

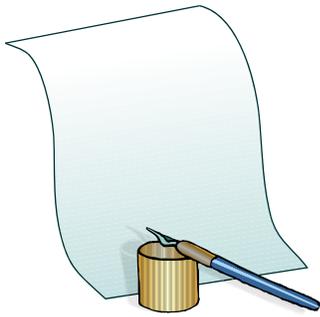


NEWSLETTER FOR WILDLIFE REHABILITATORS

Volume 27

March 2007

BOARD MINUTES



Elizabeth Hanrahan was elected board president during the meeting Jan. 28. Other officers elected to one-year terms are: Beth Knapp-Tyner, vice president; Toni O'Neil, secretary and Jean Chamberlain, treasurer. Beth Knapp-Tyner will stay on as treasurer until the end of the fiscal year on May 1.

Rabies-vector species update

Letters were sent to about 100 animal control officers in North Carolina and to about 160 health departments about a proposal to allow wildlife rehabilitators care for rabies-vector species animals. About 40 responses have been received, many of them positive. Although we've not had a strong show of support from the initial mailing, it gets the idea out. The next step will be to request a face-to-face meeting with the Wildlife Resources

Snakes Alive! What are some of the common problems seen in snakes, and how to treat them.

Page 9

In the know: Several books and publications offer help for the beginning and experienced rehabber.

Page 7

Goose roundup: Rehabbers in Winston-Salem move an abandoned flock of geese to safety.

Page 14

Thank you: The donors who made the symposium raffle a success. **Page 19**

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.

Commissioners to discuss the proposal.

WRNC will ask Laura Simon, who has been instrumental in helping other states adopt this proposal, to help in the effort.

Brochures

Jennifer Gordon is working on a design for a new brochure to use to recruit members. Wanda Burton, a graphic artist, will be contacted to help with the design.

T-Shirts

The topic of selling T-shirts during the next symposium was discussed Jan. 27 during the General Assembly meeting. Members expressed a preference for short-sleeved shirts.

List Group on Yahoo

Jennifer Gordon has offered to help moderate the list group with Beth Knapp-Tyner, but declined to be the sole moderator. A disclaimer will be added at the beginning of the list to describe its purpose and to help disassociate it from being the official opinions or comments of WRNC.

New name tags

Board members will be given fluorescent-colored name badges for next year's symposium to help attendees identify them and to increase visibility.

Committee news and memberships

Membership on several committees has changed.

Emergency Disaster Fund: Janenie Ledbetter's designation changes to board member.

Continuing Education for Vets/Vet Students: Jean Chamberlain is chairwoman; Alicia Cawlfild will also serve on the committee.

Federal Permit for Birds: Vicki Fisk resigned. A proposal was made to make the course a two-day session and offer it in different areas of the state, much like the Basic Wildlife Rehabilitation course.

Symposium: Janenie Ledbetter has joined the committee, and Alicia Cawlfild's designation has been changed from non-board member since she was elected to the board.

Cage Grant: No applications have been received to date. The board agreed to extend deadline.

Refresher and Basic Course: Toni O'Neil has joined the committee.

RVS Rehab: Bobby Schopler has resigned from the board, but will continue to serve on the RVS committee.

Newsletter Article Rework/Edit: Carla has been proofing newsletters, and Linda indicated she will also do this if Carla needs help.

Membership: Carla Johnson, Linda Bergman, Beth Knapp-Tyner and Elizabeth Hanrahan are formally on the committee, although all board members are expected to help recruit new members. The board agreed to form a Strategic Plan with the goal of increasing general membership by 10% in the first year.

Code of Ethics

Rather than having an editorial/opinion page in the newsletter, President Elizabeth Hanrahan has agreed to provide case studies based on the Code of Ethics.

Walk for Wildlife

The board voted not to participate this year in Piedmont Wildlife Center's "Walk for Wildlife." WRNC has no items to exhibit or sell at the event. The board may reconsider its participation when it does have exhibits.

Board meetings

It was agreed to continue the board meetings using teleconferencing.

Newsletter news

We will produce four newsletters a year, but e-mail will be sent to all members between newsletters, indicating new material or announcements as they are put on the web site. Reminder post cards will be mailed only to members prior to the next symposium.

Submitted by Toni O'Neil, secretary

GENERAL MEETING

The annual General Meeting for WRNC members was held Jan. 27 following the banquet. Linda Bergman, outgoing president, thanked everyone for attending and participating, and for helping to make the symposium a great success.

Carla Johnson and Toni O'Neil were re-elected to the board. Alicia Cawlfied and Janenie Leadbetter also were elected.

Members were updated on the quarterly WRNC newsletter, which may be downloaded for free from the WRNC web site (www.ncwildliferehab.org). Members must make sure their correct e-mail addresses are on file in order to ensure they will be able to receive notices when the

newsletter is posted. As of January, this is the default method of receiving the newsletter for all members. For those who prefer to receive a hard copy (paper), the annual fee is \$8.35, which covers printing/ mailing costs.

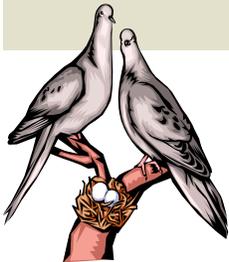
Members indicated interest in a symposium T-shirt, with a preference for short sleeves. A design is still needed for the T-shirts.

Information and registration details for the next two-day Basic Wildlife Rehabilitation training session can be found on the web site at www.ncwildliferehab.org in the training section.

Several members made suggestions for the symposium next year:

- Kathy Lillard asked if the registration form and schedule on the website will give the location of the social events, and if abstracts or course descriptions could also be viewed online in advance.
- Carrie Kiger requested a basic hands-on course for mammal feeding techniques, as well as a splinting workshop.
- Kay Raade suggested offering the same courses multiple times, so attendees don't have to choose between sessions.

submitted by Toni O'Neil, secretary



Board member contact list (email)

Bergman, Linda lbergman@ec.rr.com
Cawlfied, Alicia aliciadc05@yahoo.com
Chamberlain, Jean (treasurer) jchamberlain1@alltel.net
Engelmann, Mathias mathiasengelmann@carolinaraptorcenter.org
Gordon, Jennifer waterfowlrescue@aol.com
Hanrahan, Elizabeth (president) eh11@earthlink.net
Johnson, Carla (membership) Wildlifed2@aol.com
Knapp-Tyner, Beth (vice president) WildatHeartRehab@aol.com
Ledbetter, Janenie Ledbetter767@aol.com
O'Neil, Toni (secretary) oneil9734@yahoo.com
Weiss, Mary weiss275@cs.com

Ask WRNC

Q: Is it true that beavers and muskrats soon may be added to the list of animals not allowed to be rehabilitated in North Carolina?

Submitted by: Sharon T. Brown, Beavers: Wetlands & Wildlife, NY
www.BeaversWW.org



A. No, this is not true. There are no plans or proposals to remove beavers and muskrats from the list of animals that can be rehabilitated in North Carolina. Beavers and muskrats are allowed to be rehabilitated and released in our state. Care should be taken by rehabilitators to make sure they are being released in appropriate areas. To avoid conflict, obtain permission from the landowner.

Have a question? Send it to Beth Knapp-Tyner at WildatHeartRehab@aol.com

The babies are growing. It's time to wean

By Jean Chamberlain

Beginning rehabilitators sometimes have difficulty weaning baby mammals off formula to a healthy diet. The basic procedure is to gradually add the basic dry food to the formula so the animal becomes accustomed to the taste. For example, to start weaning opossums, soak a little high-quality cat chow in the formula. Gradually increase the percentage of cat chow. Then begin to provide vegetables, hard boiled egg, and occasionally, fruit. Cat chow should be 90% of the diet.

For squirrels, once the eyes are open, begin providing a few pieces of rat chow or monkey biscuits with the formula. You can soak the monkey biscuits to soften them. Add sweet potato and apple in very small quantities.

It is important to resist introducing treats before the staple food is established in their diet. Don't offer nuts until they have established a taste for the chow. If squirrels are being wintered over, be sure to get them on the diet of 90% rat chow, 10% fruit and nuts. It is also important before release to wean the animal to its adult diet with as many natural foods as possible.

Squirrels

- Seed
- Squash
- Mealworms
- Banana
- Apple
- Broccoli
- Sweet potato



Introduce natural foods such as bark from nut and fruit trees, pine twigs and cones, and dogwood berries.

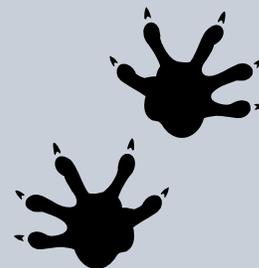


Bunnies

- Timothy hay
- Rabbit pellets/chow
- Apple slices (without the peel)
- Grated carrots
- Carrot tops
- Green beans
- Corn
- Wild strawberries

Opossums

- Insects
- Mushrooms
- Eggs
- Dead mice



Don't offer squirrels nuts until they have established a taste for the chow.

Give opossums insects, mushrooms, eggs, and dead mice. They'll eat the entire mouse, bones and all. The bones provide much-needed calcium.

Give squirrels seed, squash, mealworms, banana, apple, broccoli and sweet potato. Provide natural foods such as buds and bark from nut and fruit trees, pine twigs and cones, and fruit, such as dogwood berries. Also, provide a deer antler or cuttle bone for gnawing and to provide calcium.

For cottontails, provide timothy hay and rabbit pellets/chow. Include apple slices (minus the peel), grated carrots, carrot tops, green beans, corn and wild strawberries (no iceberg lettuce, broccoli or cabbage). Many rehabilitators find that

cottontails readily eat Old Fashioned Quaker Oats. It is wise to limit the amount though, as they will prefer this to the more nutritious, natural food. Introduce greens such as clover, chickweed, dandelions and tender grasses. These must be introduced gradually to prevent bunny bloat. Greens should become their main food. A cottontail should be eating two handfuls of greens twice a day before release.

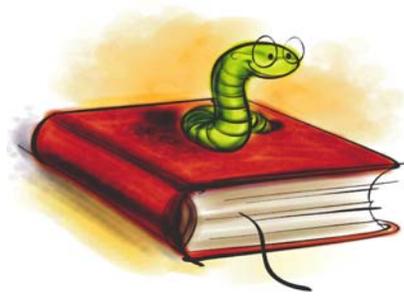
Zupreem Primate Dry, or monkey chow as it's commonly called, can be bought at some pet stores or ordered online. It comes in 1, 3 and 20 pound bags, and shipping costs are high. Mazuri also manufactures a product with the same ingredients called monkey crunch.



What do you need to know?

- ◆ What various species eat at different times of the year
- ◆ The animal's or bird's natural history
- ◆ Hunting seasons in North Carolina, so you'll know if an animal was shot out of season and can report it to the Department of Wildlife Resources.
- ◆ The animal's weight, so you can calculate how much formula it needs. Opossums and squirrels are fed 5 percent of their body weight but bunnies, which are fed less frequently, get 10 percent of their body weight.
- ◆ Intake forms, including information on the animal's injury, where it was found, a description of the area, and the name and phone number of the person bringing it in.
- ◆ What permits you need. If you're planning to rehab songbirds, you need a federal permit. For a list of permits and requirements, go to <http://ncwildliferehab.org/programs/permits.htm>

Resources



Principles of Wildlife Rehabilitation, by A. T. Moore & S. Joosten, 2002, 667pp. Provides information on getting started, admitting patients, veterinary topics, animal handling and care techniques, general nutrition, release, & more. \$85.

Available online at http://www.ncwildlife.org/fs_index_02_regulations.htm

Field guides for various animals, birds and mammals, such as the “Sibley Guide to Bird Life & Behavior,” the “Peterson Field Guide to Mammals” and “Mammals of the Carolinas, Virginia, and Maryland” by Wm. David Webster, James F. Parnell and Walter C. Biggs.

American Wildlife & Plants: A guide to Wildlife Food Habits, by Alexander C. Martin, Herbert S. Zim, and Arnold L. Nelson, is an excellent guide to what animals eat and when.

North Carolina’s Inland Fishing, Hunting and Trapping Regulations, available through the Department of Wildlife Resources or at stores that sell hunting supplies. The booklet is also available online at http://www.ncwildlife.org/fs_index_02_regulations.htm

NWRA Quick Reference, 3rd Edition. Edited by E. A. Miller, DVM, 2006, 148pp. This book includes commonly used medical, anatomical and physiological information in a handy format. Examples include: fluid requirements, calculations, drug dosing, and glossary.

Thoughts for Food edited by Ardi Abate, 2000, 49pp. A step-by-step manual for providing healthy, nutritious and varied live food to insectivorous reptiles, amphibians, birds, mammals and other creatures. \$16 Available from <http://www.nwrawildlife.org/pubs.asp>

Minimum Standards For Wildlife Rehabilitation, 3rd Edition. NWRA/IWRC cooperative project, 2000, 77pp. This book reviews such topics as basic housing requirements for mammals and avians, euthanasia standards, and disease transmission. \$6.50 The book is available online at <http://www.iwrc-online.org/pub/Standards%203rd%20Edition.pdf>

Many of the field guides are available at reduced prices from online used book dealers such as www.alibris.com.

It bears repeating....

Goat's milk and the milk replacement formulas sold for kittens and puppies do not provide nutrients needed by bunnies, opossums and squirrels and can lead to health problems as the animal matures. Several companies offer species-specific milk replacement formulas designed for the nutritional needs of wildlife. Fox Valley and Esbilac are two of the most popular. For wildlife, Esbilac is often mixed with Multi-Milk or Milk Matrix to achieve the correct combination of protein and carbohydrates.



On the Web



For information on wildlife diseases, go to the National Wildlife Health Center at http://www.nwhc.usgs.gov/pulications/field_manual



About Us

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



For snakes' sakes

By Jennifer Grooms

What poses the greatest danger to snakes in North Carolina?

It is a toss up between ignorance and fear, and encroachment. Not knowing the facts can cause individuals to maim, poison or destroy

snakes or to keep them as pets, claiming to have saved them from the wild. Rapid urban development has forced snakes to evacuate many areas, increasing their chances of coming into contact with people, pets and machinery.

These are a few common problems we see and how we treat them.

Hit by car: Perform a full physical evaluation and blood work to make sure all internal organs are intact. External lacerations, cuts, bruises and abrasions should be thoroughly cleansed, debrided, and treated with antibiotic ointment and sutured if necessary. They may be covered with tegaderm or ioban, dressings which allow the wound to breathe while protect-



This copperhead, which died of a cat bite, has needle-like teeth. Caution should be used when dealing with dead venomous snakes.

ing it. Homeopathic remedies may also be appropriate. **Systemic antibiotics are not always necessary and can be deadly if not calculated correctly in reptiles.**

Lawn mowers. These injuries are normally treated in the same manner as those caused by

cars.

Chemical toxicity. Every year, snakes are caught in heavily chlorinated pools, or come in contact with oil from cars, bleach and other chemicals. The substance and the severity of toxicity will dictate the rehabilitation process. Identification of the substance beforehand helps. Many times the chemical has been in the system too long, and it's impossible to reverse the damage to internal organs or the central nervous system. In those cases, we euthanize with intracardiac injections. The solutions we use varies on the species.

If we can get to the snake before too much damage has been done, we go through a detoxification process. Some

times we use drugs like Mannitol or homeopathic remedies designed to detoxify the body. Fluids are used to help increase output volume. It helps to naturally “push” the chemical out of the body.

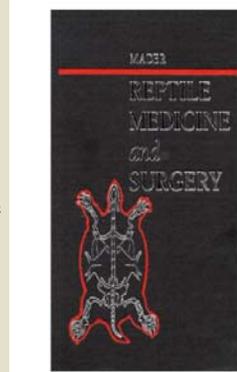
“I Saved it from the Wild by Making it a Pet” Syndrome. Sometimes people just have to put things in a box or aquarium to have as a pet, as a “learning experience” for their children or from simple morbid curiosity. These snakes are normally dehydrated, emaciated, have metabolic bone disease or other nutritional deficits and disorders. They come to us on their “death bed.” They haven’t eaten in months or been given water. They were “force-fed” with improper equipment and nutrition. They bit a child or an adult. You name it, we see it. These snakes are evaluated by a thorough physical exam and blood work. A plan is developed to slowly rehydrate before work begins on nutritional deficits by using proper husbandry. Once again, antibiotic use is contraindicated in certain snakes. You should never give antibiotics until fully hydrated. Some snakes are too far gone to help, and euthanasia is the result.

Know your snakes

Safety is ALWAYS first when dealing with snakes. Know the venomous snakes in your area. You do not have to be bitten by a venomous snake to have serious complications. Non-venomous snakebites can lead to bacterial and systemic infections that can be very threatening. There is a common misconception that all snakes have “fangs.” Venomous snakes do have “fangs” but they are not always in the front of the mouth. All snakes (venomous and nonvenomous) have needle-like, sharp teeth. Some teeth are curved toward the back of the mouth to aid in swallowing. All bites should be

Books

- ◆ “A Guide to the Snakes of North Carolina,” by Michael E. Dorcas
- ◆ “Lonestar Fieldguide Snakes of North America Eastern and Central Re- gions,” by Allen Tennant
- ◆ “Dorling Kindersley Handbooks: Reptiles and Amphibians,” by Mark O’Shea and Tim Holliday
- ◆ “Peterson Field Guides : Reptiles and Amphibians Eastern and Central North America,” by Roger Conant and Joseph T. Collins
- ◆ “Understanding Reptile Parasites,” by Roger J Klingenberg DVM
- ◆ “Exotic Animal Formulary,” 3rd Edition, by James W Carpenter
- ◆ “Reptile Medicine and Surgery,” by Douglas R Mader MS DVM
- ◆ “National Audubon Society Field Guide to Reptiles and Amphibians”



Web sites:

www.ces.ncsu.edu
www.naturalsciences.org

thoroughly washed and seen by a physician. Teeth will often break off in the skin. They can be very hard to see and can cause infection.

If you intend to work with venomous snakes, make sure your local hospital stocks antivenin and your physician is familiar with procedures following a venomous bite. Knowing how to handle a snake bag, a snake hook and plastic restraint tubes are a must when dealing with snakes.

One of the most common obstacles to recovery for snakes is ignorance. Sometimes we think we have the answer for

everything, or we turn to the Internet. The Internet can be a valuable tool but some websites offer inaccurate information.

You do not have to be an expert, but basic knowledge is absolutely necessary to perform a proper physical exam, to diagnose and to treat. You must know the anatomy and physiology of the snake you are dealing with. For example, giving certain antibiotics through injection, such as enrofloxacin, can cause necrotizing sores at the injection site. How will you give an injection, avoiding the lungs or other organs?

Fluids are another problem. When do you administer them intravenously, and where do you insert an IV? How do you draw blood?

Different snakes eat different things. Scarlet snakes are egg eaters; they have been known to eat insects but rely on eggs for their main staple diet. King snakes eat other snakes, including venomous ones, as well as small mammals and insects.

Do all snakes need UVA or UVB lighting?

Identification is the first step in rehabbing snakes. Differences such as normal habitat need to be established. Do they require an arid environment or a swamp-like environment; do they need dry or moist leaf litter or sand? Do they require a large bowl or tank for swimming? Do they require special lighting? Are they nocturnal (night), diurnal (daytime), or crepuscular (dusk or dawn)? Do they require a large space or a small



The juvenile red-bellied water snake is often persecuted and killed because it resembles cottonmouths and copperheads. In a defensive pose, the non-venomous red-bellied snake flattens itself out and puffs its head out to appear more like a venomous snake. It is easy to mistake them for venomous snakes.

space? Are they arboreal (climb trees) or grounded? Do they require heat?

In the initial exam, look for the same things you would in any other animal: normal body weight and body conditions. Make note of any old injuries. Determine gender. Make a plan for treatment that includes radiographs, blood work, fluid therapy, antibiotic therapy or euthanasia, if needed.

If you're planning to work with snakes, network with other snake rehabilitators. Continue your education and receive training from experienced rehabbers, veterinarians, herpetologists and handlers. The NC Herpetological Society has a wealth of members and resources for both amateur and experienced "herpers." Invest in "Reptile Surgery and Medicine" by Douglas Mader, an invaluable reference for anyone interested in reptiles. It provides excellent guidance in anatomy, physiology, medicine, surgical techniques, handling and husbandry. Don't be afraid to ask questions. Make sure to have several identification guides on hand.

Jennifer Grooms and Shannon Baker started H.E.R.P Wildlife Rescue. Grooms, who teaches in the Veterinary Assisting Program at Coastal Carolina Community College, specializes in exotics and wildlife. She and Baker are developing a reptile rehabilitation curriculum for the college.

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.



Laugh lines

Mockingbirds in the Raleigh area can mimic the ring tones of cell phones and the "bings" of trucks backing up. Toni O'Neil reports that the mockingbirds in her neck of the woods imitate the baby ducklings she cares for. More than once their call has sent her looking for a duckling that "escaped," only to find a mockingbird singing nearby.

*Have a story you'd like to share?
Send it to bhiles919@earthlink.net.*

TEST YOUR DIAGNOSTIC SKILLS



An ailing junco; a quick recovery

A family brings you a junco that was found sitting in the parking lot at their son's school. Upon examination, you find no evidence of injury or abnormality. The bird doesn't fly and seems weak. The junco has an engorged tick on its head, behind its eye, which you remove. You provide supportive care. The next day the Junco becomes more active. On the second day, it flies and seems completely normal.



Questions for Case:

What do you suspect is wrong with this bird?
How will you treat it?

For the answer, turn to page 22.

TRAINING

Close to home

Training classes are held throughout the state. For details and updates, go to: <http://www.ncwildliferehab.org/wrnctrain.html>

Farther afield

IWRC

April 21: Initial Wildlife Care; Murray, Ky. Contact Stephanie Hagen at (847) 502-1405 or stephanie.hagen@murraystate.edu

The session is hosted by Murray State University's Animal Health Tech/Pre-Vet Club.



NWRA

March 13-17: Symposium in Chicago, Ill. For more information, go to: www.nrawildlife.org/page.asp?ID=150

March 31, 2007, New Jersey Association of Wildlife Rehabilitators (NJAWR) Annual Conference at Princeton University, Princeton, NJ. Tim Steinbeiser, 609-538-1933 or [confer-ence@njawr.com](mailto:conference@njawr.com), www.njawr.com

Sept. 27-29: Florida Wildlife Rehabilitators Association symposium at Camp Weed in Live Oak, Fla. For information, call to www.fwra.org

A happy ending

The nine domestic geese were making a big splash along Country Club Road in Winston-Salem. They begged for food from customers at the Kangaroo convenience store. They risked their lives by crossing the busy road to a pond 800 yards away. Then there was the mess they left behind in the parking lot.

Some residents thought they were cute. Others called them aggressive.

The birds were dropped off near a shopping center late last summer. One was killed in traffic. In January, a motorist became alarmed as she watched the geese crossing the road. She called Wildlife Rehab Inc., and on Feb. 3 a group of rehabbers rounded up the geese. Jennifer Gordon of Carolina Waterfowl Rescue in Indian Trail, N.C., arranged to have them placed at the Newsom Farm in Davie County.

“Since they were used to handouts, the first two were easy to catch,” said Tom Knight, president of Wildlife Rehab. “After that, the others caught on to us, and that made it a bit more difficult.”

It took three hours to catch the eight geese, which included two brown Chinese, five emdens and one pilgrim.

At last report, the geese were settling into their new home.



Photo by Tom Knight

Pearls of Wisdom

To reduce stress when handling a cottontail, use a pillowcase to pick it up. Put your hands in the pillowcase, pick up the cottontail, then flip the pillowcase inside out so the rabbit is inside.



Cheryl Hoggard, Piedmont Wildlife Center

What tips did you learn at the symposium? Send your favorites to Toni O'Neil at oneil9734@yahoo.com

Blogs

From the website of Linda Bergman
www.bergman-althouse.com

Feb. 10, 2007

If there exists such a thing as a normal, or let's say routine, day at the wildlife shelter, it would be one of manning the phones and admit desk, examining incoming patients, preparing specie specific diets for delivery at meal time, administering medications, cleaning and disinfecting kennel cabs, sweeping, mopping, taking out the trash, locking every patient in for the night and setting the alarm. If there's a moment of down time in all of that, the small crew of two or three rehabilitators come together to discuss patient care or what's the latest happening in each of our lives over a spot of afternoon tea in the humans' kitchen. February 8th started 'average day' enough, but turned out to be anything but routine. I witnessed an "in the wild" incident so rare that



it begged for a camcorder bolted to the top of a helmet, similar to those worn during extreme sports or the super bowl, which I surely should be required to wear while tending tasks at the wildlife shelter. Of course, no one at the shelter wears one, but without videotape, who will fully appreciate or believe my story without seeing it play out for themselves. Still shots

can only do so much, but here goes. Passing through the kitchen, I stopped to watch the over wintering hummingbird hovering near the nectar feeder outside the window. My hummingbirds at home packed up and left for Brazil or Costa Rica months ago, but this chubby little guy is still hanging tough in our 40-degree weather. At the same time, a Great Blue Heron passed over the building, straight as an arrow, his long thin legs dangling after him like the tail of a kite.

I ran to the gift shop window to see if he was coming down to our pond. Although Herons find swampland more suitable at mealtime, they visit our pond occasionally, and he did. I didn't know if he would stay long, though. Being solitary hunters, I thought the presence of so many ducks and geese may prove annoying for the lanky fisherman. I yelled for Maria to come watch and through binoculars we saw him gracefully move into position behind the bare limbs of a bush whose roots drink from the pond. With head lowered, he stalked all movement under the water and despite twenty geese paddling over to nose in his business, within minutes his head shot into the pond, catching a six-inch Bluegill with his spearlike bill. He immediately took flight

over the building with the fish tightly clamped in his mouth, so we ran to the back window to see him go. By the time we reached clear pane, he was turning around and heading back toward the pond with no fish. The fish was way too wide to swallow whole, so we figured the large gray bird dropped the fish, but why didn't he just come down and get it? Maria and I decided to go outside and look for this fish out of water. If it were still alive, we'd throw him back in the pond. Come on now, it's what we do. Donned in puffy vests we spread out and walked toward the aerial path taken by the Heron. "Stop. Don't move," Maria whispered loudly. Within 25 feet, we stood face to face with a stout and sturdy Redtailed Hawk, her talons securely embedded in the fish the Heron accidentally dropped, or quite possibly, the aggressive, territorial bird of prey caused the Heron to drop it. We will never know for sure, but something told me it was probably the latter. With her mouth open, the Redtail, looked at us, then down at the



fish and back at us. Since her eyesight is eight times more powerful than a human's, we knew she was seeing us and our intent much more clearly than we were seeing her. We backed away slowly and like a CH-46 Sea Knight, the heavily built Redtailed Hawk lifted to a sturdy pine branch, Bluegill in tow and proceeded to dine on fish.

I'm not sure if she'd ever eaten fish before, as they usually feed on small rodents and an occasional snake. After watching her tear into her alleged stolen food for a few minutes, I went back to the gift shop window and found the Heron, planted and waiting patiently in the same fish blind he'd used before. The geese had lost interest in his presence. It only took a few more minutes until the Great Blue surfaced an even bigger Bluegill, at least 8 inches, which he toyed with a bit before seriously making a piece meal of him. Even in nature, good karma (at least for the Heron . . . not so much for the fish). This extraordinary experience was compelling, absolutely powerful and took all of ten minutes. Those precious moments were a once in a lifetime "coming together" of Heron, Hawk and Humans. Though brief, a strong message was sent and well received . . . I'm walking this journey fully awake.

Linda Bergman, a WRNC board member, is a contributing author to Book's Den (<http://booksden.wordpress.com>) Topsail Blog Spot (<http://www.topsail-island.info/wordpress/index.php/blogspot>) and her own website, www.bergman-althouse.com



ANNOUNCEMENTS

Dear WRNC member and raptor rehabilitator:

As many of you already know, Carolina Raptor Center (CRC) staff members are always available for consultation. What you may not know is that Betty O'Leary and Mathias Engelmann are not the only staff members.

I would like to introduce to you three rehab coordinators working at CRC: Alli Rogers, Elaine Corvidae, and Kristin Dean.

Each plays an important part in our day-to-day operations of the rehabilitation program at CRC. They do everything from handling phone calls and making transport arrangements, to physical exams, bandaging, blood taking and developing treatment plans for new patients. Elaine is also in charge of database management, so please contact her about year-end reports.

Alli is coordinating the placement of non-releasable birds, and Kristin is involved with lab work.

Take advantage of their expertise and give the "old timers" a break. Most of the time, when someone answers the rehab line at CRC (ext 111), chances are you are will be talking to one of them anyway. So you will probably get your questions answered quicker!

*Thanks,
The old folks at CRC*

Contact us via e-mail

- **Elaine Corvidae**
ElaineCorvidae@carolinaraptorcenter.org
- **Alli Rogers:**
ARogers@carolinaraptorcenter.org
- **Kristin Dean:**
kdean@carolinaraptorcenter.org

Still time to apply for a cage grant

The Cage Grant deadline has been extended to May 1, and as an added bonus, the value of the grant has been increased to \$300.

Any WRNC member may apply for this grant, which must be used to build a new cage, modify or repair an existing cage, or expand or enlarge an existing cage. Application forms may be downloaded from the WRNC website, and completed applications may be mailed to Toni O'Neil at: 119 Doe Drive, Hubert, NC 28539.

If you have questions, call Toni at: 910-326-6432 or send e-mail to Oneil9734@yahoo.com. Take advantage of one of the benefits of membership in WRNC, and apply today.

Lots to do

We were introduced to listserves and Internet resources for rehabilitators, reading radiographs, and managing stress in animals. We were intrigued with avian anatomy, with the numerous examples of how birds differ from mammals. We learned about swifts and killdeer, physical therapy for birds and how to capture waterfowl. For the mammal rehabilitators there was a session on parasites and one on diseases in mammals, plus the challenge of the case studies. Gertie, the groundhog, entertained us all. And, for those interested in reptiles, the turtle shell repair workshop was a big hit.

This year the focus was on the workshops, making them more hands-on. Cages for small mammals were built, dosage calculations practiced and both mammal and avian necropsies done. Legs were bandaged and physical exams done using cadavers.

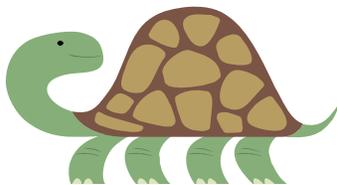
At the Ice Breaker we enjoyed great food, met many old friends and made new ones. The raffle was our biggest yet. The banquet on Saturday topped off a very busy day.

A new class was held for those interested in obtaining their federal permit. There was a session for people considering applying for their fawn permit and a roundtable on the various permits. In all, there were 14 presentations, eight workshops, a roundtable, an eight-hour class, a raffle, a book sale, an Ice Breaker and a banquet. Wow! Our 5th symposium was our biggest yet. We hope everyone had a great time.

The committee is already making plans for next year. If you have suggestions for speakers or a new session or workshop that you would like offered, please send a note to jchamberlain1@alltel.net.

See you next year!

*Jean Chamberlain
Symposium Committee*





The following companies and individuals donated items for WRNC annual raffle:

Backyard Wild

1819 Matthews Township Pkwy
Cari Mull
Matthews, NC 28105

Ben Meadows Co.

P.O. Box 5277, Janesville, WI 53547-5277
j.treinen@labsafety.com
608-757-4664
Julie A. Treinen,
VP Assistant - Customer Information

Linda Bergman and John Althouse

130 Aldersgate Road
Jacksonville, NC 28546

Carolina Raptor Center

P.O. Box 16443
Carol Robinson, Gift Shop Manager
Charlotte, NC 28297
704-875-6521

Carolina Waterfowl Rescue

Jennifer Gordon

Cracker Barrel Old Country Store.

P.O. Box 787, Lebanon, TN 37088-0787
615-444-5533
Jackie Turnipseed, Field Marketing Specialist

Coconut Creek Publishing Co. (*Wildlife Rehabilitation Today*)

P.O. Box 970444, Coconut Creek, FL 33097
Marina Trimble, Circulation Manager

Doctors Foster & Smith

PO Box 100
Rhineland, WI 54501-0100

Janine Fuchs, Exec. Admin. Asst.
715-369-3305
www.drsfostersmith.com

Fox Valley Animal Nutrition, Inc.

PO Box 146
Lake Zurich, IL 60047
Nick Vlamis, Owner
800-679-4666
Lynn E. Nelson, Customer Service

Grubco Incorporated

P.O. Box 15001, Hamilton, OH 45015

Pat and Jim Isaacs

Fort Mill, SC
motleyone@comporium.net

Jeffers Pet

P.O. Box 100, Dothan, Alabama 36302-0100
1-800-533-3377
www.jefferspet.com

KV Vet Supply Co., Inc.

PO Box 245
David City, NE 68632
support@kvvet.com
800-423-8211
Daniel Metzner, Marketing

Mr. and Mrs. Bob Kiger

691 Wiltshire Road
Fayetteville, NC 28314

Kathy Lillard

3601 Cross Winds Road
Charlotte, NC 28227
704-563-6760

Maria and Luis Luques
5331 Bayleaf Drive
Fayetteville, NC 28304

Mike DuPuy Hawk Food
14405 New Hampshire Ave., Silver Spring, MD
20904
301-989-2222
christine@mikedupuyhawkfood.com

National Wildlife Rehabilitators Association
(NWRA)
2625 Clearwater Road, Suite 110
St. Cloud, MN 56301
NWRA@nrawildlife.org

Nature's Way
P.O. Box 188
Ross, OH 45061-0188
800-318-2611
Tim Vocke

National Opossum Society
PO Box 21197
Catonsville, MD 21228
410-233-1102
Janice Hughlett, President

Northwoods Limited, Inc.
P.O. Box 874, Rainier, WA 98576
800-446-5080

Mrs. Rosalind Porter
501 E. Bay Drive, Sneads Ferry, NC 28460

Possumwood Acres Wildlife Sanctuary

119 Doe Drive, Hubert, NC 28539
910-326-6432
Toni O'Neil

Ms. Kay Raade
1807 Thomas Langston Rd
Winterville, NC 28590

Squirrel Store - (Misty) Michelle Wiedow
211 Saddle Lake Drive
Alabaster, AL 35007
205-664-0775
Trixirules@excite.com

Sunshine Mealworms
P.O. Box 380,
Silverton, OR 97381-9385
800-322-1100
www.sunshinemealworms.com

Washington Homeopathic Products
33 Fairfax St.t, Berkeley Springs, WV 25411
800-336-1695
www.homeopathyworks.com

Wild Birds Unlimited
Ron Kitchen (manager)
1848 Galleria Blvd.
Suite F
Charlotte, NC 28270

A discount at Doctors Foster & Smith

Doctors Foster & Smith is offering a \$5 coupon and catalog to those who attended the WRNC symposium Jan. 26-28. In order to receive the discount coupon, send an e-mail to Janine Fuchs, executive administrative assistant at Foster & Smith at fuchs@drsfostersmith.com, and provide your name and address. Her fax number is: (715) 369-9419. There is no obligation to respond to the offer.

FINANCIAL REPORT

WRNC's 5th Annual Symposium 2007

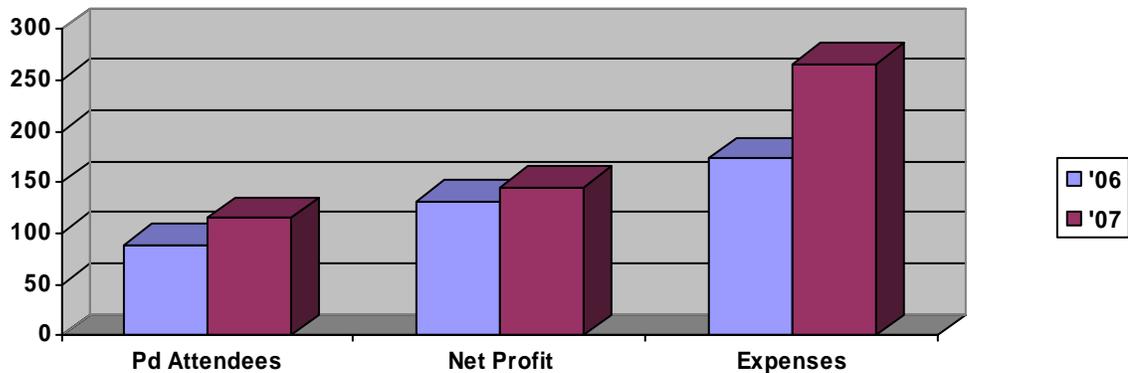


Preregistered attendees	96
Walk-in attendees	19
Volunteers, speakers, board members	37
Total attendees	152
Ice Breaker attendance	70
Banquet attendance	75-77

Profit/Loss Statement

Symposium fees	3,140.00
Raffle proceeds	967.37
Total revenue	4,107.37
Expenses	<u>2,659.38*</u>
Net profit	\$1,447.99

'06/'07 Symposium Comparison



Symposium Year:	2006	2007
Paid Attendees	88 (58R, 27L, 3VS)	115 (73R, 39L, 3 VS)
Gross Profit	3,044.00	4,107.37
Expenses	1,732.97	2,659.21
Net Profit	\$1,311.03	\$1,447.99

R=regular, L=late fee, VS=veterinarian student

Submitted Feb. 5, 2007 by Beth Knapp-Tyner, treasurer

Case Study: Were you right?

Answer: Tick paralysis, complete recovery and release.

Treatment: Remove tick, supportive care. For more information, go to <http://www.ag.auburn.edu/aaes/communications/highlightsonline/winter99/wildbirds.html>

Discussion Points: Regional outbreaks

A strategy for survival



Squirrels apparently know when trees will provide a bumper crop of food. Researchers have found that based on their predictions of plenty, squirrels in the Yukon and Europe will produce two litters in a row.

In most years, trees produce very few seeds. But in certain years they produce an abundance, known as mast. The squirrels seem to know when a mast year will occur, researchers at the University of Alberta reported in the journal *Science*. In those years, mothers interrupt their weaning of the first litter and immediately conceive a second litter.

Directory Updates

Have you moved? Has your email address changed? Is your phone number listed incorrectly in the directory?
Send updates to Carla Johnson at Wildlifed2@aol.com



CREATURE FEATURE



American Crow *Corvus brachyrhynchos*

Adults

Description: The American crow is our largest crow (17.5 “). It is black, with a short tail, broad wings and long, heavy bill. The call is a familiar “caaw.” All

American crows cooperate in rearing the young with yearling helpers as part of their extended families. The young may stay with the family for several years. Couples are monogamous

Weight Range: 438 to 458 grams

Range: Common throughout the U.S. except the Southwest.

Natural History: American crows are common in woodlands, farmland, orchards, tidal flats, riparian woodlands and arid areas. They form large, extended families. American crows are frequently seen “mobbing” raptors during the breeding season.

Adult Diet: *Omnivore*. The natural adult crow includes marine invertebrates, insects, carrion, bird eggs and nestlings, fruit and a few seeds. Feed a wide variety of foods to American crows in wildlife rehabilitation, including eggs with shell, corn, fruits and berries, chopped vegetables, suet, mealworms, crickets, earthworms, mice and small rodents, fish, crickets, grit and ground oyster shell. American crows eject pellets.

Nestlings: Altricial and downy. The skin is pink to pinkish-flesh becoming brownish-gray. The down is sparse and gray-brown on the head and upperparts. American crows feather at 20 to 30 days. Fledge at 25 days. Monitor the diet for calcium and sunlight in all corvids. Offer them a wide variety of foods. Provide several perches in a variety of placements, sizes, and textures to prevent foot and leg problems. Crows become bored quickly and can develop maladaptive behaviors. House them with other American crows if possible. Provide American crows access to the sounds of other, neighborhood crows. Do not house with other species.

Rehabilitation Notes: Activity Aviary requirement: 10’ x 30’ x 15’

Common Problems: American crows nest as high as 70 feet. Always check admitted nestlings for fractures, head injury, and trauma. Monitor crows with a weak cry, labored breathing, inability to stand correctly or “quiet” bird for trauma.

American crows are prone to metabolic bone disease. When well meaning finders attempt to raise them, they are often fed an inadequate diet and arrive with metabolic bone disease. Consult your veterinarian. Monitor the diet for calcium and provide appropriate lighting. External and internal parasites often present in crows. American crows can habituate easily.

WANT TO KNOW MORE?

For more information on Crows and Corvids contact:
Elaine Friedmann of **Corvid Connection**, corvidconnection@aol.com.
Put "Crow" in the subject line.
www.wildliferehabtoday.com/current/captive_care.php

Similar Species: Fish Crow

T-shirt design competition: Winner gets \$100

Artists, sharpen your pencils, wet your paintbrushes, or get clicking your mouse! WRNC is having it's first T-shirt design competition. Winning artwork will be used on T-shirts that will be available at WRNC's 2008 "6th Annual Wildlife Symposium." The winner will receive a \$100 cash prize, recognition at the symposium and in our newsletter.

Deadline: July 15, 2007

Submit to: Lbergman@ec.rr.com

Submission guidelines

- All artwork must be original and free of copyright restrictions and 100% the artist's own work.
- Artwork should be submitted as a JPEG file via email.
- Entrants may submit as many entries as they like.
- Artwork may be any media or mixed media, including computer generated.
- All decisions of the judging panel will be final.



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 or by phone at (919) 462-3249. **The next editorial deadline is Monday, May 7.**