

# WRNC



*Sharing information and knowledge for the benefit of native wildlife.*

A Quarterly Newsletter

Issue 36 June 2009

## **On their own**

*Beth Knapp-Tyner has taken care of Bentley and Bailey for two years. Now it's time for them to leave rehab to start a new life in the wild.*

**Page 9**



## **Wildlife education: Teach the children well**

*One of the most important facets of wildlife rehabilitation is education programs. An effective education program produces a ripple effect to save wildlife.*

**Page 5**



## **At home in the garden**

*You can create a home for wildlife right in your backyard.*

**Page 23**

# Baby opossum positive for rabies

By Beth Knapp-Tyner

*Wild at Heart Wildlife Rehabilitation*

An opossum weighing about 70 grams tested positive for rabies in Burke County in May.

The case should serve as a reminder that it's possible for all mammals, including opossums, to contract the disease and that wildlife rehabbers should always err on the side of caution when taking in animals.

Rehabbers are frequently told opossums don't get rabies, misinformation that also is widely disseminated on the Internet.

In Burke County, a cat found a baby opossum, and the owners later found several dead siblings scattered near their barn. They began caring for the survivor, who appeared to be dehydrated and weak. They then contacted a permitted rehabber to arrange to hand over the opossum and to ask questions about unusual behavior they had observed.

The morning after the opossum was discovered, it perked up but appeared to have coordination problems or weakness in its rear extremities. Drool and saliva dripped from its mouth when it was stimulated by sound or touch. The person who found the opossum asked the rehabber if it was possible it had rabies. The rehabilitator assured her opossums are considered at low risk for the disease, and she didn't think they needed to worry.

# Tamiflu for wildlife?

## Health officials say no

By Jennifer Gordon

Recently an e-mail was circulated asking rehabbers to donate Tamiflu® to rescues that have dogs with Parvovirus. Beside the fact that giving out prescription medications is illegal, I decided to find out more about Tamiflu®.

I checked with the National Wildlife Rehabilitators Association and found its position on Tamiflu® to be clear: wildlife rehabbers shouldn't be using it.

NWRA's policy reads in part: "In 2005, the World Health Organization (WHO), Food and Agriculture Organization (FAO), and World Organization for Animal Health (OIE) issued a joint statement urging "... not to use antiviral drugs in animals so that the efficacy of these drugs can be preserved for treatment of influenza infections in humans" and strongly requested Member States to ban the use of antiviral drugs in animals (WHO 2005). On March 22, 2006, the FDA published a final rule prohibiting the extra-label use of adamantane and neuraminidase inhibitor classes of antiviral drugs in chickens, turkeys, and ducks (Regulations.gov, and FDA 21 CFR 530.41). Given these regulatory prohibitions and the global concerns for the potential for a worldwide human health crisis surrounding influenza, the NWRA Veterinary Committee STRONGLY recommends that wildlife rehabilitators NOT use these drugs in our wildlife patients and that veterinarians NOT prescribe these drugs for extra-label use in animals."

The Centers for Disease Control also issued a statement in January, cautioning physicians about the use of Tamiflu®. Studies show Tamiflu® stays active after being excreted in feces and is now living in many water supplies. This can result in drug resistance. While we are always striving to help individual animals, we must consider the larger picture of human and wildlife health.

As always, it's a good idea to consult with your veterinarian if you aren't sure about drugs or their continued usage.

### FOR MORE INFORMATION

NWRA statement on Tamiflu®:  
<http://www.nwrawildlife.org/page.asp?ID=242>

Scientific American article:  
<http://www.sciam.com/blog/60-second-science/post.cfm?id=widespread-tamiflu-resistance-spark-2009-03-02>

The Centers for Disease Control:  
<http://www.cdc.gov/media/pressrel/2009/s090109.htm>

## RABIES

I recently spoke to the woman who found the opossum, and she said despite the rehabber's assurances, she still felt something was wrong. She contacted Dr. Marilyn Haskell at the N.C. State Laboratory of Public Health. Dr. Haskell agreed rabies cases are rare in opossums but because the signs exhibited by the opossum were possible symptoms of the disease, she had the animal tested. It was sent to the state lab through Animal Control. The test came back positive for the virus.

The finder and her daughter, who both handled the opossum, are being treated for possible exposure, and their cat has had a rabies booster vaccination.

The first case of rabies in an opossum in North Carolina was confirmed in 2005 in an animal found near Fort Bragg. While the incidence remains rare, rehabilitators need to err on the side of caution for public safety and for our own safety.

### ABOUT YOUR NEWSLETTER

This newsletter is your tool for reaching everyone in WRNC. Submit comments, corrections and announcements to editor Brenda Hiles at [bhiles919@earthlink.net](mailto:bhiles919@earthlink.net), or by phone at 336-420-5581. The next editorial deadline is Aug. 15.

# PRACTICING MEDICINE

## *How far should rehabbers go?*

By Nimette Soli

Can wildlife rehabilitators legally practice veterinary medicine?

The short answer is yes.

The policy put in place by the North Carolina Veterinary Medical Board allows rehabbers to provide veterinary care for animals in their care. This is very good news for the many rehabbers who don't have access to a veterinarian willing to treat wildlife and might otherwise be forced to watch animals or birds with correctable illness or injuries needlessly suffer and die.

But as with any complex issue, there are other considerations that must be addressed including ethics, training, and level of expertise.

The Veterinary Medical Board is charged with enforcing laws dealing with animal care through veterinary medicine. Realizing animal shelters and wildlife rehabbers are not specifically covered by state statutes, but knowing these groups or individuals are caring for wildlife, the board adopted the following policy, which adds wildlife rehabbers to a group that includes veterinary technicians. Vet techs may provide care for animals or birds as long as that care “... *does not produce irreversible change in the animal.*”

The law means wildlife rehabbers, like veterinary technicians, may administer medications, treat wounds, splint broken bones, administer subcutaneous fluids, or perform any other minor medical procedures. What we cannot do is perform surgery or administer a restricted substance. The same rules apply to vet techs. The rabies vaccine is an example of a restricted substance. Nor can we administer controlled substances — those drugs that can cause harm to humans — which include analgesics like morphine and its derivatives.

The Veterinary Medical Board expects all rehabbers providing veterinary care to wildlife to have



adequate facilities, materials and training in any procedures they are using.

Training can come from many sources. Finding an experienced rehabber with knowledge of useful veterinary techniques who is willing to work with and train a less experienced rehabber is one excellent source for training.

Libraries have books from which a rehabber can extrapolate information. A book on raising chickens and other yard birds can provide tips on raising baby quail or other precocial birds. They also might have books on pets that will provide useful information on general animal care, especially books on pet birds. Some of these books will include information on veterinary techniques. Local libraries will also have a collection of state and local laws that include laws governing the practice of veterinary medicine. These laws can also be found on-line at your state government's website.

Now available to rehabbers a wealth of information through the international and national support groups IWRC and NWRA. These groups make available to their membership informative articles in their newsletters and sell books on rehabbing. They can be found online or, for those without Internet access, they can be contacted by phone or mail. State support groups such as WRNC also offer books and informative articles to their membership.

Just a few years ago there was little written information available to a rehabber. Now there are many sources, including books and periodicals. Several on-line sites, including [www.amazon.com](http://www.amazon.com), sell books on various aspects of animal care, including text books for veterinarians and technicians. Other on-line sites include [www.squirrelsandmore.com](http://www.squirrelsandmore.com), [www.squirrelstore.com](http://www.squirrelstore.com), and [www.animal-care.com](http://www.animal-care.com).

Some excellent books that have a wealth of information on veterinary and medical procedures are

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Quick Reference by NWRA; “Practical Wildlife Care,” by Les Stocker; and “Wild Mammal Babies, the First 48 Hours and Beyond,” by Irene Ruth and Debra Gode. An excellent reference book on medications and dosages is “Exotic Animal Formulary,” by James W. Carpenter. “Care of the Wild Feathered and Furred,” by Mae Hickman and Maxine Guy, published in 1973, illustrates splinting techniques for birds.

The ultimate learning environment for veterinary technique is a vet’s office. If you are lucky enough to have a close working relationship with a local vet you can always ask to be taught how to administer injections, give subcutaneous fluids or manage wounds. If time allows, volunteer to work as an assistant at a veterinarian’s office. Some will allow observers or volunteers and you can learn by watching, then practicing at home on cadavers or fruit. National, state, and local support groups offer training sessions in veterinary procedures if you don’t have access to the learning environment of a vet’s office.

To conclude, while it is technically illegal, by strict interpretation of laws governing the practice of vet medicine, for wildlife rehabbers to treat wounds, administer antibiotics or analgesics or otherwise medically care for wildlife, provisions have been made to allow such activities. Yes, we are “practicing vet medicine without a license,” but we’re being allowed to do so, within reason.

*Nimette Soli is a resident of Pitt County, North Carolina. She is the rehab coordinator for Eastern Wildlife Center, serving Pitt and surrounding counties. Nimette holds both state and federal rehabilitation permits. During the “off season” (autumn and winter) when rehab activities are minimal, she works as a veterinary assistant. She served for eight years as volunteer law enforcement in Pitt County as an Animal Cruelty Investigator before becoming active in wildlife rehabilitation.*

## STAYING WITHIN THE LAW

Most of the state laws dealing with the practice of vet medicine begin with State Statute 90-179, under the Article entitled North Carolina Veterinary Practice Act. The state statute that specifically speaks to practicing vet medicine without a license is SS 90-187.6. Excerpts from it read: *“No person shall engage in the practice of veterinary medicine without having first applied for and obtained a license for such purposes from the North Carolina Veterinary Medical Board.”* State Statute 90-181, Definitions (7), defines a veterinarian as, *“A person who has received a doctor’s degree in veterinary medicine from an accredited school of veterinary medicine and who is licensed by the Board to practice veterinary medicine.”*

Veterinary medicine is defined, under SS 90-187, as “. . . diagnosing, treating, correcting, changing, relieving or preventing animal disease, deformity, defect, injury or other physical or mental condition; including the prescription or administration of any drug, medicine, biologic, apparatus, application, anesthetic, or other therapeutic or diagnostic substance or technique on any animal.” The definition of “animal” is *“All mammals except man, birds, fish and reptiles, wild or domestic, living or dead.”* as defined under SS 90-181.

The Article further defines cases in which it is legal for non-vet licensed handlers of animals to provide treatment. The first exemption, and one that’s pertinent to this discussion, is the owner of an animal. This statute, SS 90-187.6(1), says, *“Nothing in this article shall be construed to prohibit any person or his employee from administering to animals, the title to which is vested in himself, except when said title is so vested for the purpose of circumventing the provisions of this Article.”*

Further reading brings you to more exemptions found under SS 90-187.10. This statute lists all the people who can care for animals without having a North Carolina vet license. It exempts those involved with livestock who need to perform a castration or dehorning. It allows medical doctors and vets from other states or from the military to care for animals. It even mentions folks involved with animals used in research. Unfortunately, this statute doesn’t specifically address veterinary care provided to animals by rehabbers. This is one of those statutes that tries to be specific but fails to cover all possibilities.

This brings us to the question of whether a rehabber is considered the owner of the animals or birds in their care. Anyone holding a federal permit can read within that permit that we are considered stewards of the birds in our care, not the owner. It clearly states the federal government “owns” all migratory birds. There is no such wording on our North Carolina state permits, but, the implications are the same. We are not the owners, merely the caretakers. And, both permits encourage rehabbers to seek veterinary care for the animals that come to us for help.



# SAVING WILDLIFE

## *through education*

By Carol Kaczmarek

One of the most important jobs of wildlife rehabilitators is to educate the public about the plight of the animals in our care. Educational programs can take several forms, including the use of education animals and interactive exercises. The important thing is to engage your audience and get your message across.

### How to get started

Before creating a program, a wildlife educator should:

- **Know your town.** Check your area to see what programs are needed. Talk to teachers, librarians, and senior centers about the programs they would like to see.
- **Know your audience.** Many schools welcome programs related to their curriculum. If third-graders spend three weeks studying owls, they may like a program relating to owls. Adults may want information about rehabbing or what to do if they find an animal in distress.
- **Stay flexible.** Plan a program that can be used for a variety of audiences with just a bit of revision. A program called Birds in Your Backyard could be introduced to a very young audience through a book called "About Birds — A Guide for Children," by Carolyn Sill. If your audience is in junior high, start with "Urban Roosts: Where Birds Nest," by Barbara Bash.
- **Location.** Where you will present the program will determine what equipment and materials you need. Is it to be on your premises, in a school, a library or other location?
- **Length.** Keep in mind the attention span of your audience. Youngsters may start to squirm after 30 minutes. Middle school students can go as long as 45 minutes, and adults about an hour.



*Photo by Brenda Hiles*

**Gail Dawson of Wildlife Rehab Inc. in Winston-Salem uses an education animal during a presentation April 18 at the Earth Day Festival at Wake Forest University.**

- **Audience's knowledge.** Know whether children have already studied the subject in class or if you need to start at the beginning.
- **Targeted programs.** Be sure your program is what your audience wants. This is especially important with bird clubs and environmental groups.

### Preparing for a program

- First, prepare a mission statement and a goal. You can use this for all of your programs.

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The mission statement can be simple: I want to discuss our responsibility to our native wildlife and wildlife habitats. The goal: To increase public awareness of the impact of human activities on animal wildlife and to encourage the audience to lessen its human footprint.

- Next, establish a series of objectives and outcomes, which can range from heightened awareness of the plight of wildlife to performing activities such as picking up litter. Objectives can be developed for different audiences. Adults can be encouraged to create wildlife habitats or to buy animal-friendly products.

### Program development

- Select a theme and a title that explains what you'll talk about, and be sure to make it sound like fun: Your Best Friend – The Vulture.
- Select the education animals that will fit into your program.
- Anticipate questions and your answers. Engage your audience by asking questions.
- Use audio and visual aids, books, and other tools your audience can see, hear, or touch. That will keep them interested.
- Prepare a brief outline on a small card in case you lose your train of thought.
- Practice your presentation, making sure it flows smoothly and comes in on time.
- Give the audience something to take with them: a coloring page or a brochure about your organization.
- Evaluate and update your program frequently.



*Photo by Brenda Hiles*

**Pete, a Red-tailed Hawk used in education programs by Wildlife Rehab Inc., is a hit with crowds.**

### 'Is that animal real?'

When using wild animals in a program, explain they are just that: wild. They are not pets and must be considered dangerous.

Each animal has its own story. Make sure you share it with the audience.

Animals should not be cuddled or treated as pets.

Educators need to present strong ideas about what is good or bad for wild animals. If you do not have an education animal, you can use an exotic pet such as a sugar glider, hedgehog, guinea pig or mouse, and compare it to similar wild animals.

The lack of an education animal needn't sink your program. You can use PowerPoint presentations, stuffed animals, recordings, posters, films, and books.

### Keep it ethical

Wildlife educators are guided by a code of ethics that urges them to set high standards for animal care as well as for the programs they present to the public. The code of ethics is available through the National Wildlife Rehabilitators Association at <http://www.nwrawildlife.org/page.asp?ID=2>

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## EDUCATION

### Age-appropriate programs

The age and experience of your audience will determine your approach, language, content and style. If you have never presented a program for children, observe a class or help with a wildlife program for kids.

### Using live animals

Wildlife programs should be fun, but they also need to be educational.

Using live animals helps the audience focus on your message. But there are special considerations and strict rules governing the use of education animals.

- Releasable animals of any age may not be used in programs.
- Permits are needed for all non-releasable education animals. It is illegal to possess any native wild animal (live, dead, and parts) without permits. Check with U. S. Fish and Wildlife Service <http://www.fws.gov/permits/mbpermits/birdbasics.html> and with the North Carolina Wildlife Resources Commission [http://www.ncwildlife.org/fs\\_index\\_01\\_license.htm](http://www.ncwildlife.org/fs_index_01_license.htm). A USDA permit is required for native mammals used in education programs.

Wild animals also can escape, so make sure you have a plan and the appropriate equipment in case that happens. Above all, give your animals the respect they deserve. Monitor the mental and physical well-being of the animal. If it becomes stressed, place it in its carrier.

When using animals in a presentation, have two educators, one to be the presenter, the other to concentrate on the animal.

To lessen stress on the animal and to protect the audience, create a 5 foot barrier. The audience should never be allowed to pet or touch animals during presentations. The animals should never be allowed to roam or fly freely during a program.

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*Photo by Pat Ferrell*

## Get organized!

Once you've organized your thoughts, the rest is easy.

- ☑ Start with an attention getter such as a story, joke or book.
- ☑ Tell your audience why they should care.
- ☑ Explain the subject of your talk. A talk about protecting songbirds might begin with information about the stress birds are under due to loss of habitat.
- ☑ Discuss the purpose of your talk. Like a lawyer presenting opening arguments, explain what points you hope to make.
- ☑ The body of your talk should include three to five points that support your thesis. Mention each new point clearly.
- ☑ The conclusion should wrap up the highlights of your talk with a few clear, concise sentences. Again, this is like being a lawyer laying out your closing arguments: Restate why you're there; rearticulate your purpose; thank your audience.

## BIBLIOGRAPHY

**INTRODUCTION TO WILDLIFE EDUCATION PROGRAMMING; TIPS & TECHNIQUES FOR BETTER PRESENTATIONS** compiled and edited by Jeannie Lord, Diane Nickerson, and Elaine Thrune. NWRA.

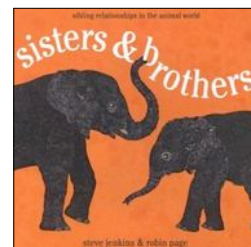
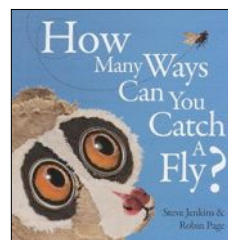
**WILDLIFE IN EDUCATION: A GUIDE TO THE CARE AND USE OF PROGRAM ANIMALS** compiled and edited by Gail Buhl and Lisa Borgia. NWRA.

## EDUCATION

## By the book

There are many excellent nature books for a variety of age groups.

- A book can be used as an introduction. For example, **"Vulture View"** by April Sayre presents a humorous view of the life of a vulture in broad bright illustrations and can start a discussion with young children about raptors.
- Use part of a book to broaden the view of the subject. For young adults, **"The Book on North American Owls,"** by Helen Sattler, can be used to show various birds.
- Use illustrations, charts, and maps available in books such as **"On the Wing: American Birds in Migration,"** by Carol Lerner.
- Books can be used to display special features of animals. Two books by Steve Jenkins are good examples: **"Sisters and Brothers: Sibling Relationships in the Animal World,"** and **"How Many Ways Can You Catch a Fly?"**
- A book may suggest extracurricular activities. **"Planet Earth: 25 Environmental Projects You Can Build Yourself,"** by Kathleen Reilly can be used by intermediate students in a program on global warming.



- Compare native animals to animals from a different time or place.

**"Rain Forests,"** by Nancy Levinson and **"Creatures Yesterday and Today,"** by Karen Patkau are two good choices.

- Books can introduce students to insects, a popular but seldom used species in wildlife programs. **"Monarch and Milkweed,"** by Helen Frost illustrates how the insect and the plant depend on each other.

- A book can show how certain ideas work. **"Pass the Energy Please,"** by Barbara Nicholls presents an easy-to-follow explanation of the food chain.

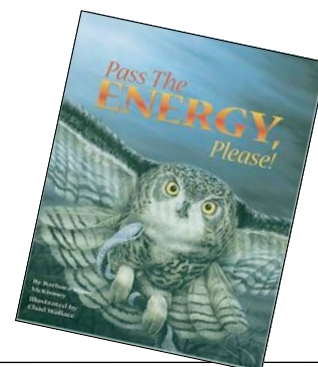
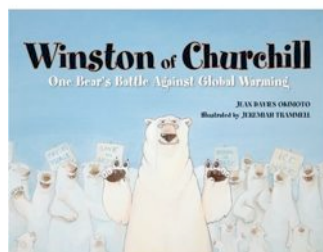
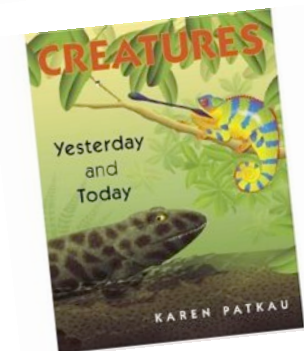
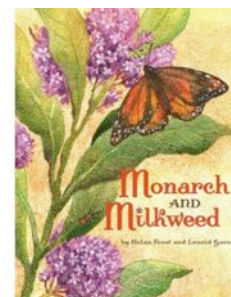
- A book can be used to end the program. **"Arrowhawk,"** by Lois Schaefer is based on the true story of a hawk that is shot with an arrow. A wildlife rehabilitator nurses him though his recovery and releases him to the wild. The story provides a fitting ending to a program about the importance of returning animals to the wild.

- A book can be used along with a program related to a particular event such as Earth Day or Bird Migration Day. **"Flute's Journey,"** by Lynne Cherry would work well to celebrate Bird Migration Day.

- Use books to regain the attention of your audience.

- **"About Marsupials,"** by Carolyn Sill uses bold illustrations and a simple text to talk about many marsupials including the Virginia opossum, and is a sure bet to get your audience back on track.

- **"Winston of Churchill, One Bear's Battle Against Global Warming,"** by Jean Okimoto, introduces a complicated topic to younger readers.







# Into the Wild

## Bailey and Bentley, two orphaned beavers, begin a new life

By Beth Knapp-Tyner

*Wild at Heart Wildlife Rehabilitation*

The first two beavers to swim in the bathtub here, Bailey and Bentley, were released back into the wild this past fall. In 2006, they were the first orphaned baby beavers we had the privilege to receive, and so began two years of rearing before they would be mature enough for release. Three more baby beavers have come into care here since Bailey and Bentley's arrival.

The quest to find an appropriate release site for Bailey and Bentley wasn't easy. Good sites exist, but often landowners don't want beavers on their property. I had resigned myself that we would probably have to release them at a site more than 90 minutes away that was an "OK" site, but not ideal as far as the logistics of getting them set up or for me to check on them post-release.

When we received a call about an injured hawk, things started falling into place to provide an ideal release site for the beavers, within a 15-minute drive of Wild at Heart. David and Barbara Rowe found the hawk, and David Rowe brought it to rehab. During his visit, a whining baby beaver diverted the conversation to beavers. By the time





## BEAVERS

he left a short while later, we had discovered a perfect release site and begun a relationship with the Rowes and Family Life Ministries, which they founded.

Bailey and Bentley were released onto Family Life Ministries' 28-acre nature retreat, after the Rowes, my dear husband, Dan, and I hiked into the woods with a temporary lodge in tow. We set it up on a small creek. My dam-building skills, improved since caring for beavers, were put into use as we started a small dam to create a pond for them.

With the help of the Rowes, Bailey and Bentley took a once in a lifetime 4-wheeler ride to arrive at their new home deep in the woods. Carting 100 pounds worth of beavers one-half mile required motorized power! They were nonplussed by the ride, their noses and ears busy taking in the earthy scents of humus, trees, mud and the gentle sounds of leaves whispering in the breeze. The water running in the creek provided background music.

They immediately took to their new surroundings. Five days after their arrival they had built up the dam to deepen their lodge pool to more than 3 feet. It has grown deeper since, and there is evidence the beavers have been sampling trees. I believe their only complaint would be the lack of a tree to produce apples year-round. Apples were a treat they relished in rehab. We make sure not to go empty-handed when we visit.

Not only did Bailey and Bentley end up with a perfect new home, but we met people who care a lot about nature and families and who have become part of our lives and the future of Wild at Heart. We have done two education program for Family Life Ministries since the beavers' release. We plan to do another for their May Campout. The property is open to us for release of wildlife. It's wonderful to report not only a happy ending but a happy beginning.



## Join us online!

WRNC has set up a listgroup on Yahoo! for members to share information, ask questions, network and get to know each other. To join, go to:

<http://groups.yahoo.com/group/WRNC/> or send an email to: [WRNC-subscribe@yahoogroups.com](mailto:WRNC-subscribe@yahoogroups.com).

# Don't fall into a trap: Know the law

By Jennifer Gordon

I recently attended a session for wildlife damage control agents given by the Wildlife Resources Commission. Because wildlife rehabilitators often deal with issues involving traps, it's crucial to know the law. A common misconception is that certain species such as raccoons must be killed if they are trapped. While they can't be relocated, they can be removed from a home using a humane trap and released on the property.

Some other key points:

- Lethal and nonlethal trapping is legal with permits for some species. Be informed about the animals you rehabilitate and which ones can be legally trapped. Most have seasonal trapping limits. The Wildlife Resources

Commission puts out a trapping guide each January that has information about trapping seasons.

- Traps must be marked with the name and phone number of the trapper. If they aren't marked, contact your enforcement officer immediately.
- Laws protect trappers from anyone interfering with their traps. A person who frees an animal from a trap could face charges on wildlife violations.
- State and federal licenses are needed to trap migratory birds. If you find a trapped bird, call the U.S. Fish and Wildlife Services office to verify the person has a permit.
- Trappers do not need a permit to trap nonnative or domestic animals.

- Trapping violations or poaching is aggressively pursued. Contact a wildlife enforcement officer immediately if you suspect illegal trapping activity.

What to do if you receive a call about a trapped animal

- During business hours, call the Wildlife Resources Commission. They can identify the trapper and advise you.
- After hours, contact your local enforcement officer. Developing a relationship with the local officer is critical in these situations.
- If the finder has already removed the animal from the trap, please notify the local enforcement as a courtesy so they can be aware in case of a complaint.

## Pearls of Wisdom

When feeding bunnies, keep the formula warm. Try putting a container of formula in water kept warm by a candle warmer. After feeding, you can dip a Q-tip into the water and use it to help stimulate them.

Do you have a tip that makes your job easier? Send your favorites to Toni O'Neil at [oneil9734@yahoo.com](mailto:oneil9734@yahoo.com)



## The gift of WRNC

Membership in WRNC makes a thoughtful gift for the rehabber in your life.

Members have a link to wildlife rehabilitators across the state. They can access past newsletters as well as up-to-date news on our web site.

The annual membership fee is \$15.

For an application, go to: <http://ncwildliferehab.org/whoweare.cfm>



# PLANNING AHEAD

## *PART II: A disaster plan can help keep wildlife out of harm's way*

By Elizabeth Hanrahan

After the possible disasters that could occur to the wildlife rehabilitation facility have been determined, the risks to the rehabilitation center, caging and storage areas need to be identified.

Evaluate the structural integrity of the wildlife rehabilitation center, clinic, storage areas and the caging. What are they constructed of? Are they strong enough to withstand hurricane-force winds, flooding or heavy snow? Are there hazardous building materials such as asbestos? Is the wiring exposed or overloaded? Sliding glass doors or large windows could shatter during high winds, allowing heat loss in cold weather.

The design of the facility is an important consideration. For example, where flooding is a threat, a two-story building allows for movement of animals, and storage of records and materials. Every facility should have an interior area that provides safety in a hurricane or tornado.

Once you have determined the types of potential disasters and the structure's vulnerabilities, you can develop plans.

When developing the disaster plan or making preparations for an impending disaster such as a hurricane, establish priorities. The animals in wildlife rehabilitation are the top priority. Create plans to evacuate or protect them. Buy medications in advance. For instance, you'll want amoxicillin on hand if you expect to receive 60 baby squirrels with upper respiratory illness following a storm. Make sure you have enough carriers for animals in rehabilitation as well as for those you expect to receive following the event. Identify the most expensive or irreplaceable items, including records and equipment, or those that are most necessary to get the facility operating following the storm.

Plan for a movable inventory that can be taken with you in case of evacuation. Make sure you protect

your vehicle from falling trees, debris or flooding; you'll need to move it to higher ground.

Identify safe areas of the wildlife rehabilitation facility and move important equipment there or to a secure place offsite. If there's a chance water could get into the facility, move supplies and equipment to a secure, dry place.

Buy supplies or equipment that you'll need during an emergency, or arrange to borrow them ahead of time.

Most wildlife rehabilitation facilities have hazardous or flammable materials.

Turn off valves to hazardous material tanks. Label all tanks, CO2 for example, so emergency responders will know what chemicals they are dealing with. If small quantities of hazardous materials such as bleach and cleaning supplies are stored on facility shelves, move them or store them in locked cabinets with safety latches. Separate all incompatible chemicals: bleach and ammonia make toxic fumes; diesel fuel and fertilizer are explosive when mixed. Label even small quantities of hazardous materials. Identify flammable materials because you may need to dispose of these in advance.

Check local floodplain or storm surge maps, available at your local emergency management office, to see if the facility is in danger of flooding. Many of these maps were revised after Hurricane Floyd in 1999.

Be sure you and your family and your volunteers or staff are up to date on immunizations for tetanus and hepatitis. Vaccinations are often available through the local health department.

Know local weather terms such as "watch" and "warning," and take alerts seriously. Monitor the radio during alerts for any potential disaster.

Assign everyone at the facility tasks to prepare for an emergency. If the wildlife rehabilitator expects to



receive a large number of wildlife following the disaster, make the appropriate arrangements. Will volunteers be needed? Can some wildlife be transferred to other facilities? Make arrangements in advance.

Include a method for securing records and backing up computer records. They may need to be moved to a safe location offsite. Valuable computer files and records can be electronically transferred.

Devise an evacuation plan and a system to ensure all people and animals are accounted for before leaving to ensure no one is left behind.

Finally, include plans of action if the facility is cut off from the rest of the community and it's impossible to get help or supplies. Write press releases in advance to let the public know what they should do if they find an orphaned or injured wild animal.

### Case Study – Hurricane Plan

In late July storms were brewing in the Atlantic. One had just been classed as a major hurricane. The projected path was to hit coastal South Carolina. One hundred miles inland in central North Carolina, three “in home” wildlife rehabilitators followed the projected progress of the storm.

They lived in different towns within the same county, but had worked together frequently. Each January they got together, ordered supplies in bulk and divided up what they each needed. If one had too many animals to care for or was an expert in a species, they would transfer animals among themselves.

On Monday weather forecasts projected the Category 3 hurricane to hit the coast and track inland through their county. They got together and developed a plan if the storm should strike them. Baby bird season was winding down; the year's second litter of baby squirrels was just beginning to come in.

The wildlife rehabilitators did the following:

- Each bought extra bottles of amoxicillin to treat infant squirrels with upper respiratory infections that they expected to receive.
- Though they had some formula for baby squirrels, they each ordered more.
- They each got in supplies for baby bird foods. Experience had taught them that they could expect many mourning doves.
- They bought supplies: soap, extra bleach, more plastic containers.
- They each called trusted friends, family and volunteers and arranged a quick training for those willing to foster baby squirrels.
- They made advance arrangements to transfer animals among themselves; bunnies to the bunny expert and birds to the rehabilitator with the federal permit.
- They traded supplies and equipment they thought the others might need.

Things they learned from the experience:

- You can never have too many deli cups and toilet paper for baby birds.
- Call volunteer foster rehabilitators twice daily to monitor progress and answer questions.
- There were people who had found wild babies that were not able to get them to a rehabilitator. They developed “fact sheets” on the emergency care of wild babies to send to the people who were not able to bring the animals to them for several days. They contacted these people daily.



# Swift Action: Towers are up!



Nina Fischesser constructed a Swift tower on the roof of the Bell Tower at Lees-McRae College, ensuring a wide birth for flight patterns and to encourage Swifts to take up residence, as well as provide safety for the birds.

The three 2009 WRNC Chimney Swift Tower grant recipients, Ed Erkes, Nina Fischesser and Krista Hansen, have finished construction of their respective towers in Seven Springs, Banner Elk and Council, N.C. Now it's time to wait and watch. Experience has shown us that first-year towers usually do not enjoy Chimney Swift residents, but swifts in the area commonly scope out the alternative habitat, and seeds are planted for 'moving on up' to new housing after they return from the Amazon Basin of Peru next year. There are exceptions. Such is the case with a Sneads Ferry resident's tower that enjoyed Chimney Swift occupancy when he finished construction of the tower last year. An update reveals a greater number of swifts have moved into the tower this year.

A few unusual approaches were made by our grant recipients this year regarding location and placement of their Chimney Swift Towers. To improve stability of the tower and ensure an abundance of delectable insects, the tower erected in Council is abutted to a horse barn. The tower built in Banner Elk was constructed on the roof of the Bell Tower at Lees-McRae College, ensuring a wide birth for swift flight patterns and to encourage inhabitation, as well as provide safety for the Chimney Swifts. The Seven Springs tower was built on undeveloped land close to a river bought solely for natural habitat and wildlife.

WRNC encourages all individuals or organizations that want to provide alternative habitat for Chimney Swifts and decrease the pesky insect population to apply for a 2010 Chimney Swift Tower Grant. Check out all the details and requirements on our website: [www.ncwildliferehab.org](http://www.ncwildliferehab.org). Mosquitoes will hate you for it!



**Ed Erkes built his tower (left) in Seven Springs on undeveloped land bought for natural habitat and wildlife. Krista Hansen's tower is attached to a horse barn in Council, N.C.**

*Linda Bergman*

*WRNC Board Member & Chimney Swift Tower Grant Program Coordinator*



BEGINNER BASICS*I wish I had asked...*

By Jean Chamberlain

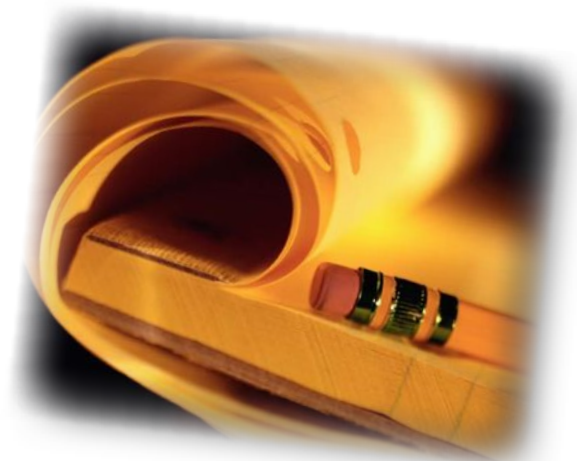
When someone brings you an orphaned or injured animal, there are many questions you should ask. You should get their name, address and phone number. You may need to contact them again. Be sure to ask who actually found the animal, an adult or child. Ask who else handled it.

You should also get information about the animal. Ask where it was found. Have them explain the situation that led to its discovery. You want to know if it was in a yard, along the road, under a tree or in the house. Were there other young or adults of the species present? If they think it was abandoned, have them explain why they think that. If the animal is injured, find out if they know how the injury occurred. Also have them explain how it was captured or picked up.

Ask how long it has been since the animal was found. You also want to know how long it's been without food and water. Find out if they attempted to give it anything to eat or drink. If they did, find out how much it was fed and when and how they presented the food or water.

Many finders are eager to tell you all about the animal they've found. That makes gathering information easy. Others are cautious because they don't want to relinquish the animal. Some are embarrassed they have kept the animal too long or that they fed it. Learn to recognize this reluctance and to tactfully ask questions to gather the information you need.

Don't become so involved helping the animal that the opportunity to gather valuable information is lost. Ask questions to help evaluate the condition of the animal, to provide good care and to determine where the animal will be released upon recovery.



## Ask WRNC

Q. If I am not a permitted fawn rehabber, should I tell the finder to put the fawn back if it appears to be OK?

A: Fawn calls should be referred to a permitted fawn rehabber in the caller's area. Even fawns that should be put back where found are tracked and reported to North Carolina Wildlife Resources Commission. Year-end reports are a requirement of fawn rehabbers and include phone logs of all calls and the fawn's disposition. Knowing how many "found fawns" are put back where they belong is good for the overall scheme of the fawn program. A regularly updated list of fawn rehabbers and a map of where they are in North Carolina can be found at:

[http://www.ncwildlife.org/fs\\_index\\_06\\_coexist.htm](http://www.ncwildlife.org/fs_index_06_coexist.htm)



*Wild at Heart Wildlife Rehabilitation ©2007*

*Have a question? Send it to Beth Knapp-Tyner at [WildatHeartRehab@aol.com](mailto:WildatHeartRehab@aol.com)*

## *Piedmont Wildlife Center welcomes new vet*

Piedmont Wildlife Center in Durham is operating at full speed and has hired a new veterinarian.

Dr. Leslie Martin went to veterinary school at University of California at Davis.

She worked in private practice for about eight years in clinics where she saw a large number of exotic pets. She especially enjoyed working with the wildlife species brought in by good Samaritans. Recently, she has gained further training in population health through a laboratory animal medicine residency.

One of the favorite parts of her job over the years has been to teach people about the health of exotic species. She enjoys talking to school groups, especially elementary school students, about animals and veterinary medicine. She has lectured at several universities to undergraduate, graduate and veterinary students on husbandry, behavior, and medical management of exotic mammals, birds, reptiles and amphibians. Dr. Martin has worked with visiting senior veterinary students from N.C. State while in her residency. She also provided training sessions for handling and sample



DR. MARTIN

collection of small mammals and birds. Dr. Martin is excited to be working at the Piedmont Wildlife Center and to be able to help the furry, feathered, and scaled animals in our environment.

We also welcome Tamara Matheson, our new animal care technician. She graduated from Miami University in Ohio with a degree in zoology. She became involved in wildlife rehabilitation through an internship with Northwest Wildlife Rescue and Rehabilitation. Tamara is hoping to become a licensed rehabilitator.

Wildlife hospital clinic manager Jeanette Curley has received her federal migratory bird rehabilitation permit, so we can now accept birds. This is definitely the busy season at the hospital, and help is always welcomed! The center is looking for hospital volunteers 18 years or older, and any volunteers that would like to help with education or administration. Please contact Lisa McCartney at [volunteer@piedmontwildlifecenter.org](mailto:volunteer@piedmontwildlifecenter.org) for volunteer information. Orientations for hospital volunteers are being held at 10 a.m., Saturday, June 6 and Wednesday, June 10, and at 6:30 p.m. Thursday, June 25.

### **Keeping connected: a listserv for rehabbers**

WLREHAB is a listserv that allows wildlife rehabilitators around the world to share stories and information. To subscribe to WLREHAB, send the following command to [listserv@listserv.nodak.edu](mailto:listserv@listserv.nodak.edu) in the BODY of your email message (not the subject line):

subscribe wlrehab yourfirstandlastname

The list generates between 20 to 100 email messages every day. If this volume is too much for you, you may switch to a digest or index option. The easiest way to do this is through the website at <http://LISTSERV.NODAK.EDU/archives/wlrehab.html>.

# In the spotlight

**Name:** Jeanette Schmitt

**Organization:** I am an independent rehabilitator working from home.

**How did you get started in rehabbing?** I've been a huge animal lover since I was a child. After being in business for a number of years, my heart was not in my work. I decided to go to school to become a licensed vet tech and had a part-time job in an animal hospital where people would on occasion bring in young or injured wildlife. Most of the veterinarians at that time did not know much about wildlife and didn't really care since there was no money in trying to save them. Consequently, many animals were euthanized. This upset me a great deal, and I vowed to learn what I could so that I could take the time to make a difference.

**How long have you been rehabbing?** About 30 years.

**Who was your mentor or who is someone you admire?** I took a wildlife course through "Volunteers for Wildlife" on Long Island in Huntington, N.Y., which changed my life. It was a wonderful experience, and I learned a lot from the dedicated teachers who contributed to my knowledge that complimented my vet tech background. However, the one person who really encouraged and inspired me was a veterinarian by the name of Dr. Robert Cardinali at Mount Sinai Animal Hospital in Mount, Sinai, N.Y. He is one of the kindest, most considerate people I've ever known. He would try and help me with complicated cases I would get discouraged over.

**What animals do you work with?** Many different species of song birds, small mammals such as rabbits, opossums, ground squirrels, flying squirrels, and groundhogs. I have successfully treated ducks that were contaminated from an oil spill, but it's a lot of work, and I don't get much call for this in the mountains.

**What type of set-up do you have?** Although I live in a development, I am surrounded by forest. I work out of my home and have a set-up in the back part of my



basement (away from all pets) with many different containers and net cages. I also have a variety of outside cages for acclimating animals to the outdoors. In this same compound, my husband has built me a couple of small flight cages for the birds, which are outside underneath my deck. It is totally fenced in with a roof over it. If I release animals at my house, there is about a 4-foot spacing from the top of the fence to the roof that allows the birds/mammals to come and go as they please until they become totally wild. I prefer a "soft release" so the animals can get used to the outdoors. If I do have to release animals away from my development (opossums), I am very close to the Pisgah National Forest where I can find a natural habitat and plenty of food sources for them. I do not have a fancy set up but give good quality care to those who come my way. Last year I had 122 animals at my house during our busy season.

**Any pets?** I currently have Toto, a rescued female Australian shepherd who I adopted at 10 years of age. She will be 15 in June. Corky was a stray female terrier mix pup found on a busy street in the middle of traffic. She is now 12 years old. Nipper was a stray male kitten found in a hole in the ground behind a veterinary hospital. He is now 14 years old. Inky is my African Grey parrot, the only nonstray, and is 18

SEE SPOTLIGHT, PAGE 18



## SPOTLIGHT

years old. I've had many stray cats over the years, but they are all in heaven now due to old age.

**Any non-animal family members?** My devoted husband, Bob, whose patience I have tested more than once with a houseful of animals! He builds things for me, helps me with the wildlife when needed, soothes my breaking heart when animals pass on, and makes dinner when I'm caring for my menagerie. My only children are fur kids.

**What are your hobbies?** Square dancing, hiking, biking, kayaking, knitting, cooking, singing with the Transylvania Choral Society that performs two concerts a year at the Porter Center in Brevard, N.C. I also volunteer with Transylvania Animal Alliance Group (TAAG) to help out when I can. I maintain the "lost and found" list for the Transylvania Animal Shelter. I am an active member of the World Mission Committee at church; I volunteer at St. Philip's Thrift Shop; I'm active in Daughter's of the King at St. Philip's and Parish Neighbors, an organization at church that prepares meals for parishioners in short-term crisis or long-term illness.

**If you're employed, what type of "day job" do you have?** I am retired but do wildlife work full time in addition to taking care of all my senior animals.

**Tell us about an accomplishment of which you're proud.** God has given me many wonderful miracles which have contributed to many, many successful releases despite severe medical problems. However, the most important accomplishment is that I make a sincere effort to do one good deed a day and care to make the world a better place for animals and people. I do my best in whatever I do.

**If you could have dinner with one person alive or no longer living, who would it be?** Jesus Christ. He is a fine example of love, acceptance, goodness, strength and forgiveness in a troubled world and inspires me to do good deeds and have respect for all living things.

**What do you like about being a part of WRNC?** The camaraderie and knowing someone is there to talk with if you want to discuss an issue. I feel it is a family of animal people with the same common goals.

## TRAINING



**Basics of Wildlife Rehabilitation**, 6-9 p.m. Monday and Wednesday, Aug. 6-Sept. 24 at Coastal Carolina Community College in Jacksonville, N.C. Prepare for entry level and intern positions in nature centers, wildlife centers and animal sanctuaries and meet the requirement for specific training needed to apply for the N.C. State Wildlife Permit. Students must be 16 years old to be eligible to attend. 42 hours. Fee: \$60.

**Rehabilitation courses for beginners:** Wildlife Rehab, Inc. conducts a training class twice a year at Forsyth Technical College in Winston Salem. The class meets from 6 to 9 p.m. once a week for 11 weeks. The next class meets on Thursdays and starts in the fall. For more information: <http://www.wildliferehab.inc>

**Winter husbandry and training workshops:** Dec. 5-6, Carolina Raptor Center, Charlotte. The workshops are limited to 10 participants each. The first session on Dec. 5 is geared toward beginner rehabbers and will discuss permits, diet, basic handling skills and quality-of-life issues. The session on Dec. 6 is for intermediate and advanced professionals and will cover education program development, handling and training challenging birds, and advanced behavior training. The cost is \$135 for members; \$155 for non-members. For more information, go to: [http://www.carolinaraptorcenter.org/pdf/2009\\_All-Seminar.pdf](http://www.carolinaraptorcenter.org/pdf/2009_All-Seminar.pdf)



## Test your diagnostic skills

You receive two gray squirrels with their eyes open. It's spring, and the place is almost filled to capacity! A quick check shows no problems; just raise them to release. Space is tight so you put them in with another litter of five squirrels about the same age.

The following day you notice the "newbies" have soft stools. "No big deal, just a little stress, they will be fine in a day or so."

The following week all the squirrels, the two "newbies" and the five casemates have soft, yellow diarrhea with mucus, strong odor and green tints.



### Questions for the Case:

1. What happened to make everyone sick?
2. How should the "newbies" have been handled?
3. What is the probable diagnosis?
4. How can the diagnosis be confirmed?
5. What are the treatment options?

*Answer on Page 21*



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## About Us

This is a quarterly newsletter produced by Wildlife Rehabilitators of North Carolina (WRNC). WRNC was organized in 1999 with a mission to share information and knowledge about wildlife rehabilitation.

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

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# On a wing and a prayer

**“Flyaway: How a Wild Bird Rehabber Sought Adventure and Found Her Wings.”**

**By Suzie Gilbert**

**HarperCollins**

**\$25.99**

**333 pages**

**By Brenda Hiles**

Suzie Gilbert draws lines in the sand, then stands aside as one by one they’re washed away.

She vows not to take in injured birds. Until the first injured bird shows up at her door.

She swears she won’t take baby birds because they require feeding every 15 minutes. But when baby bird season rolls around, Gilbert finds herself carting around nestlings in an old picnic basket.

Reading “Flyaway,” Gilbert’s account of being a bird rehabber, is like visiting with your best friend, if your best friend happens to be a masterful storyteller.

Wildlife rehabbers will find themselves nodding in agreement as Gilbert rails against the carelessness of humans as well as laughing out loud at some of the antics involving her children, Mac and Skye, and the animals that pass through her Hudson Valley rehab center.

Her humor resonates. Anyone who has tried to capture an injured bird can relate to her definition of “Murphy’s Law of Wildlife Rescue:” Whenever there’s a crowd, whatever bird you’re after will spring to life and lead you on a chase designed to make you look like an incompetent fool.”

More than a few stories will have readers brushing away tears as Gilbert struggles over the loss of birds in her care.

Like most people who work with wildlife, Gilbert spends a portion of her time in “Rehabber’s Hell,”

that nebulous place populated by every animal that doesn’t make it.

“Rehabber Hell,” she writes, “materializes around your bed at two in the morning when you lie awake and catalogue – bird by bird – all the rehabbing mistakes you’ve ever made, both real and imagined, and inevitably conclude you are nothing but a drunk driver careening wildly through the helpless bird community. This is one reason rehabbers always look so tired.”

Gilbert captures perfectly what it is like to rehab at home: the guilt of taking away time from family, the pain of watching an animal die, and those moments of absolute joy when things go the way they should.

The book contains some of the most eloquent arguments I’ve read for the importance of wildlife rehab.

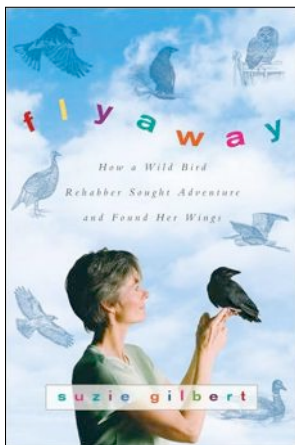
Gilbert questions whether she’s doing any good. Would nestlings survive to breed? Could they overcome the handicap of being raised by humans? Why not work to conserve habitat or fight global warming? How do you answer critics who see

rehabbers as time-wasting bunny huggers?

The answer lies in the number of people a wildlife rehabilitator can educate. The impact of taking care of one animal creates a ripple effect.

“What rehabilitators learn all too quickly is that each animal, each bird who comes through the door is unique.... And as soon as this becomes clear, the enormity of what humankind is doing to the natural world becomes all the more harrowing.”

Gilbert draws another line: Burning out after several rough cases, she vows to stop rehabbing. She manages to stick to her resolution for a while. Then she discovers why most of us are able to endure the frustration and heartbreak of dealing with orphaned and injured animals: because in rehabbing animals, we heal ourselves.





## GOING GREEN

As children we had to learn the 3 R's—reading, 'riting, and 'rithmetic. Now as adults and rehabilitators we need to learn and teach others the 4 R's—RETHINK, REDUCE, REUSE, AND RECYCLE.

As rehabilitators, we should take time to rethink our methods and our equipment. Can we use natural cleaners that will do the same job? Can we use items that are reusable and cut down on waste going into the landfill? Can we provide natural food by planting a garden or by buying food locally? Can we pick our own nuts, seeds and clover instead of buying them? Can we make an effort to cut electrical usage by turning off equipment not in use? Can we be sure to wash full loads of laundry and dishes? Can we recycle as much as possible? Can we use our contacts with people to teach others especially children how to help save their world?

If you can make any of these changes you will be helping the environment. You might also save some money. Good luck.

— Carol Kaczmarek

## Lending a hand to flying squirrels

Tall, artificial trees along the Cherohala Skyway in the Unicoi Mountains may help the Carolina northern flying squirrel make it safely across the highway.

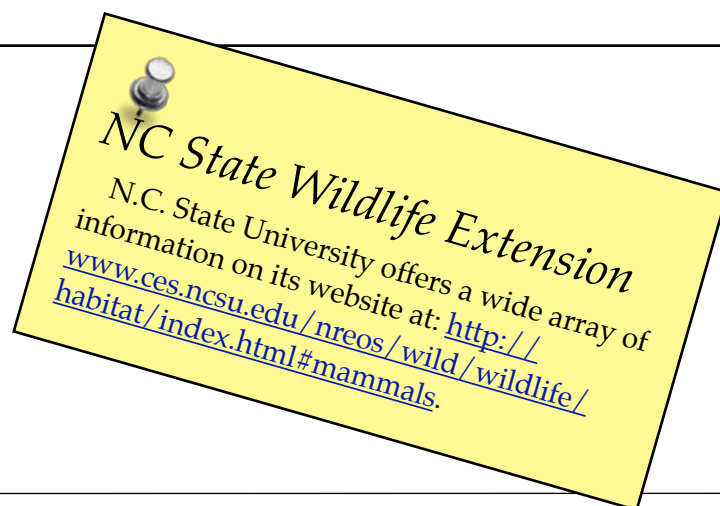
The artificial trees are the idea of Chris Kelly, a biologist with the N.C. Wildlife Resources Commission who worked with the U.S. Forest Service, the state Department of Transportation, Duke Energy and Western Carolina University.

The width of the highway exceeds the gliding capability of flying squirrels, dividing their habitat and population. The trees along the road are not mature enough to serve as launching pads, creating a need for the tall poles.

The northern flying squirrel, unlike its southern counterpart, has been on the U.S. Fish and Wildlife Service's endangered species list since 1985. The Unicoi Mountains have one of the most threatened populations of the 12-inch mammal.

## Diagnostic skills: Were you right?

1. The “newbie” squirrels had internal or endoparasites. The parasites were spread when their droppings were exposed to the healthy squirrels; they all bunched together and groomed each other.
2. The parasites were spread when they were introduced to the other litter. The “newbies” should have been placed in a separate container or quarantined for at least 48 hours.
3. Squirrels are hosts to many different endoparasites. Most likely, the parasites were coccidia or giardia. Squirrels commonly have coccidia in their GI tract without problems. An overgrowth can occur from stress, injury or captivity. A squirrel with coccidia may alternate normal stool one day and soft, yellow stools the next. They may grow slower than normal. Coccidia does not always show up on a fecal exam. Giardia may cause squirrels to develop diarrhea that has green tints, mucus and a strong odor. They also may have slower growth rates. Both are transmitted easily to other squirrels. Proper quarantine protocols can help prevent the problems.
4. Diagnosis can best be made by a fecal float; you may want your veterinarian to do this until you develop the skills and have the equipment.
5. Discuss this with your veterinarian. Coccidia is frequently treated with Albon®. Giardia is frequently treated with Metronidazole. Always consult your veterinarian before using these medications.



## Case Studies

# *Deciding right from wrong*

## Case 10

You have a state permit which allows you to rehabilitate small mammals and turtles. On a Saturday evening you receive a hawk. You know that legally you can keep it for 72 hours but must transfer it to a wildlife rehabilitator with a federal license.

On Sunday afternoon you locate and arrange to transfer it to someone you had met last year who has a federal license and “does raptors only.” You pack up the bird and drive the 50 miles to his rehabilitation facility.

On arrival you notice 10 hawks and owls of various species in the same room in pet carriers. You have not noticed any large flight cages. The cages are dirty, the place smells terrible, and food and soda bottles are in the animal care area.

Though it is getting late, you ask to see the flight cages. The only cage is about 6’x 8’x 8’ and has some kind of falcon, a Barred Owl and Red-tailed Hawk in it.

Humm.....

❖ How does this relate to the Wildlife Rehabilitator’s Code of Ethics?

❖ Which Code (s) might apply?

❖ How can this be resolved?

❖ Other questions/issues

The Wildlife Rehabilitators Code of Ethics is available in the IWRC’s Minimum Standards, which can be found at: <http://www.iwrc-online.org/documents/MSWR.pdf> on Page 7.

## *Answers to previous ethics cases*

## Case 9

What should the wildlife rehabilitator do?

She has a close friend who says she has been a licensed wildlife rehabilitator for more than 30 years. The friend says, “I have a federal permit but I haven’t gotten my state permit.”

She knows that the friend took the basic refresher class three years ago. The friend rehabilitates mammals, including raccoons, birds and deer. If the friend gets in something “cute” like a flying squirrel or raccoon, she says she will “keep it as a pet.” If the friend receives something she “doesn’t want to work with” she will transfer it to the licensed rehabilitator.

The licensed rehabilitator likes this woman; who has been very generous, giving her caging materials, etc. Her attitude is: “I’ll pick my battles in this rural area.”

How does this relate to the Wildlife Rehabilitator’s Code of Ethics?

Which Code (s) might apply? **Code 1:** Strive to achieve high standards; keep informed on current rehabilitation methods and regulations. **Code 8:** Strive to provide professional and humane care, respecting the wildness and maintaining the dignity of each animal.



# At home in the backyard

## *Creating habitat for wildlife right in your garden*

By Lauren Basham

Chirping to the choir here I know. If you're reading this publication, you obviously have a passion for wildlife. The hard work you do in wildlife rehab can be even more rewarding when you come home to the beauty of a well-planned garden. You'll help replenish the rapidly disappearing natural habitat needed for wildlife to thrive. It is hard work at first, but with every tree and shrub you plant, you make the world a better place.

A great habitat can be created with a small yard or a large yard, in the city or in the countryside. Here are some basics to consider:

- Skirt raised decks with dense evergreen shrubs to create excellent shelter for all seasons.
- Locate feeding stations, nesting boxes, and bird baths near evergreen or twiggy shrubs without blocking flight paths or providing predators with hiding spaces.
- Be birdbrained. Start high and work your way down. Birds see tall trees first, then they inspect what lies beneath.
- Never plant berry or nut trees shrubs, or seed or nectar-producing flowers where birds must fly across a busy road to get to them.
- Big windows and sliding glass doors are invisible to birds. They are responsible for about 100 million bird deaths each year. Use durable screens, awnings, vertical strings, thin pieces of colored tape, stencils and soap paste, sheer or lace curtains. If you want an uncluttered view, the best solution is stickers available now at local wild bird supply retailers. People can't see them, yet they reflect ultraviolet light the birds CAN see. Also, keep your feeders close to your house (2 to 3 feet) because the short distance will prevent flight speed and dangerously hard collisions.
- Domestic cats kill more than 70 million birds in the U.S. each year. Please keep cats indoors – especially during the summer nesting season when fledglings or mammal babies are easy prey for felines. If additional inspiration is needed, consider that indoor cats have twice the lifespan of cats that are allowed to roam where they are in danger of predators, cars, parasites, poisoning and more. When you can't control what your



*North Merceyside Biodiversity Project*

**Perform a monthly check of your yard to make sure there are no 'traps' that could harm animals.**

SEE HABITAT, PAGE 24

## Habitat

neighbors do with their cats, I suggest (and use) plastic carpet sliders with the pointy spikes covered with grass clippings and placed where cats might hide. Trim plants to expose potential hiding places for cats. Pruned clippings of rose bushes provide great ground coverage for places cats might hide. All of these things discourage cats, but don't harm them. Go to [www.abcbirds.org](http://www.abcbirds.org) for a "Cats Indoors!" brochure you can hand out.

Keep an eye on invasive plants such as Japanese honeysuckle, poison ivy (yikes), Oriental bittersweet, strawberry begonias, bamboo, lariope and chameleon that can overtake your garden easily if not identified and stopped before they get out of control. Search and destroy in March, June and September and pull out with root for best prevention.

For fertilizer and pesticides, organic is always better. Use stake fertilizers for your trees and shrubs if possible. When using liquid fertilizers or pesticides always do so at dusk, so it can dry overnight before birds or bees land on it. Always read the label on pesticides for your safety as well as the safety of animals and helpful insects. (Watch for wording that says the pesticide will kill bees and avoid those altogether. We have a serious shortage of bees and would like to keep as many as possible to help pollinate our plants.) Always be wary of using chemical fertilizer, pesticide, or disease control products on any of your plants. Read the label and follow directions carefully to protect pets, animals, birds and bees from harm.

Grass turf must also be managed organically. Keep the blade on your lawnmower set high to keep the grass surface shaded and moist. Allow

### BEST PLANTS FOR NORTH CAROLINA

Birds and other wildlife depend on plants for food, cover, insects, safe nesting, resting, and courting. Many specific trees and shrubs provide berries and a safe environment for your year-round wildlife, and attract many migrating birds as well. Most fruits provided by trees and shrubs are attractive not only to birds, but to many mammals as well.



*Photo by Jim Basham*

There's an abundance of great North Carolina plants to choose from. Here are a few that are easy to grow and will get you on the road to a backyard wildlife feast. More ideas are listed in the resources box on the next page. With a little research you can select plants based on the type of birds and animals you want to attract and to suit the size of your yard.

**LARGE TREES:** Oak, mulberry, pecan, chestnut, hickory, mountain ash, hawthorn, arborvitae\*, American holly\*, cedar (eastern red)\*, pines\*.

**SMALL TREES:** Staghorn sumac, dogwood (gray, flowering, pagoda, red-osier), Sargeant crabapple, pear, plum, serviceberry.

**SHRUBS:** Pyracantha\*, autumn olive (aka Japanese silverberry), bittersweet, blackberry, blueberry, mayhaw, cranberry cotoneaster\*, elderberry, arrowwood, viburnum, red chokecherry, raspberry, bayberry, Oregon grape holly / mahonia\*, hollies\*, junipers\*, rose of Sharon. (*Note: Plant shrubs like pyracantha or cotoneaster with sharp thorns in places you don't want cats or burglars!*)

**VINES:** Bittersweet, coral honeysuckle, trumpet honeysuckle, muscadine grape, cypress, morning glory.

**FLOWERS:** Coreopsis, petunias, salvias, black-eyed Susan, purple coneflowers, dwarf asters, sun flowers, sea oats, bachelor's button, columbine, monarda, cardinal flower, crocosmia, phlox.

**GROUND COVER AND ORNAMENTAL GRASSES:** Bunchberry dogwood, prairie dropseed, Goldenrod.

*\*Evergreen*

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## Habitat

clippings to decompose where they fall to encourage earthworms (yum).

- Keep your pruning shears in check. If a plant has berries on it, don't prune until the last berry has been eaten. Many birds wait until late winter to eat berries.
- Let dead trees hang around, or at least the main trunk. They make great nesting places, they are insect magnets, and birds love the insects. Use as a make-do trellis for vines if you want to dress it up a bit.
- When deciding where to plant your nut-bearing trees, or berry trees think about where the nuts or fruit will fall to avoid walkway messes and acorn "rain."
- To say that the soil in North Carolina is challenging is an understatement. You probably have red clay, sand, or dirt that acts like a rock. To ensure success in your garden, amending the soil is a must. It doesn't take much though. For every 5 square feet, add one bag of organic manure, one bag of peat moss, and 4 cups of Perlite. Mix it all together a few inches deeper than your plant's roots and you have soil that will drain and keep your plants healthy.
- Mulching is critical as it helps in several ways: it protect the roots of plants and trees, keeps weeds and invasive plant spreading to a minimum, and it eventually erodes into healthy top soil. Another layer of mulch should be added annually.
- If you decide to put out sunflower seeds for birds, be sure to only use striped seeds. They do not attract potentially unwanted birds such as starlings or cowbirds.
- Water is a necessity for all birds. Provide several sources of clean drinking and bathing water (variety of bird baths depth and height, ponds, fountains).
- Perform a monthly check of your yard to make sure there are no hidden "traps" that might accidentally harm an animal such as buckets that collect water and mosquitos, yard items that tip over easily, sharp objects left lying around, etc.
- If you plant something, then decide you would like to move it somewhere else (I do that a lot, much to my husband's dismay) move during winter months or very early spring.



*Photo by Jim Basham*

### The Battle of the Budget

For those of us with a tight budget, there are ways to keep the cost of creating your wildlife habitat in check. Your local farmer's market is a great place to find healthy, native, inexpensive plants. Mail order and online nurseries offer bare root plants and trees that thrive, and will replace them at no charge if they don't. Select spreading shrubs like staghorn sumac, rugosa roses, and viburnums. Perennials and self-seeding flowers also save on cost.

I discovered an unusual yet wonderful practice when I moved to Raleigh more than 15 years ago: pass-along plants. Start a neighborhood pass-along tradition of plants that offer "spreading plant volunteers" that you don't need. If you don't have neighbors, share plants with friends or colleagues at work. It's fun! Anyone need euphorbia or Lombardy poplar trees?

## Habitat

### Give Mother Nature a Helping Hand

Take time to plan your wildlife garden to attract the birds and animals you wish to have as visitors, as well as the look that you want. It is also a great excuse to spend time outside on all those beautiful North Carolina days. It will grow in beauty as the years go by. Although I have moved many times, I like leaving each home knowing I have contributed to helping wildlife and to the health of the planet by planting so many trees, shrubs, vines, and flowers. Make time to upgrade your yard from a pleasant place for wildlife to visit, to a welcoming habitat they can claim as home. It will be well worth it!

*Lauren Basham is a retired non-profit association director who now spends her time doing everything she loves to do... working with animals, gardening, reading and painting. She also takes care of her father, and helps her husband care for his parents. Lauren has been volunteering at the N.C. Zoo Valerie Schindler Wildlife Rehab Center for the last three years, and worked/volunteered at the Piedmont Wildlife Center prior to that. Lauren hopes to obtain her own wildlife rehab license in the near future.*

## RESOURCES

### WEBSITES – ONLINE PLANT ORDERING

<http://michiganbulb.com>  
<http://www.eburgess.com>  
<http://springhillnursery.com>  
<http://www.greatgardenplants.com>  
<http://www.autumnridgenursery.com>  
<http://henryfields.com>  
<http://www.bloomingbulb.com>  
<http://www.burpee.com>  
<http://www.planetnatural.com/site/index.html>  
<http://www.edgeofthewoodsnursery.com/>



Photo by Brenda Hiles

### WEBSITES FOR WILDLIFE GARDENING INFORMATION

<http://www.nrcs.usda.gov/FEATURE/backyard/wildhab.html>  
<http://www.nrcs.usda.gov/feature/backyard/>  
[http://www.michigan.gov/dnr/0,1607,7-153-10370\\_12148---,00.html](http://www.michigan.gov/dnr/0,1607,7-153-10370_12148---,00.html)  
<http://www.allaboutbirds.org/NetCommunity/Page.aspx?pid=1057>  
<http://www.bbne.org/articles/feeberry.htm>  
<http://nationalzoo.si.edu/Animals/BackyardBiology/WildlifeGardening/default.cfm>  
<http://www.pecva.org/anx/index.cfm/1,122,403,44.html>  
<http://www.wildlifegardener.co.uk/>

<http://audubonathome.org/plants.html>  
<http://www.nwf.org/gardenforwildlife/>  
<http://www.gardenguides.com/how-to/tipstechniques/other/wildlifehabitat.asp>  
[http://www.bbg.org/gar2/topics/design/2006fa\\_bird.html](http://www.bbg.org/gar2/topics/design/2006fa_bird.html)  
[http://www.bbg.org/gar2/topics/wildlife/2000fa\\_front.html](http://www.bbg.org/gar2/topics/wildlife/2000fa_front.html)  
<http://www.bbg.org/gar2/topics/wildlife/handbooks/wildlifegardenersguide/>  
[http://www.bbg.org/gar2/topics/wildlife/2007fa\\_winter.html](http://www.bbg.org/gar2/topics/wildlife/2007fa_winter.html)  
<http://birdwebsite.com/backyard.htm>  
<http://www.savingbirds.org/>





# An Oily Mess

A barn owlet that apparently tried to follow its parents across a farm field south of Elizabeth City landed in an oil-filled ditch in early April.

The owlet was one of four discovered two days earlier in a silo at the farm. They were all taken to Elizabeth Hanrahan at WREN in Edenton, and once it was determined they were healthy and an appropriate weight, they were placed in an artificial nest on the farm. The parents returned and fed the owlets for two days before one ended up covered with oil and was returned to WREN to be cleaned up.

Rags, wastewater and clothing covered with oil were disposed of at a recycling center, a reminder that oil is still hazardous even when it's no longer on the bird.



*Photos by Elizabeth Hanrahan*

## A safe passage for animals

The state Department of Transportation has built a tunnel to allow raccoons, foxes, rabbits and other small animals to cross the road near Oak Island.

Five pipes about 4 feet tall and 5 feet wide have been embedded under the highway approaching a new bridge to allow animals to cross under the highway instead of dodging cars.

"It's also a safety issue to keep the animals off the roadway," state Department of Transportation division environmental officer Mason Herndon told the Star-News of Wilmington.

The road is surrounded by wetlands that provide habitat to a wide variety of animals, ranging from snakes to bear. It's unlikely the tunnels will allow larger animals such as deer and bear to pass through. Animals will be steered toward the tunnels by fences along woods near the road. Grates above the pipes will let light into the passageways, authorities said.

Work on the bridge has been delayed because of a girder collapse in December.

The state plans four more crossings on a nearby road, while the developer that owns property near the bridge will be required to build the tunnels. The proposed Wilmington bypass from U.S. 421 to U.S. 17 in Brunswick County will have three animal passages, Herndon said.

## Human rabies vaccine available

Pre-exposure rabies vaccine is now available through Novartis for high-risk workers, including wildlife workers.

There are only two makers of the pre-exposure vaccine. The other maker, Sanofi-Pasteur, is still restricting its vaccine for pre-exposure cases because of a shortage caused by work at one of its plants.

## T-shirt design competition is back!

Artists, it's time again to sharpen your pencils, wet your paintbrushes, or get your mouse clicking!

WRNC is having its second T-Shirt design competition. Winning artwork will be used on T-shirts that will be available at WRNC's 2010 "8th Annual Wildlife Symposium." The winner will receive a \$100 cash prize, recognition at the symposium and in our newsletter.

Our current steel green T-shirt with Wanda Burton's winning screen design is very popular and has sold quite well for two years, but WRNC members have expressed a desire for a new color and design to add to their WRNC wardrobe.

— Linda Bergman  
WRNC Board member

### Submission guidelines

- Number of colors in illustration or graphic is limited to three. (Black and white are considered color choices.)

- Artwork should be submitted as a JPEG or PDF file by email to Linda Bergman at [lbergman@ec.rr.com](mailto:lbergman@ec.rr.com).

- There is no entry fee.

- Entrants may submit as many entries as they like.

- Artwork may be any media or mixed media, including computer generated.

- WRNC Board members will comprise the judging panel and all decisions of the judging panel will be final.

**Deadline for submission of design: June 15, 2009**





Creature FeatureEastern Towhee – *Pipilo erythrophthalmus***Adults**

**Description:** Eastern Towhees, formerly Rufous-sided Towhees, are mid-sized (7.5") members of the same family as sparrows and buntings. The male's black upperparts and hood contrast with its rufous sides and white underparts. Similarly marked females are brown. Juveniles, which lack markings, are brownish and have distinct streaks on the chest and belly. Most adult Towhees have red eyes. There are several subspecies of Eastern Towhee. They are monogamous.

**Weight Range:** 32 to 52 grams

**Range:** Common year-around resident of the Southeast and west to the Mississippi River.

**Natural History:** Eastern

Towhees inhabit forest edges, riparian thickets, and woodlands. They are commonly seen foraging under bird feeders and in leaf litter. Nests are built on the ground or in low brambles.

**Adult Diet:** *Granivore*. The diet also includes terrestrial invertebrates, grass and weed seed, berries, and acorns in winter. Towhees glean foliage and the ground for insects and seed. In wildlife rehabilitation, Towhees can be fed mealworms; waxworms; suet cakes; good commercial bird seed mix, including a high percentage of white millet and sunflower chips; cracked corn; fruits; berries and chopped greens. Grit or oyster shell also should be offered.

**Nestlings:** The nestlings are altricial with gray-brown down. Their skin is pink, and they have sparse gray down on their head, wings, back and thighs. The mouth is deep pink with pale yellow gape flanges. The bill is conical-pointed.



The young are tended by both parents and are fed regurgitant that is later supplemented with insects and some fruit. They fledge at between 8 and 12 days. When the young learn to fly, the family unit stays together for the remainder of the breeding season.

**Fledglings:** Fledgling Towhees can be housed with other sparrows and thrushes. They get along well with most conspecific passerines. Provide leaf litter in the bottom of cage for foraging, as well as a pizza pan or pie pan of dirt with leaf litter, seed mix and other food selections to encourage independence and provide enrichment

**Juveniles:** A young Towhee will continue to accept hand

feeding until it is independently self feeding. Provide leaf litter on the bottom of the aviary for foraging. The leaf litter can be enriched with mealworms and bird seed. Seed, fruits, and berries should be sprinkled on the ground. Release the young birds at the site where they were found, if possible, to enable the juvenile to reunite with the family group. If it is impossible to release the Towhee at the original "home site" a "soft" release is recommended. If the bird is released in unfamiliar territory, supplemental feeding may be needed for several weeks after release. The release site should be at a forested edge near a water source.

**Rehabilitation notes:** Activity Aviary requirement: 4' x 16' x 8'

**Common problems:** Towhees are frequently the victims of cat attacks because of ground-dwelling activities.