

NEWSLETTER FOR WILDLIFE REHABILITATORS OF NORTH CAROLINA

Volume 3

DECEMBER 2000

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, PO Box 987, Kernersville, NC, 27285-0987

The Sky's the Limit by Mark Hufford

We all know how challenging it can be to find financial support for the work we do as rehabilitators. There are few of us who have not dipped into our own pockets time and time again to pay for what we do. Adding one more membership fee to the list of things we pay for may seem hard to justify.

On the other hand, those of you who will continue receiving this newsletter have realized the importance of working together as a state group and have made a financial commitment to be part of this effort. We applaud your commitment.

Accordingly, we want to make it clear that the Interim Board of WRNC has done everything possible to make this association operate efficiently. We'd like to take this opportunity to share a bit of news that the Board has already heard, but that you might not have.

Three Western North Carolina nonprofits are currently collaborating on a project to focus attention on rare highland habitats. The project, involving Southern Appalachian Highlands Conservancy, Wildlife Care Center of the Blue Ridge, and Carolina Kids' Conservancy, includes land conservation, environmental education, and wildlife rehabilitation.

Importantly for WRNC, grants secured by the collaboration included funds to help develop our state association. More than \$2,500 was deposited in our account, which puts us in a better position than many struggling new organizations. This money can go towards our web page, our directory, or anything helpful to our development as an organization.

We're hopeful that more foundations and businesses will provide financial support so that we can continue to keep membership fees low for WRNC members. If you have experience writing grants or raising funds for nonprofits, please contact one of our Board members.

WRNC IS FOR EVERYONE

Even though the name of this organization specifically mentions rehabilitators, we don't want to exclude environmental educators, biologists, state officials, or anyone else interested in wildlife conservation. If you know of someone with an interest in wildlife conservation, tell them about WRNC – they may want to join our efforts.

Attention Rehabilitators

If you have interesting cases, innovative techniques or any other tips you would like to share with the readers, please send us the information at the address above.

All submissions will be edited for clarity and contents, and suggested revisions will be sent to the author for approval prior to printing.

Next Meeting of WRNC:

Where: Education Bldg. at the NC Zoo in Asheboro

When:
Jan 21st, 2001, 11 am
until 4 pm

In case the weather does not cooperate, the snow date is Jan 28th, same time and same place.

Having a Ball with Black Rat Snakes by Bobby Schopler, DVM, PhD

The farmer walked into the clinic with a bag that clearly contained a living creature. As he filled out an admission form, he explained he had a snake with a golf ball stuck in it. He didn't know what to do, so he brought it to the APS Wildlife Shelter. The snake had swallowed the ball a week ago and didn't seem to be able to get rid of it.

In central North Carolina, it is the practice of some farmers to put an object that looks like an egg into chicken nests to help induce laying. Some farmers use plastic eggs, some use doorknobs, others golf balls. Apparently this practice fools the chickens into laying eggs in the nest box. Black rat snakes sometimes make it into the nest box to eat the eggs and may inadvertently consume the "fake egg". I have seen three such snakes in the past two years. The farmer finds the snake caught in the chicken wire fence. Unable to pass through, the snake is easily caught; the fortunate ones are brought to the Wildlife Shelter. The object lodges somewhere between the stomach and the upper gastrointestinal tract and, if not removed, can kill the snake. I once found a snake skeleton with a doorknob in the center of it; another time I found a snake with a golf ball ulcerating from its belly - surgery was necessary to save the snake.

There are several ways to go about treating the situation. The easiest is to simply "milk" the object gently back up the digestive tract and out the mouth. There is some risk of bruising internal organs, including the heart, if too much external force is necessary to propel the object retrograde through the gastrointestinal tract. Another method is to surgically remove the object. I have done this on several occasions with mixed results. I discovered a third way accidentally with the snake in the bag. Because the snake had eaten the golf ball a week before, the ball had traveled about as far south as it was going to go by the time it came to me. I tried to gently milk it back up the snake without success. It simply would not budge. Not to be discouraged, I took about 15 cc's (a tablespoon) of K-Y jelly and squirted it through a red rubber feeding tube into the stomach of the four and a half foot snake. My next attempt to squeeze out the ball was again unsuccessful. Surgery seemed the best option at this time. I placed the snake into a container and went to get the anesthetic. I returned to weigh the snake and found a very slippery shiny golf ball and a very healthy snake.

After successfully eating a mouse and defecating, the snake was returned to the farm where it performs mouse and rat patrol. So far, the snake is leaving golf balls alone.

USFWS POLICY ON AMPUTATIONS

If you are an avian rehabilitator or an environmental educator and have not received a renewal notice for your federal permits recently, you may not be aware of some of the new regulations adopted by the US Fish & Wildlife Service. One of the more important changes is the policy on amputations, and you may want to let your veterinarian know about it. It basically states that birds which require amputation at or above the elbow (any part of the humerus) or amputation of a leg or foot cannot be rehabilitated and cannot be kept as educational birds and therefore have to be euthanized.

This policy is not retroactive, which means any birds that you currently use for education that fall in these categories are exempt. All new arrivals admitted by rehabilitators, however, are covered under these new regulations. For specifics, contact Carmen Simonton at the USFWS in Atlanta at (404) 679-7070.

The USFWS has adopted the Minimum Standards developed by the NWRA and IWRC. An updated and brand new printing of the Standards Publication should be available from either organization shortly after 2001 begins.

Update on West Nile Virus – as of 9-27-00, the virus has officially arrived in NC. It was confirmed in a dead crow found at Jordan Lake near Raleigh.

Furthermore, scientists at the National Wildlife Health Lab in Madison, WI, are investigating the route of transmission. Healthy birds housed with infected ones may contract the disease through direct bird-to-bird contact. Scientists think the virus is not transmitted through the air, but don't know the method at this point.

WRNC DIRECTORY

Board members are working hard to complete the first membership directory. We hope to be able to mail it to all members in January 2001.

A big **Thank You** to the Hospitality Committee for providing food and refreshments at the October Meeting. Attendants to the meetings please remember to contribute, because these folks pay for all the supplies out of their own pockets.

Recognition and Treatment of Fly Eggs and Maggots by Lessie Davis

Unfortunately during the warm summer months, fly eggs and/or the hatched maggots are frequently encountered on both downed, healthy and/or injured orphaned babies as well as injured adult animals. The female fly is capable of depositing, literally, hundreds of eggs in a relatively short period of time and, in order of preference, places the eggs at the site of a wound, near any body orifice (anus/vent, genital area, ears, nose/nares, mouth, or eyes), or throughout the fur or feathers of the compromised animal. Since the eggs hatch in 24 hours or less and the maggots eat live tissue, they can, in a remarkably short time, actually eat the animal alive. The maggots tunnel under the skin or directly into the tissue, eating continuously, reaching any and all parts of the body. The eggs and maggots are truly life-threatening and must be aggressively addressed as soon as possible.

Wanda Burton, a Charlotte rehabilitator, has supplied the best description of the eggs on an animal as yellow/creamy colored, fine sawdust looking clumps, which are gummy or sticky. These clumps can be found in the ear canals (the entire canal is filled to the surface), in the nostrils/nares (similar to ears), in the mouth (around the gums, under the lips, down the throat, or directly on or under the tongue), on the eyelids (near the eye or the slit of the eyelids if the eyes are not open yet), as well as any other area of the body. There may be multiple clumps of eggs or only a few; do not stop checking until you have gone completely over the animal a minimum of twice from head to toe, down both forearms or both wings, upper and lower side, both legs, and the length of tail. Your animal must also be checked several more times during the following 24 hours for missed eggs that may have hatched.

Because of the "sticky" exterior, entire egg clumps in cavities like the ear canal can sometimes be removed relatively intact. Gently insert tweezers or forceps on each side of the clump, apply light pressure to grasp the entire clump, then lift straight up with a slow, steady motion. In moist areas like the mouth, a dry cotton swab (Q-tip) or gauze pad will pick up many eggs. Do not reuse the same swab or pad, as you will redeposit the eggs – use a clean dry one with each swabbing. Clumps may be removed from unfurred or unfeathered babies in the same manner. Animals that are furred or feathered can be difficult to clean as the eggs stick to the fur or feathers as they separate and disperse everywhere. In areas of egg clumps, dust (prevent inhalation by the animal by covering the face) the animal well with corn starch, talc, baby powder, or a similar, safe substance which prevent eggs from sticking as badly, then comb the eggs out

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using a flea or fine toothed comb. In some cases only a warm bath with a mild solution of Dawn dishwashing detergent will remove substantial egg deposits. Dawn is the only product that will preserve the animals natural waterproofing (for mammals and birds). Wash the animal from the shoulder area down and rinse under warm running water in the same manner. Then dry well and place on heat until completely dry.

The size of the actual maggot can be helpful in determining how long ago the eggs have hatched and, consequentially, how much damage they may have done. Newly hatched maggots are very tiny, worm-like in appearance, less than 1/32nd of an inch long, light, whitish-gray in color, and smaller around than a straight pin. As the maggots grow, the color becomes more grayish and less whitish. The largest maggots I have personally encountered were about 1-1/2 inches long, a medium gray color, and over 1/2 inch wide – it probably took only about two days for this amount of growth to occur. Animals infected with maggots have a distinct sweetish odor that is difficult to describe, but rarely forgotten once experienced.

Maggots may be individually removed with tweezers or forceps; areas of maggots may be flushed well with saline solution from a syringe to "wash" them out; the flea and tick sprays (only those safe for kittens) that have **Pyrethrin** as the active ingredient may be sprayed directly into the tunnels created, into the ear canals, and over the fur or feathers being certain it reaches the skin level; or the warm bath may be given as noted above. Bathing may not kill the maggots and will not effectively reach areas like the ear canals or into tunnels and should be used in combination with one or more of the other techniques. The Pyrethrin sprays will also kill any maggots that may hatch from eggs that were not removed. These sprays come in both water-based and alcohol-based solutions. The water-based solution is recommended as the maggots expose internal tissues that would be painfully irritated by the alcohol. Good ventilation and supplemental warmth must be supplied for an animal that is wet from spray application. The age and physical condition of an animal on arrival may dictate what techniques it is able to tolerate for maggot removal, but all maggots and any eggs must be removed as soon as possible. If the maggots have entered the thoracic or abdominal cavity or the skull interior, euthanasia is usually the most humane treatment.

The Internet – Friend or Foe by Mathias Engelmann (reprinted from "Raptor Rehabilitation")

Wildlife rehabilitation is moving from the computer age into the Internet age. There are now chat rooms and all kinds of web sites offering information. I would like to offer a word of caution.

Over the past year we have talked to people who sent us birds after they had cared for them for several days or much longer. These were not rehabilitators, just average citizens. They were convinced that they knew how to take care of the animals, because they had access to the Internet. While this desire to "play doctor" on injured wildlife is nothing new, the Internet is making much more information available to the average person. So it may be easy for people to think they can really "learn it all" just by logging on.

At CRC we believe that there is no substitute for watching a procedure or technique live and in person, asking questions, and then practicing under the supervision of an experienced person. Reading about it can give anyone the background information they need, the reasons why, etc., but there is no substitute for the "real thing". Anyone starting out in wildlife rehabilitation should make every effort to volunteer and train under an experienced and licensed rehabilitator, for their sake and for the animal's sake.

This is just my opinion and your comments are welcomed !

Bald Eagle with Suspected Mercury Poisoning by Mathias Engelmann

Our environment is increasingly being threatened by contaminants. As wildlife rehabilitators we are in an excellent position to monitor effects of these chemicals and toxins that affect wildlife and ultimately the human population. We handle injured wild animals on a daily basis and we are familiar with their normal anatomy and behavior.

Mercury is a heavy metal toxic to animals even in small quantities. It apparently has no biological function. Mercury occurs naturally in soil, but most sources are human-related, such as fossil fuel power plants, industrial and mining discharge, pesticide use, and incinerators.

Mercury has been reported in tissues of wild Bald Eagles, Ospreys, and a variety of waterfowl. Recently certain fish in the Eastern part of NC have shown high enough concentrations of mercury to warrant a caution about human consumption of fish from these particular streams. The USFWS has been testing for mercury in the Eastern part of the state and has found elevated levels in Terns, Pelicans, and Ospreys.

In April 2000, Carolina Raptor Center received a juvenile Bald Eagle suffering from neurological symptoms. The three-year old bird was found at a fish hatchery near Aurora, NC. It was slightly emaciated, alert, unable to fly or stand properly, and exhibited some tremors, especially in the wings. Weight on arrival was 3104 grams. External and internal parasites were present. PCV was 42 % and TP 3.2 mg/dl. After a number of tests, a tentative diagnosis of mercury poisoning was established. Whole blood showed 0.9 parts per million (ppm) of Mercury, significantly above the 0.4 ppm deemed the upper end of the normal range. However, presumably healthy wild birds have been found with levels up to 4.1 ppm and not suffering from any obvious effects.

Treatments for this bird included force feeding and tube feeding, since it was unable and/or unwilling to eat. The diet included whole mice with "Avitron", an avian multi-vitamin supplement; "Clinicare", a high-calorie liquid diet; "Nutrical", a high-calorie supplement; and Lactated Ringer's Solution. Treatment for mercury was initiated with two courses of DMSA (Dimercapto-succinic acid), a chelating agent, which is designed to remove the metal from the blood stream.

Symptoms improved only slightly during the four months in captivity. Follow-up blood work showed a decline in mercury level in the blood from 0.9 ppm to 0.22 ppm, followed by resurgence in the level to 0.38 ppm. Tests on old feathers molted and on newly growing feathers also showed a concentration of mercury, indicating that the bird had been exposed to the metal for months and possibly years.

Two homeopathic remedies, "plumbum" and "nux vomica", were prescribed by Dr Charles Loops, DVM, a veterinarian specializing in homeopathy. They were used on the bird during the later stages of treatment, unfortunately with no observable impact on the behavior or condition.

The birds' behavior showed marked change on Day 127 – the tremors increased dramatically and the bird was unable to maintain an upright position or balance itself using its wings, as it had done previously. At this point, humane euthanasia was selected as the only treatment option and the bird was taken to the nearest state diagnostic laboratory for necropsy. Extensive testing on the body showed that the eagle still had high concentrations of mercury in the liver and also revealed several other problems. The liver was infected extensively with trematode or fluke eggs, the heart muscle showed evidence of parasitic infestation, and the air sacs showed signs of infection. The damage to the liver could have accounted for some of the symptoms.

The November 2000 issue of "WILDLIFE IN NORTH CAROLINA" has an extensive article on Mercury and the problems in North Carolina.

Randy Wilson, the head of the NC Wildlife Resources Commission's Nongame Department, gave up his Sunday to attend WRNC's October meeting. During the 2-hour discussion he answered many questions posed by attendees of our meeting and explained the possibility of funding for wildlife-related activities in the future. He agreed that the rules and regulations governing wildlife rehabilitation in North Carolina may need to be updated sometime in the future. WRNC hopes to play a role in that discussion when the time comes. Mr. Wilson also expressed his willingness to work with rehabilitators and the WRNC. He saw great potential in our organization for offering training to rehabilitators all across the state.

Raptor Beaks by Mathias Engelmann
(reprinted from "Raptor Rehabilitation")

The color of the beak varies among the species. Here are a few examples:

Most buteo hawks and accipiters - dark gray to almost black, sometimes two-toned with lighter gray bordering the cere.

Falcons - varying shades of gray.

Vultures - Black vultures have very dark gray or black beaks as juveniles and adults, as do juvenile turkey vultures - the adult turkey vultures have ivory-colored beaks (the color change occurs during the first year of life).

Great horned owls - dark gray to black
Barred owls - orange, yellow, tan, light gray.

Barn owls - ivory to pinkish tan.

Eastern screech-owls - gray, tan, and even greenish beaks.

Nestling-age raptors often have lighter-colored beaks than adult birds.

Continuing Education

- CRC will be offering classes in February 2001 for beginner and intermediate level raptor rehabilitators.
- NWRA annual conference will be held in So. Lake Tahoe, Nevada, March 13 - 17, 2001.

WRNC formally adopted the revised By-laws at the October meeting in Asheboro, with a few relatively minor changes noted at the meeting and agreed upon. If you would like a copy, please send a SASE to Mark Hufford, Carolina Kids' Conservancy, P.O. Box 948, Columbus, NC 28722.

HELP !

Does anyone have experiences with air purifiers? I am looking specifically for information on the type of purifier that produces ozone. Animal hospitals and offices use them to control odors. Any comments, practical experiences, costs, maintenance, pros and cons would be appreciated. Please send comments to Carolina Raptor Center, Attention Mathias Engelmann, PO Box 16443, Charlotte, NC 28297, or call me at (704) 875-6521.

David H. Allen, the Nongame Coastal Project Leader with the North Carolina Wildlife Resources Commission, reports that 2000 was a good year for Bald Eagles in North Carolina. Of the 37 nesting territories they are currently tracking, 32 were active this past season. While this is still a low number compared to South Carolinas' 100 + territories or Florida's' almost 1,000 territories, it shows a marked increase.

They would like to hear from anyone who knows of an active Bald Eagle nest or territory. Call Mr. Allen at (252) 448-1546 or email him at allend@coastalnet.com.

The Commission also monitored 18 Peregrine Falcons territories and found 10 of them to be active. The 16 chicks produced represent the greatest number of chicks fledged since monitoring began in 1987. Of particular interest is a pair observed at Hanging Rock State Park, the eastern-most territory found in NC so far.

Data Collection Update by Bobby Schopler, DVM, PhD

As cooler times are headed our way and the birds are heading south, the reptiles are burrowing in, and things are slowing down for rehabilitators across the state, I would like to send out a reminder. This year is the first year that WRNC will be compiling North Carolina Rehabilitation statistics. We will be asking each of you to send us your information. We will compile the information and get it back to you in an interpretable form. All that we are asking is that you send us your end of the year report in the following way, with as much information as you can supply

Minimum information includes:

- 1) Species or common name,
- 2) Where Found - County and Town,
- 3) Date received,
- 4) Reason for rehabilitation (abbreviations are acceptable if explained clearly at the bottom of the page (e.g. O/K = orphaned/kidnapped; I = injured; HBC = hit by car; CB = cat bite; S = sick; T = transferred from another rehabilitator; U = unknown; P = poisoning/toxicity)
- 5) Disposition, please use the following abbreviations to avoid confusion: R = released; D = Died; DOA = dead on arrival; E = Euthanatized; EOA = euthanatized on arrival; T= transferred; I = institutionalized (educational use); P = pending

We really do not know how many animals are being rehabilitated across the State at this point. This information is crucial in order to know what kind of animals are being seen, which ones are the most difficult to rehabilitate, and what some of the statewide problems are that result in animals being brought to rehabilitators. We all want to be successful in rehabilitating these animals, and we all want to care for them in the best possible way. The data we collect can help us all. Please take the time to copy your end of year report or fill out the form provided in this newsletter, then email it to the address on the form, or send it as hard copy to the Wildlife Rehabilitators of North Carolina End of Year Report (EYR).

This information will point out which animals are the most difficult to rehabilitate and may give insight into which species might show up in the Newsletter pointers section. The results will be published in the WRNC Newsletter.

Included with this newsletter is a form you can use to submit data, or simply copy your own report. Please send the completed form(s) to Carla Johnson at the address indicated on the form.

Anonymous submissions are acceptable, as long as the information on the admitted animals is complete.

Notice of Annual Meeting

Members of the Wildlife Rehabilitators of North Carolina are cordially invited to attend the organization's Annual Meeting for the election of Trustees (Directors) and such other business as may come before the meeting. The Meeting will be Sunday, January 21, 2001, starting at 11:00 am, at the Education Building of the North Carolina Zoological Park, Asheboro, NC.

All members in good standing are eligible to vote. In addition to the slate of candidates proposed by the Nominating Committee (see ballot below), candidates for positions on the Board of Trustees (Board of Directors) may be nominated from the floor of the Annual Meeting.

If you are unable to attend the Annual Meeting on January 21, WRNC members in good standing are eligible to cast absentee votes for the Board of Trustees. Absentee ballots must be received by January 14, 2001. The Board of Trustees, in accordance with the WRNC Bylaws (as amended October 15, 2000), will consist of between five and nineteen Trustees. Directors (President, Vice President, etc.) for the calendar year 2001 will be elected by this new Board following the annual meeting.

Trustees must be WRNC members in good standing and must reside in North Carolina. Trustees shall attend regular Board meetings to manage and direct the affairs of the organization. Article IV, section 6 of the Bylaws states that "If a Trustee is absent for two consecutive regular meetings, his or her position shall be deemed vacated unless the absence is excused by the Board...".

Cut out or copy the ballot included in this newsletter and mail it to the address indicated.

WRNC Web Site

WRNC's own website is now under construction – the address is wildliferehabnc@virtualave.net. Check it out and give us your feedback, please.

WRNC Membership

As of 11/00, WRNC has 91 members

**Deadline for submissions
for the next newsletter will
be February 1st, 2001.**

Meeting of Interest

The 2001 annual meeting of Partners in Flight will take place March 14th, 2001, at 10 am at the Blue Jay Point County Park in Wake County near Falls Lake. Presentations will include current waterfowl research and conservation and shorebird conservation in NC. Contact Mark Johns at (919) 852-5124 or check out their website <http://faculty.ncwc.edu/mbrooks/pif/index.html>

Disclaimer 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.

RE. IN TO:WRNC
2542 Weymouth Rd.
Winston Salem, NC 27103
or E-mail crjohnso@wfbmc.edu

PLEASE PH ☒ COPY IF MORE
FORMS ARE NEEDED

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WILDLIFE REHABILITATORS OF NORTH CAROLINA END OF YEAR REPORT FOR 2000

REHABILITATORS NAME OR INSTITUTION NAME: _____

ADDRESS _____

CITY _____

COUNTY _____

REGION _____

	SPECIES/COMMON NAME	DATE IN	WHERE FOUND		REASON FOR REHAB	DISPOSITION*	DATE OUT
			TOWN	COUNTY			
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P = pending

ABSENTEE BALLOT

You may cast one vote for up to nineteen candidates by placing a check next to candidates' name. Write-in candidates must be members in good standing that have agreed to serve as Trustees. The Nominating Committee hereby nominates the following slate of candidates for positions on the WRNC Board of Trustees.

One-year term

____ Mark Ansley
____ Mathias Engelmann
____ Mark Hufford
____ Gail Houston

Two-year term

____ Elizabeth Hanrahan
____ Robert Schopler, DVM
____ Barbara Tomlinson
____ Ed Weiss

Three-year term

____ Lessie Davis
____ Nina Fischesser
____ Carla Johnson
____ Susan Wilson

Write-in candidates

Ballots must be received by January 14, 2001.
Mail to WRNC, PO Box 987 Kernersville, NC 27285-0987.

WILDLIFE REHABILITATORS of NORTH CAROLINA MEMBERSHIP RENEWAL - 2001

NAME: Mr. Mrs. Ms. Miss _____
LAST NAME FIRST NAME
ADDRESS: _____
STREET ADDRESS
CITY STATE ZIP
COUNTY: _____ WILDLIFE DISTRICT: _____ (Shown on State Permit)
HOME PHONE: _____ WORK PHONE: _____
E-MAIL: _____

MEMBERSHIP FEE \$20.00 - Membership year is from January 01 to December 31, 2001.
Make checks payable to: WRNC. Mail to: P.O. BOX 987, KERNERSVILLE, NC 27285-0987

Please indicate if you wish to be listed in the 2001 WRNC Membership Directory as
accepting referral telephone calls for wildlife assistance. _____ YES _____ NO
If YES is marked, please be sure WRNC has your current permits on file.

If you are renewing your membership and voting, you may simply remove this page
from your newsletter and send both of these forms to:
WRNC, PO Box 987, Kernersville, NC 27285-0987.