



NEWSLETTER FOR WILDLIFE REHABILITATORS OF NORTH CAROLINA

Volume 8

March 2002

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.

Addressing Environmental Issues

Sandra L. Justus, NC Certified Environmental Educator
Blue Ridge Wildlife Institute, Jonas Ridge, NC

With the continuation of development in North Carolina, many important issues come to the forefront regarding wildlife. It is important that wildlife rehabilitators are aware of these growing problems, so they can better serve the animals they receive and educate others about unsafe practices. Only through education can we equip people to make sound, informed decisions, address complex problems, and creative problem-solving techniques. Humans tend to destroy what they do not understand; knowledge is the key to understanding, and only through education can we obtain knowledge.

When a housing development or factory comes into an area, the first thing that happens is the land is clear-cut to create an open area for construction. The initial problem this creates is a lack of habitat for wild animals already living within the parameters of the area to be clear-cut. We must consider what impacts clear-cutting an area will have on the existing wildlife community. Many factors come into play at this point, which may or may not affect the efforts of wildlife rehabilitators. The biggest and most obvious problem with habitat loss is the displacement of wildlife! They are fearfully forced from their homes as the bulldozers rip apart their

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Next Membership Mtg:

Date: Saturday, April 20th
Place: NC Zoo Rehab Bldg
Time: Board Mbrs: 10:00 am
General Membership: 12 noon

Directions: From the North on 220 into Asheboro, follow signs to the Zoo turning off Hwy 64 onto Zoo Parkway. Once on Zoo Parkway, go 2 miles and turn Left onto Old Cox Rd. Go 2.5 miles to the Veterinary Medical Ctr at 2723 Old Cox Rd. It will be on the left. Watch for signs!!!

From the South on 220: Watch for signs to the Zoo before coming into Asheboro. From Zoo Parkway, go past the Zoo entrance (it will be on your right) and continue North to Old Cox Rd. Turn Right. Go 2.5 miles to the Veterinary Medical Center. Watch for signs!!

If you get lost page Carla Johnson at (336)733-7885 or call the rehab center at (336) 879-7644.

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territories; they flee anywhere they can to get away from danger. Often, these displaced animals end up in roadways, existing housing developments, towns, and cities as they look for a new habitat. They come into contact more often with humans and their pets as they fight for survival, ending up injured from a variety of causes. Another factor is that as trees go down so do many nests, leaving helpless babies injured or orphaned due to the parents being forced to flee the area. Those that try to protect their young often end up dead because they are no matches for heavy machinery. In either case the young are orphaned.

As land is clear-cut for development, the number of injured and orphaned wildlife that an area receives for rehabilitation could increase, and wildlife rehabilitators need to be aware of the possibility of growing numbers that might be admitted. Displaced, perfectly normal wildlife may be received and only need to be relocated, or there may be an increase in injured wildlife, principally due to auto collisions or attacks by free-ranging family pets.

Once a housing development or factory has been built, the human population in a given area and traffic on the roadways increases, and with this comes more trash along the roadsides that attracts prey species. When this occurs, we begin receiving more predator species, such as raptors, into rehabilitation from collision with cars. However, this is the least of our worries if we consider all of the other possible ramifications of increased human population and the impact on wildlife. Landscaping often adds toxins to the area that can affect songbirds and small mammals as they fight for survival. Pesticides, insecticides, fertilizers, and poisons sprayed on plants accumulate in rain puddles and storm drains, becoming concentrated in areas that small animals use, making them sick or killing them. As impervious surfaces (roads, sidewalks, pavement, parking lots, etc.) increase, they collect other toxic substances like gasoline, oil, and antifreeze that travel with rainwater runoff to various sites that wildlife will come in contact with causing illness, or death if the toxic concentration is too high. Poisoned animals become sick and many of the symptoms may appear as various diseases that we are familiar with. Being aware of these possibilities is our first line of defense in recognizing if an animal, that comes in for rehabilitation, has been poisoned or is ill.

Often development occurs near or on lakes, rivers,

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Rabies Vector Survey

The School of Veterinary Medicine at NCSU is preparing to send out a second rabies vector species survey to all wildlife rehabilitators in NC. If you have responded to the first survey, do not answer this time around. They want to make sure that everyone gets an opportunity to respond before making a presentation to the Wildlife Resources Commission and the state veterinarian regarding special permits to rehabilitate such species as raccoons, foxes, skunks and bats. Your response counts!! Please take the time to fill out and return this survey.

A Reminder

Please send your 2001 animal counts to Carla Johnson as soon as you can. A form was included in the last newsletter. If you have your records in a database, submitting them via email is the easiest way, especially if you have a lot of records. Carla's email: Wildlifed2@aol.com

The deadline for submissions for the next newsletter is May 1st, 2002.

streams, and other waterways. During the clear-cutting and building phases, sedimentation and siltation effects water quality. As suspended and dissolved solids increase in the water, the dissolved oxygen decreases and, in many cases, can lead to fish kills. In addition, during the landscaping and increasing population phases, toxins run off the land directly into the water leading to increased algae blooms, which also deplete the dissolved oxygen supply in the water -- this can lead to further fish kills. Toxins from landscaping and impervious surfaces bio-accumulate in the fatty tissues of fish that many species of wildlife depend upon as a source of food, thus poisoning occurs in any animal that eats the contaminated fish. This can generate an increase in the number of sick wildlife that come into rehabilitation and often, if misdiagnosed, can result in the death of the animal.

Currently in North Carolina, there is a statewide warning issued for all bodies of water advising limited consumption of fish caught within the state due to elevated and unsafe mercury levels. The North Carolina Department of Natural Resources posts all warnings placed on waters within the state and keeps them updated regularly. You can also obtain this information by requesting the printed materials one receives when purchasing a fishing license at any location that issues these permits. Keeping updated on these warnings can help to determine possible poisoning agents in a given area of the state. Mercury poisoning is extremely dangerous! It accumulates in the fatty tissues of fish, and is absorbed through their gills and skin as they move through the water, in mammals the mercury goes straight to the brain resulting in severe brain damage and poor muscle coordination, giving the appearance of the mammal being drunk or drugged. Pregnant mammals pass the mercury poisoning onto their offspring resulting in malformations of limbs and major organs, and in mental retardation. Mercury levels increase as you move up the food chain, and pose the largest threat to raptors and other top predators. Mercury poisoning is often referred to as "Minamata Disease."

It is very likely that mercury poisoning outbreaks will increase steadily over the next several years as development and Corporate America spreads out along North Carolina's waterway shorelines. Typically, the signs of mercury poisoning appear in the animals of the area first and then humans are affected. Many threatened and endangered species depend on fish as a food source and it will be these species that will not only suffer the damages first, but will have the hardest time surviving once the limited populations become infiltrated with mercury in their bodies.

Last, but certainly not least, as species habitats are disrupted and displaced, wildlife is forced to relocate causing condensed populations with a less diverse gene pool. What does this mean? Species will become more and more inbred and pass on more and more unfavorable traits to their offspring. Often limited gene pool diversity leads to increased numbers of birth defects and mental retardation, and a higher rate of hereditary diseases are found in the population's offspring. Because of the law of nature, "survival of the fittest," many species will abandon their imperfect young, leaving them orphaned and increasing the number of babies that come into rehabilitation. We may also start seeing more mutated and sick animals in our wildlife rehabilitation centers. This could affect our rehabilitation success rates, as many of the animals we may receive will not be able to survive in the wild.

In closing, as wildlife rehabilitators we have an obligation to become educated about the issues that could directly impact our abilities to care for and rehabilitate sick, orphaned, or injured wildlife. Heads up everyone! Together, we can make a difference, first by educating ourselves and then by educating the general public about these important issues and factors that can affect the overall well-being of wildlife throughout our state.

Average Weights for Selected Raptor Species

Birds were admitted to Carolina Raptor Center as adults {Second Year (SY), After Hatch Year (AHY), and After Second Year (ASY) birds} and were not emaciated. All birds were sexed by necropsy or by external measurements accepted by the Bird Banding Laboratory.

Species	Sex	Avg. Wt. (gm)	Range (gm)	Sample Size
American kestrel	F	115.6	80-177	19
	M	101.6	73-124	26
barred owl	F	768.5	464-1054	184
	M	629.1	456-967	171
broad-winged hawk	F	371.5	292-473	15
	M	314.6	232-405	24
Coopers' hawk	F	488.1	328-667	131
	M	317.0	238-494	83
eastern screech-owl	F	153.4	110-214	70
	M	129.4	89-187	87
great horned owl	F	1435.8	870-2114	72
	M	1140.4	723-1428	78
osprey	F	1633.0	1278-2078	25
	M	1338.3	1016-1570	11
red-shouldered hawk	F	655.1	452-984	60
	M	507.4	348-698	47
red-tailed hawk	F	1187.3	654-1673	143
	M	936.3	581-1446	173
sharp-shinned hawk	F	161.8	113-220	81

Thank you and Good Bye to outgoing Board Members

Mark Ansley, Mark Hufford, and Elizabeth Hanrahan have officially rotated off the board. We would like to thank all of them for their time and efforts spent on behalf of native wildlife and WRNC. Hopefully, as Mark stated during the January meeting, "this won't be the last we see of them". We need their and everyone else's involvement to bring this organization to its full potential.

New Board of Directors

At the January Meeting of WRNC in Chapel Hill elections for board members were concluded and your new board was elected.

Nina Fischesser, President	wildcarebr@vistatech.net	828-733-6142
Ed Weiss, Vice President	weiss@ioa.com	828-665-8625
Jean Chamberlain, Treasurer	jean.chamberlain@mindspring.com	336-983-6543
Carla Johnson, Secretary	wildlifeed2@aol.com	336-765-0858
Lee Bolt, DVM	dymbolt@aol.com	828-684-8875
Lessie Davis	ldavistitmouse@aol.com	704-489-1322
Mathias Engelmann	mathiasengelmann@birdsofprey.org	704-875-6521
Gayle Houston	GNTHouston@aol.com	252-453-2303
Sandra Justus	walkonthewildside@earthlink.net	828-439-8718
Sherri Koester	skoester@mindspring.com	919-380-1114
Joan McMurray	zoorehaber@yahoo.com	336-879-7644
Melanie Piazza	mpiazza13@yahoo.com	919-304-2337
Bobby Schopler, DVM	bobbyschopler@hotmail.com	919-304-2337
Barbara Tomlinson	mustroos@aol.com	336-667-2009

State Organizations meet for a "first time" Think Tank

Wildlife Rehabilitators of North Carolina (WRNC) is still a fledgling organization that continues to evolve as we continually look for more ways to provide education, networking systems, and guidance for high standards to the many rehabilitators in our state. Now we have a very special opportunity to meet and interact with other state wildlife rehabilitation associations to discuss state and local trends, issues, and to learn from each other.

In April of 2001, a special ad hoc committee was convened in Minneapolis, MN, to explore the issues surrounding the field of wildlife rehabilitation. The committee is a cross-section of individuals engaged in the field, including individual rehabilitators, presidents of rehabilitation facilities, and elected officers from both national wildlife organizations. The committee's charge was to identify the full range of issues affecting the field of wildlife rehabilitation, and to the best of their abilities, offer guidance and recommendations to improve the care provided by all wildlife rehabilitators.

The group agreed, early in the process, that the most important goal for the wildlife rehabilitation community is to concentrate its efforts on those things that **will improve the standard and quality of care to wildlife**. Understandably, while many other worthwhile goals for the organizations and individuals exist, improved quality of care was chosen as the primary focus.

The group agreed that the membership of national, state, or even local wildlife rehabilitation organizations does not include the majority of individuals involved in wildlife rehabilitation. While many individuals active in the professional organizations have high visibility within their regions, little is known about those who do not belong to either a state or national organization. Many of these rehabilitators are home based or work with a small network of other home based rehabilitators. These uncounted wildlife rehabilitators handle a large percentage of animals, and the committee believes a special effort should be made to include their opinions, document their needs, and assist them in improving the level of care they provide. The purpose of the "Think Tank" meeting is to brainstorm ways of reaching out to all wildlife rehabilitators and to share information in an effort to devise ways of improving standards and the quality of care for wildlife across the board.

The ad hoc committee sent out a questionnaire to all state associations, for members to fill out. We received ours two nights before the general meeting in January. People who attended filled out the survey. The results from all the states that participated will be available soon.

As president of our association, Nina Fischesser will represent WRNC and the Rehabilitators of North Carolina at the Wildlife Rehabilitation Issues Forum being held February 15-17, 2002, in Minneapolis, MN. The invitation extended to WRNC to have a representative at this special forum, is yet another step towards our evolving as a state association and a nationally recognized organization. Please watch for a report on this meeting in the next newsletter.

If you would like more detailed information on the first two meetings held in 2001, please contact Nina at wildcarebr@vistatech.net, or Phone (828) 733-6142.

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

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

EEK!! A RAT!! NOW WHAT? A GUIDE TO THE PREVENTION AND ELIMINATION OF RODENTS by Susan McClung

Rodents have a place in the natural order, but when they get too close to man, conflict ensues. Because of our knowledge and concern for wildlife, we are in a unique position to advise and educate the public about rodent control. Four major concerns surround the management of rodent pests:

1. Prevention of rodent infestations
2. Pain and suffering of the rodent
3. Possible poisoning of non-target wildlife
4. Secondary poisoning of birds of prey and mammals

PREVENTION

Stop the problem before it starts. The most effective methods of control do not target the rodents, but rather whatever attracts them and gives them access. First, rodent-proof buildings by patching holes and cracks larger than 1/4" in diameter. Patch gaps around plumbing, doors and windows. Keep all trash in a tightly sealed container. Use care with pet food. Do not keep pet food or birdseed in garages, sheds or porches because rodents can smell the food and easily tear open the bags. Keep pet food stored in a tightly sealed sturdy container (large plastic coolers work great and keep the food fresh, too). Rodents hate the smell of oil of peppermint, so using this may work to keep them away from specific areas.

TRAPPING

Ideally, rodents should be live-trapped, removed and relocated. Trapping avoids the use of poison; however, many people are afraid of or repulsed by rodents. Your offer to remove the trapped animal may make a difference in a homeowner's decision to use a live-trap. Be willing to transport and release the trapped animal for your family, friends and neighbors. Traps should be checked at least twice a day. The animals will be frightened, hungry and thirsty. Release trapped mice in nearby parks, wooded areas or fields at least 150 feet away from buildings.

Live traps are sold at most area home stores. *Haveaheart* (\$20.00) and *Smart Mouse* traps work well. Additionally, small, plastic mice traps (i.e. *Victor*) are available for about \$3.00. Just be sure the homeowner is willing to release the mouse, since these small, disposable traps may tempt people to just toss them, mouse and all, into the garbage. This act would cause prolonged suffering to the mouse.

NO GLUE TRAPS!

NEVER use a glue trap. Unfortunately, these horrible devices, which cause untold suffering, are still sold in area stores. Glue traps have been condemned by veterinarians and animal welfare agencies. A glue trap consists of a piece of hard board covered with a sticky adhesive. Once the animal is stuck, the whole thing is thrown away creating pain and a slow, traumatic death for the mouse.

ELECTRONIC DEVICES

The *Pest Repeller* (21.00) electronically repels mice using a high-pitched frequency.

POISONS

Rat poisons are cheap and readily available. The most commonly used over-the-counter poisons are anti-coagulants (blood thinners such as warfarin, dicumarol, and dicumarin). They kill rodents by causing internal bleeding and these poisons have the potential to harm other wildlife.

Indiscriminate use of the bait may harm non-target wildlife such as squirrels, rabbits, and other mammals and birds who may also ingest the bait.

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Most directions for poisons advise placement of bait in areas inaccessible to non-target animals or in tamper-resistant bait stations. However, frequently stores do not sell the bait stations with the rat poisons. Bait stations are also pricey and many people are unwilling to spend the extra twenty dollars. If bait is not put in a bait station that allows only rodents to reach the poison, possums, raccoons, and pets can also eat it and become affected. Throwing poison indiscriminately around an area increases the likelihood of poisoning non-target animals and creating run-off into natural waters, which can harm fish.

Additionally, some types of bait can cause secondary poisoning in birds of prey, predatory and scavenger mammals which are likely to ingest the poisoned rodent. Falcons, hawks, and owls may feed on the dying mice, and they too can bleed to death. The secondary poisoning of predators only adds to the problem, since the natural control of resident rodent populations would be affected. Sometimes even people who do not have concerns about humane or environmental issues can be persuaded to use another means when they realize that the mouse population could rebound if the natural predators/birds of prey populations are lowered by secondary poisoning.

Check the package under "environmental warnings" to see if secondary poisoning is a risk. (For example, *D-CON* with dicumeral and *Enforcer* pellets with Brofacum pose a secondary hazard). Bait such as *Quintox* doesn't pose a secondary poisoning threat. Read the warnings to be certain.

Encourage prevention of infestations! Focus on the removal of food sources and the problem frequently resolves itself without other intervention.

Add the following members to your state directory:

Lee Bolt, DVM

3131 Sweeten Creek Rd
Asheville, NC 28803
W-828-684-8875
E: DVMBolt@aol.com
Cnty: Buncombe Dist: 9
Permits: St
Anything that needs med attention

Carl Bornfriend

53536 Hwy 12
P.O. Box 399
Frisco, NC 27936
H-252-995-4030
W-252-995-4440
Cnty: Dare, Dist: 1
Permits: St
Accept: sm mammals

Fred Chatham

1828 Mt. Carmel Church Rd
Chapel Hill, NC 27517
H-919-967-7159
Cnty: Orange, Dist: 5
Permits: none listed

Elaine Gillis

123 Dogwood Ave, S.E.
Valdese, NC 28690
H-828-874-2345
W-828-874-8387
E: Squirrelorb@aol.com
Cnty: Burke, Dist: 8
Permits: St
Accept: sm mammals

R. Dee Glazier

7005-A Woodbend Dr
Raleigh, NC 27615
H-919-844-5013
C-919-264-0722
E: deeglazier@aol.com
Cnty: Wake, Dist: 3
Permits: St
Accept: sm mammals

Amy Harper

15801 Silver Hill Rd
Laurinburg, NC 28352
H-910-276-4155
W-910-369-2252
E: harperas@carolina.net
Cnty: Scotland, Dist: 4
Permits: St
Accept: sm & mid size mammals

Susan Griffin

3855 Harrisburg Dr
Harrisburg, NC 28075
H-704-506-8101
E: keepmwild@hotmail.com
Cnty: Cabarrus, Dist: 6
Permits: St and Fed
Accept: small mammals (no opossums, adult songbirds, all waterfowl, seabirds & wading birds, reptiles (no snakes))

Sandra Justus

2927 Shell Ave
Valdese, NC 28690
H-828-439-8718
C-828-205-2052
E: walkonthewildside@earthlink.net
Cnty: Burke, Dist: 8
Permits: None
Wildlife rescue and transport only of all species

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Sherri Koester

1206 Fairlane Rd
Cary, NC 27511
H-919-380-1114
W-919-468-5634
E: skoester@mindspring.com
Cnty: Wake, Dist: 3
Permits: St
Accept: sm mammals

Angela Pinsonneault, DVM

211 Parsley Lane
Mocksville, NC 27028
H-336-940-4003
W-336-595-3090
E: APinsonneault@msn.com
Cnty: Davie, Dist: 7
Permits: St
Accept: sm & mid size mammals

Marti Tripp-Brinson

P.O. Box 1264
Grifton, NC 28530
H-252-524-5305
W-252-524-4696
C-252-531-7972
E: BrinsonMT2@aol.com
Cnty: Pitt, Dist: 2
Permits: St & Fed
Accept: anything

Joanna Tysor

Chatham Veterinary Service
1114 Greensboro Ave
Siler City, NC 27344
H-919-545-2122
W-919-742-4441
Cnty: Chatham, Dist: 5
Permits: St
Accept: sm mammals

CHANGES

Ed and Mary Weiss

New street address is now 17
Saint Bernard Lane

Rebecca Eshelman

add Email address:

In order to introduce you to WRNC's board members, the following are a few of the board member's biographies. More to come next newsletter:

Lee Bolt, D.V.M.

Dr. Bolt received a B.S. from the University of Idaho and a B.S. and D.V.M. from Washington State University. He is a graduate of the Aquavet Program and has completed postgraduate studies in fish diseases at the Scripps Institution of Oceanography. Dr. Bolt owns Sweeten Creek Animal and Bird Hospital and has special interests in avian and exotic animal medicine/surgery. Since opening his practice in 1995, Dr. Bolt has selflessly provided, countless hours of medical care to injured wildlife for the rehabilitators from the entire western section of NC. Dr. Bolt currently serves on the Board of Directors for the Blue Ridge Wildlife Institute and along this same line, he contributes to education courses for wildlife rehabilitators. He also teaches Laser Surgery to veterinarians nationwide, in seminars sponsored by the American Animal Hospital Association.

Sandra Justus

Sandra is a NC Certified Environmental Educator, through the NC Office of Environment and the NC Fish and Wildlife Service. She holds an Associate of Arts Degree in both English and Pre-Education with a GPA of 4.0 and graduated Phi Theta Kappa High Honors from Western Piedmont Community College (WPCC). While at WPCC she did extensive studies in Environmental Biology. She also is the owner and graphic designer of Scribbles and is currently serving as Secretary for the Burke County Environmental Affairs Board, Communications Chairperson for Citizens to Save Lake James, Vice-President of Burke County Environmental Issues, and is a Substitute Teacher for Burke County Public Schools.

For two years, Sandra worked at SHEA (Safe Haven for Endangered Animals) and cared for exotic animals such as large cats, monkeys and bears. She received wildlife training and completed the Basic Rehabilitation Course at the Blue Ridge Wildlife Institute. She continues to volunteer at the Institute as an Environmental Educator, on their Rescue and Transport Team, and is currently serving on their Board of Directors as Secretary/Treasurer, web master, and publications designer. Sandra also has a vast fundraising background.

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Sherri Koester

Sherri received a B.S. in Landscape Architecture from Texas Tech University and her Masters in Product Design from NCSU. She is President of Dragonfly Perennials Inc., a landscape design firm. She has a special interest in designing gardens and creating habitats that attract and shelter wildlife. She has taught classes through Carolina School of Gardening and given lectures to such companies as Glaxo.

Sherri has been rehabbing for three years. She started rehabbing through Wildlife Welfare (attended their beginners' workshop) and continues to work closely with a couple of rehabbers in that organization. Most of her work has been with opossums, squirrels (greys and flyers), and rabbits. She attended IWRC's basic training workshop in Asheboro last year.

For those of you who haven't renewed your membership for 2002, please do so with the below form as soon as possible. Please send this form along with \$20.00 to: WRNC, c/o Carla Johnson, 2542 Weymoth Rd, NC 27103

**WILDLIFE REHABILITATORS of NORTH CAROLINA
MEMBERSHIP RENEWAL - 2002**

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, 2002.
Make checks payable to: WRNC. Mail to: WRNC c/o Carla Johnson, 2542 Weymoth Rd,
Winston-Salem, NC 27103

Do you have a funny story about wildlife?

If you do, we want to hear from you. We can all use a good laugh to make our day, because the day-to-day routine and the injuries we encounter can sometimes be depressing.

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.