources and Environmental Control, Delaware Outdoors: Statewide Comprehensive Outdoor Recreation Plan 4F.1 and 4F.2

Protecting Lands for Conservation and Recreation

Goal: to maintain and enhance the interconnected network of natural areas, open spaces, parks, and conservation lands.

Land use changes due to human activity have a great effect on ecological resources. Scattered patterns of 50-plus years of modern development in Delaware, especially the construction of low-density residential housing subdivisions, consumes excessive amounts of land and fragments natural landscapes. Wildlife habitat and migration corridors are lost, and normal ecosystem functions are disturbed or destroyed. When natural spaces are concerted for human use, the population of species dependent on the lost habitat may decrease below the threshold needed for long-term persistence. Habitat loss and fragmentation are perhaps the greatest threat to forest wildlife and the primary cause for species extinction by restricting the movement of plants and animals. Ecosystems with lower diversity are generally less desirable and can affect the availability of outdoor recreation opportunities.

Many species of greatest conservation need are “area-sensitive” requiring relatively large areas of mostly unbroken habitat to ensure their viability. Protecting areas of conservation need will provide an interconnected network of forests, uplands and wetlands for wildlife habitat and associated recreation activities. State, Federal and non-governmental conservation lands, which generally make up what largest parcels in preservation networks, are particularly critical for meeting the needs of sensitive species and associated low impact recreational demand. Landscape scale planning among all agencies and organizations will be necessary to comprehensively identify those areas with greatest conservation need.

The basic building blocks of a conservation network include not only those larger core areas but also natural wildlife corridors. Wildlife corridors are those linear features that provide adequate cover sufficient for the movement of wildlife. These corridors preserve the connectivity of underdeveloped lands within developing areas, preserving connections between different habitats and/or large habitat blocks. Corridors are also an excellent means of providing people with connection between large open spaces. In many instances, corridors can support low impact human activities such as hiking, biking, kayak/canoeing, wildlife viewing and nature observation.

Recommendations:

Identify and prioritize lands for acquisition that protect and maintain large scale landscapes and avoid fragmentation of resources.

Manage core natural areas to minimize direct disturbances and the introduction and spread of non-native and invasive species.

Protect land through conservation easement or fee simple purchase to create conservation corridors.

To view the entire plan, go to:

www.dnrec.delaware.gov/OpenSpaces/Documents/SCORP-2013-2018-Open-Space-portion.pdf

As a wildlife rehabilitator, can I receive any financial aid from DCWRE or the state of Delaware to rehabilitate wildlife?

The state does not provide any funding to people rehabilitating wildlife.

The DCWRE offers educational workshops annually. And the organization will help subsidize the cost for you to attend a regional conference should you decide to attend one. These occur most usually in Pennsylvania, Virginia, New York and New Jersey. DCWRE will subsidize ½ of the conference registration or \$50.00, whichever is less. You must be a member of the DCWRE to receive the subsidies.

Is there anything else I need to know?

Yes, wildlife rehabilitation is an important service and the DCWRE appreciates your consideration to join a rare group of individuals who care for wildlife. Some more statistics for you (as of 2017):

- Size of Delaware – 1,948.54 Square miles
- Size of Delaware in acres – 1,270,016 approximately
- Estimated population of Delaware – 961,684
- Estimated population over the age of 18 – 740,497
- Number of Permitted Wildlife Rehabilitators – 17...yes, only 17!

Rehabilitators do indeed play a vital role in not only caring for wildlife, but also in monitoring their activities. Soon after the tragic events of 9-11, national organizations requested that wildlife rehabilitators monitor closely the activities of wildlife in their area. Why? It was not known at that time if any additional actions would be taken against the United States. (Biological, chemical, airborne etc.) Since wildlife would most surely show signs of these situations first, rehabilitators would be the first to notice changes in their normal life pattern. Thankfully no instances occurred.

The Delaware Council of Wildlife Rehabilitators and Educators hopes you will join us and become part of the team to help Delaware's native wildlife!

And we end with this beautifully written article of interest by Louise Shimmel, the Executive Director of the Cascades Raptor Center:

WHAT GOOD IS WILDLIFE REHABILITATION?

Some years ago, I had a discussion with a woman in the Public Relations department of the US Forest Service. She told me she was a little envious of the work that we do because it was so “white hat” - i.e., non-controversial, seen as good and important work by all. Hah! Although I can appreciate the difference between public perceptions of wildlife rehabilitation and the Forest Service (hounded by the “big government” image and bound to upset one interest group or another with many of its decisions), our work is not universally supported. Ironically, the nay-sayers are often conservationists and biologists.

Although I have come up against this issue several times in the past, it surfaced for me most recently when I was interviewed for a couple of articles. One for Horizon Air's in-flight magazine was about raptors and rehabilitation in the Northwest; one was for a Cornell University newsletter on the pros and cons of wildlife

rehabilitation. Questioning the value of a person's life work is likely to raise some hackles, and it definitely did mine!

Locally, we rehabilitators are quite lucky to have an excellent relationship with the conservation groups in the area (an especially close one with Lane County Audubon). Biologists from the federal agencies (Bureau of Land Management, Army Corps of Engineers, and the Forest Service), even the State Police and Oregon Department of Fish & Wildlife, have many, many times transported birds from all over the county to rehabilitators. The Corps and Forest Service have both helped us more than once return or foster young in wild nests - climbing trees, building nest platforms, even climbing a ladder balanced in a boat...! CRC bands its released birds courtesy of BLM, we occasionally get fish from the ODFW hatcheries, and other food from the State Police evidence locker after the prosecution of a poaching case. We do campground presentations and participate in other educational events for the Forest Service, which has also awarded us a grant for our education programs in each of the last seven years.

The fact that this mutual respect and cooperation were not universal, however, was brought home to me one spring when I attended a breakfast meeting of biologists working for various agencies. I was asking for assistance finding a great horned owl nest into which to foster a young orphan. Whew! Although many were receptive, one at least was quite vocally opposed: because (1) great horned owls were common birds that have caused problems with other, less common species such as spotted owls and peregrine falcons; (2) he insisted climbing to a nest for such a reason would be illegal, constituting harassment under the Migratory Bird Treaty Act; and (3) wildlife rehabilitation was a waste of time and resources anyway.

In a subsequent one-on-one discussion, I assured him that US Fish & Wildlife has said that fostering is a legitimate reason for bothering nesting birds. (Biologists "bother" nests all the time, mind you, to monitor, count, band, check food remains, etc., but that's "science," and rehabilitation is not -- science serving a "greater" good somehow.) When pressed on the "common species" argument, the biologist admitted that he could see the value of rehabilitation for species such as spotted owls or goshawks but considered our time wasted working with red-tailed hawks, screech owls, and others whose populations are doing fine in the human-altered landscape. I pointed out that I would be unlikely to have a fully-functioning wildlife facility for the one goshawk that has been found locally in 15 years, if I weren't also working with the more common species. Nor would I have the experience to address the problems the rare ones might have, if I hadn't worked with hundreds of others. It's also unlikely that a member of the public finding an injured goshawk or peregrine falcon would know we existed, if we weren't also there for the sharp-shinned hawks or kestrels hitting their window.

This "specism," however, is only one aspect of the argument against wildlife rehabilitation on the part of some members of the scientific community. Another is the concern that we are working with individual animals, having either no impact on the species' population as a whole (yet utilizing resources that would be better spent protecting habitat or population research) or, worse, having a negative impact by potentially returning to the wild an individual that "natural selection" was removing as unfit. Well, even a non-"ologist" such as I can tell you that they can't have it both ways. Either rehabilitation has no impact because we are primarily working with species whose population is so large that whether all the rehabilitated individuals lived or died would make no statistically significant difference OR we have as much chance of making a positive impact as a negative one. Personally, I and most rehabilitators would agree that even the millions of animals with which we have collectively worked probably have made no statistically measurable impact on most species. Of course,

I do have a friend in Arizona who rehabilitated one of the California condors recently released at the Grand Canyon...!

Rehabilitators have made a difference to millions of individual animals, however -- why is that not important? The ultimate specism, of course, is anthropocentrism ("considering human beings as the most significant entity of the universe," according to my very old Webster's Collegiate Dictionary.) Despite the vast overpopulation of humans these days, any of us would stop to help a child injured beside the road. Why not the raccoon, squirrel, hawk or eagle?

To me, the fact that so many humans care about injured or orphaned wildlife is what pulls me out of the depression I fall into whenever I consider the fact that our own population has just passed the six billion mark. Which takes me to one of the strongest arguments for wildlife rehabilitation, in my opinion: the very fact that rehabilitators and rehabilitation facilities exist is an affirmation to members of the public finding an injured animal that caring about wildlife is appropriate. Most state wildlife agencies cannot respond to the public's demand that injured wildlife be helped; in fact, there are many instances where a wildlife agency's response is to kill an animal that might otherwise be saved. That, in turn, does no good for the agency's public image and is probably one of the reasons rehabilitation is tolerated; few agencies embrace it fully, though this is changing. We have made definite strides towards being considered partners in conservation.

This fact is not at all restricted to the United States, North America, or even the developed countries. Being on the Internet, I get e-mail from all over the world. My favorite recent case was an architect in Turkey who found an injured sparrow hawk (an accipiter like our sharp-shinned hawk, not known for its easy care in captivity). He took photographs and sent them electronically so I could identify the bird; I did my part for Greco-Turkish relations by introducing him, via e-mail, to a rehabilitator in Greece more familiar with the indigenous species; on our advice, the architect constructed appropriate short-term housing to protect feathers and feet, found live food (quail) for the bird in the markets of Istanbul and got him, finally, to eat. Between the three of us we got that bird successfully rehabilitated and released! There is also wildlife rehabilitation going on in Mexico and Belize, Thailand and throughout Africa.

There are people everywhere who care about their native animals. Thanks to the Internet, these people no longer have to work in isolation, re-inventing the wheel with each new species or type of injury they see. The Turkish architect plans to spend his vacation at the rehabilitation facility in Greece, to learn more. If he has the interest and time to establish a rehabilitation effort in Turkey, it will spread. Spreading conservation values will help decrease incidents like his, where he had to convince the grocer whose window the sparrow hawk hit not to keep or sell the bird as a pet. In Greece, education of children has become a priority, involving whole schools, even villages, in the release of birds found nearby, so that the next generation will be less likely to shoot the many birds that come through on migration.

Wildlife rehabilitators are also in a prime position to monitor circumstances that might evade the scientific community: for example, a rehabilitator in Connecticut turned in the first confirmed case of West Nile Virus in the state. West Nile Virus is a zoonotic disease which has been recently documented for the first time in the Western Hemisphere; it is spread by mosquitoes and effects birds as well as people. The virus has been concentrating in New York, and has so far affected 17 different bird species, as well as causing an encephalitis

in humans. Scientists have expressed a great deal of concern that birds migrating through New York could spread the virus down south, where mosquitoes are active longer. Rehabilitators can help monitor this, if appropriately informed. [This article was first written in 2000 - West Nile Virus is now, in 2018, found throughout most of North America, the Caribbean, and south.]

After an initial panic on the part of public health authorities, rehabilitators have been responsible for helping to slow the spread of rabies in the epizootic outbreak in the Middle Atlantic states. Rehabilitators have been whistle-blowers in flagrant violations of the Migratory Bird Treaty Act by identifying large numbers of gunshot or poisoning victims coming from a specific area. Rehabilitators have been instrumental in getting lead shot banned at federal wildlife refuges, due to the high number of lead poisoned waterfowl and raptors that were coming in for help. Locally, rehabilitators help contain the cyclical outbreak of canine distemper in the raccoon population, which also affects fox and coyotes, weasels and mink, and, obviously, domestic dogs. Rehabilitators are uniquely positioned to monitor and report new and continuing outbreaks in diseases, such as Coot and Eagle Brain Lesion Syndrome (vacuolar myelinopathy), avian cholera, and botulism. Rehabilitators providing information on non-target victims of products such as Rid-a-Bird have resulted in the product being outlawed in most states.

Certainly, saving habitat and other large-scale efforts should continue to be high priority. However, equally important is showing the public what they can do as individuals. Sometimes the global situation can be so disheartening that providing small individual, local actions can help keep apathy at bay. Creating backyard habitat with native plants that produce food and shelter for wildlife, keeping cats inside and dogs on leashes, avoiding the use of barbed wire or making it more visible, making windows safer for birds, eliminating the use of rodenticides, pesticides or herbicides, restricting pruning and landscaping to the non-nesting season ... there are many individual actions that can be taken that add up to respecting the needs of, leaving room for, and learning to live with, wildlife. We also, obviously, encourage saving individual birds that hit the window or animals that are found beside the road by taking them to a licensed rehabilitator. People taking these steps will naturally care about the wider spaces, the bigger picture because they have seen the value of it in their own backyard; they have had the privilege of saving that baby squirrel, or seeing that owl return to the wild. Certainly, rehabilitators are not alone in fostering this “think globally, act locally” attitude toward habitat and wildlife. However, for people who do not subscribe to birding or conservation magazines, the local rehabilitator is an important resource.

By the way, the only objection to wildlife rehabilitation I have heard addressed by the general public was a concern that we were “interfering with nature” or that we should “let nature take its course.” They are perhaps thinking we are out there rescuing the antelope from the cheetah or the squirrel from the hawk -- the nature “red in tooth and claw” that they see on nature documentaries. The truth is we very rarely see animals injured in a natural predator/prey situation unless a human intervenes, which we definitely don’t encourage. We almost always have to euthanize the victim of such an attack because of the severity of its injuries; thus the “savior” has probably caused the death of two animals, since the predator now has to go catch another one!

Yes, we may occasionally rescue a naive young predator who just does not yet have it together and is simply starving. For these, we are providing a second chance --but if they are truly genetically weaker, a second chance is probably not enough to keep them in the gene pool long enough to contaminate it.

For the most part, the vast majority of animals finding their way to rehabilitators have been injured or orphaned because of human-related problems. What rehabilitators are doing, most of the time, is trying to redress problems caused by humans and our lifestyle -- our cars, windows, power lines, traps, fishing line... our thoughtlessness or carelessness or failure to consider the impact of our actions on the other 99% of the earth's inhabitants. Those who think eagles should "learn" to discriminate against perching on power poles, for example, or stop hunting beside the road, should remember that such natural selection may take aeons. It doesn't have much of a chance of working when humans keep changing the playing field. One thing rehabilitation is doing, in those areas where it is regulated, is keeping animals out of the hands of the well-meaning but ignorant public. Untrained people have fed cow's milk to every mammal, and even birds, or tried to raise baby raptors on hamburger, have smuggled potentially rabid animals into new areas or released imprinted birds or ones not able to recognize their natural food. In many places, licensed rehabilitators have to pass tests, meet continuing education requirements, have their facilities inspected, and have to build those facilities to certain standards.

There are, of course, still good and bad rehabilitators, just as there are good and bad scientists. Gone are the days, for the most part (although I have a few recent horror stories I could share) when scientists would shoot 3,000 broad winged hawks in order to examine their stomach contents; or cut down nest trees to count screech owl eggs. Most science tries to be as non-invasive as possible, I hope. Not all rehabilitators have chosen to invest in their own continuing education and some might be using outdated techniques or inadequate diets. They may not all have the funds for adequate housing and some might be releasing animals before they are ready. Some rehabilitators may not have the ethics to see that non-releasable wild animals have a right to euthanasia (or may let their personal death issues get in the way) and might be keeping animals in captivity that would be better off put to sleep. Some rehabilitators may still deserve the "bunny-hugger" label and might not be capable of taking the steps necessary to keep young animals from habituating or imprinting on humans. These are the cases that get thrown in our face by biologists who object to wildlife rehabilitation.

However, the vast majority of wildlife rehabilitators are active seekers, constantly striving to improve their ability to meet the needs of the animals entrusted to their care through better information, more networking, better diets, better housing and conditioning, better medicines and surgical techniques as more veterinary schools devote class time to wildlife medicine. As the public becomes educated (often by programs presented by rehabilitators), they become more demanding. Most regulatory agencies are finding that the public insists that injured or orphaned wildlife receive care. My only concern is that people causing problems for wildlife (poisons, windows, cats, barbed wire, oil spills) must not be allowed to think their responsibility ends by finding help for the injured; they must also take responsibility for preventing further problems.

In summary, I think wildlife rehabilitation does both quantifiable and non-quantifiable "good." Quantifiable are the numbers of animals helped, suffering eased, the number returned to the wild. Also countable are the number of phone calls -- each one an opportunity to educate the public -- about "nuisance" animals as well as injured or orphaned, many providing a chance to tell people when not to intervene, as well as when it is appropriate. We know how many finders want to be present at a release but cannot know how saving the life of this one animal impacts the rest of their lives.

We can count the number of people attending educational presentations, but not the number of hearts that have been moved by the true stories we tell, nor the future actions that have changed because of them.

We can count the number of dollars raised by a local school for “their” mascot falcon but not the next step that might be taken to start a recycling center at the school, to have a class “adopt” an acre of rainforest, or to have one child go on to study biology or electrical engineering and be instrumental in making power poles and lines safe for raptors. We cannot count the good that comes from fostering the idea of caring for a living being that you also have the power to destroy.

Acknowledgements

The Delaware Council of Wildlife Rehabilitators and Educators is grateful to the following individuals who provided input for the development of this information.

Mickey Baccio, Wildlife Rehabilitator and DCWRE Member – Author

Dawn Webb-Cox, President of DCWRE – Editor

Tricia Arndt, Office of State Planning Coordination

Joe Rogerson, Program Manager II, Species Conservation and Research, Delaware Division of Fish and Wildlife

Louise Shimmel, Executive Director, Cascades Raptor Center, Eugene, Oregon

February 1, 2018