



# NEWSLETTER FOR WILDLIFE REHABILITATORS

Volume 29

September 2007

## Bird populations reel from West Nile virus

Populations of bluebirds, crows and other bird species prevalent in the suburbs, have plummeted because of West Nile virus, according to an analysis of 26 years of data by the National Breeding Bird Survey.

The crow population has declined by 45 percent, according to the study. Only blue jays and house wrens had bounced back by 2005, six years after the virus began spreading through the United States.

The tufted titmouse, the American robin, and chickadees were among other species hit hard by the virus.

Suburbia seems especially hospitable to the virus, possibly because of stagnant water where mosquitoes thrive, yards that attract birds and a large number of human hosts.

None of the birds in the study is in danger of becoming extinct, said lead author Shannon LaDeau, a researcher at the Smithsonian Migratory Bird Center at Washington's National Zoo. But declines in populations could have far-reaching effects. A decrease in the number of crows, which eat roadkill, could lead to an increase in the rat population. A decline in populations of seed-eating birds like chickadees could also have an impact on the natural dispersal of seeds.

### What's in the tub?

Look in Beth Knapp-Tyner's bathtub and you're likely to find beavers. **Page 2**

**Off course:** A Greater Shearwater shows up 150 miles inland. **Page 17**

**Memoriam:** The rehab community says goodbye to Cindy Moody. **Page 14**

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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.



**Bailey swims a few laps in Beth Knapp-Tyner's bathtub.**

# Beavers in my bathtub

By **Beth Knapp-Tyner**  
*Wild at Heart Wildlife Rehabilitation*

Yes, you read the title correctly. Since 2006, we have had four baby beavers and one injured adult come into our care. Swimming is essential to these semi-aquatic mammals for drinking and pottying. So, our bathtub has beavers in it at least three to four times a day.

There isn't anything much cuter than a baby beaver, and beavers' docile, but gregarious nature, along with their need for close family social bonds and engineering capabilities, make them one of the most interesting animals that come into rehab care.

Whining is a common vocalization, especially in baby beavers, which

Rehabilitation of orphaned beavers requires a long-term commitment of between 18 months to two years, and special pen set-ups. Caring for babies is specialized, and it's very important to know what is "normal" (very subtle signs are sometimes clues to serious problems). If a rehabber receives a baby beaver, they should immediately contact an experienced beaver rehabilitator to get help and direction.

sound much like a human baby “fussing.” With two babies still inside and two more outside, it’s become a common sound here.

Bailey and Bentley arrived in 2006. Both were orphaned when humans killed their respective parents.

Chopper and Brook arrived earlier this year. Chopper was found, only days old, floating in the middle of a lake by himself. We received him from another rehabilitator in March. He was paired up with a second baby, Brook, in late spring after Brook was found alone in the middle of a field. She was very thin and had obviously spent at least a few days without food. After supervised short introductions to determine if Chopper, who is twice the size of Brook, would accept her, they were housed together in a 7-square-foot “beaver proof” pen in our living room. They have now graduated to their own outside land/water beaver pen on the lake.

Beavers, which can live up to 23 years in the wild, are monogamous. Their kits stay with them for at least two years, sometimes as long as four. The previous year’s off-spring help care for newly arriving kits, assisting with grooming and bringing food into the lodge. New kits are never left alone.

Beavers eat the leaves, bark and cambium of several species of tree. Willows are one of their favorites in this area. They will also consume lily pads and other plant growth in the wild. In care, they enjoy apples and carrots as treats. They are herbivores; they do not eat fish or meat at all.



**Beth Knapp-Tyner with Bailey and Bentley.**



**Beavers, even as young as Bailey, are very strong.**

Once they have consumed the edible parts of the trees they fell, they use the branches to build dams and lodges. They are very industrious, determined little engineers and waste very little of their resources.

Beavers have a cloaca, much like a bird, so reproductive organs aren’t visible. Radiographs reveal gender. Males and females can be paired because they are likely to get along well and can be released together as a bonded pair.

The cloaca allows beavers to be streamlined for easier movement through water. Baby beavers are born weighing about 1 pound, but they grow quickly.

Bailey was late-born in July 2006. A sibling was found dead floating next to her in a creek. They were much too young to be outside their parents' lodge. She was about a week old when she came into care and weighed about one and a quarter pounds. Bailey is now 14 months old and weighs more than 35 pounds. Bentley is a couple months older, but is about the same size. She and Bentley currently reside in a 20'x40' combination land/lake pen, built for them. They won't be ready for release into the wild until they are 18-24 months old. Orphaned baby beavers require the longest "in care" time in rehab of any species.

The large indoor metal pen had to be put into use this spring after my husband woke me one morning to ask if I had "forgotten to take Chopper out of the bathtub" after his last swim of the night. "Of course I didn't forget and leave him in the bathtub," I replied. Chopper had chewed a hole in the midsize "pool pod" that serves well as temporary housing for younger beavers, and made his way to the bathroom. With a chin-up, he managed to get into the bathtub, using the bathroom scales for a "leg up." Beavers, even babies, are very strong. Obviously, a beaver loose in a frame house with wood floors on a regular basis would be a bad thing, at least for the house!

Beavers are more like humans than any other native animal. They are the only mammal besides humans that adapt the environment to suit their own needs rather than adapting to



*Brook weighed 2.64 pounds when she arrived and in her first two weeks gained 1.38 pounds. It is now common to find the two of them snuggled together asleep. My dear husband has begun clearing a space to build another beaver pen on our lake for these two to move into. They cannot go into a pen with Bailey and Bentley because beavers don't accept others outside their extended or immediate family, except when very young or of opposite sex. They are able to tell if a beaver is related to them through the smell of its castoreum, an oily substance made in the castor glands used for scent marking and conditioning their fur. Beaver fur is remarkably soft and dense, with 100,000 hairs per square inch!*

their environment. They have very close social bonds with their immediate family, and without conscious thought provide habitat for many other species. For this reason beavers are a “keystone” species. Without beavers creating ponds and wetlands, hundreds of other species would have nowhere to live. Wetlands provide not only a home for beavers and other species, they also benefit humans by purifying water and keeping a balance in the intricate ecosystems. Ironic that the species that acts most like us, is one that humans often refer to as nuisance animals. Many people simply kill them. Beavers were almost extirpated in

### **On the Web**

Beavers, Wetlands and Wildlife at:  
[www.beaversww.org](http://www.beaversww.org)

### **On the Bookshelf**

“Beaversprite: My Years Building an Animal Sanctuary,” By Dorothy Richards with Hope Sawyer Buyukmihci

“The Beaver, natural History of a Wetlands Engineer,” by Dietland Muller-Schwarze and Lixing Sun

### **On TV**

“Leave It to the Real Beavers,” Animal Planet, check your local listings for reruns of this entertaining one-hour documentary

the U.S. by about 1900, because of over-trapping. Many states re-introduced the species from the 1930s through 1950s.

Flooding, damming culverts and felling ornamental trees are the most frequent complaints about beavers.

Killing beavers is not the solution: It only opens up the habitat for other beavers to move in, which perpetuates the problem. There are a few devices that allow humans to control the water level instead of the beavers and to keep beavers from damming culverts. There also are

ways to make particular trees less inviting to beavers for dinner. These are much more sensible solutions to dealing with “beaver problems” and they are long-term ones to boot!

### **Author’s note**

My special thanks to: Cher Button-Dobmeier, long-time beaver rehabilitator in New York, for her hours of discussion, her patience in answering my questions, her understanding of my concerns, her willingness to share information and the direction she’s given to help me provide the best possible care for the beavers I have been fortunate enough to experience life with, and for becoming a truly wonderful friend!

Dr. Iain Fitch for his continued compassion and excitement for wildlife, for his willingness to learn beaver anatomy, and for performing successful surgery on Bailey for an abscessed castor gland.

## BEGINNER BASICS

# More than just a cage

By Jean Chamberlain

Rehabilitators should strive to understand the housing needs of the wildlife they care for. Provide cages appropriate for the species, age and medical status of the animal. Caging does more than provide shelter: It should provide protection from enemies, minimize stress and promote conditioning for release.



A manual called *Minimum Standards for Wildlife Rehabilitation* contains information useful to beginning rehabilitators on the care requirements for wildlife, including minimum cage sizes. The hardcopy version can be purchased from IWRC or NWRA, or it can also be downloaded from their web sites for free. The manual should be your starting point for cage-building projects.

The minimum recommendation for outdoor cages for opossums is 4'x4'x8.' Opossums are good tree climbers so the cages should be 8 feet high to allow practice climbing. Tree limbs and logs should

be provided to promote climbing and for hiding. The cages should sit on the ground so opossums will become accustomed to this natural surface.

Cages for gray squirrels should also be at least 4'x4'x8.' They should be made of hardware cloth. All exposed wood must be on the outside of the cage because treated lumber must not be ac-

cessible to chewing. Branches with edible bark should be provided to encourage gnawing. Do not secure the branches at both ends as squirrels need to know that branches can give when they land on them. Provide a nest box with a hole about 3 to 3-1/2 inches across. It helps to include an external perch on the box to facilitate entry.

By learning about the behavior and natural history of a species, you can provide housing that will increase an animal's chance of success when it is released back into the wild.

NATURAL HISTORY

# Avian Identification to Release

Part II

Natural history is the scientific study of plants and animals in their natural environments. It is concerned with levels of organization from the individual organism to the ecosystem, and stresses identification, life history, distribution, abundance, and inter-relationships. Its roots go back to Aristotle and other ancient philosophers who analyzed the diversity of the natural world.

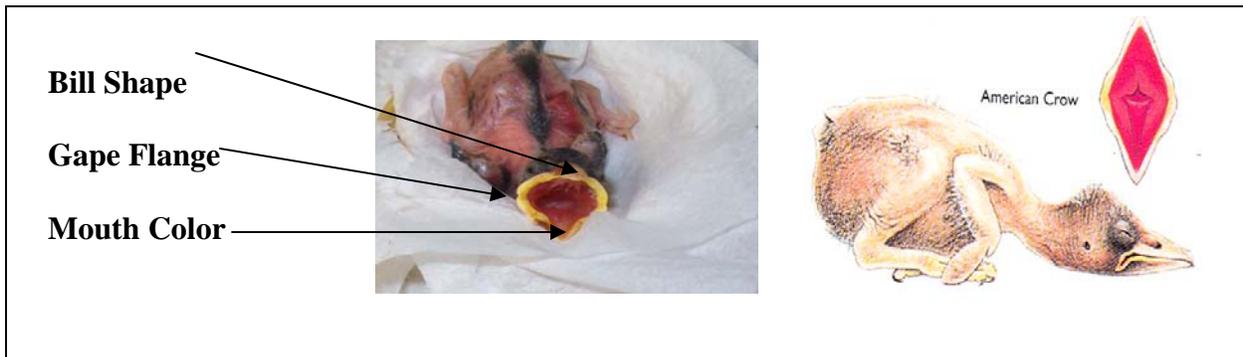
A prerequisite of good wildlife rehabilitative care is the identification of the bird. It is best to know the species. If the bird can not be speciated, it is essential to identify the family, which will provide information on development, diet, eating patterns, habilitation and housing needs and release.

## Baby Bird Stages of Development

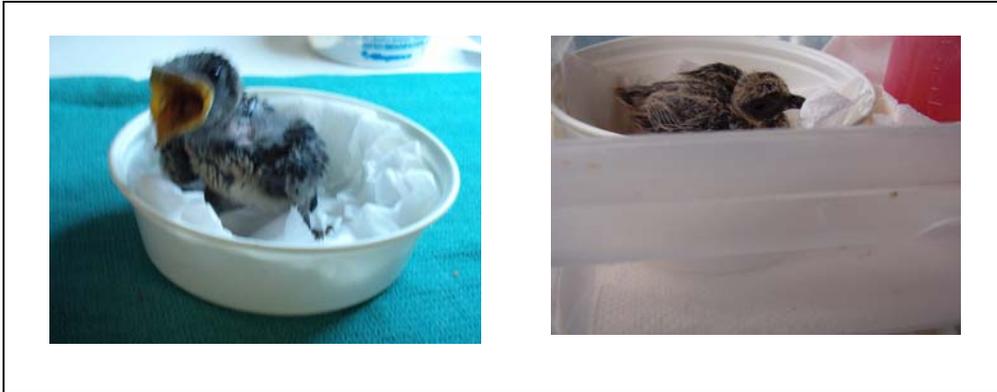
### Hatchling:

Hatchlings are newly hatched and between 0 and four days old. They are unable to control their body temperature, the eyes are closed and they are usually naked or downy with most of the down on their head and back. The babies rely on parents for food. Their mouths are wide with colored, enlarged gape flanges. The gape flanges are full of nerve endings and the slightest touch will cause the mouth to open. The color inside the mouth stimulates the parents to feed the baby.

The hatchling will gape in response to movement of the nest, disturbed air, sounds, or touching the flange.



*Contributed by Elizabeth Hanrahan, WRNC president*



### Nestling

The nestling continues to rely on the parent(s) for all care. Their eyes are “slit” and then open. Pinfeathers begin to emerge and thermoregulation begins. The nestling becomes more active and vocal. It may cower or “hunker down” when afraid or stressed. It will begin perching on the side of the nest.



### Fledgling

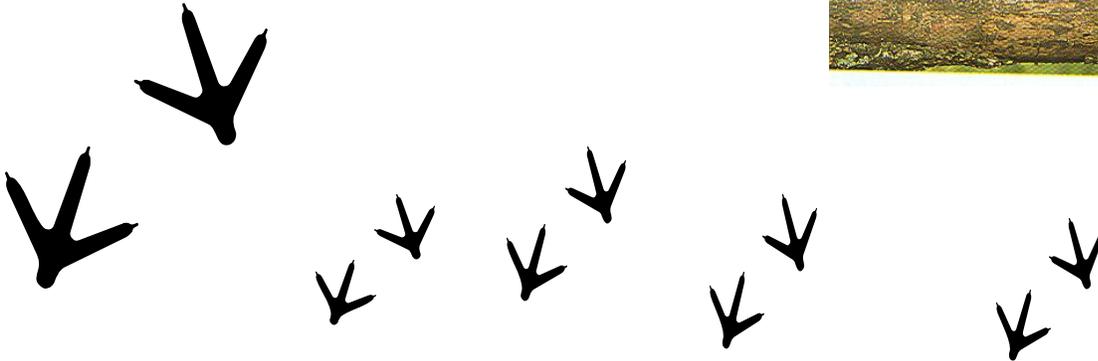
Though the fledgling continues to rely on the parents, it begins to experiment with self feeding. The primary feathers begin to emerge. Because fledglings begin to leave the nest and hop around, they often fall from the nest tree while exploring their surroundings. Some older fledglings leave the nest and hide to avoid danger before they become fully flighted. At this time they begin to fly and develop their flying skills. These birds are frequently admitted into wildlife rehabilitation.

#### On the Bookshelf

An excellent resource to identify nestling to fledgling are the “Nestling Bird Identification Tables” in the **NWRA Quick Reference Guide**, Third Edition. Copyright 2006.

## Juvenile:

Juvenile birds are fully feathered and often resemble the female of the species. They have good flying skills and eat independently. Depending on the species, they may stay with the family unit for up to a year.



## Short cuts

Veterinarians and wildlife rehabilitators often abbreviate directions for dose frequencies. Here are some of the most common:

**s.i.d.** — once a day; every 24 hours

**b.i.d.** — twice a day; every 12 hours

**t.i.d.** — three times a day; every 8 hours

**q.i.d.** — four times a day, every 6 hours

**c.** — with

**p.r.n.** — as needed

**q.** — every (can mean once a day)

**q.a.m.** — every morning

**q.d.** — every day

**q.o.d.** — every other day

**q.3.d** — every three days

**q.2.h.** — every two hours

**q.6.h.** — every six hours

**s.** — without



Source: *Quick Reference, Third Edition*

## IN MEMORY



1963-2007  
Cindy Moody died of drowning July 3

## The Squirrel Girl

By Jerry Moody

When my wife, Cindy, approached me about joining Animal Rehabilitators of the Carolinas (ARC), I took the usual husbandly route and said "sure." After all, if she was busy taking care of a few critters, I would surely be able to get away and play golf a little more often. After completing her training and getting a few of the necessary things such as cages and so forth, she began waiting for that first baby to take care of.

After hearing her describe things, I must admit I was curious about some of these baby creatures. Not many of us have seen a baby squirrel, opossum, or a flying squirrel. So when that first call came, I shared her excitement: two baby gray squirrels! I was out of town, but she called immediately to tell me she had picked them up and was getting ready for her first feeding! Her excitement almost had me ready to come home early, but I would wait and see them the next day. She was glowing with pride as she brought me in to her ARC room to see her first babies. I must admit, they were about the cutest things I had ever seen. She allowed me to hold one as she was getting ready for a feeding, and then informed me I was holding it wrong. She kicked into her protective motherly state, which meant I was about to get educated.

By the end of that week, she had seven squirrels, two bunnies, and four opossums, thus her career with ARC had begun. As her objective to save and nurture any and all animals that came her way developed, she also began teaching me new words and things only rehabbers are privy to.

One of the first new words to come my way was "*diddle*." This was an interesting concept to a man, as it was the process used to stimulate new babies to "use the bathroom." In the beginning, it consisted of a rubber glove, a tissue, two towels, a baby blanket, a nervous baby, and a curious husband. After becoming a seasoned veteran, she only needed one finger, a small cloth, and a comforted baby.

After some time she decided I should help her feed. Well, a man's hands are apparently a little clumsier than a woman's touch, and I learned my second rehabber word: "aspirate." This brought about a whirlwind of fussing and panic as she quickly responded to my error. She explained the seriousness of my mistake and had me try again. After squeezing a little too hard a second time, I was resigned to be the milk-heater-upper guy for the next four years.

Another new term I learned was the dreaded "*schizo bunny*" which turns out to be an Eastern Cottontail. It seems they stress and die for no apparent reason, so she gave them a more fitting name.

Oh, and there was the "pinky," which was no longer an appendage on the end of your hand, but rather a tiny hairless version of any of the animals she was caring for. She was awed by the tiny creatures. The way they moved inspired her. Yet, they were her greatest frustration. Many nights she would ask me "why do I have so much trouble with pinkies?" She would call others for advice. If she thought she was losing them, she would run them to her ARC hero and mentor to see if she could save them. "Pulling them through," as she put it, gave her the greatest pride.

The pinky that gave her the most pride was a "squirrel" she had me pick up on my way home. When I opened the little girl's shoebox, there was a small pinky mouse only about three-eighths of an inch long. Cindy dug in and worked with that mouse for weeks until he was healthy and ready to be released. She named him Doodlebug. We have had Doodlebug in the car twice to be released, only to bring him back home. "He just isn't ready to go yet" she would exclaim. No, Cindy isn't ready for him to go yet, I would respond. Doodlebug now resides in her ARC room, in case you didn't know who was boss around here.

Another new term to our household was "*baby season*." This is what all rehabbers live for. It's that time in the spring and fall when they know they will be overrun with orphans of all types. She thrived on baby season, making sure someone responded to the hot line calls, and going and getting those when no one else could handle them. This past spring, she had 23 squirrels and four bunnies at one time in her ARC room. She loved every minute of it.

Over the years, she taught me many more things, like a Cage Building Party was not so much about the party as it was about building cages for other rehabbers. I also learned that one pre-release cage isn't enough; I would need to build about three, and equip them with squirrel boxes. She also taught me that an injured adult squirrel can bite pretty hard, but that a small ground squirrel can bite much harder.

Another important rehab term I learned was "*poop analysis*." We spent many dinner conversations analyzing poop from one of her animals. She would then call three or four of her friends to discuss the poop situation with them, and finally she would decide a course of action to make the poop problem go away. When she had a really sick one, as it would get better, one of the first things she would show me is how much better the poop looked. Obviously, poop analysis is an important part of rehabbing.

### **Taking wing**

After growing accustomed to rehabbing mammals, she decided to get her Federal Migratory Bird Permit. This opened new doors to our rehab world, because she

could now care for ducks, geese, and other waterfowl. She also became involved with the Carolina Raptor Center in Charlotte, and would retrieve, stabilize and transport birds of prey to them. She became more active with ARC and served as a board member. She enjoyed her roles with both. They tended to the necessary business, but mainly they kept it about the animals, which made her proud.

Over the years, I've seen her rehab, transport, handle or help with: Squirrels, Flying Squirrels, Mice, Beavers, Deer, Opossums, Rabbits, Raccoons, Ground Squirrels, Canada Geese, Mallards, Loons, Barn Owls, Red Tail Hawks, Turtles, and various birds.



### **All about the squirrels**

She would help with just about any animal in need. But at the end of the day, it came down to the squirrels. They held a special place in her heart. They became her favorite mammals to work with. Other ARC members have nicknames such as “the Mouse Lady” or the popular “Bunny Lady” because they take extra special care of their favorites.

For Cindy, it was squirrels. All other animals were treated fairly, but only the squirrels got names. Each of the hundreds that came through our house was named, never the same, which was a challenge in itself. For instance, there was Sammy, a Down syndrome squirrel that lived in our kitchen for two years. She clipped his teeth every few weeks and kept him fed and comfortable and entertained to try and make his life as normal as possible, knowing he couldn't be released because he was too timid.

I watched her struggle at times also. Death is something every rehabber has to deal with. Sometimes they have to make that dreaded decision about quality of life for each creature they are tending too. One day she euthanized a squirrel she had struggled with for a few days. She came to me crying, so we sat on the steps of our porch talking about it. She had taken this one hard, and I was trying to comfort her. She talked of taking a month or so away from the animals to put things in perspective. About that time, our own dog came up the walk carrying, of all things, a baby bunny in its mouth. She uttered a few expletives, took the injured bunny into her ARC room and went to work. The bunny lived, and I think she got all of the perspective she needed.

I have watched her pace around the kitchen at the beginning of each baby season, waiting to get that first squirrel. She would check with other rehabbers to see if anyone had gotten any yet. She even called the hot line when it wasn't her shift to see if she could steal someone else's squirrel call. It was funny to watch, just don't be in her way when it would finally come in.

### **Cindy and 'Little Man'**

Below is her favorite picture of “Little Man,” a special squirrel that came in as a pinky. She struggled with him through some tough times, only to cry with happiness when he was released to live in the wild.

She loved this picture so much because it showed the power of what she was doing. Here is this baby orphan squirrel cradled in her loving hands, depending on her for love, nourishment, and life itself. When ARC decided to use this photo for its Christmas cards, she was so proud. It was Cindy and Little Man representing ARC and the job they do for all animals.



I watched this woman who loved to sleep late, set her alarm to get up at 3 a.m. to feed babies. She would plan our time off around baby seasons. Her whole being was dedicated to helping these animals. The very heartfelt joy she took in completing each rehab and releasing that creature back into the wild where it belonged drove her through any of the rough times that occurred.

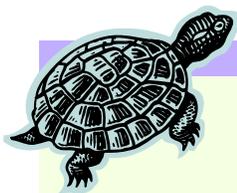
What she never noticed was that several people were now calling her for advice. She was doing classes and teaching others how to save the animals. Several newer members had come under her wing, and she was their mentor. I don't think she really knew how important she had become to so many people and animals.

After 24 years of marriage, I have seen her try different jobs and adventures. The past few years were the happiest I have ever seen her. We used to talk on the deck. This was our little getaway between feedings or whatever was going on, and she would exclaim, "I think I found my niche with ARC. The animals seem to respond to me very well." This definitely was her calling.

On July 3<sup>rd</sup> of this year, Cindy unexpectedly found herself cradled in God's hands. I trust he is loving and caring for her, as well as she did for Little Man.

Mother Nature must surely make some adjustments after losing a soldier as strong as Cindy. But nature is strong and will adjust and go on. I only hope I can do the same.

I love her and miss her.



## About Us

This is a quarterly newsletter produced by 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.



## Pearls of Wisdom



When you want to monitor how much your young Mourning Dove or Pigeon is eating when they first start pecking at seeds, give them a small dish of the colored Canary/Finch size Exact Pellets. The multi-colored feces clearly indicates the amount going through the bird. Once the bird is eating consistently, you may switch to the plain brown Exact Pellets.

*Do you have any tips that make your job easier? Send your favorites to Toni O'Neil at [oneil9734@yahoo.com](mailto:oneil9734@yahoo.com)*

## Ask WRNC



**Q:** Is there anything available to make cleaning tiny silicone nipples easier?

**A:** Yes, there is! Common to wildlife rehabilitation is figuring out how to use items for "new uses," and this one definitely falls into that category. Cytobrushes are perfect little minibrushes that clean silicone nipples very well. They are made for use by gynecologists to collect cell samples for Pap smear tests. So on your next annual visit, tell your doctor you have an unusual request, and ask for a few cytobrushes.

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

## Join us online!

**Q.** Is there an online forum for WRNC members to communicate with each other?

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).



## COMMUNICATIONS

Newspapers and television news programs sometimes provide incorrect information about the care of wildlife. Wildlife rehabilitators need to respond to such situations and educate the public. Here is a letter I wrote recently to the News & Observer newspaper in Raleigh. Please feel free to borrow from or rewrite my letter as it may apply to situations in your area.

— Elizabeth Hanrahan, WRNC president

Dear Editor,

Your story in, Driveway Sightings, on Saturday, August 4 on the raising of the orphaned bird was captivating and caught the public's attention. It was a "feel good" story about a woman raising a wild, baby bird with little information. To promote the humane treatment of wildlife is always commendable.

However, I feel that it was misleading and gave the reading public much misinformation. The "bird rescue" spokesperson gave the caregiver inadequate instructions and neglected the legal and ethical implications of the public caring for wildlife. The "bird rescue" person who gave the information was in violation of both state and federal laws.

There are many fine wildlife rehabilitation facilities in the Triangle and throughout the state. On behalf of the Wildlife Rehabilitators of North Carolina, I would like to provide some education and information regarding the possession and rehabilitation of wildlife.

1. A North Carolina Wildlife License is required to possess or rehabilitate any native wild mammal, turtle, or bird.

2. A Federal Migratory Bird Rehabilitation License is required to possess and rehabilitate any native birds, including blue jays.

Wildlife Rehabilitators are required to have extensive training, appropriate housing, and supervised experience before receiving a wildlife rehabilitation permit from the state or federal government.

Anyone can locate a licensed wildlife rehabilitator by going to the North Carolina Wildlife Resources Commission web site at: [http://www.ncwildlife.org/fs\\_index\\_06\\_coexist.htm](http://www.ncwildlife.org/fs_index_06_coexist.htm) Then click on your county.

The Wildlife Rehabilitators of North Carolina (WRNC) offers introductory and advanced classes in wildlife rehabilitation throughout the state and throughout the year.

We also hold our state symposium each January. All information on classes and the symposium is listed on our web site at: <http://www.ncwildliferehab.org>.

Wildlife rehabilitators are not employed by the state or federal government; 99% receive no salary, and all wildlife rehabilitation activities are entirely self financed.

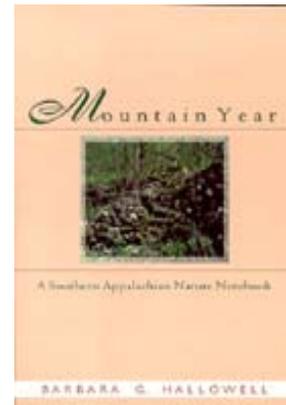
Your story had a happy ending. All too often, though, well-meaning and well-intentioned people who lack the knowledge or training have done much harm.

Kindly,

Elizabeth L. Hanrahan, President  
Wildlife Rehabilitators of North Carolina

#### BOOK CORNER

**Mountain Year**  
**A Southern Appalachian Nature Notebook**  
**By Barbara G. Hallowell**  
**John F. Blair, Publisher**  
**281 pages**



In *Mountain Year*, Barbara G. Hallowell takes readers on a year-long tour of western North Carolina, beginning with how to tell the temperature by the shape of rhododendron leaves and ending with

an explanation of the science behind snow flakes. In between the pages are filled with answers to questions that have occurred to many of us at one time or another while trekking along a mountain trail.

The idea for the book began with questions Hallowell heard when she was teaching nature classes. How do birds manage to stay perched on a limb when asleep? Does a limb move higher on the trunk as a tree grows? What is the point to earthworms?

The chapters are two to three pages, the writing is often eloquent, and the photographs alone are worth the price of the book.

— *Brenda Hiles*

#### **Did you know?**

- The average one-acre garden has an estimated 50,000 dirt-eating worms
- That by the time a robin is 12 days old, it can consume 14 feet of earthworms in one day.
- That a square foot of soil can support three healthy dandelion plants, which will produce 18,000 seeds?

## BULLETIN BOARD



### Off course

A greater Shearwater set a state record in July for being found about 150 miles inland, in Van Wyck, S.C.

The bird was taken to Jennifer Gordon at Carolina Waterfowl Rescue.

Greater Shearwaters spend most of their life at sea, coming to shore only to breed, usually on remote islands off the coast of Bermuda, South America and Africa. They migrate north during June and July to New England and Greenland.

Wildlife rehabilitator Elizabeth Hanrahan, who has worked extensively with seabirds, suggested transferring the bird to a coastal rehab center as soon as possible.

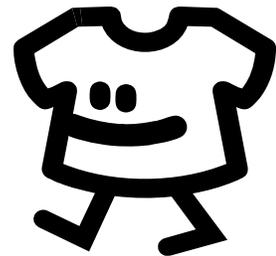
The bird died en route to Wildlife Rehabilitation of Edenton.

Its body is being saved for the N.C. Natural History Museum.

### T-shirt update

A big thank-you to all the creative and talented individuals who submitted graphics for the WRNC Symposium T-Shirt contest. The July 15th deadline has elapsed, and we have seven wonderful designs from which to choose. The designs are currently being viewed and the winning vote will be taken during the WRNC's board meeting on Sept.16.

Good luck to you all,  
Linda Bergman  
WRNC board member



**Send items for  
Bulletin Board to:**

*bhiles919@earthlink.net*  
Please put "bulletin  
board" in the topic line.

## Valerie Schindler Center hires first full-time employee

The Valerie Schindler Wildlife Rehabilitation Center of the North Carolina Zoological Park is pleased to announce the hiring of its first full-time paid employee. Halley Buckanoff, a certified veterinary technician, began work in April.

She has a bachelor of science degree in biology with a concentration in zoology, and she has conducted various field studies of wildlife.

As a veterinary technician, Buckanoff has worked in several areas of medicine, including emergency, zoo and wildlife reha-

bilitation. She has also taken additional course work in animal nutrition, which has been a long-time interest. As an animal enthusiast and naturalist, she has guided bird walks, interpretive tours, and nature hikes.

Buckanoff is supervisor/coordinator of the wildlife center.

*Submitted by Cheryl Purnell,  
veterinary technician III  
N.C. Zoo Veterinary Center*

### Education birds needed



The N.C. Aquarium at Fort Fisher is looking for non-releasable birds for its 20,000 square-foot conservatory. Needed are:

- ◆ Four Carolina Chickadees
- ◆ Four Cardinals
- ◆ Four Rufous-sided towhees
- ◆ Four Brown Thrashers
- ◆ Four Tufted Titmouses

For more information, contact:  
Hap Fatzinger, Aquarium Curator  
NC Aquarium at Fort Fisher  
900 Loggerhead Road  
Kure Beach, NC 28449  
or call (910) 458-8257, ext. 217

### Suggestions sought for symposium

Do you have a new topic you'd like to see presented at the symposium?

Is there a workshop you'd like to have offered?

Send your suggestions to Jean Chamberlain at [ichamberlain1@alltel.net](mailto:ichamberlain1@alltel.net)



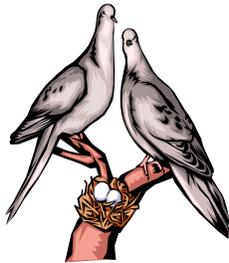
## TEST YOUR DIAGNOSTIC SKILLS

At 5 p.m. you receive a single bunny that the cat brought home to the presenter in the early morning. The bunny has had the skin torn off its entire back



1. What do you think happened to the bunny?
2. What will you tell the presenter?
3. How will you treat the case?
4. What would be the best outcome? Why?

Answer: **Page 22**



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## TRAINING



### ***Close to home***

Training classes are held throughout the state.

For details and updates, go to: [www.ncwildliferehab.org/wrnctrain.html](http://www.ncwildliferehab.org/wrnctrain.html)

**Nov. 10 –11: Carolina Raptor Center.** Workshops are designed for beginning and intermediate level rehabilitators. For information, call (704) 875-6521, ext.108, or e-mail: mathiasengelmann@carolinaraptorcenter.org

### ***Farther afield***

#### **IWRC**

IWRC offers a variety of courses online and in the classroom. For a course schedule, visit: [www.iwrc-online.org/training/catalog.html](http://www.iwrc-online.org/training/catalog.html)

**Oct. 25-26: Basic Wildlife Rehabilitation**, 8:30 a.m. to 5:30 p.m., Wildlife Center of Virginia, Waynesboro, Va.

#### **NWRA**

**Sept. 27-29: Florida Wildlife Rehabilitators Association** symposium at Camp Weed in Live Oak, Fla. For information, call to [www.fwra.org](http://www.fwra.org)

**Nov. 17-18: Carolina Wildlife Care's** 2nd annual "Coming Together for Wildlife Conference at Riverbanks Zoo in Columbia, S.C.

[www.carolinawildlife.org](http://www.carolinawildlife.org)

### **From the editor's desk**

This newsletter is your tool for reaching everyone else in WRNC. Please feel free to submit comments, corrections, announcements and submissions for future newsletters to Brenda Hiles at [bhiles919@earthlink.net](mailto:bhiles919@earthlink.net) or by phone at (336) 834-0353. **The editorial deadline for the December edition is Tuesday, Nov. 6.**

## CREATURE FEATURE

### **Cedar Waxwing – *Bombycilla cedrorum***

#### **Adults**

**Description:** Cedar Waxwings are mid-sized birds (7.25 inches) with red, waxy tips on secondary wing feathers, though sometimes the tips are indistinct or absent.

They have a sleek crest, a black mask, silky, brown plumage, pale yellow belly, white undertail coverts, and

yellow-tipped tails. Where berries are ripening or available in winter, waxwings will feast in large, noisy flocks. They are highly gregarious during migration and in winter. They also are monogamous.

**Weight Range:** 28 to 39 grams

**Range:** Winters from Virginia south and west to California. *Waxwings breed in far western North Carolina.*

**Natural History:** Found in open habitats, woodlands, forest edges, well-planted suburbs, or where berries are available. They also eat insects and sap. Waxwings arrive in large flocks, but they're not a regular winter visitor to the same locations.

**Adult Diet:** *Frugivores.* Diet includes berries, flowers, tree sap. Twenty percent of



the diet is insects. In wildlife rehabilitation, offer a large selection of native, in-season berries. Insects such as mealworms, fly larva, waxworms, and ants also may be offered.

**Nestlings:** Mouth is bright red; gape flanges creamy yellow. Eyes open at 7-8 days, feathers break sheath at 8-14 days. They fledge at 16-18 days. The young should be fed insects, with berries added after

3-4 days.

**Fledglings:** Found in far western North Carolina.

**Juveniles:** Young of the year may be admitted to wildlife rehabilitation with "migration fatigue." Provide good supportive care. Diet includes berries native to the area such as: red cedar, dogwood, pokeweed, grape, viburnum, greenbrier, winterberry, hollies, cotoneaster, pyracantha, tree sap, early flower buds. Twenty percent of the diet is insects, including ants, fly larvae, crickets, mealworms, waxworms, spiders, and tent caterpillars. Offer a large selection of any native, in-season berries or fruit.

**Rehabilitation Notes:** Activity aviary requirement: 4' x 8' x 8.' Provide an assortment of berries common to the area. Provide high perches. If possible, house with other Waxwings. Attempt to locate and release into the flock. Contact bird clubs in the area for flocking information.

**Common Problems:**

Cedar Waxwings have a reputation for gluttony and are known to get “drunk” on naturally fermented berries. They move in feeding flocks in winter. They pass berries from bird to bird. Waxwings are often admitted into wildlife rehabilitation as a result of window strikes, run-in with cars or over-indulgence in fermented berries.



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## Case Study: Were you right?

1. The bunny was “degloved” by the cat. Degloving is when the skin is torn off. It is usually not repairable. You should consult your vet. However, euthanasia may be the best thing you can do for the bunny.

2. You can be honest with the presenter, or you can say that the “outcome does not look good.” Explain that the bunny will probably die a painful death from the injury, infection, and/or shock.

3. Euthanasia would be the kindest thing you could do.

4. There is usually no good outcome in a case like this with a bunny. This is a painful injury. Stress of treatment or infection would probably cause the bunny to die a lingering, painful death.