



Volume 27, Number 4, Winter 2008

THE QUARTERLY NEWSLETTER OF THE NEW YORK STATE WILDLIFE REHABILITATION COUNCIL, INC.

**Important Dates:**

NWRA Symposium in Cherry Hill, NJ, March 4-8  
(320) 230-9920

NYSWRC Board Meetings-open to all, email:  
kmartink@midtel.net for information.  
Feb. 10, April 5, June 29, Oct 25, Nov. 23, Dec. 14

NYSWRC Annual Seminar, October 23-26, 2008  
Grand Island, (Niagara Falls area) N.Y.

**NYSWRC Board of Directors**

Kelly Martin, President	kmartink@midtel.net
Steve Freiman, Vice-President	nisseq@aol.com
Cheryl Hoople, Secretary	hooplec@juno.com
Constance Feissner, Treasurer	cfeissner@hotmail.com
Jean Alden, Membership	jalden@verizon.net
Amy Freiman, <i>Release</i>	nisseq@aol.com

Lainie Angel	lainieangel@hotmail.com
Pat Bogan	pmbwildlife@aol.com
Barb Cole	brancher@clarityconnect.com
Barb Hollands	barbh103@rochester.rr.com
Beverly Jones	bjonesnature@yahoo.com
Rynda McCray	katherook@yahoo.com
Terri Murphy	wtaoffice@aol.com
Anne Rockmore	arockmore@wcs.org
Matt Zymanek	mjzymanek1@aol.com

**Advisory Board:**

Andrea Sammarco, Attorney at Law  
George Kollias, DVM, PhD  
Noha Abou-Madi, DVM, Msc.

Fundraising: Paula Young  
Webmaster: Molly Gallagher      nypossum@earthlink.net

**NYSWRC WEBSITE:** [www.NYSWRC.org](http://www.NYSWRC.org)

**President's Report**

By Kelly Martin

As I get older, I think more about getting older. Old-age adages take on new meanings. Time does indeed seem to fly, there is less of it, less work gets done, it is harder to recognize the face looking back in the mirror, and physical efforts, well, require more effort, and on and on and on ...

Being involved in wildlife rehabilitation and NYSWRC for over 25 years (saying a quarter of a century sounds like such a long time) has given me many gifts. Some of those gifts include the opportunities to help a diverse array of unique species, to provide a public service, and to meet and work with dedicated and caring people, all through an activity that offers hands-on care like few other animal-related activities. There were many challenges in the early years trying to learn how to be a better rehabilitator at a time when rehabilitation itself was in its infancy and information was not easily obtained. There were challenges as well for the organization; how best to serve our community of animal care-givers so they in turn could give better care for wildlife. Decisions were made in NY, along with the NYSDEC's Special Licenses Unit, to not take a heavy-handed approach in the licensing process. Though there was a need to "qualify" people to distinguish us from the general public, we felt it was better to produce a qualified beginner rather than to

*continues p. 2*

**Our NYSWRC Mission:**

NYSWRC, Inc. is a not for profit membership organization dedicated to the education of wildlife rehabilitators, improvement of the field of wildlife rehabilitation, and the protection and preservation of the environment.

**Editor's note:**

I welcome your articles, poems, information, questions and artwork. We are pleased to print articles from our members, but caution each reader that NYSWRC is not responsible for the accuracy of the content or information provided, and does not necessarily endorse the policies proposed. Submissions should be sent to: nisseq@aol.com or to PO Box 62, Newcomb, NY 12852.

### President's Report, *continued*

fail many people in the process. After taking the test, all newly licensed rehabilitators would start off on the same foot. There is criticism sometimes that getting a license in NY is too easy. Passing the wildlife rehabilitation exam was never meant to be the end point of one's education. Now, though, the Council feels that there is work yet to be done, improvements to be made, and changes to be implemented with the benefit of 27 years of working experience.

NYSWRC and Special Licenses are reviewing our wildlife rehabilitation program with plans to make improvements. Special Licenses may have its own needs and ideas for our program, but, here are some of the areas where the NYSWRC Board feels changes need to be made:

- Reissue and improve the Wildlife Rehabilitator Directory - this is our most useful tool in networking with each other and in directing the public to rehabilitators
- Review of the Rabies Vector Species Training Seminar – review the whole process of RVS licensing and determine if changes and upgrades need to be implemented
- Review the NYSDEC Wildlife Rehabilitator's Study Guide and Exam – evaluate the booklet and exam content to insure accuracy in the information
- Create more effective liaisons with other related licensed activities – foster cooperative working relationships with other organizations representing nuisance control operators, wildlife educators, falconers, veterinarians, and shelter workers in areas where we can better help wildlife
- Improve cooperative working relationships with the DEC and USF&WS – facilitate interactions with other departments within the agency, the regional offices, and the law enforcement community

NYSWRC has internal goals as well. We are committed to maintaining high standards of excellence with our newsletter and annual seminar. With difficult financial times all around, it is harder to continue offering services to our members without increases in costs. Rest assured that we will do our best to keep these benefits affordable, yet, 'the times, they are a changin'. The NYSWRC Board is comprised of licensed rehabilitators, so we know the difficulties of paying for good deeds done for wildlife. The reality is that running the organization has costs too, though individual Board members donate much in the way of goods and services, travel expenses, utility expenses, and our greatest donation may be that of time taken away from family and animals in order to do NYSWRC business. Any help that members can give would be greatly appreciated. We appeal to our

members to join us at board meetings, give us your ideas, submit articles and artwork for the newsletter, develop presentations for the seminar, or to share other areas of expertise such as fund-raising and grant writing, and, last but not least, consider running for a position on the Board. One simple way to keep helping us is by retaining your membership with the organization. Your membership dollars help us train and educate the up and coming wildlife rehabilitators. However many years we have individually been involved in wildlife rehabilitation, we all have much to share. As we pass the torch to the newcomers, we can give them the benefit of our collective talents, experiences, knowledge, expertise and skills. Now, age-old adages come to mind ... there is safety in numbers, but no, a more apropos one is that, there is strength in numbers.

---

### Scholarships

NYSWRC was pleased to offer 17 scholarships to the fall conference in 2007. This was possible because of donations to memorial funds and of sponsorship of the conference. We'd like to thank our conference donors, especially Sally Sherman Foods, National Grid, High Peaks Audubon Society, and Paula Young. Their generosity both enhanced the quality of the conference and made these scholarships possible. Here is a sample from the many letters we received:

I was thrilled to receive a scholarship to help cover expenses at the 2007 NYSWRC Conference this fall. The conference represents a major information resource for me. Being able to learn in a "Hands On" setting from experienced presenters is invaluable. After receiving my scholarship check, I rearranged my program schedule to include "Beyond the Basics; Improving the Care of Waterfowl" with Michele Goodman and learned several very useful capture techniques amongst other things.

Paying for travel and lodging at these events can be challenging to many who participate. Getting support from larger organizations who share our concerns for the well being of wildlife is greatly appreciated. I frequently tell people who are interested in wildlife rehabilitation that it is a very generous community of people. Scholarship funding is one more positive example. Thank you so much.

#### Did You Know...

... more than 1,100 species of bats account for almost a quarter of all mammal species, and most are highly beneficial.

Visit <http://www.batcon.org> to learn more about bats.

## Cornell Wildlife Health Center Opens its Doors to Wildlife

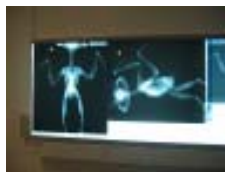
By Kelly Martin, NYSWRC President

NYSWRC members Barb Cole, Connie Fiessner and Kelly Martin attended the official opening of the College of Veterinary Medicine's Wildlife Health Center at Cornell University this past November. What a change from the good old days! I remember back in the early 80's when the Avian Clinic was but a tiny room the size of a long closet above the Small Animal Clinic of the old veterinary hospital. The avian clinic was run by interested students with token oversight by staff veterinarians. Though called the 'avian clinic', we managed to get other wild animals treated as well. My own time spent there with animals taken for care helped me get started in wildlife rehabilitation. The students were always willing to share their thoughts, explained treatments and even let me observe and assist in initial exams when admitting an animal. We were partners in the care of the animals and though I benefited personally from what I learned, the wildlife treated there benefited the most. The students would seek advice and recommendations from experts on staff; the diagnosticians, the ophthalmologists, the radiologists, pathologists, and the surgeons all willingly gave their expert opinions and offered services to provide the best treatment protocol for wildlife.

Much was gained, but, much was lost too with the construction of the new state-of-the art veterinary hospital. Protocols became more rigid, access more restricted and opportunities were decreased for us 'lay' care-takers to be involved in the process. It was to be expected with the addition of more expensive equipment, more expensive patients and the resulting need for quarantines and disease control measures. Unfortunately, the wildlife clinic was located right in the middle of the veterinary hospital. It was difficult to justify treating potentially diseased and dangerous wildlife while possibly exposing people and pets to those threats. The staff of the wildlife clinic did the best they could under difficult circumstances.

With a significant donation last year, the wildlife clinic moved into a new home. This time it is a refurbished building, but it is a better home in many ways. They are located close to the veterinary hospital, at the Baker Institute property, and are now a self-contained unit. They have an admitting area, their own radiograph machine, surgery, exam rooms, holding cages and their own staff. They are operational and ready and waiting for patients. It may seem logistically difficult for some rehabilitators to think of using their services, however, with a network of people it is possible to get animals to them. Also, we are going to explore opportunities of using overnight mail services to ship stable animals to them. Other states have employed Fed Ex for this service quite effectively. Also, the staff veterinarians are always willing to serve as a resource for veterinarians needing assistance with wildlife. Your own veterinarian can feel comfortable to call them for advice. And, though the wildlife vets at Cornell usually join us at NYSWRC seminars as speakers and workshop leaders, we would love to see more training opportunities for wildlife care-givers at the Wildlife Health Center.

I feel lucky to have had a long association with such a great corps of students, techs and vets and it has afforded me a lot of 'firsts'. My first porcupine received surgery for a fractured leg, my first gray fox was examined there for juvenile cataracts and when older treated for congestive heart failure, my first education red-tailed hawk was treated for crop stasis and impaction, and I learned many techniques for the 'first' time under the supervision of generous vets and students. Among my other firsts in this cooperative relationship were animals I gave a permanent home to after care at the clinic. My first education gray and red screech owls were given to me from the clinic and were with me for 13 and 12 years, respectively. Both birds were given a productive after-life, or a new lease on life, in captivity as education birds and foster parents for many orphans. My first great horned owl used for education was also given to me by a vet student who had done surgery on a wing. It was a great surgery but the bird was not perfectly flighted and the student asked if I would take the bird. Well, 22 years later, "Hooter" is still with me. He is a great education bird, though, 22 years later, he does not like me any more today than the first day he saw me. Such is the nature of the beast. Thank you Cornell Avian Clinic for the past and present, and I look forward to many more years working with the Wildlife Health Center in the future.



## **Wildlife Rehabilitation Ethics, An Illustrative Case Study**

By Francis Belloni, Ph.D. and Maggie Ciarcia

Wildlife rehabilitators want to do the “right thing” in all circumstances, but sometimes situations arise in which it is not obvious what the “right thing” is.

Laws and state regulations may provide some useful limits if they are specific enough to address the issue at hand, but such rules tend to tell us primarily what may NOT be done. Professional Codes of Ethics, such as those promulgated by the NWRRA ([www.nwrwildlife.org](http://www.nwrwildlife.org)) and IWRC ([www.iwrc-online.org](http://www.iwrc-online.org)) articulate very useful guiding principles, but compliance is voluntary rather than mandatory. Moreover, such codes, by design, profess broad ideals that lack specificity. Thus, the wildlife rehabilitator may face situations in which two principles seem to be in conflict or in which the available guides do not clearly identify what ought or ought not to be done.

Ethics is the study of what is right and wrong, or good and evil, from a moral standpoint. When we apply ethics to a given situation, or group of related situations, we attempt to determine what we ought to do or ought not to do in that situation. In some instances, the real choice is not between actions that are right and wrong, but rather between actions (or inactions) that are more or less right, or more or less wrong.

One way to apply ethics in a given situation is to identify (a) the various ethical issues raised by the situation, (b) the interests and obligations of each party, and (c) the likely or possible consequences of each course of action being considered. In considering the issues and obligations, you must consider which guiding principle(s) apply. In considering the parties’ interests and the possible consequences of their actions, you add elements of practicality and realism.

We illustrate this approach with the following hypothetical case.

### **A Swan In Distress**

Vicky, a licensed NYS wildlife rehabilitator, receives a call about a mute swan that has become entangled in fishing line. The swan is in some distress. Vicky does not wish to assume care for a swan, but she is friendly with Catherine, who might be willing to do so. Catherine is a veterinary technician and lives on property that contains a small pond that would be ideal for the swan. Catherine is not a licensed wildlife rehabilitator, however.

1. Should Vicky refer the caller to Catherine?
2. If Catherine is not available, is Vicky obliged to take the swan herself?

3. If the swan recovers but is not releasable, can it remain on Catherine’s pond?

Before she addresses the question of who should or may rehabilitate the swan, Vicky should recognize her greater obligation as a rehabilitator and, to some extent simply as a caring human being, to protect the swan from suffering. Thus, Vicky should feel obligated to evaluate the situation either by herself, through coaching the caller, or by enlisting another rehabilitator or veterinarian. Perhaps the swan could be released after the fishing line is removed or perhaps the swan should be euthanized if its injuries are too severe.

Only if rehabilitation is warranted at this point, do we engage the specific problem posed in the case. As a wildlife rehabilitator, Vicky is obliged to treat injured wildlife in a humane and professional manner, in accordance with the conditions of her NYS Wildlife Rehabilitator’s license, which provides her the legal authority to do so, but she is not obligated to accept any particular animal into her care. She may decline to accept the swan for any number of reasons, including inadequate facilities to house the swan, insufficient training in waterfowl care, an already full ‘patient’ load, concurrent family or personal obligations, etc. For any of these reasons, she may desire to enlist another licensed rehabilitator to care for the swan. She may network with another rehabilitator or even offer to transport the swan to that rehabilitator. Catherine, however, is not a licensed wildlife rehabilitator. Under NYS law, wildlife are considered the property of the (collective) people of NY State and, therefore, you need their permission (via their delegated authority-the DEC) to take such wildlife into your possession for the purpose of their rehabilitation. Thus, Catherine is not legally authorized to rehabilitate the swan. From a moral standpoint, there is the further obligation of the rehabilitator to help the animal (beneficence) and to avoid disproportionate harm (non-maleficence or “do no harm”). While veterinary technicians often become extremely good wildlife rehabilitators, the skill sets and knowledge bases of the two roles are not identical. If Catherine is not trained as a wildlife rehabilitator with expertise in swan care, therefore, this proposed assignment would be unethical as well as illegal.

Some special collaborative arrangements might be useful to Vicky in this situation. For example, if Catherine were employed at a veterinary practice, she could accept the swan at the practice under the authority of the veterinarian. The New York State Education Law provides the licensed veterinarian with the authority to treat all animals. This means a veterinarian can provide primary care. He or she cannot rehabilitate wildlife or release wildlife back

## Wildlife Rehabilitation Ethics, continued

into the wild, however. For another example, if Vicky were a Class II wildlife rehabilitator, she might be able to call on one of the Assistant Wildlife Rehabilitators whom she supervises. Vicky cannot, however, take any measures that would authorize Catherine to take possession of the swan for rehabilitation.

Let us push the case to an extreme point - the swan needs rehabilitation but, despite an extensive search, no licensed rehabilitator is available or willing to take on the task. Vicky's choices at this point are (1) to let Catherine take the swan, (2) to take the swan herself, or (3) to have the bird euthanized. We have seen that option (1) is not justifiable both on legal and ethical grounds. We have also seen that Vicky is not obligated to exercise option (2), which leaves euthanasia (option 3) as the ethically justifiable conclusion. This may seem harsh, however, and Vicky might decide, despite her initial reluctance, to rehabilitate the swan herself.

It is important here for Vicky to articulate to herself why she was reluctant to take the swan in the first place. If it were a question of inadequate facilities and expertise, she would probably need to have the swan euthanized. If lack of experience alone were the reason, she might be able to receive sufficient guidance from another licensed rehabilitator to undertake the task. If Vicky's reasons had to do with her conflicts of commitment -i.e. her concurrent responsibilities to her family, employer, her own well-being, her other patients, etc. - the question becomes whether Vicky can fulfill all those other responsibilities adequately while taking on yet another rehabilitation commitment. Vicky would have to weigh the required effort and importance of each commitment to decide which must be kept, which might be modified, or which could be dropped.

It was interesting that when this case was discussed at the 2007 NYSWRC conference, many or most of the participants felt that they (real people) would feel great internal pressure to take the swan if they were faced with this situation, while at the same time adamantly rejecting the idea that Vicky was under any similar obligation in this hypothetical case. It is important to recognize the difference between your desire to go beyond the call of duty (in this case, rehabilitating the swan, despite all your initial reluctance) from your more limited but more stringent obligation (in this case, ensuring that the swan doesn't continue to suffer).

The final question in this case deals with where the swan may be released. Again, there are both legal and ethical aspects to this question. The NYS wildlife rehabilitator's license states that "Live mute swans... may only be released at the point where (they were) picked up from the wild" if they are not euthanized or held by someone with a valid possession license. This

policy is designed to limit the spread of this introduced species, which impacts on the flora and fauna in the habitats in which it resides. The wildlife rehabilitator has responsibility not only for the individual animal she/he is caring for (specific beneficence), but also for the larger wildlife population and environment in which the animal resides (general beneficence). Both forms of beneficence -specific and general -reflect obligations of approximately equal importance to the rehabilitator. Thus, it would be wrong, on ethical as well as legal grounds, for Vicky to damage the ecosystem of Catherine's pond and allow this species to expand its territory even further, even if that would benefit the individual swan under her care.

By ignoring the legal prohibitions against assigning the swan to an unlicensed rehabilitator or releasing the swan into a new habitat, Vicky risks the loss of her rehabilitator's license if her actions are discovered. A second level of risk is to the wildlife rehabilitator's community. The wildlife rehabilitation program in New York is designed to provide the wildlife rehabilitator with the opportunity to practice to the level of his or her skills, without the state dictating specific procedures. This means that each licensee is acting on behalf of all wildlife rehabilitators. When a wildlife rehabilitator chooses to ignore the license conditions or knowingly to break the law, the state may have no option except to impose more stringent or strident regulations. This would affect all wildlife rehabilitators. Finally, causing harm to the swan (by using an unqualified surrogate) or the ecosystem (by improperly releasing the swan) are even more direct and probable consequences of these prohibited activities. Thus, there are significant negative consequences that might result if Vicky deviates from the appropriate ethical course.

A rehabilitator who thought these issues through and considered all the possible consequences would be likely to choose the "right thing" to do.

### Acknowledgements

We thank Patrick Martin of the DEC for his critical review of this manuscript and his helpful suggestions.

**Maggie Ciarcia** is a member of NYSWRC and a rehabilitator who specializes in small mammals and game birds.

**Frank Belloni** is a professor of physiology and Dean of the Graduate School of Basic Medical Sciences at New York Medical College, where he teaches the physiology of mammalian circulation and digestion. He also teaches medical ethics and research ethics to medical students, graduate students and post-doctoral research fellows, and is a member of NYMC's Bioethics Institute.

## Animal Protection Gloves

by Bill Brothers, ACES

To wear, or not to wear. That is the question. Whether tis nobler to bear the teeth and talons into one's own flesh of a frightened animal...

Well, I could go on, but I know you understand what I'm talking about. Some handlers prefer to never use gloves to protect themselves while others realize that could be foolhardy--a nasty accident waiting to happen. What you decide to do should be based on what species and individual you're handling but also on information about the various glove options available to you.

First, some handlers reject gloves because they cause some degree of interference in dexterity or 'manipulability'. You need to be able to handle the animal and do procedures without being impeded by bulky gloves. But there is a wide range of glove styles available, and some allow you to maintain dexterity while giving you some degree of protection.

In general, it can be said that the more protection you enjoy from gloves the less dexterity you will have. So, the trick is to find gloves that will give you the dexterity you need in a given situation but provide you with as much protection as possible. In order to do that, we need to learn about glove design and the materials they're made from. And let's realize that no one pair of gloves is going to be suitable for all handling situations.

### TWO TYPES OF THREATS

There are two 'threats' that gloves are designed to protect against - 'crushing' and 'penetration'. Crushing is caused by strong-jawed animals and is usually protected against by padding. Padding reduces dexterity. Crushing protection is not needed for many situations so you should not use a crushing-protection glove when you need to maintain dexterity.

The other threat - penetration - is caused by sharp things such as teeth and talons. These are things you want to keep out of your own flesh - both because it hurts like crazy and because flesh penetration can lead to some very nasty infections and to long-term damage. With many handling situations we want to reduce the likelihood of penetration into our flesh but maintain an adequate level of dexterity to handle the animal safely and humanely.

(Really thick crushing protection gloves can be great at eliminating penetration but so reduce dexterity as to render them useless.)



You need to decide what type(s) of gloves you need. If you just handle bats, for instance, one pair of highly dexterous but penetration-protective gloves will be perfect. If you handle a variety of species, you will clearly need two or more different types of gloves. How do we decide what type(s) of gloves we need?

### MATERIALS

Gloves are typically made using leather - the hides of animals (with some exceptions which we'll examine). Different leathers have different characteristics. Elkhide, for example, is usually soft and flexible and it also is one of the best leathers for penetration protection; it has a good grain structure that resists sharp things. Elkhide costs a bit more since they're not widely farmed, but it's a good choice for animal handling. Cowhide is more common and therefore less expensive. Other leathers, such as goat and deer, are occasionally seen but are not as common.

Maybe more important than the species is whether the leather is *top grain* or *split*. Top grain is the outer layer of a hide after the inner layer has been *split off* - hence the name of the inner (and cheaper) layer. Top grain has the smooth (outer) surface on one side and is always better for penetration protection. Cheap gloves made from split cowhide--welders' gloves are an example--give less protection than top grain. The use of split cowhide in the gauntlet (arm area) of a glove may be a way to reduce the glove's cost without compromising human safety as penetration rarely occurs there.

In addition to leather in gloves, there are also a number of materials used for lining the gloves to enhance their performance. Kevlar and Spectra are two examples of linings that increase penetration protection. Either of these are desirable, but neither is a guarantee that penetration will not occur.

There is an excellent line of gloves made not from leather, but made mostly of a high-tech rubber called nitrile which is penetration resistant and highly flexible. These are the BiteBuster gloves with several different versions which also incorporate Kevlar. Nitrile is not easily penetrated but if it is, it strongly resists further penetration meaning that a tooth or talon is likely to just slightly penetrate through the glove. Many rehabbers prefer these gloves because they are made from man-made materials.



## Animal Protection Gloves

### DESIGN

In addition to the materials used in a glove, it is important to select a design appropriate to your needs and use. Do you need arm protection as well as hand protection, for example? If not, a wrist-length glove may suffice. If you need arm protection, do you need it up to the elbow or even up to the armpit?

A flap on the back of the hand can give you increased bite and talon protection while not decreasing your hand dexterity. The flap can also act as a 'teaser' to keep a raccoon or fox occupied without chomping on your hand.

If you're going to face larger animals with strong biting forces (such as a large dog), you will want gloves with plenty of padding to spread out the bite forces over a large area so you don't get injured. This is important to have in the forearm area but may inhibit your dexterity in the hand area. (ACES Maxima gloves let you remove the hand padding when you need the dexterity.)

### IMPORTANT POINTS

Don't assume any glove is *penetration proof*. Use gloves cautiously but with the knowledge that you are increasing your level of safety – not absolutely guaranteeing it.

Realize that animal protection gloves employ special designs and special materials. They are going to cost more. They will always cost less than what your hands and arms are worth to you, however, and are a worthwhile investment.

Know that the best glove will do you no good if it isn't on you when you need it. Be sure you're wearing your gloves before things get a bit hairy. Remember: the #1 safety rule when working to help animals is *protect yourself*. If you get injured, you can't help the animal (and it *hurts* and is *expensive*.)

Be safe!

Bill Brothers, President

Animal Care Equipment & Services, Inc. (ACES)

[www.animal-care.com](http://www.animal-care.com) - (800)338-ACES



Crow by George West

### Reovirus Blamed For Crow Die-Offs DEC Investigation Indicates New Strain; Humans Not Thought Susceptible

A strain of avian "reovirus" is responsible for crow die-offs reported in at least six counties across New York in the last week, according to a New York State Department of Environmental Conservation (DEC) investigation.

Dead crows were reported in Albany, Dutchess, Jefferson, Montgomery, Orange and Steuben counties over the last week, sometimes in large groups. (Exact numbers for the total die-off aren't available; estimates are in the hundreds.)

"Postmortem tests show that the birds were killed by a form of reovirus," said DEC Wildlife Pathologist Ward Stone. The particular strain of this illness attacks the birds' intestinal system and is spread through bird fecal matter. Winter provides prime conditions for spreading the virus, as crows concentrate in large roosts during the cold weather, Stone added.

Stone stressed that the incidents were not a result of West Nile virus. While the samples will also be tested by the NYS Health Department, this strain of reovirus is not likely to be contracted by humans, he said.

Over the last decade, the U.S. National Wildlife Health Center has reported several strains of reovirus in various birds, especially the American woodcock. Officials in Ontario, Canada, also have noted its appearance there. In the last few years, a small number of crows in New York were felled by a strain of the virus. But this winter marks the largest die-off, Stone said.

Residents are advised to report any unusual bird mortalities to DEC Regional offices ([http://www.dec.ny.gov/about/255.html#Regional\\_Offices](http://www.dec.ny.gov/about/255.html#Regional_Offices)). Also, residents, if disposing dead birds, should use rubber or plastic gloves, or a double plastic bag used as a glove. *See related article on page 13.*

## Formula for Nestling Songbirds (FoNS®):

### Update for 2008

By Diane Winn, Ph.D. and Mark Finke, Ph.D.

In its original formulation (Winn 2002a, 2002b) Formula for Nestling Songbirds (“FoNS”) was prepared with a base ingredient of Eukanuba dry kitten food, with additional protein provided by chicken baby food and egg white. However, a change in the formulation of the Eukanuba product resulted in vitamin A levels in FoNS (estimated at 91,000 IU/kg diet) that would likely be considered excessive for birds when fed long term (see, e.g. Koutsos et al. 2003), though tolerable for mammalian carnivores (see Schweigert et al. 1990). The recipe for FoNS was accordingly revised, with ZuPreem® ferret food becoming the new base (Finke & Winn 2004b).

In 2006, several companies offered a new line of “grain-free” cat foods. Traditionally, grains such as corn, wheat and rice provide the carbohydrate necessary for the extrusion process by which dry pet foods are manufactured. In these “grain-free” products, the carbohydrate source is typically potato flour used in quantities close to the lower limit required for extrusion. While more traditional cat foods contain 30-40% protein, 15-25% fat and 20-35% carbohydrates, “grain-free” cat foods typically contain 50-55% protein, 20-25% fat and 10-15% carbohydrates. It was therefore logical to consider them as potential bases for a nestling songbird formula that seeks to approximate the high protein and low carbohydrate levels found in a natural food of insects (see Finke & Winn 2004a for nutritional comparisons of insects and insect-substitute diets).

We tried a version of FoNS using one of these products for part of the summer of 2006 at Avian Haven. Satisfaction with the results led us to look more closely at the ingredients of the available products, with particular attention to vitamin A levels. In the winter of 2006-07, we developed a new recipe for FoNS using Evo® Dry Cat & Kitten Food (Natura Pet Products) as the base. Because of the high protein content of this product, we were able to simplify the formula by eliminating chicken baby food, yet still achieve target levels of protein, fat and available carbohydrate. Shortly after the season began, Evo® appeared in a new formulation slightly different than the original one. Although the company had a nutrient profile available online, to ensure the suitability of this product as a base for the formula, we had two samples (one in July 2007 and a second in January 2008) analyzed for moisture, protein, fat, various minerals, and select vitamins. The results of our independent analyses led to minor modifications in the recipe used experimentally in 2007 – namely, the elimination of calcium carbonate as an ingredient and a slight increase in the amount of dried egg white (see recipe box for 2008 on next page).

This experimental recipe was used at eight rehabilitation practices for trials in the summer of 2007. Locations included northeastern, mid-Atlantic, western, and northwestern states. Some were small, home-based practices, while others were large centers. The number of birds raised on the formula per practice ranged from 26 to “roughly 800,” with a median of about 300. The total number was approximately 2,500. More than 50 species were represented, with the most common (defined as those reported by at least three participants) being gray catbird, northern cardinal, house finch, goldfinch, common grackle, blue jay, northern mockingbird, eastern or Say’s phoebe, American robin, chipping sparrow, English sparrow, European starling, various swallow species, chimney or Vaux swift, cedar waxwing, and various wren species.

Reports from participants were overwhelmingly positive. Good feather development and well-formed droppings were mentioned consistently, and several respondents reported that even new hatchlings did well on the formula. There were a few impressions that nestlings seemed to eat less yet grow faster than they had on other formulas. Two participants reported positive results with precocial species: wood ducklings and scaled quail chicks. Several respondents also used the formula with debilitated adults of various insectivorous species.

Reports from three practices mentioned difficulties in 2007 with a particular species that had seemed to do well for them in previous years; one involved grackles, and two involved chimney swifts. One person believed the problem to be diet-related; droppings from three swifts looked like undigested formula but improved after changing to other foods. (However, at another center, droppings indicative of poor digestion in two chimney swifts did not change when other foods were given, but did resolve after a course of antibiotic therapy.) Other participants did not report problems with grackles, chimney (or Vaux) swifts, or any other species.

Other positive comments about the formula included ease of preparation, smell, and creamy consistency. The carbohydrate source in Evo® (potato flour) is more finely milled than the grains in traditional dry foods, so the formula texture is smoother and less gritty than previous formulations – an advantage when using small-diameter feeding implements. Low cost relative to other formulas was also mentioned. Assuming bulk-quantity prices on all ingredients, and not including any shipping charges, the cost per batch is approximately \$1.00 (for about 475 g of formula). Even with small-quantity pricing and shipping charges, the cost should remain under \$2.00 per batch, which, due to the deletion of chicken baby food from the recipe, is less than the cost of the original FoNS in



**Formula for Nestling Songbirds (FoNS):**

2002. Evo® is available in many local independent pet stores (it is not sold in most national chains such as Petco and PetSmart), and can also be ordered online (from Amazon, [www.amazon.com](http://www.amazon.com), among many other distributors). Chris' Squirrels and More ([www.squirrelsandmore.com](http://www.squirrelsandmore.com)) carries dried egg white in bulk, as well as Avi-Era™. Refrigerated formula should easily keep for at least several days. If quantities of formula are made and frozen in advance of the season, yogurt should be added after thawing, but vitamins can be added when the formula is made.

Rehabilitators occasionally debate the necessity of raising nestlings on their natural food of insects. To anyone arguing in favor of this necessity, we would point out that there are roughly 100,000 species of insects and related arthropods in North America, differing in nutritional composition both among species and among life-cycle stages within species (Finke 2004). Rehabilitators can purchase (and gather in their back yards) only a very tiny sample from the population available for parent birds to feed their young, with calcium and vitamin A almost certain to be lacking in that sample (Finke & Winn 2004a). Most species of commercially-raised insects also contain little if any taurine (Finke 2002). Although it is not known whether songbirds have a requirement for this nutrient, a recent report by Arnold et al. (2007) suggests that taurine (which is present in high levels in certain spider species) may be important in nestling cognitive development.

We believe that cultured/back-yard insects with carefully calculated supplementation may be sufficient as the sole food for hand-reared nestlings, but that they are not necessary. We consider FoNS adequate as a stand-alone insect substitute; however it does contain sufficient calcium, vitamin A and other nutrients for the inclusion of some insects (up to 15% of the total diet) without additional supplementation. FoNS is also extremely cost-effective compared to commercial insects: for example, the amount of mealworms containing the same amount of as-fed energy as one batch (475 g) of FoNS would cost about \$16 when purchased in bulk @ \$7.00/1,000 mealworms.

On the basis of current research on the nutrient levels required for nestling health and growth, Evo® appears to be the companion-animal food best suited as a base for FoNS at this time. However, as nutrition research advances and new pet food products develop, FoNS will continue to evolve accordingly.

Photo by  
Amy Campbell

**FoNS© for 2008**

- 1 cup (136 g) Evo® Dry Cat & Kitten Food (Natura Pet Products)
- 1.3 cups (315 cc) water
- 3 Tb (18 g) dried egg white
- 0.5 g (~1/8 tsp.) LaFeber Avi-Era™ Bird Vitamins
- 5.0 g (~1/2 tsp.) active-culture plain yogurt

Pre-soak kibble in water (do not drain “excess” water — some water-soluble nutrients would be lost); blend all ingredients in food processor.

Calculated dry weight composition: Protein - 58%, fat - 23%, carbohydrates - 10%, Ca - 2.38%, P - 1.53%, taurine - 2,500 mg/kg, Vitamin A - 18,100 IU/kg, Vitamin D - 2,090 IU/kg. As fed: Moisture - 69%, Protein - 18%, Energy - 1.32 kcal/cc  
A complete nutrient profile is available from the authors.

**References**

- Arnold, K., Ramsay, S., Donaldson, C. & Adam, A. 2007. Parental prey selection affects risk-taking behaviour and spatial learning in avian offspring. *Proceed. R. Soc. B*, 274(1625):2563-2569.
- Finke, M. 2002. Complete nutrient composition of commercially raised invertebrates used as food for insectivores. *Zoo Biology* 21(3):269-285.
- Finke, M. 2004. Nutrient content of insects. In *Encyclopedia of entomology*, ed. J. Capinera (Vol. 3, 47–60). New York: Kluwer Academic Publishers.
- Finke, M. and D. Winn. 2004a. Insects and related arthropods: A nutritional primer for rehabilitators. *Wildlife Rehab.* 27(3-4):14-27.
- Finke, M. and D. Winn. 2004b. Formula for Nestling Songbirds (FoNS): Updates for 2006. *J. Wildlife Rehab.* 27(3-4):28.
- Koutsos, E., L. Tell, L. Woods, and K. Klasing. 2003. Adult cockatiels (*Nymphicus hollandicus*) at maintenance are more sensitive to diets containing excess vitamin A than to vitamin A-deficient diets. *J. Nutr.* 133(6):1898–1902.
- Schweigert, F., O. Ryder, W. Rambeck, and H. Zucker. 1990. The majority of the vitamin A is transported as retinyl esters in the blood of most carnivores. *Compar. Biochem. and Phys.* A 95(4):573–78.
- Winn, D. 2002a. Formula for nestling songbirds: Down payment on fitness and survival. *J. Wildlife Rehab.* 25(3):13–18.
- Winn, D. 2002b. Formula for nestling songbirds: Investing in fitness and survival. In (pp. 9.55-9.63). In A. Moore & S. Joosten (Eds.), *NWRA Principles of Wildlife Rehabilitation*.

## Formula for Nestling Songbirds (FoNS):

**Mark Finke** has worked in the area of comparative animal nutrition for more than 20 years and has published more than 20 peer-reviewed articles on nutrition in insects, birds, and mammals. His graduate degree reflects dual majors in nutritional sciences and entomology. Mark is currently Director of Technical Services for PetSmart; he supports several rehabilitation groups by helping them develop diets for specific species and situations.

**Diane Winn** is the Executive Director of Avian Haven, a rehabilitation practice of approximately 1,000 birds per year, based in Freedom, Maine (Marc Payne is her co-director). She has published several peer-reviewed articles and given numerous conference presentations on various aspects of wild bird rehabilitation, including euthanasia, nestling diets, emaciation protocols, and caging.

### On Second Thought . . . . .

By Terri Lee Murphy

Terri is a NYSWRC board member and licensed wildlife rehabilitator from Buffalo, NY

It had been a quiet week for animal rescue when I turned my cell phone off late on New Years' Eve, and assumed no one would be calling so late in the evening. The following day I was surprised to find a message from the previous evening. Following is the actual message:

"Hello, my name (sob) is John and my phone number is —. Can someone please (sob) call me back and help me with this poor (muffled cry)? I'm so upset and I don't want it to die. I called the zoo, but no one answered. Please (sob), please help me save this poor little guy (continuous sobbing)."

Guilt swept over me like a chili-induced hot flash. Why didn't I check my messages earlier? Someone needs my help and I wasn't there for them. What kind of animal could he possibly have? I replayed the message several times in a desperate attempt to understand his muffled cry for help. My mind went into "animal rescue" overload. I bet he had a snowy owl, brought down by a pack of arrogant crows out on the town, looking for fun and trouble. Maybe he had a fawn whose mom had been hit by a car and the youngster was crying out for help. There was also talk of a puma on the loose in the southtowns – oh, the sheer thrill of it! I dialed his number and the conversation went like this:

"Hi John, my name is Terri Murphy and I'm returning your call from last evening. I am so sorry I didn't get back to you sooner, but – blah, blah blah."

"Who", John asked.

"You left a frantic message on my phone last evening

about an animal in distress."

"Oh yeah, well thanks for calling, but it's too late."

"Yeah, after I got him home, I put him in an aquarium to keep him fresh until dinner. Well, I started celebrating early and he kept looking at me with those cute little eyes and batting his eyelashes."

"John, fish don't have eyelashes." The conversation was undoubtedly taking a bad turn and sounded like a rejected script from a Monty Python movie.

"Well, this one had eyelashes. Anyway, after spending the afternoon with him, I decided there was no way I could possibly eat him. But then, I didn't know how to save him. I called the zoo, but there wasn't anyone there. I called my friend and asked him if I could put it in his fish tank and he said, 'Heck no, he'll eat all my fish.'"

"Jeeze, I'm so sorry. What kind of animal did you rescue?"

"Well, (I could actually hear his face getting red over the phone) I went to Tops Market and bought a lobster for dinner to celebrate the New Year."

"Did you say a lobster?"

"Yeah, you know those fish that get red when you cook them?"

"Yes, I'm familiar with the species. So, you were calling me about your New Year's Eve lobster?" (I was tempted to ask him if the lobster possibly had too much water to drink and couldn't drive home).

"Some friend!"

"Right, so anyway I got your number on the internet. It doesn't make any difference now, he didn't make it."

"Sorry John, life is hard. What happened?"

"Well, I put some water in the aquarium so he could breath (???) and started feeding him some of the shrimp I ended up having for dinner instead of him. He was doing pretty well. He was eating and in good spirits (this comment could have solicited a multitude of remarks, but I refrained). "But, (a momentary sigh) when I got up in the morning, he was dead."

"Well John, I'm sorry to hear that. You have a good heart and we need more people with caring hearts." (I immediately went into my "save the animals" mode). "So, did you give him a proper burial?"

Slight hesitation — "Hell no, — I ate him!"

MORAL:

## Another Perspective on the Brown-headed Cowbird

By Veronica Serwacki, *with permission of the author and "The Wildlife Messenger"*

Veronica is a member of NYSWRC and a wildlife rehabilitator from Eggertsville.

It's amazing how a simple question can sometimes lead into a thought provoking journey, through a pool of research that swirls ever deeper and deeper into theories and hypotheses which ultimately raise more questions and only come up with some possible answers.

This puzzling, yet intriguing question about the Brown-headed Cowbird was raised during a recent discussion. How does a young baby Brown-headed Cowbird, which, along with the Bronzed Cowbird, are North America's only obligate brood parasites, come to know that it is a Brown-headed Cowbird? The significance of this question, in the study of bird behavior, is that a nestling Cowbird is raised, not by its biological parents but by any of a large pool of possible, yet unrelated, host parents. According to The Birder's Handbook the Brown-headed Cowbird has been widely studied and is known to parasitize the nests of over 200 species of migratory songbirds in eastern North America throwing some species of songbirds into severe decline (Ehrlich, Dobkin, Wheye 289). Simply put, female Brown-headed Cowbirds have evolved into a convenient lifestyle of laying their eggs in other birds' nests and allowing these other birds to incubate, feed and raise their young.

Unlike the facultative brood parasites such as the Yellow-billed Cuckoos, which can build their own nests and only rarely parasitize other bird's nests, the Brown-headed Cowbird doesn't even know how to build its own nest (Ehrlich, Dobkin, Wheye 289). This definitively places the Cowbirds into the category of obligate brood parasites, as they have no choice but to lay their eggs in other birds' nests. Another interesting distinction between these two North American birds is that the Cowbird's eggs are often quite different from those of its host, while the Yellow-billed Cuckoo's eggs mimic those of their chosen hosts. "These mimetic patterns in eggs are genetically determined" and open us up to another whole avenue of research as to how and why this clever adaptation of egg mimicry evolved (Ehrlich, Dobkin, Wheye 287). Interestingly enough studies have shown that some host species, provided they have the right size bill, like robins and catbirds, have learned to detect Cowbird's eggs in their nests and have turned into a "rejecter species", immediately ejecting the foreign eggs with their bills (Ehrlich, Dobkin, Wheye 289).

The question is do we need to intervene, if natural selection and evolution will eventually take their course through adaptation and the gradual creation of

quick learning rejecter species? There is no clear answer and the impact of human intervention will not be evident for a number of years, but it is clear that the balance of nature is already in dire straits, due to human impact, and intervention may be the only way to prevent the total extinction of rare and declining species. According to Dr. H. Martin Schaefer in the department of Evolutionary Ecology at the Institute of Biology 1 in Freiburg, Germany, the "critically endangered" Pale-headed Brushfinch has doubled since they implemented cowbird control. Also, The Birder's Handbook reports that the U.S Fish and Wildlife Service and other state agencies trapped and removed Cowbirds in order to save the rare Kirtland's Warbler. Fledglings tripled and then began to decline again probably due to migration mortality, possible changes in their wintering grounds and the "limited breeding habitat" in Michigan (Ehrlich, Dobkin, Wheye 527-29). Kirtland's Warblers require very specialized habitats comprised of young Jack Pine shoots that sprout after a fire has swept through "a mature stand of pines" (Ehrlich, Dobkin, Wheye 527). It will require a consistent number of further interventions in order to save this threatened species of bird.

If the parasitic behavior of cowbirds wasn't one of the many possible contributing factors to the decline of songbirds, it would be rather comical to see a tiny Chipping Sparrow feeding a large fledgling cowbird three times its size. There are, of course, more serious contributing factors to migratory songbird decline that have had ricocheting effects rather like global-warming. For example, habitat destruction, from the tropical rainforests in the south to the fragmentation of forested nesting sites in the north, is one of the major and underlying factors of songbird decline. This, compounded by suburban sprawl, increased nest predation by cats, dogs and other wild opportunists such as raccoons, Blue Jays and American Crows, all adds to the dilemma (Ehrlich, Dobkin, Wheye 497).

The systematic clearing of large tracts of forested land which is unsuitable habitat for Brown-headed Cowbirds has opened up their preference for wide open ranges and led to the expansion of their breeding territory from west of the Mississippi into the east (Ehrlich, Dobkin, Wheye 495-499). This destruction of natural habitat has extended cowbirds' territory up to the margins of forested areas preferred by a number of migratory songbirds. Songbirds have strict habitat requirements and this makes them more vulnerable to parasitism and nest predation by cowbirds and other animal species. The forests are no longer large and continuous and the remaining pockets are closer to open ranges where cowbirds normally feed and perform their social displays (Ehrlich, Dobkin, Wheye 497).

*continues next page*

## Another Perspective on the Brown-headed Cowbird, continued

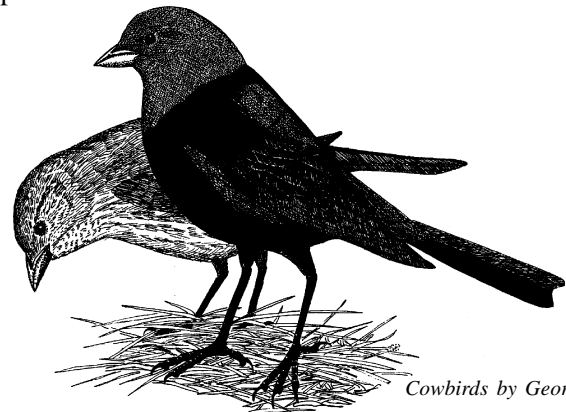
Brood parasitism is rare. It is only seen in about 1% of all bird species. In non-parasitic birds, nestlings are known to imprint on their natural parents almost immediately, both by visual and auditory stimuli. This early visual and auditory experience of parental nurturing, feeding, vocalization and other learned behaviors eventually cement their social behaviors for survival within their own species. Imprinting is irreversible and if something out of the norm occurs, as in the case of the Mallard duckling experiments performed by the well-known naturalist, Konrad Lorenz, the consequences are lifelong and will affect the social, mating and survival behavior of young birds permanently.

There are no clear answers to the question of how Cowbirds recognize themselves as cowbirds or how and why this specialized behavior has evolved. There are many hypotheses and some of the research raises more questions as it expands into a molecular level of study. It is obvious from a reference made in The Birder's Handbook that "Cowbird fledglings do not recognize their foster parents as individuals" but respond positively to all adults of the host species (Ehrlich, Dobkin, Wheye 623), which probably suggests an element of genetic hardwiring. Another on-line journal article reports on a study conducted at a bird feeder by Hahn and Fleischer (1995), where female and juvenile cowbirds were trapped for the purpose of DNA fingerprinting, and in several instances were found to be related (Sorenson, Payne par 21). This may suggest that female Cowbirds associate with their own young after they gain independence from their hosts (Sorenson, Payne par 21). The on-line journal Abstract from Proceedings of The Royal Society states that "learning plays a critical role in the development of parasites' social preferences" (Hauber, Russo, Sherman par 1). They propose a mechanism which combines the "learned and genetic components of recognition" (Hauber, Russo, Sherman par 1). Recognition of its own species may be initiated by a sound or vocalization in the form of a password (Hauber, Russo, Sherman par 1). In Brown-headed Cowbirds a certain unique and species-specific "chatter" created more response in the nestlings than any other avian sound, and this "chatter" continued to produce responses in both fledglings and adults during playbacks of the same sound (Hauber, Russo, Sherman par 1).

It is interesting to note that Konrad Lorenz's Mallard duckling experiments, conducted back in the 1950s, promulgated a similar recognition response to sound in Mallards (Lorenz 41-42). After artificially incubated young Mallards, that were freshly hatched, systematically ran away at the first sight of him and hid, Lorenz tried the same experiment using a Muscovy duck as a foster parent (Lorenz 41). The

newly hatched Mallards ran from her as well (Lorenz 41). He then allowed a "fat white farmyard duck to hatch out" the baby Mallards and noticed that the "little wild things" ran happily after her (Lorenz 41). He discovered the secret lay, not in the optical picture of the mother but in her "call-note," because the white domestic duck shared similar vocal expressions with the Mallard (Lorenz 41). He realized he'd have to learn "Mallardese" in order to become a foster parent (Lorenz 41). He perfected his Mallardese and used this technique on a batch of Mallard ducklings and sure enough the "quacking was successful" (Lorenz 41-42). They huddled together tightly and waddled after him continuously as he quacked and this proved, for Lorenz, that ducklings have an "inborn reaction to the call-note" from their natural mother. (Lorenz 42).

In summary, it is possible that the Brown-headed Cowbird has developed similar auditory responses in order to recognize its own species despite its progression from egg to fledgling under the arduous foster care of an unrelated and sometimes much smaller species. So far studies appear to have only focused on the negative aspects of cowbird behavior and it seems unfair that it has become the scapegoat for more serious underlying problems that have led to the decline of certain songbirds. It is obvious that other factors have led to imbalances in our natural world contributing to songbird decline: habitat destruction, the use of herbicides and pesticides, obstacles along migratory pathways, air and water pollution, predators and a variety of other factors. Under normal conditions, with sufficient forests and grasslands preserved, the cowbird would naturally fall into its own niche just as the songbirds would occupy theirs. Although cowbirds have become a serious problem for songbirds, it is probably fair to say that the activities of human beings is the reason they have become a problem. A world in which natural resources are protected for balance and harmony on its earth and in its oceans, is a world that can sustain all the species on the planet for generations to come. As human beings we have to turn our focus toward protecting and maintaining the delicate balance of our natural world and plan a brighter future for all the species we share it with.



Cowbirds by George West

## Brown-headed Cowbird

### Works Cited

Ehrlich, Paul, David Dobkin and Darryl Wheye. The Birder's Handbook. New York: Simon and Schuster, Fireside, 1988.

Harvey, John. "Re: Use of one of your images." E-mail to Jennifer Filipski. 17 Sep. 2007. <[http://www.johnharveyphoto.com/Life/05\\_2005/MaleCowbird.html](http://www.johnharveyphoto.com/Life/05_2005/MaleCowbird.html)>

Hauber, Mark E., Stefani A. Russo and Paul W. Sherman. "A Password for Species Recognition in a Brood-parasitic Bird." Proceedings of The Royal Society Biomedical Sciences 268.1471 (2001): 1041-1048 <<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1088706>>.

Lorenz, Konrad Z. King Solomon's Ring. New York: Thomas Y. Crowell Company, 1952.

Schaefer, Dr H, Martin. "AW: Use of your image at <http://www.biologie.uni-freiburg.de/data/biol/schaefer/research.html>." E-mail to Jennifer Filipski. 04 Sep. 2007.

Sorenson, Michael D. and Robert B. Payne. "Molecular Genetic Perspectives on Avian Brood Parasitism." Integrative and Comparative Biology 2002 42(2):388-400 <<http://icb.oxfordjournals.org/cgi/content/full/42/2/388>>.

## Iron Particles and Magnets Used to Clean Birds

Found on the WLREHAB listserv, summarized by Amy Freiman, editor

A very interesting concept is explored in the PhD thesis written by Hien Van Dao, Victoria University School of Molecular Sciences. The title is: An Investigation Into the Factors Affecting the Efficacy of Oil Removal from Wildlife Using Magnetic Particle Technology. The full thesis may be found and read in PDF format at <http://wallaby.vu.edu.au/adt-VVUT/uploads/approved/adt-VVUT20070510.163002/public/01front.pdf>

The Abstract in Chapter one and the Summary and Recommendations in Chapter eight are particularly enlightening. It is great to see scientists working to perfect techniques that can help wildlife and wildlife rehabilitators. I recently read about a few occasions where rehabilitators have tried this technique. It will be interested to see how many facilities begin to use this type of cleaning and how it works for them. Let us know if you have used this method and how it worked. You can email me at: [nisseq@aol.com](mailto:nisseq@aol.com)



### From the Wildlife Management Institute:

#### Gene Mutation Likely Made West Nile Virus More Virulent in Crows

After only eight years since being identified in the United States, West Nile virus (WNV) has spread across the country, infecting over 3,400 humans in 2007 and causing the deaths of 98, reports the Wildlife Management Institute. The disease, however, has caused significant reductions in wild bird populations, affecting more than 300 different species, particularly crows and jays.

Earlier this year, geneticists at the University of California-Davis (UC-Davis) isolated a gene mutation that turned relatively mild forms of the virus into the highly virulent and deadly disease that it is to crows. Because crows are so common and so susceptible to the disease, they have been a sentinel species— alerting scientists to the spread of the virus across the country. Epidemiological studies have found that deaths of North American crows due to WNV are associated with higher rates of infection among mosquito populations and clusters of the disease in humans.

"The findings from this study highlight the potential for viruses like West Nile to rapidly adapt to changing environments when introduced to new geographic regions," said Aaron C. Brault, a virologist at the Center for Vectorborne Diseases in the Department of Pathology, Microbiology and Immunology of the UC-Davis School of Veterinary Medicine. "The study also suggests that the genetic mutations that create such adaptive changes may result in viral strains that have unexpected symptoms and patterns of transmission," Brault added.

WNV is a mosquito-borne infection that can cause encephalitis (inflammation of brain tissue) and/or meningitis (swelling of the tissue that encloses the brain and spinal cord). It is native to parts of Africa and the Middle East, and it was first detected in North America in the summer of 1999, in New York City. Within three months, WNV had spread to Connecticut and New Jersey, and animal cases have been identified in every state in the continental United States except Maine.

## DEC Repairs Winter Home Of Endangered Bat Colony; Ulster County Landowner Partners with State In Second Indiana Bat Protection Project

Endangered Indiana bats recently received important help from an Ulster County landowner and the New York State Department of Environmental Conservation (DEC) that will make it possible for the colony to survive the winter, Division of Fish, Wildlife and Marine Resources Director Patricia Riexinger announced.

As part of the Landowner Incentive Program, DEC staff temporarily sealed a shaft that had opened in the ceiling of an Indiana bat wintering site. This crucial fix will prevent freezing temperatures from harming the 24,000 endangered Indiana bats and thousands of bats of other species known to winter there. The location harbors nearly half of all Indiana bats in New York State and is the eighth largest wintering population for the species range-wide.

At the site in Ulster County, a shaft in the ceiling of the Indiana bat's wintering site, known as a "hibernaculum," had been plugged many decades ago when the mine was still active. This summer, the plug failed, which, come wintertime, would have allowed warm air to escape, dropping temperatures below temperatures typically encountered by the bats, and making the mine too cold for the animals to survive. With the landowner's approval, DEC staff acted quickly to temporarily seal the opening. A permanent fix being planned for next summer will allow DEC limited control of air flow. Managing air flow will permit some level of temperature control, in preparation for the coming challenge posed by global warming. It is hoped that having the ability to release warm air will allow us to keep temperatures within an acceptable range in the future.

The Indiana bat is designated as a federal and state endangered species. It is one of nine bat species found in New York State. The Indiana bat is found within the central portion of the eastern United States, from Vermont to Wisconsin, Missouri and Arkansas and south and east to northwestern Florida. In New York, it is known to hibernate in 12 different caves or mines, although 93 percent are in just three sites. There are approximately 52,000 bats wintering in eight known hibernacula in Albany, Essex, Warren, Jefferson, Onondaga and Ulster counties. Searches for additional wintering sites continue so that they too can be protected. Bats are most vulnerable when they are hibernating, and as such, DEC seldom discloses specific locations to prevent public intrusion that could stir and wake up the bats, causing them to deplete their fat supplies at an accelerated rate and reduce their chances of surviving the winter.

Indiana bats spend the winter months in secluded

caves or mines with average temperatures of 37-43 degrees Fahrenheit. Criteria for the bats' selection of hibernacula are not clearly understood; many seemingly suitable sites are not occupied. Where this species is found, however, it can be extremely abundant, congregating in densities of more than 300 per square foot. Year after year, bats often return to exactly the same spots within individual caves or mines. Hibernation can begin as early as September and extend nearly to June. For more information about Indiana bats, go to <http://www.dec.ny.gov/animals/6972.html> on the DEC website.

The repair work on the ceiling was made available through support from the Landowner Incentive Program (LIP), a collaborative effort between the DEC and private landowners for the conservation of at-risk species on their land. LIP funding is made available by a grant from the United States Fish and Wildlife Service and is restricted to projects that benefit species of greatest conservation need, as identified in the state's Wildlife Action Plan.

This is the second LIP project assisting New York's Indiana bats – last year, DEC and its partners helped repair a gate at one of the most critical hibernacula in the Northeast in a graphite mine in the Adirondacks. LIP will also help fund projects to protect dwindling grassland habitats of significance to such species as the endangered short-eared owl and the threatened Henslow's sparrow, as well as to protect fens, bogs and wet meadows that are important for species such as bog turtles.

**Reminder:** Bats are Rabies Vector Species. RVS training is offered annually at the NYSWRC conference. This year's conference will take place Oct. 23-26, 2008 in Grand Island, NY.

### From DEC:

A nice site for conservation guides is found at:

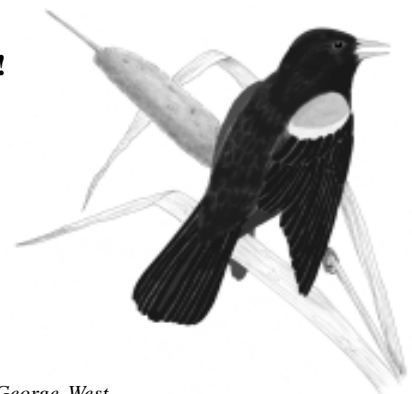
<http://www.acris.nynhp.org> web

The guides are brought to you by Natural Heritage Program and your Department of Environmental Conservation

### Spring is coming!

Are you ready?

Time to inventory your supplies.



Red-wing blackbird by George West

**Rehabilitators' Information for our own HUMAN health concerns.** (In order to take care of animals, we need to take care of ourselves.)

### New York State Department of Health Community-Associated Methicillin-Resistant Staphylococcus Aureus (CA-MRSA) - Fact Sheet

What is Staphylococcus aureus?

*Staphylococcus aureus* (*S. aureus*) is a bacteria normally found on the skin or in the nose of 20 to 30 percent of healthy individuals. When *S. aureus* is present without causing symptoms, it is called colonization. If symptoms are present, it is called an infection.

What is MRSA?

Methicillin-resistant *Staphylococcus aureus* (MRSA) is a strain of *S. aureus* that is resistant to methicillin, an antibiotic in the same class as penicillin, and is traditionally seen in people who have been recently hospitalized or who have been treated at a health care facility (such as treatment at a dialysis center).

What is CA-MRSA?

Community-associated MRSA infections (CA-MRSA) are MRSA infections in healthy people who have not been hospitalized or had a medical procedure (such as dialysis or surgery) within the past year.

Who gets CA-MRSA?

Anyone can get CA-MRSA, however outbreaks have been seen among athletes, prisoners, military recruits, daycare attendees, injection drug users and other groups of people who live in crowded settings and/or routinely share contaminated items. Poor hygiene practices, such as lack of hand washing, may spread the bacteria easily.

What are the symptoms associated with CA-MRSA infection?

CA-MRSA infections typically begin as skin infections. They first appear as reddened areas on the skin, or can resemble pimples that develop into skin abscesses or boils causing fever, pus, swelling, or pain.

How are CA-MRSA infections treated?

CA-MRSA skin infections can be treated by draining any abscesses or boils and providing localized care. Antibiotics can be given if necessary. When left untreated, CA-MRSA infections can progress to serious complications. Visit your health care provider if you think you might have a MRSA infection.

How do I know if I got MRSA from the community or from a health care setting?

Most MRSA infections are found in people who are or have recently been hospitalized. CA-MRSA is usually diagnosed when the patient has an MRSA infection

and *has not* had surgery, dialysis, nor been admitted to a hospital or other health care facilities in the past year. CA-MRSA can also be diagnosed when a person has a MRSA infection that began too soon after admission to be acquired in the hospital.

How is it transmitted?

CA-MRSA is spread in the same way as an MRSA infection, mainly through person-to-person contact or contact with a contaminated item such as a towel, clothing or athletic equipment. Bacteria that exist normally on the skin cause CA-MRSA and so it is possible to infect a pre-existing cut not protected by a dressing or other bandage.

How can the spread of CA-MRSA be controlled?

Careful hand washing is the single most effective way to control the spread of CA-MRSA. Skin infections caused by MRSA should be covered until healed, especially to avoid spreading the infection to others. Family members and others with close contact should wash their hands frequently with soap and water. Personal items that may be contaminated (towels, razors, clothing, etc.) should not be shared. Both the Centers for Disease Control and Prevention (CDC) and the National Collegiate Athletic Association (NCAA) have issued recommendations for preventing the spread of MRSA among athletes. These include practicing good personal hygiene, including showering after practices and competitions and not sharing personal items such as towels. Athletes who participate in sports where equipment is often collectively used are encouraged to reduce sharing as much as possible and to regularly wipe-down equipment/mats with commercial disinfectants or a 1:100 solution of diluted bleach (one tablespoon bleach in one quart water).

Where can I get further information on CA-MRSA?

.. Further information is available on Overview of Community-Associated MRSA on the CDC's Web site or by calling your local health department.

.. A Guide for Coaches: Preventing the Spread of Bacteria Among Your Athletes (PDF, 291KB, 2pg.)

.. An Athlete's Guide to Prevent the Spread of Bacteria (PDF, 276KB, 2pg.)

.. A similar fact sheet on general MRSA infections in health care settings is also available on the NYSDOH website. Revised: October 2007

#### Recall Notice:

Some syringes pre-filled with heparin or saline are being recalled by the manufacturer. You may want to check the lot numbers before using the saline flush pre-filled syringes on wounds.

[http://www.fda.gov/medwatch/safety/2008/heparin\\_recall.htm](http://www.fda.gov/medwatch/safety/2008/heparin_recall.htm)





NYSWRC  
P.O. Box 62  
Newcomb, NY 12852



### NYSWRC MEMBERS

Please check the address label on this issue of *RELEASE* to determine your current membership type and the date that you joined the Council. Your membership in the New York State Wildlife Rehabilitation Council (NYSWRC) expires one year from this date. To guarantee uninterrupted membership services please utilize the application below to renew your membership. We encourage you to share your issue of *RELEASE* with new rehabilitators and other interested persons.

*RELEASE* is the quarterly newsletter of the New York State Wildlife Rehabilitation Council, Inc. and is included with membership. Papers, photographs, illustrations and materials relating to wildlife rehabilitation are welcomed and encouraged. Please send materials to:

***RELEASE, PO Box 62, Newcomb, NY 12852, Attention: Editor.***  
All materials are copyrighted, For permission to reprint portions, contact Editor.



### NEW YORK STATE WILDLIFE REHABILITATION COUNCIL, INC. MEMBERSHIP APPLICATION

\_\_\_\_ **NEW**

\_\_\_\_ **RENEWAL**

Complete all information below and make checks payable to: NYS Wildlife Rehabilitation Council, Inc. *Please print clearly.*

\_\_\_\_ **GENERAL:** \$25.00      \_\_\_\_ **HOUSEHOLD:** \$40.00      \_\_\_\_ **ORGANIZATION:** \$50.00

**NAME(S):** \_\_\_\_\_

**AFFILIATION:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**CITY, STATE, ZIP:** \_\_\_\_\_

**PHONE home:** (\_\_\_\_) \_\_\_\_\_ **work:** (\_\_\_\_) \_\_\_\_\_ **e-mail:** \_\_\_\_\_

**Species handled:** \_\_\_\_\_

**Knowledge and skills willing to share:** \_\_\_\_\_

**Return form to: Jean Alden, NYSWRC Membership, 1850 N. Forest Rd, Williamsville, NY 14221**