



NEWSLETTER FOR WILDLIFE REHABILITATORS

Volume 28

June 2007

Bill would withdraw OK for Navy landing field

The U.S. House approved a defense bill May 18 that repeals permission to build a Navy landing field near a wildlife refuge in Washington and Beaufort counties.

The language was inserted into the bill by Reps. G.K. Butterfield and David Price, both North Carolina Democrats.

The measure now goes to the Senate, which is working on its own version of the defense bill.

“This is another step forward in the process of moving away from a site that would put our community, pilots and aircraft in danger,” Butterfield wrote in a statement published by the Associated Press.

The proposed \$230 million landing field would allow Navy jets, based in Virginia and North Carolina, to practice landing on recreated aircraft carriers.

Hundreds of people, including scores of wildlife rehabilitators, attended hearings in April to protest

Fine feathers: The ancient art of imping helps birds take flight.
Page 9

In the know: Several books and publications offer help for the beginning and experienced rehabber.
Page 7

What's that?: Ten ways to identify passerine hatchings.
Page 14

Behold the aquatic turtle: Tips for taking care of native turtles.
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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.

plans for the field near Pocosin Lakes National Wildlife Refuge.

Opponents argue the landing field would put aircraft on a collision course with migratory waterfowl.

The refuge is considered a critical wintering ground for waterfowl in the Atlantic Flyway, and is also home to endangered red wolves.

In order to control bird populations in the area, the Navy proposed barring farmers from growing corn, soybeans and wheat in 25,000 acres near the site, hoping to force the birds to move. The Navy also has outlined plans to use poison, dogs and guns to control the birds, according to the Southern Environmental Law Center, an environmental group opposed to the plan.

The first public hearing, held at the Agricultural Center in Washington County, went on until 1 a.m. to allow public comment. The hearing was broadcast over a public address system to an overflow crowd outside.

Farmers from Washington, Terrell and Beaufort counties arrived on farm equipment, circling the Agricultural Center with their tractors.

In an old-fashioned prayer meeting outside the hearing, preachers told the gathering it's against God's will to destroy the land, the family, farms and birds.

An additional hearing, held in Charlotte on April 17th at the Charlotte Convention Center, drew hundreds of people and ran late into the morning hours.



Catie Gordon, daughter of Jennifer Gordon of Waterfowl Rescue, was among the attendees at the hearing in Charlotte on April 17.

Elizabeth Hanrahan and Jennifer Gordon contributed to this article

One Caretaker Principle

By Jean Chamberlain

Infants need stimulation to develop normally. A dilemma in wildlife rehabilitation is to find a way to provide the necessary stimulation for infants without taming or imprinting them.

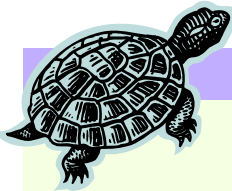


ens their fear of us. This is one of the reasons we should not allow our children or friends to look at or play with the wildlife in our care.

The principle of “one caretaker” is the strategy to achieve this goal. As much as possible, allow only one person to handle and feed the young. This one person is the ‘mom.’

Exposure to other people allows infants to become familiar with humans and weak-

ens their fear of us. This is one of the reasons we should not allow our children or friends to look at or play with the wildlife in our care. It is important to house wildlife in an area away from family activities, out of the range of human voices including those on radios and televisions. We will have times when we must call on another person to help with the care, but we can keep this principle in mind and limit the number of caretakers as much as possible.



About Us

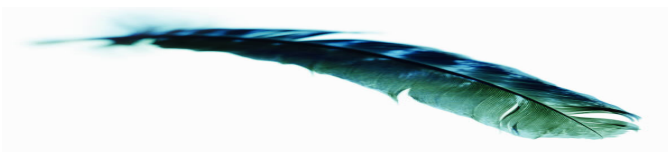
This is a quarterly newsletter produced by Wildlife Rehabilitators of North Carolina (WRNC). WRNC’s mission is to share information and knowledge about wildlife rehabilitation for the benefit of native wildlife. For comments or questions, write to: WRNC, 2542 Weymoth Rd, Winston-Salem, NC 27103.



A fix for feathers

By Mathia Engelmann
Carolina Raptor Center

Imping is a century-old technique used to keep falconry birds in good feather condition. For the rehabilitator, the purpose of imping is to replace broken flight or tail feathers with matching feathers from another bird, either live or dead. This will allow release of birds that may otherwise have to wait for the next molt.



Before You Get Started

Before scheduling this procedure, evaluate the candidate. All injuries should be healed. Birds should be in reasonably good shape, so they will not have to spend extensive time in captivity after imping. However, some birds may not be able to exercise much until they have that new set of flight feathers.

The new feathers should match the broken ones as closely as possible in length and shape. Ideally, you should try to locate the exact feathers from a bird of the same species and size in the collection. If the same species is not available, select feathers to match the need as close as possible.

Terminology

Primary: One of the 10 outermost flight feathers on the wing, originating at the metacarpal bones. These feathers are numbered 10 through 1 from the outside (leading edge) to the inside.

Secondary: One of 14 to 17 large wing feathers originating along the ulna and forming a large portion of the wing surface. They are numbered 1 through 14 +/- from the outside (next to primary number 1) to the inside (closest to the body)

Retrix - One of 12 tail feathers. These are numbered Right 1 through 6 and Left 1 through 6, starting in the center. Plural is retrices.

Remix - Another term for flight feather, either primary or secondary. Plural is remiges.

Imping needle - The "splint" used inside the shaft of the hollow feather to attach the new feather. Can be made of bamboo or the shaft of another feather.

Check with your permit office (USFWS) about keeping feathers for imping. Dead birds and parts of birds are usually covered under salvage permits, not rehabilitation permits. Feathers for imping can be obtained from licensed facilities, but you will need to supply a copy of your permits to those facilities.

What You'll Need

- A variety of feathers from the various species
 - 5-minute waterproof epoxy
 - Small drill bits for cleaning out feather shafts
 - Sharp, straight scissors
 - Scrap paper for marking feathers and shielding body feathers from the glue
 - Small sticks or applicators for mixing and applying glue
 - A variety of feather shafts or bamboo skewers of different sizes, which will become imping needles. Feather shafts have the advantage over bamboo because they are already curved and tapered
 - A kennel or box to place the bird in when it is not being handled
 - A hood or glove to cover the bird's head
 - An experienced assistant to restrain the patient
- "Bird Holding Device" (optional)



Preparation

- Determine the number and types of feathers needed for the particular bird. Locate the needed feathers from your collection. Prepare a variety of imping needles. Make sure all needed supplies are ready.
- Know your wings! Consider the normal shape of the wing of the particular species – which is the longest primary?



How to replace a feather

- Restrain the bird, on its back, on a padded surface and cover the head to reduce visual stimuli.
- Trim the broken feather shafts on the bird to achieve a clean edge for the new feathers to butt up against. It is usually easier to match the new feather to the old shaft in the area close to the body, where only bare shafts have to be matched. In this region, no barbules have to be aligned and the larger diameter of the shaft will accept a larger and stronger imping needle.
- Remove debris from within the old shaft using small drill bits. Be careful not to weaken or damage the shaft walls. Deformed feathers can present challenges – the shafts may have pinched-in areas or weak spots.
- Locate the new feather from your supply. It should be the same exact feather if available. If the number 7 primary on the left wing of a red-shouldered hawk needs to be replaced, try to find a number 7 primary among your supply of red-shoulder feathers. A number 6 or 8 may work in some cases.
- Within each species, size variation exists. Look for a replacement feather of the right width and proportion to match the patients' own feathers.
- Cut the new feather to length to match the existing intact feathers on each side.
- Clean out the shaft of the new feather, using the small drill bits.

Bird Holding Device

CRC has devised a holding device for imping procedures. The bird is placed on its back on the padded platform and the legs are restrained between two padded adjustable crossbars. The body is held to the board using two adjustable straps, which cross the chest in an X pattern. The head is covered with a hood or small towel.

This device allows a single person to prepare and imp feathers on the wings and tail. It also reduces movement of the bird, which responds to movement of the handler by struggling.

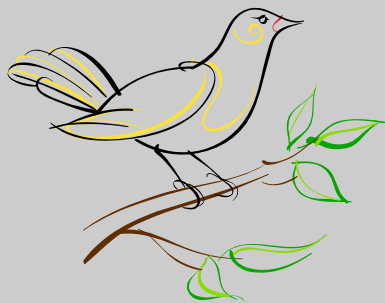
Remember, **use caution** when tightening the straps – allow for expansion of the chest during respirations!



Whittle and trim the imping needle until it fits snug into both the new and old feather shafts..



Protect the other feathers from glue by placing paper under the shafts to be glued.



- Select an imping needle of approximately the right length, shape, and curvature. Whittle and trim the needle until it fits snug but not tight into both the new and the old feather shafts. There needs to be a little space for the glue. Try to place at least one half inch of the imping needle into each shaft, one inch is better and more if possible. The more contact the needle has with the shafts, the more surface area for the glue to work.
- Dry-fit the new feather and check for proper length and curvature with respect to neighboring feathers.
- Lay the new feather aside and mark it with masking tape and a pen, to avoid confusion if multiple feathers are prepared.
- Prepare all feathers needed and proceed with gluing. Protect nearby feathers from coming in contact with glue by sliding small slips of paper under the shafts to be glued.
- Thoroughly mix the two portions of the glue to activate it.

Plan for Release

- Observe the bird in a flight cage for a short time, to make sure all of its new feathers stay in place. CRC often holds birds for 24 hours after imping has been completed and then releases the bird.

Ask WRNC

Q: What steps should be taken if you receive an animal with a gunshot wound out of season?

A: "If at anytime a wildlife rehabber feels that there may be some illegal activity associated with an animal received, they should contact Wildlife Violations (1-800-662-7137). Communications will in turn relay this information to the appropriate wildlife officer," according to the Wildlife Resources Commission's enforcement division.

For migratory birds, rehabilitation permits require that the U.S. Fish & Wildlife officer in North Carolina be notified of any criminal activity. It's a good idea to notify both the state and federal government when migratory birds are involved.

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

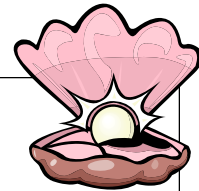


Join us online!



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.

Pearls of Wisdom



A plastic wading pool overturned near a brush pile makes an inviting home for bunnies and cottontails.

Do you have any tips that make your job easier? Send your favorites to Toni O'Neil at oneil9734@yahoo.com

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Tips for (aquatic) turtles

By Elizabeth Hanrahan

North Carolina is home to 14 species and several subspecies of aquatic turtles. As interaction between humans and wildlife increases, rehabilitators are likely to see more aquatic turtles that have been either injured or displaced by human activity or that have been taken out of the wild to be kept as pets.

Aquatic turtles typically have wide, webbed feet for swimming and lack the “hinged” shell found on box turtles. The best place for these turtles is near a stream, pond or lake. In rehab, where that’s not possible, a pool or man-made tub will do.

Other issues to consider when rehabbing an aquatic turtle:



A young Eastern Painted Turtle in juvenile habitat

Housing

General aquatic and special aquatic turtles may be housed in aquariums. Semi-aquatic turtles, bog turtles and spotted turtles should be housed in 2' x 3' cement mixing tubs. Alternatives for larger aquatic turtles include plastic cattle-watering tanks, preformed garden ponds, large, industrial, Rubbermaid® tubs, or a child’s plastic wading pool. The depth of the water should be at least twice the width of the carapace of the turtle. Provide the appropriate substrate, lighting and heating, as well as areas for basking, hiding and enrichment. Monitor the water quality, and clean the habitat regularly.

Water Quality, Waste Management, and Filters

Water quality is a challenge when rehabilitating aquatic turtles. Always maintain turtles in very clean water. Tap water is fine. If you are concerned about chlorine, let the water sit for 24 hours before using it.

Disintegrating waste products, foods and live feeder fish produce ammonia. Excess amounts of ammonia can lead to skin and shell problems. All visible solids, uneaten foods and feces, should be removed daily.

A good filtration system will keep the water clean and reduce the number of times it needs to be changed. Eheim and Fluval canister filters are available from most pet

and aquarium-supply catalogues. Filters will need to be cleaned regularly. Use a filter that is two to four times as powerful as you would for a fish aquarium of the same size. For those without filtering systems, the water should be changed every day or two, depending on the size of the turtle.

Diamondbacked terrapins require brackish as well as fresh water. Products such as Tropic Marin™ can be used in the habitat to create the specific gravity of brackish water. Allow diamondbacks to “soak” in fresh water daily to rehydrate.

Substrates

Some controversy surrounds the use of substrates for aquatic turtles. The fear is that the turtle will ingest the sand, pebbles or rocks, which can cause impaction. Many collectors, breeders, and rehabilitators believe the best solution is to not use substrates.

Harriet Forrester, a respected turtle rehabilitator, advocates the use of substrates. In general, she recommends fine sand or mud for softshell turtles, Sphagnum moss, soil and leaf litter for spotted turtles, and “rounded gravel” substrate for most other aquatic turtles.

Heating

The water temperature required for most water turtles is from 72° to 78° (F). Heat may be provided with a submersible heater. Reinforced plastic or titanium heaters provide the most safety. Some have a heating indicator. By placing a thermometer at opposite sides of the enclosure, you will be able to monitor the temperature for “micro” climates. Fluva, Zoo and Ebo Jager submersible heaters are easily available through pet stores and aquarium suppliers.

It is also possible to supply heat to the shallow turtle enclosures by placing a heating pad, covered by a towel, under half of the container. Monitor for the desired temperature of the water by placing a thermometer at both ends of the enclosure.

Additional heating can also be provided with an aquarium heat light or a Heat Wave ceramic lamp that does not emit light. The heat light can be used at night to provide additional heat without light.

Lighting

All turtles need daily exposure to full-spectrum lighting, which contributes to the physical and psychological health of turtles. Natural light is best. Because sunlight is deprived of its value when filtered through glass, full spectrum artificial light is needed. Full spectrum lighting includes Ultraviolet-A (UVA) and Ultraviolet-B (UVB). These help

Nutrition

Aquatic turtles eat in water. They are predominantly carnivores, though they also enjoy a selection of aquatic plants, chopped fruits and vegetables. In rehab, offer them a varied selection of earthworms, nightcrawlers, redworms, gut loaded mealworms and waxworms, crickets, aquatic snails, periwinkle snails, crayfish, various shrimp and krill, small feeder fish and insect larva. Include aquatic plants such as duckweed, water lettuce, and local native water plants. Commercial diets such as ReptoMin®, Mazuri trout chow or Mazuri Fresh Water Turtle Diet can also be offered. Occasionally offer chopped fruits and vegetables such as apple, tomato, strawberries, banana, carrots, sweet potato and spinach.

Calcium: Turtles need calcium to build healthy shells and bones. Always offer a cuttlebone for calcium as well as enrichment. Replace the cuttlebone if it becomes slimy.

Vitamin D3 is synthesized in the turtle's body by using natural sunlight. Be sure to use a full-spectrum light as a substitute, if direct sunlight is not available.

Vitamin A deficiency will cause loss of appetite. This is a common symptom in aquatic turtles not properly fed a variety of foods.

Vitamin B is depleted in frozen fish. Limit the amount of frozen fish in the diet or supplement it with B Complex or a good vitamin for aquatic turtles.

metabolize calcium and the production of vitamin D3. Two full-spectrum fluorescent bulbs that meet these requirements are ReptiSun® and Duro-Test-Vita Light®. Do not use "plant lights" or "black lights." Full-spectrum fluorescent bulbs need to be replaced yearly.

It is easy to attach lights to a timer to mimic the natural photoperiod. Keep the full-spectrum lights on for 12 to 14 hours per day. Lighting should be about 12" to 18" above the habitat.



Two juvenile River Cooters bask in a cement-mixing tub.

Basking area

All turtles bask to raise their body temperature. Basking spots should have full-spectrum lighting and a small ceramic heater or 40-60 watt light bulb hung 12-18 inches above the area. Commercial basking "turtle docks," turtle "ramps" and floating logs also are available. Natural floating logs, cinder blocks or homemade docks can be used for larger turtles. These systems provide basking and hiding areas.

Enrichment

Enriching the aquatic environment will reduce stress, encourage exercise and provide mental and physical stimulation.

- Encourage choice and exploration in the habitat.
- Provide temperature gradient areas, vary the depth and texture of the substrate and water level.
- Create hiding areas by using rocks and logs of various sizes.
- Give the turtle a variety of chopped and whole foods, colorful food items, live feeder fish and worms.
- Include a variety of natural and artificial plants. Silk plants are easy to clean. Live plants should be replaced frequently.

Hibernation

Overwintered turtles in rehabilitation should not be hibernated. It is believed that turtles kept at household temperatures do not completely hibernate. This state of semi-hibernation interferes with metabolic function, digestion, the immune system and the ability of the turtle to heal. Keep overwintered turtles awake and eating. Monitor the temperature of the water and temperature gradient of the enclosure. Keep the lights on at least 12 hours per day. Use timers to allow artificial light to mimic the natural light cycle. You may need to increase the intensity of light in the enclosure.

Release

Unlike land turtles, which must be released within one-half mile of where they were found, aquatic turtles have a 10-mile release radius. If you know where the turtle was found, it is best to return it to that site or the nearest appropriate site. If you know approximately where the turtle was found, such as the county, find a midpoint with the

If the turtle will not eat

- **Warmth:** A turtle that is too cool will not eat.
- **Stress:** This is often the cause of failure to eat in recently admitted turtles. Stress can be caused by handling, improper environment, tank mates and lack of enrichment.
- **Food:** Does the turtle like the food you offer? Live foods, small fish and worms will frequently stimulate a turtle to eat. Make sure you offer them a variety.
- **Health:** Monitor the weight of the turtle frequently. Not eating can be a symptom of other health problems. If you have done all the right things and the turtle has not eaten for two weeks, take it to a veterinarian who works with turtles.



A GPS is used to confirm location as an Eastern Mud Turtle is released.

appropriate habitat, and release the turtle there. It may be necessary to talk with the local biologist with the state Wildlife Resources Commission for information about appropriate release sites.

If the turtle was kidnapped, and taken far away from its home range, turtle transporting networks can get the turtle to its home county. The turtle also can be mailed to a wildlife rehabilitator in the area in which it was found.

Common Health Problems

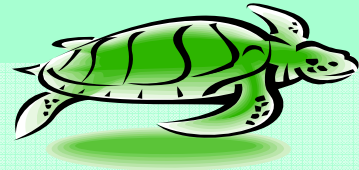
- If the aquatic turtle gets sick, make sure you are keeping it in clean water, providing the correct lighting, keeping it at the correct temperature for the species, and offering a wide variety of the correct foods.
- Swollen eyes can be caused by lack of vitamin A. Check and correct the diet. Certain infections will cause swelling of the eyes. In this case you will need to take the turtle to a veterinarian.
- Sneezing, coughing, gaping are usually a sign of respiratory infection. Separate the turtle from other turtles. It will need attention from a veterinarian and may need antibiotics and a lot of care. Common causes of respiratory infection are exposure to an infected turtle or water that is too cool.
- Shell sores: Immediately remove the turtle from the water. Keep it in a dry environment and allow it to soak for 30 minutes, twice a day. See your veterinarian immediately. Shell diseases need a lot of care to heal, and healing can take months. This can be prevented with proper diet and clean water.
- All turtles should be kept isolated from other turtles to prevent disease or the spread of disease.

Resources

“Turtles of North Carolina;” color picture poster from The NC Herpetological Society and the Division of Conservation of the NC Wildlife Resources Commission. Available from www.ncwildlife.org (click on NC Wild Store).

Peterson Field Guides, A Field Guide to Reptiles and Amphibians, Eastern and Central North America, 3rd edition. Peterson Field Guide Series, Houghton Mifflin Company, Boston. Full description, natural history and color plates of hatching and adult aquatic turtles.

Aquatic Turtles in North Carolina



General aquatics

- **Common Musk turtle:** (2-4 ½ in.) A small turtle found throughout the state and abundant in the Coastal Plain and lower Piedmont. Its relative, the Stripeneck Musk turtle, found in the mountains, is listed as a Species of Special Concern.
- **Eastern Chicken turtle:** (4-6 in.) A “pond” turtle found in southeastern North Carolina. It frequently crawls out of the water to bask in the sun.
- **Eastern River Cooter:** (9-12 in.) A large turtle that prefers rivers with a moderate current. It frequently lays its eggs in suburban yards.
- **Florida Cooter:** (9-13 in.) A large, vegetarian turtle inhabiting the Coastal Plain
- **Eastern Mud turtle:** (3-4 ½ in.) A small turtle that inhabits quiet, shallow waters from the Piedmont to the Coastal Plain. It often travels overland during and after showers.
- **Eastern Painted turtle:** (4-5 in.) A small, handsome turtle once popular as pets.
- **Redbelly turtle:** (10-12 ½ in.) A large turtle with a reddish plastron found in the northeastern Coastal Plain. The Redbelly is easily confused with the Cooters.
- **Striped Mud turtle:** (3-4 in.) A small turtle of the Piedmont and Coastal Plain.

- **Yellowbelly Slider:** (5-8

in.) This mid sized turtle is the most abundant basking turtle in the eastern half of the state.

Semi-aquatics

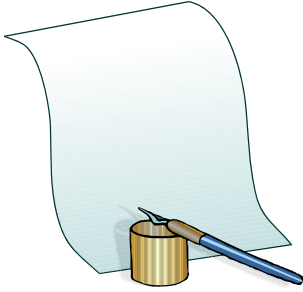
- **Bog turtle:** (3-3½ in.) Listed by the state as a threatened species, this is the smallest of North American turtles. It inhabits bogs and similar habitats in the mountains and upper Piedmont. It is threatened by habitat loss.
- **Spotted:** (3½ - 4½ in.) A small, handsome turtle with yellow spots on the carapace found in the Coastal Plain and lower Piedmont. Habitat loss is a threat to this species.

Special aquatics

- **Common Snapping turtle:** (8-14 in.) A large freshwater turtle with a short temper and long tail found throughout the state. The weight can average 10 to 35 pounds.
- **Diamondback terrapins:** (4-9 in.) Listed by the state as a Species of Special Concern. An attractive turtle of estuaries and coastal marshes. This turtle has light, blue-grey, spotted, head and legs. Two subspecies occur in North Carolina.
- **Spiny Softshells:** (5-17 in.) A Species of Special Concern with a flattened, leathery carapace, long neck and tubular snout. Prefer large streams and lakes. North Carolina also has two subspecies.

BOARD MINUTES

May 6, 2007



Present: Elizabeth Hanrahan, Jean Chamberlain, Linda Bergman, Alicia Cawlfeld (for the second half), Jennifer Gordon, Mathias Engelmann, Mary Weiss, Toni O'Neil

Absent: Carla Johnson, Janenie Ledbetter

Excused: Beth Knapp-Tyner

- **Brochures:** A new WRNC brochure has been designed and 5,000 copies will soon be printed. It will be available at the Symposium for all members to take and distribute. Brochures will also be given to the NC Wildlife Resources Commission (WRC) and mailed to all rehabilitators along with their license.
- **Rabies Proposal:** Telephone calls are still being made as part of the follow-up to rabies-vector species proposal mailing, asking if: A) did health departments and animal control agencies get the information? If not, a copy of the information will be mailed to them, and B) if they got the information, did they respond and send back the postcard? If not, they are asked why. WRNC is in the process of scheduling a meeting to discuss the proposal with the commissioners.
- **T-Shirt Designs:** The T-shirt design contest is still open. No entries have been submitted to date. The design must either be black and white, or limited to three colors to keep down printing costs.
- **Cage Grant:** We are pleased to announce that Mary Ellen Rogers, of the Sea Biscuit Wildlife Shelter in Oak Island, has been awarded a grant of \$300 to assist in building a pelican enclosure.
- **Web Page Changes:** Members will now be able to update their own information on the new WRNC web page, as well as supply information in the training section. A new membership application form also is available.
- **Federal Bird Permit Committee:** The first Federal Bird permit Class will be held in September in the Asheville area. The sponsor host and location have yet to be determined. The second class will be held in Raleigh in December, hosted by the Environmental Educators of N.C. at N.C. State.
- **Chimney Swift Proposal:** Linda has researched Chimney Swift Towers and learned that only four towers are in North Carolina. She would like to see WRNC

BOARD MINUTES

take this on as a project to help build more throughout the state, possibly handling this like awarding a grant. Linda will write up a proposal for the creation of four towers next year. We would appreciate your help and comments.

- **NC Legislation:** Several topics (TED's, OLF in Washington, and monofilament gill nets) are issues currently under discussion and up for votes in NC. There is a national group that monitors situations like these and issues alerts, and WRNC would like to get on their mailing list. This information will be provided in the newsletters as a series, as an FYI service to our members.
- **Accounting Report:** Beth supplied the members with the copy of the financial record for May 2, 2006, through May 1, 2007, prior to the meeting, but was not present to discuss it. The board approved the record, and Elizabeth thanked Beth for her hard work and a job well done.
- **The next meeting** has been tentatively scheduled for 10 a.m. Sept. 16.

Feb. 25th, 2007

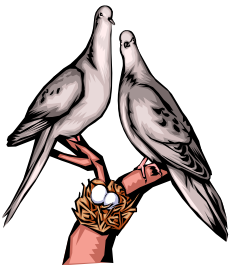
All Present: Elizabeth Hanrahan, Beth Knapp-Tyner, Jean Chamberlain, Linda Bergman, Janenie Ledbetter, Alicia Cawfield, Carla Johnson, Jennifer Gordon, Mathias Engelmann, Mary Weiss, Toni O'Neil

- **Symposium Update:** Attendance numbers were up from last year with 152 attendees. Spending increased this year, as planned, in order to put more money back into the symposium. We still came out ahead.
- **Brochure Development:** Jennifer has designed a new brochure. Printing price quotes for black and white, color, plain paper, and recycled paper will now be sought. The brochures will be taken to the Wildlife Resources Commission (WRC) office, and will be distributed with permits
- **Rabies Vector Species Update:** Letters are ready to go out to the WRC commissioners. Follow-up phone calls will be made to all the animal control agencies that did not respond to earlier letters.
- **"Save on Conferences":** Elizabeth has given instructions on how to set up the telephone conferences for board meetings to Beth as a backup.
- **Symposium T-Shirts:** The design selection will be made as part of a competition/contest, and a notice will run in the next two newsletters about the contest

details and deadline for design submission of July 15th. The winning selection will be made by board vote. Price information is being gathered.

- **Membership:** 59 people have not renewed to date, and reminder letters will be mailed to them shortly.
- **Cage Grant:** The board voted to increase the amount of each grant to \$300.00. Detailed information and application forms will be put on the web site. The deadline has been extended to May 1.
- **Praise for Symposium:** A symposium attendee wrote to express her appreciation for the raffle, the spirit captured by the symposium, and praise for the wonderful people she met during it. She also indicated she would mention how much she enjoyed the WRNC symposium while she attends the NWRA symposium next month. Several e-mails with very positive comments and feedback about the symposium have also been sent to board members.

Toni O'Neil, Secretary



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Weiss, Mary weiss275@cs.com

ACCOUNTING REPORT

Submitted by Beth Knapp-Tyner, treasurer

REVENUE

ACCOUNT	AMOUNT
Interest Income	52.95
Membership '06	60.00
Symposium '06: Banquet	13.50
Membership '07	2,045.00
Symposium '07	3,200.00
Raffle '07	1,000.00
Resale	79.98
TOTAL	6,451.43

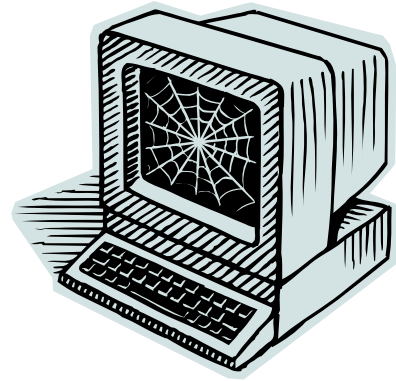
EXPENSES

Advertising	-542.52	Membership '07	- 52.44
Handouts	-628.33	Bank Charges (service fees)	- 26.50
Speakers	-151.46	Board Meetings (Teleconference)	- 157.74
Misc. Supplies	- 88.22	RVS Committee	- 280.61
Lunch	-162.43	Newsletter 06	-123.51
Icebreaker	-710.06	Newsletter 07	- 20.00
Banquet	-195.44	TOTAL Newsletter	- 143.51
Workshops	-139.32	Education Classes	
Certificates	- 47.33	Beg. Rehab:	
Raffle	- 32.63	Fayet '07	- 506.82
		Supplies	- 214.97
TOTAL Symposium '07	-2,697.74	TOTAL Education	- 721.79
		Website hosting	- 168.95

TOTAL EXPENSES **\$4,249.28**

NET PROFIT **\$2,202.15**

Better website just a click away



A member's area with several new features has been added to our WRNC website. We now have the membership information in a database giving us more flexibility in how we present it on the site. You can log in to the member area and bring up a list of members, view or print a copy of the member directory or search for members matching certain criteria. There is no longer a need to contact us, when your address or phone number changes. From the member area you can update this information yourself online. You can also enter or change other information such as the county, your e-mail address and affiliation.

The information on members that is shown to the public when they click on “Members” from the left navigation menu on the homepage is controlled separately from the information available to members in the member area. (No password is required for the public listing). You can now designate how much of your information is shown in the public area of the site. You can choose to not be listed at all or to block certain pieces of information from showing on the list of members.

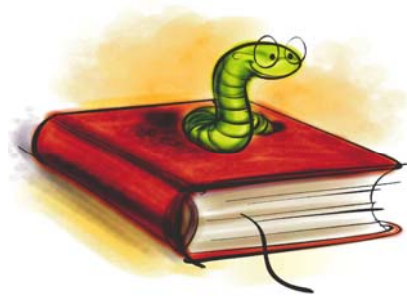
The training area of the site has also been redone. Members who hold training classes can now enter the information on their class directly online. If you have a class that you wish to post on the training page, click on the link at the bottom of the training page.

Please take a few minutes to log in, and review the information we have on file for you and correct anything that is inaccurate. You may log in from the homepage or by clicking on this link: http://ncwildliferehab.org/membership/member_login.cfm. If you don't know your password you can request that it be e-mailed to you from the log on page. Once you have logged in you can change your password. I recommend that you do change it to better protect your information.

Other changes are in progress. Information on WRNC's committees and the Board will soon be available. If you have suggestions for improvements or new features you would like to see on the site, please email me at jchamberlain1@alltel.net.

— Jean Chamberlain

Resources



Basic Wildlife Rehabilitation, 1AB. An interpretation of existing biological and veterinary literature for the wildlife rehabilitator. Sixth Edition, 2/2007. International Wildlife Rehabilitation Council, San Jose, CA.

A current, reputable **Book & Field Guide on the Natural History, Behavior, and Range** of the species currently in wildlife rehabilitation.

Minimum Standards for Wildlife Rehabilitation, 3rd edition, National Wildlife Rehabilitators Association, St. Cloud, MN. E.A. Miller, editor.

Quick Reference, 3rd edition, 2006. National Wildlife Rehabilitators Association, St. Cloud, NM. E.A. Miller, editor.

American Wildlife & Plants-A Guide to Wildlife Food Habits. 1961. Dover Publications, Inc., New York, NY. Martin, Alexander C., Zim, Herbert S., Nelson, Arnold, L.

Willowbrook Wildlife Center Pharmaceutical Index. 3rd edition, 2000. Willowbrook Wildlife Foundation. Brown, C.M, compiler. Available through NWRA or IWRC.

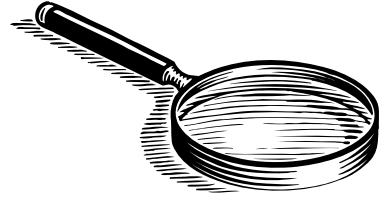
The Pocket Guide to the Humane Control of Wildlife in Cities & Towns. 1991. Falcon Press for the Humane Society of the United States. Hodge, G.R. editor.

Field Manual of Wildlife Diseases in the Southeastern United States. 2nd edition, 1997. Southeastern Cooperative Wildlife Disease Study, College of Veterinary Medicine, The University of Georgia, Athens, GA. Davidson, W.R, and Nettles, V.F.

*Submitted by Elizabeth Hanrahan
Wildlife Rehabilitation of Edenton, N.C. (WREN)*

TEST YOUR DIAGNOSTIC SKILLS

You live on the coast. In December you receive a pelican that is unable to walk. Its feet have red and black spots and what looks to be small bites out of the skin. There are inflamed spots in the pouch.



1. What do you think happened to this bird?
2. How will you treat it?
3. Which avian species are the most susceptible to this?
4. Have you seen it in any mammals?

Answer: **Page 26**

Laugh lines

'A tail to tell'

The man on the other end of the phone line said he found a baby squirrel on the ground. The mother squirrel watched it from a tree, occasionally coming closer, but had failed to carry it back to the nest.

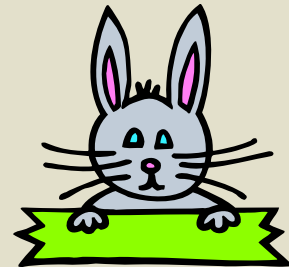
I told him to put the baby in a basket and place it in the crook of the tree, and wait to see if the mother came to get it.

A few hours later, the man called back to report the mother still hadn't taken the baby. Then he added: By the way, how old are squirrels before they have tails?

Wait, the baby doesn't have a tail?

Only then did I realize my mistake. That wasn't a baby squirrel he had put in the tree. That was a baby bunny. No wonder the mother squirrel was confused.

Now when someone calls and tells me they have a baby squirrel, I ask them if it has a tail, just to make sure.






--- Vicki Fisk

Have a story you'd like to share? Send it to bhiles919@earthlink.net. Put laugh lines in the subject line.

FACTS AT YOUR FINGERTIPS

Questions to consider when identifying hatchling passerines

Eyes:	Open? Color? (crows have blue eyes) Placement on head?	
Bill, Gape, Gape Flanges:	Color of flanges? Color of mouth? (gape) Spots or dots in mouth? Shape of bill (long, cone shaped, pointed)	
Body shape, size, posture:	Horizontal posture, short legs? Vertical? Stocky/slender? Size and amount of feathering?	
Feathering:	Naked/ color of skin? Color of down? Color/markings on feathers?	
Feet and Legs:	Toe arrangement? Long legs? Short legs, large feet?	
Begging Call:	Chirp? (Sparrow or Finch) Single high pitch sound? (Mockingbird) Trill? (Starling) Whining sound? (Dove or Pigeon) Buzzing? (Woodpecker)	
Tail Feathers:	Shape, length? Markings or tail bands?	
Behavior:	Stretch and weave? (Flickers) Snap at offered food? Turn in circles, poke bill thru your fingers? (dove, pigeon)	
Nest:	Materials used in construction? Cup shaped? (Robin, Thrush, Wren) Mud? (Barn swallow) Trash or snake skin woven in?(Titmouse or Starling) Fragile platform of twigs? (Dove)	
Egg or egg fragments:	Use fragments to check identification in <i>A Guide to the Nests, Eggs, and Nestlings of North American Birds</i> , P.J. Baicich & C.O.J. Harrison	

TRAINING

Close to home

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



centers, wildlife centers and animal sanctuaries. It also meets the requirement for specific training needed to apply for the N.C. State Wildlife Permit. Students must be at least 16 years old. Cost: \$60.

For more information, go to:

www.coastal.cc.nc.us

Phone: 910-938-6294

Farther afield

IWRC

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

NWRA

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

Oct. 20-25: American Association of Wildlife Veterinarians and American Association of Zoo Veterinarians Joint Conference in Knoxville, TN. (www.aawv.net/meetings.html)

Aug. 17-19: The Duck Rescue Network Conference 2007 will be held at the Wing Havens Garden and Bird Sanctuary in Charlotte.

Registration is limited to 50 attendees. The cost is \$50 if paid before July 15 and \$60 thereafter.

Seminars include chemical exposure awareness, oil spill training, Duck 911, and common diseases of waterfowl. For the full agenda, go to http://www.duckrescuenetwork.org/conference_overview.html

Basics of Wildlife Rehabilitation, June 4 - July 23; Aug. 6 - Sept. 24, 6 p.m. to 9 p.m. Monday and Wednesday, Coastal Carolina Community College is hosting the course which prepares students for entry-level and intern positions in nature

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, Aug. 6.**

Blogs

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

They're on their way back! Chimney Swifts, capturing my imagination and respect, are flying a 3,000-mile journey from South America's Amazon River Basin to spend May through August in my county, to breed and raise their young. About five inches in length, with a twelve-inch tip to tip wing span, these sooty gray to blue-black heroes are fascinating to watch, as well as, extremely valuable to our quality of life. The fantastic flyers emerge from their roosts at dawn and dusk to snatch nasty mosquitoes, gnats, biting flies, spittlebugs, aphids, winged ants, wasps, mayflies, stoneflies and termites from the air. With long, scythe-shaped wings and a short stubby tail that spreads when they make crazy, acrobatic turns in flight, those sleek little insectivores deserve our respect and our protection. Two Chimney Swift parents and their offspring will consume over 12,000 flying insect pests every day, that's – every day! Chimney Swifts once had opportunities to nest inside tree hollows, but with the loss of mature trees and similar wooded habitat, all over the country, they have taken up residency inside chimneys or any structure they find suitable. Unfortunately, since the 1980's, many homeowners have capped or closed chimneys that were once used for nesting. New construction design is another reason Swifts cannot enter a chimney. Some houses are built without chimneys or chimneys that use small metal flue pipes rather than clay liners that Swifts can hang onto. Devastatingly, Chimney Swift numbers are declining. On the flip side, insect pest numbers are growing. How do those sayings go? Sometimes we chop off our noses to spite our face, or we end up shooting ourselves in the foot. I believe that's what one does when they become annoyed by the Chimney Swift's presence and block an entrance to a chimney used by a Swift couple to roost and raise their babies. Although the sound of Chimney Swift newborns is not everyone's favorite melody, normally by the time the babies become loud enough to hear, they are less than a couple of weeks from being old enough to feed themselves. After that, the cute, chattering noise of a baby bird begging for food is over. It might be an entire three weeks. Are we so intolerant of something so natural that lasts a mere few weeks that we are willing to give up the benefits Chimney Swifts provide? I don't know about you, but I can't wield a fly swatter fast enough to be the extraordinary bug killer a Chimney Swift is as it soars through the sky vacuuming those mosquitoes who would

Linda's Chimney Swift essay was published by The Book's Den, Author's Den and Dropping Anchor Magazine. In recognition of her efforts to accommodate and conserve Chimney Swifts, a vital natural resource, she received a personal letter from Defenders of Wildlife on April 20, 2007, thanking her for "speaking out for migratory birds."



Chimney Swift fledglings raised with plenty of TLC and mealworms by rehabilitators at the Outer Banks Wildlife Shelter, 100 Wildlife Way, Newport, NC. This tiny trio is gearing up to practice their flight skills and ultimately join a Swift colony already engaged in environmental duties.

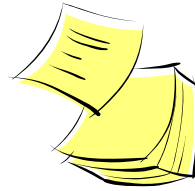
Scout Troop or a 4-H club would enjoy taking on a conservation project like a Chimney Swift tower. If saving one of our natural resources sounds like something you'd like to do, please call your nearest shelter for information and recommendations for construction sites. The nasty mosquitoes will hate you for it, but your spring and summer, resident Swifts will be appreciative and pay you back many times over. You can find very simple instructions for towers online at www.chimneyswifts.org. Protecting our natural resources and improving the environment is a darn good thing. It confuses me why some folks would rather inhale a fog of insect ridding chemicals than allow environmentally friendly Chimney Swifts who, by their diet and most efficient exterminating nature, are capable of doing the job. Besides all that, they're cute, don't you think?

surely make a blood meal of me if they had the chance. I appreciate seeing a Chimney Swift colony chattering overhead in the evening while I enjoy supper on the deck. I'm confident they are helping to keep our menacing insect population down. Before the first Carolina cold snap, my Chimney Swifts will return to their favorite resort area in South America. We don't start using our fireplaces until then anyway. Loss of habitat in this country is obscene, and some people truly don't understand the Chimney Swift's worth. Please keep in mind that Chimney Swifts are protected by the Migratory Bird Treaty Act and should not be intentionally harmed.

Chimney Swift towers are now being built across the US. Unfortunately, North Carolina has only four and none are in the coastal region where I live. Texas holds the record with eighty-three, so I'm following their example and have introduced Project Chimney Swift Tower in my area. I've already received interest from various youth groups. If you have Swifts in your chimney and don't want them there, for whatever reason, please call a wildlife shelter before removing them. You might consider building a tower to accommodate these tiny environmental activists. Maybe a

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



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.
- **Number of colors is limited to three.**
- 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.

Case Study: Were you right?

Answer: Frostbite

Treatment: Treatment depends on the severity of the frostbite. Light cases may be treated as for burns. Serious cases can result in loss of the pouch, secondary infections, etc.

Discussion points: Migrating birds may show unusual symptoms. Banding information revealed that this bird came to North Carolina from the Eastern Shore of Maryland. The previous week there had been an unexpected, hard freeze form in Virginia. Non-native species from warmer climates are not adapted to colder weather.