



NEWSLETTER FOR WILDLIFE REHABILITATORS

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State Investigates Duck Deaths



Photo provided by Toni O'Neil

The state Department of Agriculture is still trying to find out what caused the deaths of several Muscovy ducks in Swansboro in July.

Toni O'Neil, who operates Possumwood Acres Wildlife Sanctuary, took in several of the ducks, many of which showed respiratory symptoms. The ducks O'Neil saw in downtown Swansboro were unable to hold up their heads and were convulsing. Many had mucus in their mouths.

OWLS (Outer Banks Wildlife Shelter) in Newport also took in several ducks.

PAPER CHASE: Do you know what permits you need to operate within the law? **Page 2**

RELAX! Managing stress: Keeping rehabbers healthy.

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RABIES: The USDA expands its program to stem the spread of the disease. **Page 15**

OH, DEER! The state Wildlife Resources Commission is recruiting fawn rehabilitators in several counties. **Page 6**

CALL FOR SPEAKERS: The 5th annual symposium is just

The opinions, techniques and recommendations expressed in the articles of this newsletter are those of the author(s) and do not imply endorsement by WRNC.

Are you legal?

The following are hypothetical scenarios. Figure out what permits or licenses are required or if the proposed plan would be allowed. Answers are on page 21.

1. Jane Doe has been a volunteer at ABC Wildlife Rehab center in Anytown, B State, USA, for several years. She recently moved to North Carolina and decided to do wildlife rehab out of her home. She plans to rehabilitate squirrels, fawns and raptors because those are the animals she worked with at the center where she volunteered. What permits/licenses does she need?

2. Joe has been rehabilitating mammals in North Carolina for a few years and has his North Carolina rehab permit. A squirrel that developed congenital malocclusion of the incisors needs repetitive dental work to keep its teeth from overgrowing. The squirrel has a very calm disposition and tolerates being in captivity and being handled. Because the squirrel is not suitable for release, and Joe does education programs for local schools and groups, he decides to use this squirrel as a live ambassador in his programs. This would be an additional draw for people to book his program, which provides the donations to pay for his rehab efforts. What permits/licenses does Joe need before he can move forward with his idea?

3. Mary Jane has a North Carolina rehab permit including raptors and also a federal rehab permit allowing her to rehab raptors. She received a red-tailed hawk for rehab that had been shot, destroying the hawk's right wing. In order to save its life she wants her vet to do an amputation at the humeral/radial joint (elbow). She knows it will never be releasable but she will find someone who does education programs with raptors and place the bird with them to use for that purpose. Should she move forward with the surgery? Will Mary Jane be able to place the bird with an educator that uses live animals?

4. Same scenario as above, however the wing was fractured and will heal except the bird will never recover full flight capabilities (non-releasable) AND Mary Jane wants to use the hawk to do education programs herself. Can she use this bird? If so, what permits/licenses would she have to have? How long can she hold the bird under her rehab permits?

5. George and Jean have been doing rehab of small mammals and songbirds for years. They have a North Carolina rehab permit and federal migratory bird permit for songbirds. Lately, the local schools have asked them to do short education programs on native wildlife. Because it's the middle of baby season they figure they will take some of the infant mammals and nestling birds in with them to show the kids during their "talk," which they are doing free of charge. Are they allowed to do this legally under their rehabilitation permits, or do they need to obtain additional permits/licenses?

The Paper Trail: What permits do you need?

By Beth Knapp-Tyner
WildatHeartRehab@aol.com

Keeping up with all the rules, regulations, permits and licenses required to legally rehabilitate wildlife and possess education animals can be very confusing. Several government agencies may require applications, permits, approvals and inspections, and there is no “one-stop shopping” to tell you what you must have from each agency for each situation. It’s also a good idea to check with your county and/or city to find out if there are zoning restrictions about keeping wildlife on your property.

This leaves many rehabilitators/educators bewildered and overwhelmed trying to keep track of all the paperwork and requirements. It’s the same feeling many people experience when it comes to filing federal tax returns.

All of this is required to stay legal, in addition to keeping up with what you originally set out to do: care for wildlife and help the public.

Make copies of your permits and licenses and keep copies of them in your vehicle in case you’re traveling with animals and need to show them.

On the next page is a table listing the general requirements needed to rehabilitate different species of wildlife and the permits needed to possess them or use them in education programs in North Carolina.

Your North Carolina rehabilitation permit **MUST** specifically list general species classes for rehabilitation (small mammals,

songbirds, raptors, etc.) for you to legally rehabilitate them. Only small mammals and reptiles require no further permits or licenses for rehabilitation purposes.

Migratory birds are governed by the U.S. Fish & Wildlife Service. Without a federal migratory bird rehabilitation permit in addition to your North Carolina rehab permit; you are not allowed to rehabilitate songbirds, waterfowl or raptors (exceptions are noted in footnotes below table). This rule is stated in bold print on the North Carolina rehabilitation permits.

In putting this information and table together, I consulted with Daron Barnes, permits and planning supervisor of the North Carolina Wildlife Resources Commission, and Michelle Outlaw of the U.S. Fish and Wildlife Service Migratory Bird Permit Office in Atlanta.

“I would also stress that the possession of an educational permit is strictly for educational purposes only,” Barnes said. “We do not issue non-releasable permits (probably soon to be termed captivity permits) to possess wildlife for strictly long-term care or to have as a pet. If the animal can not be reintroduced to the wild and is unfit for an educational animal, it needs to be humanely euthanized.”

Outlaw emphasized that rehabilitation will only be allowed for specific species for which the rehabilitators already has flight cages. The cages must meet NWRA minimum standards for size. For example, red-tailed hawks must have cages measuring 10x50x12.

“If the permitted rehabilitator does not have flight caging appropriate for the spe-

cies, they must transfer those birds within 48 hours.”

Native mammals used for education programs require not only a possession/education permit from the state but also an USDA/APHIS Class “C” license if any donation, fee, or in-kind transaction is involved, according to Barnes and Rob Mitchell, inspection and licensing assistant for southeast region, USDA/APHIS.

Some permits and licenses require a fee and some require year-end reporting. The following are the current fees and reporting requirements:

*Includes \$10 application fee.

Permit	Fee	Term	Reporting required
NC Rehabilitation	N/A	Two(2) years	N/A
Special Fawn Rehab	N/A	Annual	Year-end reports
NC Captivity Permit	\$5	Annual	N/A
NC Salvage Permit	\$5	Annual	Year-end reports; transfers
USFW Federal Rehabilitation	\$50	Five (5) years	Year-end reports
USFW Possession/Ed Live	\$75	Three (3) years	Transfers/Acquisitions; year-end program reports
USFW Possession/Ed Dead	\$75	Three (3) years	Transfers/Acquisitions
USFW Salvage Permit (birds)	\$75	Three (3) years	Year-end reports
*USDA/APHIS Class “C” license (1-5)	\$40	Annual	N/A
*USDA/APHIS Class “C” license (6-25)	\$85	Annual	N/A

Although the list of what is required and the paperwork involved may seem daunting, reading and answering all the questions on applications is the best approach. You should carefully read your permits and addendums when you receive them.

The following table shows what permits are required for different species. If you have further questions, contact the proper authorities. Please read through the footnotes where noted under the table, to help clarify important points about different permits.

Species	NC State Rehab	Federal Rehab	Captivity/Possession for Education***
Mammals, excluding those listed separately	General rehabilitation with inclusion of "mammals" stated	N/A	State and USDA Class "C" license* Renewed annually ²
Raccoon, fox, skunk, bats	Not permitted	N/A	State and USDA Class "C" license* Renewed annually ²
White-tailed fawns	Special fawn permit	N/A	Not allowed
Bear	Not permitted	N/A	Not allowed
Reptiles	General rehab with inclusion of "reptiles" stated	N/A	State
Songbirds	General rehab with inclusion of "songbirds" stated**	Migratory bird rehabilitation permit ¹	State and federal permits ¹
Waterfowl, shorebirds	General rehab with inclusion of "waterfowl, shorebirds" stated**	Migratory bird rehab with inclusion or no exclusion of these type species ¹	State and federal permits ¹
Raptors D	General rehab with inclusion of "raptors" stated**	Migratory bird rehab with inclusion or no exclusion of "raptors" ¹	State and federal permits ¹
Dead specimens/parts mammals general (i.e. mounts, skins)	N/A	N/A	State salvage permit ¹
Dead specimens/parts migratory birds (mounts, skins, feathers, feet, wings, eggs, nests, etc.)	N/A	N/A	State salvage + federal possession (dead) permits ^{1, 3}

*USDA Class "C" license required if commerce is affected (i.e. fee charged, donation accepted (in-kind or cash), promotion/advertising for donations) whether \$1 or \$1,000.

**A state rehab permit which includes birds does not allow rehabilitation of birds, WITHOUT a Federal permit ALSO! You MUST have BOTH to legally rehabilitate migratory birds. The following bird species are exempt from the rules above and do NOT require permits to rehabilitate or possess: starlings, English house sparrows and some pigeons. The following species of pigeons require permits: pigeon, band-tailed, Columba fasciata, Plain, Columba inornata red-billed, Columba flavirostris, Scaly-napped, Columba squamosa, White-crowned, Columba leucocephala.

***Captivity/possession permits are issued for non-releasable wildlife used for educational purposes only. Permits will not be issued to keep wildlife as "pets."

¹ There is a fee for this permit and annual reporting required.

² There are fees involved, annual reporting & USDA on-site inspection.

³ For migratory bird specimens: Federal possession permit only allows specimens from a rehabilitator (for example) to be transferred. The collecting of specimens from the wild (i.e. road kill), requires a separate salvage permit. Specimens must be lawfully obtained before a possession permit is issued or amended.

D The minimum standards recommended for flight cages are required for each species one wishes to rehab and/or possess. Species allowed to care for will be limited to those for which appropriate cage size is in place. (i.e. red-tailed hawks will require the rehabber have a 10'x50'x12' flight) Species allowed to rehab will be stated on permits. Otherwise these species can only be held for 48 hours before transfer to a permitted facility/rehabber.

You Found a Fawn. So Now What?

By Justin McVey
North Carolina Wildlife Resources Commission

Besides being biologically irresponsible, removing a fawn from the wild is illegal unless you're a fawn rehabilitator permitted by the North Carolina Wildlife Resources Commission. With the exception of trained wildlife rehabilitators, most people are ill-equipped to care for a fawn. Attempts to "save" an abandoned fawn typically do more harm than good. A fawn's best chance of survival is to remain in the wild. In fact, most captive fawns eventually die unless they're taken to an experienced fawn rehabilitator.

At the peak of fawning season in May and June, people often see fawns left alone and assume they have been abandoned by the doe. Usually, that's not the case. Whitetails are a "hider" species: the female hides her fawn in vegetation during the first two or three weeks of its life as she feeds.

Dappled and lacking scent, fawns are well-camouflaged and usually remain undetected by predators. The doe returns to the fawn several times a day to nurse and clean it, staying only a few minutes each time before leaving again to seek food. The doe also will consume



Fawn Rehabbers Needed!

The Wildlife Resources Commission hopes to recruit fawn rehabbers in the following counties:

Alamance	Hertford
Bertie	Hyde
Beaufort	Hoke
Bladen	Jones
Brunswick	Lenoir
Camden	Lee
Carteret	Martin
Caswell	Onslow
Chatham	Orange
Chowan	Pamlico
Columbus	Pasquotank
Craven	Pender
Currituck	Perquimans
Cumberland	Pitt
Dare	Randolph
Duplin	Robeson
Durham	Rockingham
Gates	Scotland
Guilford	Tyrell
Granville	Washington
Greene	
Harnett	

If you have experience rehabilitating fawns or similar species and are interested in becoming a permitted fawn rehabilitator, visit the Wildlife Resources Commission's website for an application and to view a list of facility requirements. The application can be found at www.ncwildlife.org by navigating to "Licenses/Permits/Registration/Titling" on the left hand side, then going to "Other License/Permits" under Sub-topics. Once there, scroll down to "Other Permits" and click "Fawn Rehabilitation Permit."

the fawn's excrement to eliminate odor that might attract a predator.

Fawns are not as helpless as they might appear. By the time a deer is 5 days old, it can outrun a human. At 3 to 6 weeks of age, fawns can escape most predators. Typically, fawns are functionally weaned by about 10 weeks and are eating vegetation although they may continue to nurse for another 4 to 6 months.

With a diet that may include more than 500 types of plants, fruit and mast, whitetails have proven to be an exceptionally adaptable species. Now numbering about 1.1 million in North Carolina, deer have made themselves at home not only on farms and forests, but also in suburban yards and parks.

Unless a fawn is in imminent danger — for example, being attacked by dogs or injured in a tractor-mowing accident — the best decision always is to leave it alone. If you are concerned about the fawn, leave the area and check on the fawn the next day. Do not remain in the area. Does are very cautious and won't approach a fawn if they sense danger. It's a myth, however, that does will reject a fawn with a human scent.

If a fawn is in the exact location when you check on it the following day and bleating loudly, or if a fawn is lying beside a dead doe (likely at the side of a highway), do not take the fawn into your possession. Call the Wildlife Resources Commission at (919) 707-0040 for the telephone number of a rehabilitator. A list of current permitted fawn rehabilitators is listed on its website at www.ncwildlife.org.

You can navigate to the list by clicking on "Coexisting with Wildlife," going to "Contact a Wildlife Rehabilitator," and then clicking on the link for "list of fawn rehabilitators."

The Role of Veterinarians

The North Carolina Veterinary Practice Act, Chapter 90, Article 11 of the General Statutes of North Carolina allows any veterinarian licensed by the North Carolina Veterinary Medical Board to treat or euthanize white-tailed deer fawns without obtaining a permit from the North Carolina Wildlife Resources Commission. Veterinarians are under no obligation to treat or euthanize fawns but are allowed to do so provided they do not possess these animals longer than 24 hours unless they are under the direct care of a permitted fawn rehabilitator. Once fawns have received veterinary treatment they must be transferred to a permitted fawn rehabilitator.

Directory Updates

Have you moved? Has your email address changed? Is your phone number listed incorrectly in the directory?

Send updates to Carla Johnson at Wildlifefeed2@aol.com



Pearls of Wisdom

One way to get woodpeckers to eat is to dribble the FoNS diet on a branch, and let them lap it up. This also works for titmice.



Managing Stress: Keeping Rehabbers Healthy

By Linda Bergman

As wildlife rehabilitators, our schedules are irregular at best and unpredictably altered often, thereby demanding flexibility in our lives. You might be thinking, "What is a schedule?" Every day we face some kind of challenge, big or small. There are decisions to be made and changes that require adapting any plans already made. You might be thinking, "What is a plan?" (Especially right after a busy baby season - did Bailey or Mundson ever get appropriate companions?) As is the case for most wildlife rehabilitators, we are usually over-extended, to say the least. We have the desire, passion and commitment to rehab all wild animals requiring care, which means the 'bat phone' may ring at any moment, day or night. It's our calling. But pack on normal lives with relationships and families (including pets), committee memberships, juggling jobs or school, trying to meet deadlines (or not), making ends meet for those of us who are not independently wealthy (well, that's about everybody) and maintaining our living spaces and vehicles, then pile on the urgent need to build a makeshift dam to save a lake nearly drained by an over-reactive city worker during a rain storm, and you've just created a to-do list a mile long. (i.e. 1. find sand bags 2. find someone else to lift sand bags)



The 'wear and tear'

Now to address the dreaded six letter mental and physical "owe," stress. Stress is the "wear and tear" our bodies experience as we adjust to our continually changing environment. Stress is that common buzz-word we throw around to describe things going on in our lives that we perceive as challenging, threatening or a major hassle. With every challenge and change required, we must respond, but we don't all respond in the same way. Some of us respond more positively than others, which ultimately keeps those 'positive responders' healthier. Stress isn't all bad, though. The fact is, we have to have some stress. If we didn't have any stress, we would be dead. I know that sounds harsh, but it takes a certain amount of stress to wake up every day, get out of bed and head on down the road! So that's an example of some good stress. It's the negative manifestations of stress that will give us problems that in some cases become difficult to undo.

Stressors are subjective. What might stress you, may not stress me and vice versa. In our field of wildlife rehabilitation, stressors can be quite unique. A lone rehabber feeding 37 infant squirrels three and four times a day immediately following a hurricane, may feel extreme stress until helpers or hand-offs are found. A pelican dying after appearing to show indications of recovery can be quite stressful. The decision to euthanize an animal, although we intellectualize the need as the only gift we have left to give, can be emotionally stressful, which is understandable. We care. That's why we do what we do. The infant and the juvenile nursery at the shelter may seem overwhelming during baby season on a day when your fellow shift volunteer is a no-show.

The knowledge that one of your species, a human, kicked a mother opossum to near death may be way too hard to wrap your head around and cause anger, which is also stressful. Your tolerance of clashing values between people who care about conserving wildlife and those who don't is an ongoing stressor to be managed. You can probably come up with 10 or more stressors in your own unique rehab environment.

Negative stress shows itself in many ways.

Physical problems can include unusual fatigue, headaches, sleeping problems, frequent colds, rashes, ulcers, chest pain, high blood pressure or heart disease and possibly upset stomach or nausea.

Behaviors can also be affected. We might begin pacing, eating too much or too little, crying a lot, smoking or drinking more than usual, avoiding people or tasks, physically striking out at others by hitting or throwing things or over-reacting to the least annoyance.

Emotionally, people who have a problem managing their stress often experience anxiety, depression, feelings of distrust and rejection, fear and irritability, as well as anger and frustration.

Mental symptoms of stress include problems in concentration, memory and decision making and people often lose their sense of humor.

We all experience some degree of stress on a daily basis, but some people feel the negative effects of stress more acutely because they appraise any annoyance, challenge or change as a threat rather than an opportunity. If this response is the norm for an individual, their personal list of stressors will generally shoot off the graph and into the danger zone! But identifying unrelieved stress and being aware of its effects isn't sufficient for reducing the harmful effects. Although, we can't rid our lives of stressors, we can minimize their effects by focusing on wellness in our everyday life. Practice behaviors and lifestyle choices that promote both physical and mental health, so stress won't make you sick.

Here are some tips on how to minimize stress and promote wellness:

Change your thinking. In many cases, situations do not cause all of the stress we experience. Sometimes, our reaction to circumstances (and what we say to ourselves about them) contributes to the stress we experience. Become an optimistic thinker. Look for positive outcomes rather than always looking for the worst to happen. Optimism is associated with longer life and increased immune system functioning. Negative thinking damages your performance by undermining your self-confidence. It also occupies your attentional capacity when you need to focus your mind on what you are doing.

Exercise. No one likes to admit it, but exercise is the best way to become healthier. It makes the heart healthier, raises the body's metabolic rate, raises good cholesterol and lowers the bad, strengthens bones,



improves sleep quality, reduces tiredness, and increases natural killer cell activity to help ward off viruses and other ailments. If exercise has not been a part of your life, start slowly with an exercise regimen and get advice from your doctor or a health professional.

Get involved with others. Make it a point to do things with other people; extend your social circle. The benefits mutually supportive friendships/relationships provide are immeasurable.

Get some sleep. Most of us don't get enough sleep. Try to get 7 to 8 hours of sleep a night (including weekends) to restore your body physically and allow stress management that occurs when you're dreaming. Try to go to bed and get up at the same time everyday.

Eat healthy foods. Eat breakfast every day, to include a good amount of protein for concentration, alertness and to prevent overeating during lunch and dinner. Include healthy snacks (apples, nuts, bananas, etc.) at least twice during the day.

Have some fun. Playing is important (helps prevent burn-out).

Schedule some time to relax, take a walk, read a book, (like mine: www.bergman-althouse.com) or just do something, ANYTHING you consider fun.

Manage your time. Give yourself a sense of control over things that need to be done by prioritizing the most important and urgent tasks (which, for a wildlife rehabilitator, will most likely change throughout the day). Some people like a check list which rewards them with a sense of accomplishment each time you check off an item.

Take a deep breath. When feeling stressed, take a moment to cope. Take some deep breaths to help calm yourself and relax tension. If you feel like crying, find a quiet, private place and cry. Crying can relieve stress.

Higher power. A belief in a higher power can also be a source of great comfort in times of stress.

Meditation. A series of mental exercises can refocus attention and help you achieve a trancelike state of consciousness producing relaxation that aids in coping with the physiological reactions in a stressful situation. If you can't achieve meditation, quiet time is also beneficial.

Many health professionals have their own approaches and buzz words to assist you in managing stress, such as stress diaries, states of flow, ladder mnemonic, but they are all focused on the same result: minimizing the effects of negative stress. Try to see stress as something you can cope with rather than something that overpowers you. Expect some frustrations, failures, and sorrows along the way, but always be kind and gentle with yourself -- be a friend to yourself. Your friends, co-workers, co-WRNC members, loved ones and the animals out there need you at your best!



Stress Quiz -- How do you cope with stress?

Use this stress scale as an educational tool, to help inform you of how many building blocks you use to strengthen your coping skills and where you might be missing a brick. Follow the instructions for each item below.

1. ____ Give yourself 10 points if you feel you have supportive family around you.
2. ____ Give yourself 10 points if you actively pursue a hobby.
3. ____ Give yourself 10 points if you belong to a social or activity group in which you participate more than once a month.
4. ____ Give yourself 15 points if you are within 10 pounds of your "ideal" body weight, considering your height and bone structure.
5. ____ Give yourself 15 points if you practice some form of "deep relaxation" at least five times a week. Deep relaxation includes meditation, progressive muscle relaxation, imagery and yoga.
6. ____ Give yourself 5 points for each time you exercise for 30 minutes or longer during an average week.
7. ____ Give yourself 5 points for each nutritionally balanced and wholesome meal you eat during an average day. A nutritionally balanced meal is low in fat and high in vegetables, fruits and whole-grain products.
8. ____ Give yourself 5 points if you do something you really enjoy and which is "just for you" during an average week.
9. ____ Give yourself 10 points if you have a place in your home to which you can go to relax or be by yourself.
10. ____ Give yourself 10 points if you practice time management techniques daily.
11. ____ Subtract 10 points for each pack of cigarettes you smoke during an average day.
12. ____ Subtract 5 points for each evening during an average week that you use any form of medication or chemical substance, including alcohol, to help you sleep.
13. ____ Subtract 10 points for each day during an average week that you consume any form of medication or chemical substance, including alcohol, to reduce anxiety or just to calm down.
14. ____ Subtract 5 points for each evening during an average week that you bring work home (which for wildlife rehabilitators, could be every day of the week!)

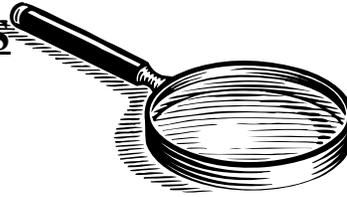
Now calculate your total score.

A "perfect" score is 115. If you scored in the 50-60 range, you probably have adequate coping skills for most common stress.

However, keep in mind that the higher your score, the greater your ability to cope with stress in an effective, healthy manner.

Linda Bergman, president of WRNC, teaches stress management to Psychology curriculum students and provides "Coping With Stress" workshops for industry and manufacturing clients across North Carolina

TEST YOUR DIAGNOSTIC SKILLS



An ailing mourning dove

A baby mourning dove is brought to you by a woman who says it “fell out of the nest.” The initial physical exam is unremarkable. You use your standard protocol to raise the squab for release. On Day 6 you notice a whitish lump in the bird’s mouth. It has not gained weight in two days. Though it begs for food and attempts to eat, its droppings are beginning to get runny and tinged with green urine.



Questions to consider:

1. What is in the dove’s mouth?
2. How should it be treated?
3. Can the bird be released after treatment?
4. How did the bird catch the disease?

For the answer, turn to page 20.

TRAINING

Oct. 7-8: IWRC Basic Wildlife Rehabilitation in Kingston, R.I. The organization will hold its first International Education Symposium Jan. 18-22 in Dallas, Texas. For more information, go to: www.iwrc-online.org/training/calendar.cfm

Nov. 4-5, South Carolina’s 1st Wildlife Rehabilitators Conference at Riverbanks Zoo in Columbia, S.C.
www.carolinawildlife.org/Conference_Information.doc or call Joanna Weitzel at 803-772-3994 or carolinawildlifecare@sc.rrcom



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SPOTLIGHT

Valerie Schindler Wildlife Rehabilitation Center

The Valerie Schindler Wildlife Rehabilitation Center was a long time coming.

The idea germinated for almost 10 years, though it's hard to pinpoint its origins. It had been talked about as far back as 1989 when Joan McMurray began volunteering with the zoo's neonatal unit. She was also caring for wildlife in her home and often asked zoo veterinarian Mike Loomis about how she should handle some of the animals under her care.

When the zoo began its veterinarian residency program with N.C. State University in 1992, McMurray began bringing some of her animals in for the vet residents to examine. Loomis thought that would give residents a chance to see the type of injuries and trauma they wouldn't see in a normal vet practice.

Still, it was another nine years before the center would open in August 2001. "We knew that one day we wanted a rehab center on site," McMurray said. "But it was a back-burner sort of thing."

Then serendipity took over.

McMurray was talking to Jayne Owen Parker of the Zoo Society in October 1999 when the conversation veered toward the topic of a rehab center. Owens thought the society could raise the money to pay for the project. When McMurray told Loomis about the conversation, he grabbed her by the wrist, took her outside, and started pointing to possible sites for a new building.

"He'd always wanted to have a rehab

"We knew that one day we wanted a rehab center on site. But it was a backburner sort of thing."

center on site but wanted to wait until he could do it right and not use one of the old buildings from the interim zoo to house the center. The fear was if a rehab center opened in an old building, it would remain in an old building not suited to the purpose."

Once the ball started rolling, it picked up speed.

Dr. Anton Schindler, a chemist from Durham, donated \$500 to the project after reading about it in the zoo's "Alive" magazine. Soon afterward, he submitted a challenge grant of \$200,000 to name the facility for his late wife.

Money started coming in. By July 2000, an architect had been hired.

More than \$400,000 was spent to build. The Zoo Society has raised a total of \$624,000, most of which has already been spent on equipment, caging and operational costs, Parker says.

The center, which operates under the zoo's state and federal permits, cares for about 1,000 animals a year. McMurray and about 50 volunteers staff the center, seven days a week.

The center has rooms for baby birds, raptors, mammals and baby mammals. Outside are enclosures built largely by volunteers to house squirrels, songbirds and mammals, as well as enclosed pools for waterfowl. Two flight cages have been built for recovering raptors. Resident raptors used in education programs have their own enclosure next to the center.

The center's philosophy is simple: Because many of the problems animals face are the result of human activities, humans are obligated to help them whenever possible. McMurray believes that rehabilitators must present themselves as rational, reasonable people, willing to listen to medical advice and be able to work with state wildlife officials.

"You can't be too far to the right or to the left in your ideas," she said. Last year, the state took over the building that houses the rehab center and will pay roughly half of its upkeep and operating expenses. The zoo is planning to hire a full-time paid staff person for the center later this year, to allow McMurray to cut back on the 80 or so hours she spends there every week.

"The center would have been built with or without me," McMurray said. "All I did was bring the two people together who could make it happen."

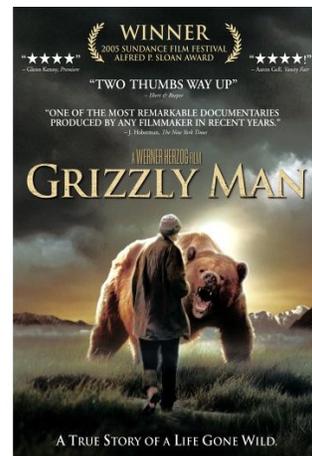
ON DVD

Grizzly Man

Director [Werner Herzog](#) chronicles the life and death of Timothy Treadwell who devoted his life to studying grizzly bears in the Alaskan wilderness. Treadwell, an amateur naturalist, spent 13 summers in Katmai National Park, living closer to the grizzly bears than possibly anyone else. The documentary depicts Treadwell as a troubled man with big dreams of rescuing the grizzlies. He comes across in equal measures as goofy, foolish, naïve and kind.

In a review of the movie for the New York Times, Manohla Dargis writes:

His death, as inevitable as it was preventable, could mean that he may have been more lost than found. Mr. Herzog remains generous to a fault on this particular point, perhaps because he recognizes that for someone like Treadwell, there is nothing more terrifying than being ordinary, even the claws of a grizzly.



About Us

This is a quarterly newsletter produced by the Wildlife Rehabilitators of North Carolina (WRNC). WRNC's mission is to share information and knowledge about wildlife rehabilitation for the benefit of native wildlife. For comments or questions, write to: WRNC, 2542 Weymoth Rd, Winston-Salem, NC 27103.

Battling Rabies with Vaccine Bait (Again)

Federal program fell short of its target last year

The United States Department of Agriculture began dropping rabies-vaccine baits over a 35-mile wide area stretching from Lake Erie to western North Carolina in August in an attempt to stop the disease from spreading westward.



The hope is that the vaccination program will contain the disease and eventually eliminate it, said Carl Betsill, a biologist for the USDA in Raleigh.

“Rabies works like a wild fire,” he said. “The more fuel it has, the faster it will spread.”

The USDA long believed that the Great Smoky Mountains would form a natural barrier to the disease because raccoon populations are sparse in higher elevations. But a surveillance program in 2004 showed an increase in rabies cases among raccoons in the French Broad River Basin, which increases the chance of the disease spreading across the mountains.

Rabies became prevalent in North Carolina in the 1990s, in part because raccoon hunting clubs illegally brought in infected animals to restock game supplies. Some infected animals may also have been brought in unwittingly on garbage trucks, Betsill said.

The first epidemic of rabies showed up in 1991 in northeastern North Carolina. The second wave showed up in Brunswick and Bladen counties in the southeast in 1992. A third outbreak spread to the state from southwest Virginia in 1995.

By 2004, 95 of 100 counties were reporting cases of raccoon rabies. The five counties with no reported cases – Cherokee, Graham, Macon, Mitchell and Swain – are in

rural areas with no animal control agencies, making it likely that some cases have gone unreported.

The vaccine baits – about the size of a fast-food ketchup packet and coated with fish meal – were dropped in Buncombe, Haywood, Madison, Mitchell and Yancey counties along the Tennessee border beginning Aug. 7.

The program has cost more than \$18.5 million so far, Betsill said.

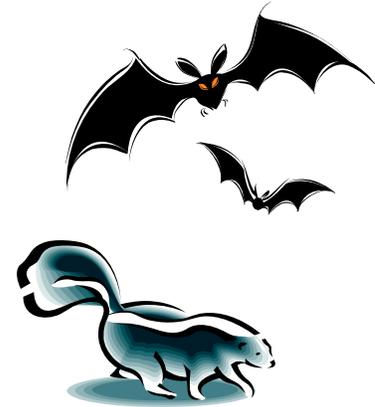
Previous vaccination efforts have been less successful than expected. Biologists estimated that about 30 percent of raccoons would ingest the bait. In order to measure the success of the program, blood samples were taken from about 120 raccoons before the bait drop. Those tests showed 3 percent of the animals had been exposed to the rabies virus and developed antibodies to the disease.

Tests conducted after the bait drop showed only about 7 percent had antibodies present.

The abundance of natural food for raccoons last year hampered the program, Betsill said. “Nature worked against us.”

During 2004, 49 states and Puerto Rico reported 6,836 cases of rabies in animals, a decrease of 4.6 percent from the previous year. Nearly 92 percent of the cases were in wild animals.

Species	Number of cases	Percentage
Raccoon	2,564	37.5
Skunks	1,856	27.1
Bats	1,361	19.9
Fox	389	5.7
Cats	281	4.0
Cattle	115	1.7
Dogs	94	1.4



County	Number of baits
Buncombe	5,634
Haywood	48,149
Madison	52,949
Mitchell	6,709
Yancey	22,416

In North Carolina, 135,857 baits were dropped over a 955 square mile area in 2005. The program was repeated in August.



Tufts University's School of Veterinary Medicine and members of the wildlife rehabilitation community have established a database that contains basic biological information for some species of birds and animals, such as weight and serum chemistry ranges. The site also includes links to wildlife rehabilitation groups, including IWRC, and government sites.

<http://www.wpi.edu/Projects/Tufts/mammal.html>

Submitted by Beth Tyner Knapp

BEGINNER BASICS

Dehydration 101: Getting Plenty of Fluids

By Jean Chamberlain
ichamberlain1@alltel.net

Fluids are important to the healthy functioning of all animals. Animals lose about 5% of their weight each day because of fluid loss. These fluids must be replaced by drinking water, absorbing the fluids in prey or from mother's milk. An orphaned baby mammal that hasn't been fed is dehydrated. An animal that is starving also will be dehydrated.

New rehabilitators need to recognize when an animal is dehydrated and learn to estimate the level of dehydration because this will be a factor in determining the amount of fluids to replace. Get as much information on the history of the animal as you can. Ask the person bringing you the animal if they know when it was injured or orphaned, when it was found, how long they had it and if it was given anything to eat or drink.

Look for signs of dehydration during the physical exam. Use the skin tent test (lifting skin and releasing, noting the delay in returning to normal). In a well-hydrated animal the skin will immediately return. Look for tacky mucous membranes, sunken eyes, wrinkled skin, depression and lethargy. Check the capillary refill time (press the skin or gums and note the length of time before pinkish color returns).

If an animal is dehydrated it is necessary to replace the fluid deficit. This may take a couple of days. It is also necessary to provide the additional fluids to maintain the fluid balance during the time when fluids are being administered. A starving animal cannot be fed until the fluid needs are met.

More information on hydration and fluid therapy can be found in both IWRC's Basic Wildlife Rehabilitation 1AB manual and NWRA's Principals of Wildlife Rehabilitation. Ask your vet or experienced rehabilitators to show you how to estimate dehydration and administer fluids, and then practice on cadavers. Attending the fluid therapy workshop at the symposium is one way to learn how to administer fluids under the skin, or subcutaneous (sub-q). All rehabilitators should be familiar with the principals of fluid therapy.



Lift the skin and release, noting how long it takes to return to normal.

CALL FOR SPEAKERS
WRNC 5th Annual Symposium
Jan. 26 – 28, 2007

Wildlife Rehabilitators of North Carolina invites members and associated wildlife professionals to give a presentation at its annual symposium Jan. 26 – 28. Presentations may be on topics such as species needs, natural history, veterinary medicine, education programs, administration and wildlife care.

Submissions will be accepted by mail or online. Submit a brief abstract of the proposed presentation with a short biography describing relevant experiences in your field and on the topic being presented. Individuals may submit more than one abstract. All submissions are subject to committee review. The symposium registration fee is waived for speakers.

TYPES OF PRESENTATIONS

ORAL PRESENTATION: a PowerPoint/slide presentation, demo, case study or skit on wildlife rehabilitation topics

WORKSHOP: a guided “hands-on” session demonstrating techniques or skills used in wildlife rehabilitation or a closely related field

PRESENTATION PROPOSAL

Please complete a form for each presentation that you would like to propose. Mail the completed form to WRNC, 2542 Weymoth Road, Winston-Salem, NC 27103, or complete and submit the form on our website <http://ncwildliferehab.org>

Name:

Address:

City/Town: _____ State: _____ Zip code: _____

Telephone number: _____ Alternate number: _____

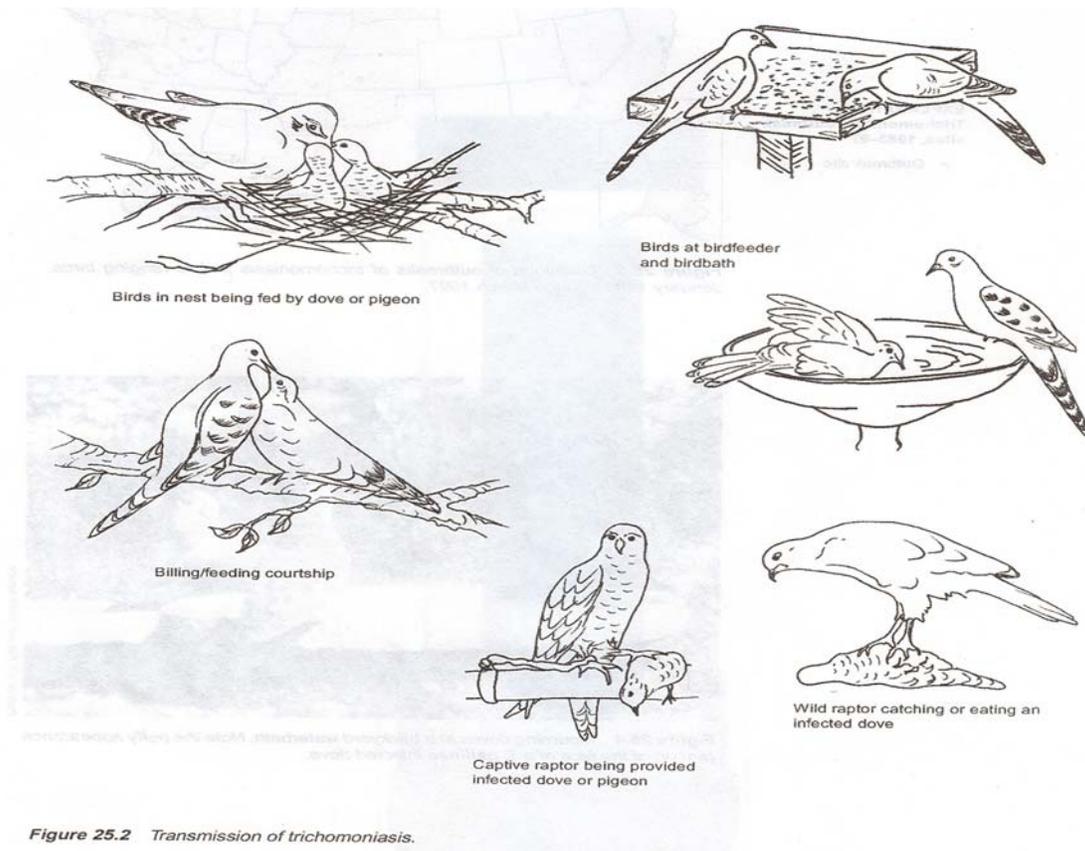
E-mail address: _____

Circle the type of presentation: **Oral Presentation** **Workshop**

Case Study: Were You Right?

Answers:

1. The mourning dove has avian trichomoniasis (trich), caused by a single-cell protozoan, *T. gallinae*.
2. Trich is easily treated with a single dose of Spartrix (carnidazole). This drug was taken off the market for several years. However, it is again available through various sources that supply pigeon breeders and racers. Some veterinarians also have this drug. No prescription is needed. The birds require good supportive care.
3. Yes, the bird can be released when it has completely recovered and is demonstrating all the appropriate criteria for release of the species.
4. Pigeons and doves can catch trich from their parents when they are fed. They can also get it from contaminated bird feeders and bird baths. Raptors can become infected when they catch and eat an infected dove or pigeon. See illustration below.



Discussion points: A good resource on avian trichomoniasis can be found at:

www.nwhc.usgs.gov/pub_metadata/field_manual/chapter_25.pdf

This is also a good opportunity to educate the public about the necessity to keep bird feeders and bird baths clean. Feeders and birdbaths should be washed weekly, particularly during the summer, in a 10% solution of household bleach.

What Permits Do You Need?

1. North Carolina general rehab including: “small mammals and raptors;” N.C. special fawn rehab permit and federal (USFW) migratory bird rehab permit specifically permitting raptors.
2. First, a captivity/ed permit for the squirrel must be obtained from the North Carolina Wildlife Resources Commission. In order to obtain this permit, a request must be accompanied by a letter from the veterinarian that Joe plans to use for medical treatment of the squirrel, stating that they will provide care and the reason the squirrel is non-releasable. Secondly, Joe must obtain a Class “C” exhibitor’s license from USDA/APHIS.
3. No, it is required under the rules of the federal rehab permit that this bird be euthanized. Amputations above the wrist joint on birds are not allowed, and it would not be allowed to be used for education by anyone.
4. Yes, the bird could be placed with another person who held federal live possession/education permits or Mary Jane could apply for her own possession/education captivity permits from the state AND the USFW. She may only hold the bird for rehab care for 180 days, unless special permission from USFW is granted. [It should be noted that to obtain federal permits (rehab and possession/education permits) one must meet very specific criteria (i.e. experienced handling and manning, appropriate caging in place before applying, etc.)]
5. No, they are not allowed under rehabilitation permits to use animals that are in rehabilitative care for display or exhibition. This goes against the goals of rehab where animals are supposed to be prepared to return to the wild, beginning with their first day in rehab care. Federal bird rehabilitation permits specifically state rules against using rehab animals for this purpose. The public may observe these animals only through video feed or two-way mirrors so that the animals are not aware of the people.

Ask WRNC



Q. Is there any way I can get a list of the permitted fawn rehabilitators in North Carolina so I can refer people to call them when I get fawn calls?

A. Yes, a frequently updated list of the current fawn rehabilitators is available on the N.C. Wildlife Resources Commission’s website at: http://www.ncwildlife.org/fs_index_06_coexist.htm

Please send questions you would like answers for to: Beth Knapp-Tyner at WildatHeartRehab@aol.com with “Ask WRNC” in the subject line.