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Angel Wing in Captive-Reared Waterfowl. p. 3

Author Guidelines

The *Journal of Wildlife Rehabilitation* is designed to provide useful information to wildlife rehabilitators and others involved in the care and treatment of native wild species with the purpose of returning them to the wild. All feature articles are subject to a review process, and our staff and reviewers work with authors to produce the most accurate information possible in our ever-changing field.

The *Journal of Wildlife Rehabilitation* has various feature categories. We solicit submissions in the form of feature articles, rehabilitation notes, book reviews, news articles related to major events in the field, and selected case studies. Articles on veterinary medicine as it relates to wildlife rehabilitation are also welcome. We would like to expand the *Journal of Wildlife Rehabilitation* to include wildlife rehabilitation articles from countries outside the United States and welcome inquiries regarding such articles. We also have two short features we use for basic information: "For The New Rehabber" and "Simple Things That Make a Difference." They are intended for basic information or new ideas that are easily demonstrated with a short text and photos. All authors receive a \$30 honorarium for each article accepted for publication or receive a one year individual membership or renewal.

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1. An original and two copies of the manuscript should be submitted to the Journal Editor, IWRC, 4437 Central Place, Suite B-4, Suisun, California 94585-1633, USA. The manuscript should include references, photo legends, and footnotes, and should be typewritten, double-spaced, if possible. The author's name, address, and phone number should be placed on at least the first page of the article so it can be readily identified and the author contacted. Please note that each article should be accompanied by an abstract and a set of key words. If trade names are used for products mentioned the author must indicate whether the product is TM or ®. A product table at the end of the article should give readers the name and address of the companies involved and generic name or category of product.
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Message From the President

Winter 1997-1998

We at the International Wildlife Rehabilitation Council, both board and staff, are beginning the new year with a renewed vigor and defined sense of direction. Apparently, the membership is feeling the same. As we gallop toward the new millennium, our membership has never been stronger in numbers or in participation.

The year just past has offered many changes both within wildlife rehabilitation as a whole and the IWRC organization. It is with great pride and excitement that I look back on the successes that have occurred within the rehabilitation community. There have been many encouraging reports of states and provinces working with rehabbers to improve regulations and quality of care for wildlife. For some of the countries in which we have members, the success has been in getting their various governments to recognize the profession as a viable one. I am confident the rest will follow. These positive experiences have given hope to those members in regions still fighting for recognition. We continue to work hard with members throughout the world to this end. We have just completed a translation and reworking of the Basic Skills 1AB Manual into Spanish and are currently working on a French and French/Canadian translation. The Spanish translation was a cooperative effort with the HSUS. Getting this information out to countries that traditionally have had very little active wildlife protection, let alone rehabilitation centers, is a huge undertaking, but a very exciting "step in the right direction".

IWRC as an organization has undergone growth as well. As we respond to the changing needs, issues and interests among people concerned with wildlife rehabilitation, we have evolved into an organization that serves the needs of not only rehabilitators at all levels, but agency representatives, biologists, and veterinarians. Over a year ago, we added a newsletter to our publications. Jennie Sauer serves as the very capable editor of that venue. The newsletter has proved to be a popular addition, allowing for more casual exchange between members.

You will notice some exciting changes in the journal with this issue, designed to address a broader range of topics pertinent to the membership. We are still in the process of expanding the vision of what the journal will be in the future. What we do know is that we will be covering a wider variety of subjects, while maintaining the professional standard of content and review.

As part of that expansion, we are presenting some new features. One of these new components is called, "Up For Discussion". It will feature one or two case studies on a topic affecting wildlife rehabilitators. This topic will not have a clear nor single solution. Rather, by its title, the case is "up for discussion". It will be followed with short responses by persons involved in rehabilitation and associ-

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Angel Wing in Captive-Reared Waterfowl

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ABSTRACT

The Milwaukee County Zoo has been involved in a captive-release reintroduction program for Trumpeter Swans with the Wisconsin Department of Natural Resources for the past ten years. During this time, captive-rearing techniques have been perfected and solutions found for problems such as angel wing. A general overview of the condition angel wing along with potential solutions will be addressed in this article.

Key Words: Trumpeter Swan, angel wing, waterfowl, cygnets, primary flight feathers, captive-rearing, decoy-rearing, blood feathers, wing droop, protein level

Introduction

Wildlife rehabilitators are often faced with raising young, abandoned waterfowl in hopes of releasing them as young adults. Without proper information on how to prevent and treat angel wing, this same wildlife rehabilitator may be faced with a non-releasable bird instead of releasing it back into the wild. The Trumpeter Swan Recovery Program experienced a few occurrences of angel wing in Trumpeter Swan cygnets over a ten year period. The prevention and treatment of angel wing involves three basic concepts: diet, exercise, and early detection & treatment.

The Trumpeter Swan Program

In 1987, the Wisconsin Department of Natural Resources (WDNR) entered into a partnership with the Milwaukee County Zoo (MCZ) and the Zoological Society of Milwaukee County to restore Trumpeter Swans to the state of Wisconsin. Each year the WDNR collected at least 50 eggs from wild, free-flying Trumpeter Swans in Alaska, and brought them to the MCZ for incubation. After hatching, the cygnets spent 1-3 weeks at MCZ and then were transported by WDNR to rearing sites. These cygnets were reared in one of two programs: 1) captive-rearing, or 2) decoy-rearing. If the cygnets entered captive-rearing, they were cared for by WDNR personnel until two years of age and then were released into the wild. If decoy-rearing was utilized, the cygnets were free-flying wild swans at the end of their first year.

Rearing sites were non-hunted, protected areas that had natural lake systems, and were staffed by WDNR personnel.

Over time it was found that removing cygnets from MCZ at age 3-5 days vs. 10-21 days and transferring them to the rearing sites decreased the incidence of leg problems and angel wing. The brooders that the cygnets were housed in at MCZ provided access to water, but not a large enough expanse of water to provide the appropriate exercise for their developmental age. Angel wing was only seen in a few Trumpeter Swan cygnets over the years and was not a major health concern. Management of proper diet and exercise early reduced the likelihood of angel wing developing in the cygnets.

Angel Wing

Angel wing is considered to be a nutritional disease that occurs primarily in young waterfowl prior to and during their first molt. This disease is also referred to as healed-over, slipped, crooked, rotating, tilt, sword, spear, reversed, airplane and drooped wing. The condition occurs when the primary flight feathers are molted in, and the extra weight cannot be supported by the weak wing muscles along the carpal joint. Initially the wing will exhibit a "droop" with the primary flight feathers not folded correctly into the wing's normal resting position. If left untreated, the wing will eventually twist outward and set perma-

nently in this fashion, rendering the bird flightless. The condition is often caused by young birds eating a diet that is too high in protein. The high protein levels cause a young bird to grow too fast and the wing muscles are not able to keep up with the weight of the wing. A bird ingesting a normal protein level would be able to slowly develop the appropriate muscle strength for the body mass of the bird.

Prevention

Angel wing can be prevented through proper nutrition and exercise. A young cygnet should never receive a diet that has protein levels higher than 18% and should be switched to a diet with 12% protein by 7 days of age. It is very important that the cygnets do not remain on the high protein diet for an extended period of time. The damage that can be done to a young developing bird in the first two weeks of life through improper diet can be devastating. Waterfowl have a very fast growth rate in the first several weeks of life, too much protein in the diet will accelerate this growth and cause developmental problems such as angel wing. During the first week of life the following diet was used for Trumpeter Swan cygnets:

Day 1-3: Non-medicated chick starter (17% protein), chopped boiled egg, fresh chopped spinach, mealworms (live)

Day 4-5: 50:50 Chick starter (17% protein): Gamebird Maintenance (12% protein), chopped spinach, mealworms

Exercise is the second part of the prevention equation. Trumpeter Swan cygnets in the captive-rearing program were allowed to swim by 2 days of age in their brooders and placed in large "kiddie pools" several times during the day after the age of 5 days. By day 5 it was crucial to get the cygnets to larger bodies of water for exercise to prevent not only angel wing, but developmental leg problems as well. Despite all of these preventative measures, a few birds may still develop angel wing. This is usually caused by a bird that either doesn't exercise enough on its own or one that has developed a taste for insects and supplements its own diet and thus increases the protein levels.

Diagnosis and Treatment

It is imperative that angel wing be caught in the early stages. A young cygnet will often

exhibit a slightly droopy wing during the time of its first molt. This is not necessarily cause for alarm, but should be observed closely for several days. Young birds will often allow one or both wings to hang below their normal resting position during molt due to the added weight of new flight feathers. They should only exhibit this behavior occasionally over a 1 or 2 day period. If the wing droop progresses into a constant condition or the outer tip of the wing starts to curl or flip, then angel wing is probably present. It is best to treat the wing prior to the development of a "flip or curl".

If angel wing is present in a young bird the following can be done to correct the problem:

1. If the wing is only in a drooped position, two methods of treatment can be used:

- Pull out a few of the blood feathers on the drooping wing to help lighten the weight load on that wing. The removal of blood feathers will provide immediate relief to the wing. This procedure should be performed with caution, taking care not to break the feather shaft. If the bird does not place the wing in a normal resting position within a few hours of this procedure, the wing should be wrapped. The removal of blood feathers should be attempted prior to resorting to wrapping the wing.
- To wrap the wing, use a nonadhesive bandaging material such as Vet-Rap™ bandaging tape and wrap the wing into a normal resting position. A figure 8 wrap works best in this situation. The bird can be allowed to swim but the bandage should be checked for shrinkage at least 2x/day. With smaller species of waterfowl, it is often best to put the bird on cage rest for 4-5 days without pool access. Smaller species tend to be easily stressed if handled a lot, and cannot be easily approached without capture in order to check on the condition of the bandage.

If the wing has already exhibited the previously described flip, then the following treatments can be employed:

2. Using thin strips of gauze, weave the gauze in and out of the flipped portion of the wing. This portion of the wing should be very pliable and you should be able to straighten the wing. The gauze should not be tight but should help keep the "flipped portion" straight. Place some adhesive tape on the gauze to hold it in place, but be careful not to catch any feathers in the tape. Once the "flipped" portion of the wing is straightened out with the aid of the gauze, wrap the rest of the wing in a normal resting position using a nonadhesive bandage. The gauze will have to be covered with

the nonadhesive bandage to prevent the bird from pulling it off. I have found that it works best to first wrap the main part of the wing using a figure 8 wrap, and then wrap the material over the outer edge of the wing to hide the gauze and add more stability. Due to the use of gauze, it is advisable to place the bird on cage rest for 4-5 days without access to a pool.

3. If the "flipped" portion of the wing cannot be easily straightened, then the condition is permanent. The wing should never be forced into place, and it should easily straighten out with gentle manipulation. It should be pliable and floppy and easily lay straight in your hands. Surgery can be considered to correct the wing, but it is expensive and rarely works.

For both treatments the bandages should only remain on the bird for a 4-5 days. After 4-5 days the bandages should be removed and the bird allowed to exercise normally. **Do not leave a bird with a bandage on its wing for an extended length of time (longer than 5 days).** Due to the fast growth rate of young birds, the bandage can quickly become too small and cut into the wing. If the wing still droops or continues to flip after 1-2 days with the bandage removed, repeat the procedure. Typically, most birds will appear normal after only one treatment.

Conclusion

The condition known as angel wing is preventable in young waterfowl with proper diet and exercise. During the ten years that the Milwaukee County Zoo, Wisconsin Department of Natural Resources, and the Zoological Society of Milwaukee County were involved in the Trumpeter Swan Restoration effort, very few Trumpeter Swan cygnets exhibited angel wing. Each year the diet and exercise components of the restoration program were improved. If a cygnet developed angel wing, the condition was diagnosed early and corrected before it rendered the bird flightless. The knowledge and techniques used to successfully reduce and correct the incidences of angel wing in Trumpeter Swan cygnets can also be applied to other waterfowl species.

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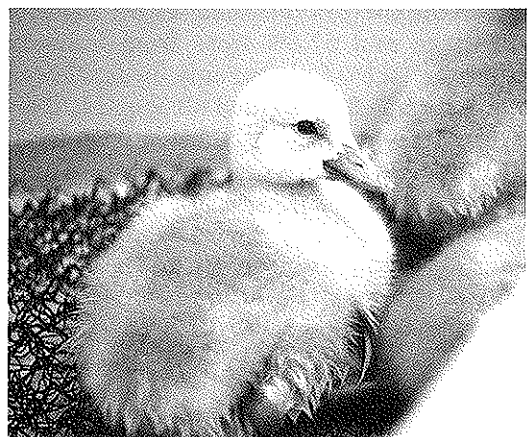
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Author Profile

Kim Smith has been Curator of Birds at the Milwaukee County Zoo for the past two years. She has spent 14 years working at zoos in Arizona & Texas, with a variety of avian species. During her tenure at the Phoenix Zoo, she spent 4 years volunteering as a wildlife rehabilitator for the Adobe Mountain Wildlife Center. Kim has a BS degree in Zoology from Arizona State University.



Healthy Trumpeter Swan cygnet at the Milwaukee County Zoo, approx. 2 days old: Photo by M. A. Nepper

Statistics and Wildlife Rehabilitation: Survey Summary

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Author Profile

Cathy Gidner-Worthington became involved in wildlife rehabilitation in 1991. In October 1995, she became the Co-director at WILDSIDE Rehabilitation & Education Center in Eaton Rapids, Michigan. She has held a state license for two years and is a federal sub-permittee.

ABSTRACT

In 1996, a survey was sent to licensed wildlife rehabilitators with the goal of gaining information on the release rates of rehabilitated wildlife. This article outlines some of the findings from the survey.

Key Words: statistics, survey, wildlife rehabilitation releases, admissions

In late 1996, a survey was mailed to approximately 1850 licensed wildlife rehabilitators, in hopes of gaining insight into release rates of rehabilitated wildlife. Unfortunately, only 2% of the forms, 40 total, were returned. Apparently, the gathering of statistics is far from the minds of many rehabilitators. This is unfortunate, as having good statistics could lend support to the view that wildlife rehabilitation is a worthwhile endeavor.

While the general public has come to demand more and more wildlife rehabilitation services, many rehabilitators still struggle with their government agencies, trying to get their support and cooperation in their rehabilitation efforts. Having solid statistics to back them up would certainly not hurt. While ultimately such statistics should be compiled by professional statisticians, I offered to do this survey as a way to start the ball rolling. The ball did not roll far, but the following is information gathered from the 40 surveys returned. Given the small number of respondents, this information should be viewed with that in mind.

Of the surveys returned, 42.5% were from organizations and 57.5% were from individual rehabilitators. 2.5% handled only birds, 30% only mammals and 67.5% handled all species. The 40 surveys represented the admission of a total of 23,834 individual native species.

For statistical purposes, the surveys were broken down into the following groups: 1-10 admissions, 11-50 admissions, 51-100 admissions, 101-500 admissions, 501-1000 admissions and 1001+ admissions. Some individuals and facilities transferred large numbers of animals and others had large numbers of *pending* animals, so these two categories were not used when calculating release percentages. The classifications used were: total admissions, dead on arrival (DOA), dead in

care, euthanized on arrival, euthanized, released and placed. Admissions did not include non-native species.

| Admissions | # of Surveys | Release % |
|------------|--------------|-----------|
| 1-10 | 5 | 76% |
| 11-50 | 12 | 53% |
| 51-100 | 6 | 66% |
| 101-500 | 7 | 52% |
| 501-1000 | 4 | 54% |
| 1001 + | 6 | 40% |

Whether or not this survey is an accurate representation of rehabilitation on a larger scale, we do not know. Until statistics are compiled using data from larger numbers of rehabilitators, a definitive answer is not possible.

An overall view of the data shows that 15% of the respondents handled 75% of the animals with an overall release rate of 43%. The six respondents who handled more than 1001 animals represented a total of 17,977 admissions.

One surprising statistic was the question of whether or not the respondent handled non-native species. From my previous exposure to those debating this issue I would have guessed that the majority of rehabilitators would handle non-native species, yet 80% of the respondents indicated they did not.

My personal view is that the gathering of data will only strengthen and lend credibility to the field of wildlife rehabilitation. I would like to conduct another survey, set up to determine release rates on approximately 6 commonly rehabilitated species, both avian and mammal. I am very interested in hearing from rehabilitators as to whether or not they feel further surveys would be useful. Please write me at: WILDSIDE, 8601 Houston Rd., Eaton Rapids, MI, 48827, USA, or e-mail me at <Kelsey1@mich.com>.

Beyond Conventional Allopathic Medicine: Options Considered by Wildlife Rehabilitators

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ABSTRACT

This article explores the overall and growing interest in "alternative" and complementary health care for both humans and animals, leading to a discussion of some of the reasons wildlife rehabilitators are increasingly interested in learning about the potential benefits to injured wildlife of employing health care methods beyond more conventional, allopathic practices. The article also identifies several complementary health care treatments used by veterinarians as well as considerations of limitations and risks. The authors strongly recommend that rehabilitators interested in these complementary modalities work closely with their veterinarian if they want to consider and use any of these modalities with wildlife.

Key Words: wildlife rehabilitation, allopathic medicine, wildlife health care, holistic veterinary care, complementary veterinary care, homeopathy, acupuncture, herbalism, chiropractic

Growing Trends in Alternative Health Care

An increasing number of people are pursuing a variety of health care methods to treat injuries and illness. Consider the following research and trends, as recently reported in a variety of technical journals as well as mainstream media:

- Congress created the Office of Alternative Medicine in 1992 to "facilitate the evaluation of alternative medical treatment modalities" to determine their effectiveness (OAM).
- A Harvard University study published in the *New England Journal of Medicine* discovered some interesting trends (Eisenberg, et al, 1993): in 1990, Americans made more visits to alternative health care healers than to primary care physicians; 34% of adults used one of sixteen health care options not taught in US medical schools or regularly available in hospitals; 72% of patients did not inform their doctors of their use of alternative

health care; the alternative health care industry in the USA approximates \$14 billion in annual sales.

- Thirty-four of this country's 125 conventional medical schools, including Harvard, Yale, and Johns Hopkins, offer courses in alternative medicine. (Morton, 1997).
- According to a 1996 study by Tiffany Field, PhD, infants who were massaged established more weight gain and more regular sleep patterns than a control group of babies rocked instead (Elias, 1996).
- A consensus panel convened by the National Institutes of Health (NIH) has just concluded that needle acupuncture is an effective treatment in certain instances (NIH, 1997).
- In 1997, Washington became the first state to require reimbursement for treatment performed by any licensed or certified health care practitioner, including massage, acupuncture and some 30 other techniques and treatments.

"Alternative" or Just Different?

Interestingly, these trends seem to suggest that people not only want these services, but are willing to pay out of their own pocket for a great deal of this care, since it is generally not covered by insurance. It is also clear that people are not rejecting conventional medicine, but opting for a combination of conventional and alternative health care, in what some now term "integrative medicine" (Collinge). As these trends continue to grow and influence people's lives and the health care choices that they make for themselves, they have also begun to influence their care for their companion animals and livestock. Again, consider the following:

- Pet owners are increasingly asking for other options when confronted with allopathic drugs with serious side affects.
- There also seems to be an increase in livestock and equine owners turning to alternative health care methods, e.g., homeopathy for organic dairy farmers, chiropractic and acupuncture for horses.
- Veterinarians are beginning to seek more understanding of and skill with a wide variety of alternative health care methods through various publications as well as at professional conferences and continuing education programs.
- Membership in the Holistic Veterinary Medical Society has increased about 10% each year since 1981; membership in the International Veterinary Acupuncture Society has doubled from 1993 to 1995. Membership in the recently formed American Academy of Veterinary Homeopathy is also growing.
- The sales of natural dog and cat foods have grown exponentially, with an increasing trend towards the more healthful and wholesome ingredients. Some pet owners now prefer home prepared pet food over purchased products for their companion animals <Altvetmed.com>.

All of these trends seem to suggest that people are seeking more natural and holistic approaches to their lives, including supplementing the conventional systems that provide them with health care. Not surprisingly, a natural extension of this trend appears to be that wildlife rehabilitators are considering such alternative, more natural measures of healing when confronted with certain situations involving injured wildlife in their care. This is not to suggest that more conventional medicines and treatments are not highly effective in some cases or should be discontinued. Quite the contrary, it seems that rehabilitators are considering a more broad array of treatment modalities that are complementary when used in conjunction with conventional medicine.

Alternative medicine is a phrase that is used to describe a wide range of health care modalities including acupuncture, herbalism, homeopathy, massage and other touch therapies, flower essences among others. It is generally defined as "...those treatments and health care practices not taught in medical schools, not generally used in hospitals, and not usually reimbursed by insurance companies (OAM). However, even this term is rapidly changing as more conventional allopathic medical practitioners accept and integrate more of the full range of health care modalities into their practices (Walter).

Most medical practitioners in the US, including veterinarians, have been trained in conventional allopathic medicine, so it stands to reason that anything outside that accepted body of conventional practice would be viewed as non-conventional, or "alternative". Interestingly, many of these alternative medical approaches have been in existence for hundreds if not thousands of years in various parts of the world. Herbalism has been a primary method of health care around the world for thousands of years. Acupuncture, an ancient health care modality originating in the Far East, has roots that are at least 3000 years old. Homeopathy traces its early beginnings to Germany over two hundred years ago, although Hippocrates discussed the basic principle of the "like cures like" philosophy that was a basic tenet of homeopathy in fourth century Greece.

Herbs, acupuncture and homeopathy are still used effectively and extensively in many countries around the world and are often viewed as the primary form of treatment in those countries. In fact, according to the World Health Organization (WHO), it is estimated that about 3 billion people, between 65-80% of the world's human population, rely on traditional medicine, which many North Americans would call "alternative", as their primary form of health care (Morton).

So it would appear that whether a form of medical practice or set of procedures is termed conventional or alternative is determined more by a relative ethnocentric framework, than by the proven, observable effectiveness or success of the modality. The Office of Alternative Medicine of the National Institutes of Health suggests that "...Complementary and alternative medicine is defined through a social process as those practices that do not form part of the dominant system for managing health and disease." (Jonas, 1996). It would also seem that a medical practitioner could enhance the chances of medical success in any given situation by embracing a wide range of

medical approaches, regardless of whether they were fully accepted by the traditional establishment in that community. Clearly this requires an open mind and flexibility in approach. This openness and flexibility, coupled with increased success in the use of different modalities, have drawn wildlife rehabilitators to consider such approaches. These and other reasons are described more fully below.

Reasons for Considering Alternative Methods

Concern Over Undesired Impacts of Conventional Allopathic Medications

The use of conventional or allopathic medications has enabled many injured and ill wild creatures to recover and be released back to the wild. At the same time, however, there are a number of conditions that conventional medications cannot treat, such as viral disease. There are also a variety of conditions in which conventional medications are high risk or unsafe, e.g., cannot be used if the animal has impaired renal or liver function, or with some species that cannot tolerate them.

There has been continuing concern about allergic reactions, drug sensitivities, and side effects of certain conventional medications (e.g., diarrhea after using antibiotics; depressed immune systems after use of corticosteroids). Also some allopathic medications may have a different affect on wildlife species than they have on domestic animals, thus creating unexpected reactions.

In addition to some concerns about short-term affects of allopathic medications, there are growing concerns about long-term affects. While there has been some research on long-term affects of antibiotics or corticosteroids, it has been mainly focused on humans rather than other species. Plus, with expanded research and dialogue about the harmful impacts of a variety of environmental chemicals (e.g., insecticides, pollutants, toxins) on wildlife, a growing number of rehabilitators are raising questions about the affects of a wide variety of medical chemicals used on wildlife. Discussions of possible impacts include the affect of wildlife treated with allopathic medications on the food chain (i.e., what is the affect on a predator eating an animal that was treated with corticosteroids?) and the genetic impact on future generations.

There also seems to be a growing concern that some conventional medications are being overused and misused. For example, in some cases antibiotics may be used when there is no confirmed bacterial infection or an antibiotic may be selected without knowing if it will be effective on

a particular bacteria. Also, in some cases, antibiotics are not given according to the directions; e.g., they may not be given long enough to eliminate the specific bacteria. The popular media has recently highlighted similar problems with humans involving antibiotic resistant strains of tuberculosis and resistant strains of bacteria implicated in pneumonia, among others. Also, there is concern about the overuse of broad spectrum antibiotics, such as Baytril®, where a simpler, more directed treatment or antibiotic could be just as effective.

Limited Options

At times, conventional medicine and treatment can be highly effective with some conditions affecting wildlife; however, there are situations when conventional allopathic procedures or medicines are not often effective, such as viruses, some mutating bacteria or emerging diseases, some toxins and many chronic conditions. Plus, allopathic treatments focus on physical symptoms, whereas holistic treatments address multiple levels of the creature's health, including emotional and mental levels. Rehabilitators have often reflected on the negative impacts of captivity and stress on the animal's recovery or lack of it. Some rehabilitators believe that supplementing conventional care with holistic treatments may accelerate an animal's recovery, improve overall health, and reduce the adverse affects of captivity.

Invasive and Long-term Treatments

Many of the conventional medical procedures and medications can be extremely invasive when administered to wildlife in captivity. They often involve extensive handling and restraint to administer the medication orally or by injection. Many of the allopathic drugs must be administered multiple times a day over an extended time. This frequent handling increases the stress on the animal and risk of injury due to handling, and/or the possibility of imprinting on humans, as well as the increased risk of injury to the human handler.

High Costs of Some Allopathic Treatment

Some of the allopathic medications and complex veterinary procedures, such as surgery, are extremely expensive, placing a strain on already limited finances of the rehabilitator. Some of the complementary approaches are far less costly than conventional approaches.

Suppressing or Palliating Symptoms

Also, in the area of illness, allopathic medicine aims primarily to rid the patient of one or several key visible symptoms. However, there is a growing concern that palliating (treatment that

provides temporary relief while the medication is being taken) or suppressing an animal's symptoms can result in the same symptoms returning or a more serious condition arising when the medications are stopped. Examples of suppression or palliation of symptoms have been observed in domestic animals; there is growing concern that the same thing may occur with wildlife that is treated with the aim of eliminating visible symptoms without strengthening all the systems. Alternative modalities, on the other hand, attempt to strengthen the body in order to heal itself rather than just eliminate the visible symptoms.

Other Concerns About Allopathic Medicine

Some conventional medications are controlled substances and not available except at veterinary facilities. Other allopathic medications can have a very limited shelf life.

Sample of Alternative Health Care Options Available for Wildlife

There is a wide variety of healing methods that the wildlife rehabilitator can consider using in conjunction with standard, conventional medicine. Many of these approaches may be considered effective healing methods when used correctly by the trained practitioner. Many of them require fairly intensive study and are administered according to firmly established guidelines and protocols. These methods are generally not to be attempted by a layperson without such prior knowledge, training and apprenticeship. If the wildlife rehabilitator feels such alternative courses of action have potential, a close coordination with his or her veterinarian is still important. This partnership may benefit from working with veterinarians skilled in holistic medical approaches (see accompanying article on holistic veterinary services).

Herbalism or Botanical Medicine

Herbal healing has been used and taught around the world for thousands of years as every culture, tribe and geographical area had its own plants and relevant knowledge. Herbalists use medicinal flowers, leaves, and roots with the belief that plants are more powerful when closer to their natural form. Some herbs are used topically, others are taken internally. Herbs have been used successfully on a large number of acute and chronic conditions, including wounds, skin problems, respiratory conditions, and external parasites. There has also been documentation of some wildlife seeking out specific types of plants when their health has been compromised (Heinerman). Since some

of the herbs include toxic properties, it is absolutely critical to understand their chemistry, potencies, and interactions and to use them correctly.

Expanding research in this area is evidenced by the recently launched study at Duke University examining the benefits of St. John's Wort (known also by its botanical name, *Hypericum perforatum*). The three year study is sponsored by a \$4.3 million grant from the National Institutes of Health, the Office of Alternative Medicine and the Office of Dietary Supplements (NIH, 1997). Americans currently spend \$2.5 million annually on extracts of the herb (Okie, 1997).

Homeopathy

This treatment modality has been used extensively around the world with humans and animals since 1790 and is based on the principle of "like cures like". Homeopaths believe that the body is constantly striving for health. When the body is threatened, the defense mechanism creates symptoms that send the body a message that something is wrong and needs attention; thus homeopaths see symptoms as having a very positive function (this is different from the allopathic belief that symptoms are negative and need to be treated or suppressed). Homeopathic practitioners believe that giving a dose of the homeopathic remedy serves as a catalyst to prompt the body to heal itself. Homeopathic remedies are made from dilutions and succussions of a variety of substances (e.g., plants, minerals, insects). The remedy itself only contains a minute quantity of the initial substance which affects its healing through vibrational principles. The effective selection and administration of homeopathic remedies is quite different from allopathic medicine and requires careful study. Homeopathic remedies are commonly used to treat a wide variety of both acute and chronic conditions.

Flower Essences

This modality addresses emotional conditions in order to enhance the animal's health. These products are made from plants and water according to a specified process. Research on the flower essences in the 1930's identified different emotional states, such as fear or grief, that were addressed by the different essences. Users of flower essences believe that by addressing emotional issues, physical healing can be accelerated.

The following modalities involve different types of physical contact that may be of less concern or risk to domesticated species than with wildlife. Use of these modalities with wildlife requires consideration of ways to minimize handling since excessive

contact could also result in increased stress, risk of injury to the handler or animal, possible imprinting and more.

Acupuncture and Acutherapy

The Chinese have been using acupuncture extensively with humans and livestock for over 3000 years. Acupuncture and acutherapy involve the examination and stimulation of various points on the body to redirect and rebalance chi or energy. A healthy chi is a balance between positive and negative energy; a diseased state occurs when energy is blocked, out of balance, or flowing in an uncoordinated manner. Charts of acupuncture meridians, or energy paths, are required to identify the sites for treatment and have been developed for many domesticated animals and some captive wildlife species. The acupuncturist must first identify the probable blockages to or incoordination of the energy by evaluating the energy pulses or otherwise assessing the overall being of the animal. The acupuncturist then stimulates the relevant acupuncture points via acupuncture needles, soft pressure, cold laser, light, metal beads, magnets or other means. Acupuncture is used to treat a variety of conditions including skeletal injuries or conditions, digestive disturbances, neurological disorders, pain and skin lesions.

The National Institutes of Health has just recently issued a Consensus Statement on Acupuncture. The statement, resulting from a convened panel of experts in the field, concludes "...there is sufficient evidence of acupuncture's value to expand its use into conventional medicine and to encourage further studies of its physiology and clinical value" (NIH, 1997). Clearly this suggests that such "unconventional" modalities are becoming more readily accepted, even in the established medical communities.

Chiropractic, Rolfing, Craniosacral, and Skeletal Manipulation

These modalities involve examination, diagnosis and treatment through manipulation and adjustments of specific joints (including the spine, extremities and cranial sutures). Chiropractors and practitioners of various manipulative therapies believe that misalignment or fixation of joints can cause a variety of health problems. They believe that bringing the body back into proper alignment helps to eliminate the cause of the problem and to restore nerve function. While such skeletal adjustments have been used with humans for many years, they are becoming increasingly common treatments for animals with

bone, muscle, nerve or movement problems as well as improper organ function, chronic illness or general imbalances.

Physical Therapy and Touch Related Therapy

Veterinary physical therapy involves the use of non-invasive techniques to enhance the rehabilitation of injured animals. Massage, particularly deep tissue massage, is another modality that can help increase circulation, improve muscle condition and release tension. There are a variety of physical and touch related therapies, including Reflexology, Shiatsu, and Tellington Touch.

Tellington Touch is an example of a touch related therapy which works to change old patterns, especially related to illness and injury and reestablishes a normal flow of nerve impulses and energetic function. With wildlife it may be used to help reroute messages from the body to the brain during recovery from tissue, musculoskeletal, or neurological injuries. The positive results of this modality have been documented on wildlife in zoos (Tellington-Jones).

Reasons That Some People are Not Interested in Alternative Health Care

Science

There are a variety of reasons that some people are not interested in considering alternative health care modalities. One of the primary reasons seems to be that many people want to understand the scientific basis for each modality. However, to date, there are only limited explanations of how many of these alternative and complementary modalities work. Members of the scientific community have voiced serious concerns about the lack of scientific research and documentation as well as the difficulty of evaluating results. Increasing research is being conducted on many of these modalities and it is beginning to result in some interesting insights. More research is certainly needed to better understand these modalities and their potential use in general, and specifically on different species.

Skepticism

In addition, it is not unusual for those trained in conventional allopathic medicine to be skeptical about alternative modalities and sincerely question their effectiveness. Research and broader education on these modalities may help people better understand them and determine if and when their use might be appropriate.

Special Skills Required

Another concern is that some of these alternative and complementary modalities require some basic knowledge and skill in order to be used most effectively. While the number of veterinarians educated and skilled in these alternative modalities is growing, the number is far less than those practicing conventional veterinary medicine. It can be difficult to find veterinarians that can provide a range of conventional and holistic services. There may also be some situations where only one veterinarian is available and that person refuses to consider alternative modalities, or to work with a rehabilitator using any alternative modalities. All of these considerations must be taken into consideration.

Limited Data Base With Wildlife

Also, while there is a growing base of information on alternative health care for humans and pets, far less has been published on wildlife or the types of problems viewed by wildlife rehabilitators. As more information is gathered and published, and more training programs are offered, the knowledge and skill base of rehabilitators should increase. This could help rehabilitators decide if and when it might be appropriate to consider alternative methods.

Time and Cost

Using alternative health care may involve some changes in rehabilitation practices, can be time consuming, and in some cases actually increase cost. Some people may be unable or unwilling to commit to such holistic practices and costs that can not guarantee results (but then neither does conventional medicine guarantee results). Also, while some of the treatments and recoveries are rapid, others take considerably more time to achieve the desired results or to evaluate the results.

Other Considerations

Those interested in considering alternative and complementary modalities should also become familiar with the indications and contraindications of a specific modality. For example, chiropractic treatment may be appropriate for a misaligned joint but not for external parasites; physical therapy may be used to rehabilitate atrophied muscles but may not be appropriate for acute diarrhea and vomiting; homeopathy may be used for treating shock but in conjunction with heat, quiet and fluids.

There are many situations that require the immediate and direct administration of conventional medical practices, such as removing an

obstruction to breathing, or stopping bleeding. While some alternative practices are considered ways to support and accelerate healing, judgment must be exercised in order to ensure that the animal gets the best possible care. As in other situations, the wildlife rehabilitator strives to provide the best care for the animal and to do no harm. The rehabilitator must continue to keep in mind the animal's condition so as not to cause any further pain or interfere with the animal's long-term survival and release potential. Alternative and complementary modalities should only be considered with that in mind.

Conclusion

Wildlife rehabilitators and others concerned with wildlife health seem to be increasingly discussing holistic therapies and alternative options. This does not suggest that conventional medicine does not offer critical aid for some conditions, but rather that conventional medicine should be considered more realistically for the benefits it offers as well as its limitations. The authors suggest that alternative modalities provide additional options for wildlife rehabilitators to consider. The authors also recommend that such consideration be done with study, care, and the assistance of veterinarians offering holistic services (see companion article on "Seeking Holistic Veterinary Services").

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Authors' Profiles

Dr. Rachel Blackmer graduated from Tufts University School of Vet Medicine in 1991. While at Tufts she worked extensively at the Tufts Wildlife Clinic and left with a deeply entrenched interest in helping wildlife of all species. After leaving the university, she began work in a conventional veterinary practice in Vermont. Growing concerns about conventional therapies led her to study a variety of alternative health care modalities. She was certified by the International Veterinary Acupuncture Society in 1993. She also studied veterinary chiropractic in 1996; her certification from the American Veterinary Chiropractic Association is pending. She became a Reiki Master in 1996, and also took extensive training in classical homeopathy from 1994 through the present. She has worked with wildlife rehabilitators and offered a workshop on alternative therapies considered for wildlife called, "Health in Balance". Dr. Blackmer is co-owner of Indigo Quill Healing Arts, a thriving holistic veterinary practice in the mountains of Colorado.

Shirley and Allan Casey are licensed wildlife rehabilitators in Evergreen, Colorado and specialize in squirrels. The Caseys have had assistance from both allopathic and holistic veterinarians since 1993. They are co-authors of the accompanying article, "Finding and Using Holistic Veterinary Services". They are co-founders of WildAgain Wildlife Rehabilitation, Inc. which also conducts research and presents a variety of training programs for rehabilitators, wildlife agencies and others, including a two day seminar on homeopathic first aid considered with wildlife. The Caseys have also published and presented nationally on wildlife rehabilitation regulations. They are also members of the Board of Directors of The Colorado Wildlife Alliance, a statewide environmental group working on wildlife policy issues in Colorado.

Finding and Using Holistic Veterinary Services

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ABSTRACT

With the emerging and growing interest in holistic medicine in the USA, many wildlife rehabilitators are also increasingly interested in exploring the benefits of alternative and complementary health care for the animals in their facilities. Wildlife rehabilitators interested in acquiring such services for wildlife would greatly benefit from the expertise and assistance from a veterinarian who is knowledgeable and skilled in holistic veterinary medicine. This article will suggest several ways to seek out and work with veterinarians providing such services. It will also discuss how the subject might be raised with conventional allopathic veterinarians that are not yet working with alternative and complementary health care modalities. References and a list of holistic veterinary associations are included.

Key Words: holistic veterinary medicine; wildlife medicine; alternative veterinary medicine

Increasing Interest in Holistic Medicine

The accompanying article in this issue of the *Journal of Wildlife Rehabilitation* entitled "Beyond Conventional Allopathic Medicine: Options Considered by Wildlife Rehabilitators" discusses the growing interest in holistic medicine and a variety of modalities. Not surprisingly, a natural outgrowth of this trend is a growing interest on the part of a number of wildlife rehabilitators to explore the potential benefits these alternative approaches may yield in the rehabilitation process. In addition to pursuing self-education, many rehabilitators are seeking the services of holistic veterinarians to provide guidance and assistance in this area.

Holistic Veterinary Services

According to the American Veterinary Medical Association (AVMA), "holistic veterinary medicine is a comprehensive approach to healthcare, employing alternative and conventional diagnostic and therapeutic modalities." It incorporates acupuncture and acupressure, botanical (herbal) medicine, chiropractic, homeopathy,

physical therapy, massage and touch therapy, and flower essences (see bibliography for more information on specific modalities). The AVMA recognizes the growing consumer interest in this area and subsequent rapid change in veterinary medicine.

Just as conventional medicine and surgery involve specialized education, skills and credentials, similar education, skills and credentials are also appropriate for the practice of holistic veterinary medicine. While few conventional veterinary medical schools in the US offer training in alternative and complementary modalities, a variety of other sources provide such training in many different countries. Increasing consumer demand for these programs will likely increase the availability of specialized seminars, workshops and continuing education for veterinarians, veterinary technicians and others involved with animal health care.

Learning About Alternative Health Care

Before seeking holistic veterinary services, a wildlife rehabilitator should have some basic

understanding of the different alternative and complementary modalities. Many of these alternative approaches are significantly different from conventional medicine. It is helpful for the rehabilitator to understand what is involved in each of these specific modalities, as well as the types of conditions found in injured, diseased and orphaned wildlife where application of these modalities might be beneficial. This knowledge will also help the rehabilitator know what type of services to seek. For example, if a rehabilitator wants to administer a homeopathic treatment, he/she should find a homeopath, not an acupuncturist or massage therapist, who would offer very different services. Some of these modalities may be used on their own, while others may be used as an adjunct or complementary therapy to allopathic treatments.

In order to learn about the different modalities, the rehabilitator can turn to a wide variety of excellent introductory books on most of the common alternatives. There are numerous educational television programs, as well as the internet, that can also provide information on alternative health care. Additionally, some health food stores or community colleges may offer brief introductions. While many of these programs will be focused on the modalities' use with humans, the basic principles are the same. Conferences with specialized programs or workshops for rehabilitators will offer information more focused on wildlife. Talking with other rehabilitators about their observations can also be helpful. It is important to remember that while alternative modalities may be useful with some conditions, they are not all equally effective in all circumstances.

Locating Holistic Veterinary Services

One of the ever present challenges confronting almost every wildlife rehabilitator is finding a veterinarian who is knowledgeable, skillful, and interested in working with wildlife (and for reasonable rates). Finding holistic veterinary services is similar, but one that is made even more challenging since there are currently fewer holistic veterinarians available. While the membership of the American Holistic Veterinary Medical Association has increased by approximately one hundred new members over the past few years, total membership currently stands at around 600 (Johnson, 1997).

Referrals can provide valuable help. Holistic professionals who are focused on human health (homeopaths, acupuncturists, massage therapists, et al) may be able to suggest veterinarians

with similar interests. In addition, pet supply or health food stores may be able to provide referrals. Other rehabilitators, animal welfare groups, friends and family may also have suggestions based on their experiences. Professional associations for the various holistic veterinary medical modalities are also an effective and informative source (see "Other Sources"). Some conventional veterinarians may also be able to provide names of holistic veterinarians with whom they have worked. The internet and telephone directories are other sources of names, but tend to have much less complete data.

Gathering Background Information

After finding names of veterinarians who offer holistic services, it is helpful to gather more general information about their specialties (acupuncture, homeopathy, traditional Chinese medicine, etc.), preferences (livestock, small animals, exotics, etc.), professional associations, education, etc. This information may be available as a brochure from their office, or result from a brief discussion with their staff. Talking with others who have used their services for domesticated animals such as companion animals or livestock, or possibly even for wildlife, can be extremely helpful.

This is a very important step since it helps the rehabilitator decide if he/she wants to further pursue the contact. It should be remembered that working with wildlife requires special considerations and not everyone is a good "fit" for a variety of reasons (type of practice, availability, attitude to wildlife, lack of communication with clients, fee structure, etc.). Rehabilitators should give thoughtful consideration to who they may want to contact further.

Teaming With a Veterinarian Before a Crisis

Rehabilitators are familiar with the importance of building relationships with a veterinarian before the crisis or immediate need arises. The same holds true with a holistic veterinarian. It can be helpful to start the connection by arranging for an appointment away from the hustle and bustle of the veterinarian's office appointments and the rehabilitator's also demanding schedule, such as a breakfast or lunch meeting.

Since not every veterinarian is familiar with wildlife rehabilitation it is helpful to provide some general information on the subject (i.e., native wildlife is not private property, releasing healthy animals back to the wild is the objective,

relevant regulations) as well as information on the rehabilitator's activities (i.e., types of trauma and conditions, species rehabilitated, seasonal trends) and operational considerations (i.e., non-profit status, budget levels, training or expertise). It is also useful to talk about some of the philosophies regarding wildlife, such as not rescuing what does not need to be rescued, keeping wildlife wild, minimizing stress and handling, and euthanasia.

This conversation can be considered general outreach. It also can help both the rehabilitator and the veterinarian consider possible future connections. For example, the veterinarian may not be interested in treating wildlife, but will direct his or her staff to refer wildlife calls to the rehabilitator. Perhaps he or she may be willing to make resource materials available, or share announcements on educational events and training opportunities. Or he or she may request to see the rehabilitator's facility and learn more before making a commitment to provide their services. Another may be glad just to know that the rehabilitator and other veterinarians are helping wildlife, but are not interested themselves or available at that time. These are all useful data points.

Should the veterinarian express an interest in providing medical care to wildlife, the discussion can then expand to the types of services he or she can provide. The discussion should cover the types of wildlife he or she would be willing or able to treat (i.e., smaller versus large, mammals versus birds, non-surgical versus surgical traumas), plus the need for separation of wildlife from domestic animals at their facility. It is also useful to discuss the veterinarian's possible level of involvement (i.e., phone consultation an hour a week; seeing wildlife patients a couple of hours a month; diagnosing problems then training the rehabilitator to administer the treatment).

The discussion should also address the "team" oriented nature of the relationship, since the rehabilitator will be providing most of the direct care for the wildlife at their rehabilitation facility (as opposed to the animal staying at the veterinary hospital for the full rehabilitation). This may include some learning for the rehabilitator in order to administer different types of treatment (e.g., laser acupuncture; physical therapy). The rehabilitator needs to be able to describe his/her own level of knowledge and skill so the veterinarian can assess what level of treatment the rehabilitator can handle on their own away from the veterinary clinic.

The cost of veterinary services, treatment and medications should also be discussed in a frank and open manner. The veterinarian needs to be aware that most rehabilitators can rarely pay

full costs for veterinary care. As such, possible rate adjustments or deferred payment schedules should be discussed at this time. While rehabilitators would greatly appreciate pro-bono services, they might not be available. It is also important to discuss general protocols, such as how and when appointments should be scheduled.

Offering Resources

After clarifying the relationship and future contacts, the rehabilitator can provide the veterinarian with general resources and printed materials that describe various aspects of the wildlife rehabilitation process (rehabilitation manuals, tips on handling wildlife, wildlife identification guides, state and local regulations and ordinances, etc.). In some cases, it may also be helpful to offer the veterinarian some small cages that can be designated specifically for wildlife and can be easily isolated from the sights, smells and sounds of cages for domestic animals also kept in the veterinary clinic.

Starting Slowly

It is helpful to limit the number of initial cases on which the veterinarian is consulted in order to gradually expand the relationship and experience base. It is important to not overwhelm the veterinarian with numbers or cases demanding extensive time, thus potentially "burning out" a valuable resource.

Veterinarians providing holistic services consider many details about the animal that might not be required by conventional veterinarians, such as the animal's preference for hot or cold, general attitude, specific fears, time of day when conditions are most beneficial. Thus it is necessary for the rehabilitator to provide the veterinarian with extensive observations and documentation on the animal. The rehabilitator's experience and assistance with restraining wildlife during the examination or treatment may be helpful since it reduces the veterinary staff's need to be exposed to the risk of handling wildlife. Minimizing the wild animal's time at the veterinary clinic is also important to reduce stress on the animal and the risk to the clinic staff.

It is very important to show appreciation for the veterinarian's services. In addition to "thank-yous", articles mentioning him/her in local media, plaques, and other types of public recognition are beneficial. Referrals to paying clients are also valuable in furthering your relationship.

If a Holistic Veterinarian is Not Readily Available

In some areas, local holistic veterinary services are not currently available. Yet rehabilitators may still be interested in considering such modalities for wildlife. There are at least two ways that a rehabilitator can still pursue veterinary assistance for holistic medical care.

First, in some cases, it may be appropriate for the rehabilitator to seek telephone consultation with a holistic veterinarian in another area. Certain modalities, such as herbal medicine and homeopathic remedies, can be handled over the telephone by skilled veterinary practitioners. The observation and communication skills of the rehabilitator become critical to the success of this approach. The veterinarian's rates should also be discussed before discussing the specifics of the case and incurring charges.

Secondly, there may be local veterinarians with conventional allopathic veterinary practices that might be interested in learning more about alternative modalities. This may or may not be the veterinarian the rehabilitator works with most often. Success with this approach depends on the initiative of the rehabilitator in approaching a conventional veterinarian in an informed and tactful fashion.

It may be useful to start such a discussion with one's own primary wildlife veterinarian. Clearly the discussion should focus on the fact that the rehabilitator is considering expanding the set of options available for treating wildlife, and not in any manner attacking or discounting the conventional services of the veterinarian. It may be helpful to provide some general background information as to the reasons the rehabilitator is considering alternative and complementary veterinary medical practices. The American Holistic Veterinary Association can also provide a short description of alternative different modalities. The AVMA's Guidelines for Alternative and Complementary Veterinary Medicine may be useful as well.

If the conventional veterinarian appears open and interested, it would benefit the discussion to share with the veterinarian some of the materials the rehabilitator has been studying. Technical resources with a scientific orientation initially may be better received by the veterinarian, such as *The Science of Homeopathy* or *Healing With Homeopathy*. Various educational programs for rehabilitators or veterinary staffs on these topics could also be discussed. Providing the veterinarian with information on professional veterinary organizations may also be helpful. In some

cases, the rehabilitator may even want to provide some of the resources (books, training, etc.) to the veterinarian as a gift.

After developing a basic understanding, the veterinarian might be willing to support the use of one of the alternative modalities with wildlife. First steps in the initial cases could be treating some condition that is extremely minor (e.g., "even if this treatment does not accelerate or treat the condition, the animal should recover just fine anyway"). Or, in a case when conventional medicine is not expected to resolve the problem (e.g., "there is not anything else conventional medicine can do for this animal, so before deciding to euthanize, let's give it a try"). Sharing information on results after treatment is also important.

It should also be mentioned that some conventional veterinarians may oppose some or all alternative modalities altogether, and possibly not want to work with rehabilitators who use holistic practices. In such situations, where this veterinarian has been the primary resource for rehabilitation assistance, the rehabilitator must weigh the possible consequences of whether to use alternative health care or the help of holistic veterinarians. It is important to factor into the decision any potential undesirable outcomes before taking action.

Conclusion

As interest and research continues to grow in the potential benefits of holistic medicine, it seems inevitable that consumer demand for such products and services will see commensurate growth. Though many of these modalities are described as more "natural" cures and ways of healing, they still require in-depth knowledge, skill and training to be used properly. If used improperly, these treatments can be ineffective, or in some cases even harmful. Therefore it is critical that a rehabilitator who is considering expanding the range of medical treatments available to wildlife rehabilitation seek out professional veterinary assistance in these various alternative and complementary modalities.

It also seems inevitable that with the growing membership in the holistic veterinary community, it is only a matter of time before many of these modalities find their way into the full range of expected and accepted options of medical care used in mainstream wildlife rehabilitation. The purpose of this article has been to provide some suggestions and guidance to those rehabilitators who desire to accelerate that process.

Author Profiles

Janice Facinelli, DVM, owns and operates Holistic Care for Animals, a veterinary clinic in Denver, Colorado. Dr. Facinelli received her veterinary degree from Colorado State University in 1972. She practiced conventional veterinary medicine for many years before becoming interested in various holistic veterinary practices. She received her accreditation by the International Veterinary Acupuncture Society in 1988, her certification from the Academy of Veterinary Homeopathy in 1991, and her certificate from the Academy of Classical Homeopathy (2 yr. program) in 1996.

Shirley and Allan Casey are licensed wildlife rehabilitators in Evergreen, Colorado and specialize in squirrels. The Caseys have had assistance from both allopathic and holistic veterinarians since 1993. They are co-authors on the article, "Beyond Conventional Allopathic Medicine: Options Considered By Wildlife Rehabilitators." They are co-founders of WildAgain Wildlife Rehabilitation, Inc. which conducts research on wildlife related topics and offers a variety of training programs for rehabilitators, wildlife agencies and others, including a two day seminar on considering homeopathy for wildlife. The Caseys have also published and presented nationally on wildlife rehabilitation regulations. They are also members of the Board of Directors of The Colorado Wildlife Alliance, a statewide environmental group working on wildlife issues in Colorado.

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Other Sources of Information on Alternative Veterinary Medicine

Academy of Veterinary Homeopathy, 751 N.E. 168th St., N. Miami, FL 33162; 305-652-1590; fax 305-653-7244. Send SASE and \$2 for brochure and list of specialists.

<Altvetmed.com> is an internet site with short articles on various types of alternative veterinary care as well as internet links to a wide range of related sites, including many professional veterinary associations. The AVMA Guidelines for Alternative Medicine can also be accessed from this site.

American Holistic Veterinary Medical Association, 2214 Old Edmund Rd., Bel Air, MD 21015; 410-569-0795; fax 410/659-2346. Send SASE for brochure and list of specialists.

American Veterinary Chiropractic Association, 623 Main St., Hillside, IL 61257; 309/658-2920. Send SASE for brochure and list of practitioners.

International Association for Veterinary Homeopathy, 334 Knollwood Ln., Woodstock, GA 30188; 770/516-7622. Send SASE for brochure and list of members in various countries. Send SASE for brochure and list of practitioners.

International Association of Holistic Health Practitioners, 5020 Spring Mountain Rd., Las Vegas, NV 89121; 702/873-4542. Send SASE for brochure and list of practitioners.

International Veterinary Acupuncture Society, P.O.Box 1478, Longmont, CO 80502. 303/682-1167. Send SASE for brochure and list of acupuncturists.

President's Message Continued from page 2

ated fields. These responses will seek to demonstrate different views and possible actions. None of the responses is meant to be "the" one answer, but rather to stretch our thinking. This type of case format has been used very effectively in other respected periodicals, such as the *Harvard Business Review*. We decided to give it a try, since we believe there are many issues that the rehab community is constantly grappling with that would benefit from this discussion format. Thus far we are considering the section a "pilot" project, and we encourage your comments.

Another example of stretching our thinking is a new series on Holistic Health Care for Wildlife. This has become a popular topic in the media and among health care consumers and professionals. It is also one of the most requested topics we have had in the recent past. Our hope is that it will answer many questions that rehabilitators may have about holistic health care, while offering alternative or complementary solutions to wildlife health needs.

As you see, we are trying to tap into issues of importance to you while challenging ourselves along the way. Your comments are important to us, perhaps now more than ever. We look forward to your input and assistance.

-Marge Gibson-

Executive Director's Message

In 1997, the IWRC celebrated its 25th Anniversary as an organization. That in itself is quite an accomplishment. In the 10 years that I have personally been involved with the International Wildlife Rehabilitation Council, I have seen many positive changes taking place within the organization as well as the wildlife rehab community. I join with our President in recognizing a new vigor and commitment.

We all look forward to the next century and millennium with anticipation and excitement and as a time for growth and expansion. We invite all of you, our members and contributors, to join us in this grand venture.

-Mary Reynolds-

Note: The *Journal of Wildlife Rehabilitation* is considering future articles on alternative health care approaches being used in wildlife rehabilitation. Such articles will explore the foundations of various complementary modalities, types of conditions for which they are considered, limitations, and case studies with wildlife. Author guidelines are featured inside the front cover of this publication. Articles should be submitted to: Journal Editor, IWRC, 4437 Central Place, B-4, Suisun City, CA 94585-1633, USA.

In Memoriam: Lynne Frink 1946-1998

Lynne Slepetz Frink, 51, founder and President of Tri-State Bird Rescue & Research, Inc., died after a five-month battle with cancer on Wednesday, January 28, 1998 at her home in Wilmington, Delaware.

For more than a quarter of a century, Frink served as a catalyst for change in the way people perceive and act toward the environment and wildlife. She founded Tri-State Bird Rescue & Research, Inc., with the mission to study and promote healthy populations of native wildlife through the Wildlife Clinic, oil spill response and training, as well as research & education of colleagues and the public. Under Frink's guidance, Tri-state has gained an international reputation for leadership in oil spill management and training.

Her leadership, scholarship and service to her life's cause have earned her world-wide recognition and helped to establish treatment protocols and focus international, national and local attention on the effects of man-made crises on wildlife.

Lynne has received numerous awards and commendations throughout her lifetime for her work in wildlife rehabilitation as well as her environmental service.

Perhaps her dedication and commitment can best be summed up in her own words, "I don't think I ever thought of the natural world in terms of a vocation; it was simply a necessary part of my life, like the air I breathe." (Audubon Journal, DE AudSoc, June, 1985).

She is survived by her beloved husband of 29 years, John Allen Frink, along with Tri-State staff and volunteers, and tens of thousands of birds whose lives her guidance, compassion and training have allowed us to save.

-Press Release, Tri-State Bird Rescue & Research, 1/29/98-

Lynne will be greatly missed by the wildlife rehabilitation community and by the many that she helped and served throughout her lifetime. Thank you Lynne!

-International Wildlife Rehabilitation Council-

Simple Things That Make a Difference

A "Cure" for "Gagging" in Baby Raccoons

Raine Carson

Highlands Wildlife Rehabilitation Center, Inc.

9 Adams Street

Milford, NH 03055, USA

603-673-9065

In our center, baby raccoons under two weeks of age are fed formula with a 3cc syringe, with a Pet Nurser™ nipple pushed over the Luer-Lock™ tip. These nipples are available from UPSCO (800-254-8726). As soon as the raccoons' mouths are large enough, we switch to a baby bottle used for human babies, with 'preemie' nipples. It is at this stage that we begin to run into problems.

The baby raccoons may start to gag during feeding. Sometimes the individual animal will suckle well on a human use baby bottle nipple, but the majority do not seem able to suckle even though the mouth is large enough, and the nipple soft.

This gagging condition manifests itself by the baby opening its mouth as wide as possible, and though the animal appears to swallow normally during this process when the formula is dribbled into the mouth, it does not and cannot suckle. The cause of this condition remains a mystery.

In attempting to alleviate the problem, we have tried massaging the jaw, rubbing the back, offering different types of nipples, and changing the feeding position. None of these efforts have seemed to help, and they greatly increase the time it normally takes to bottle feed.

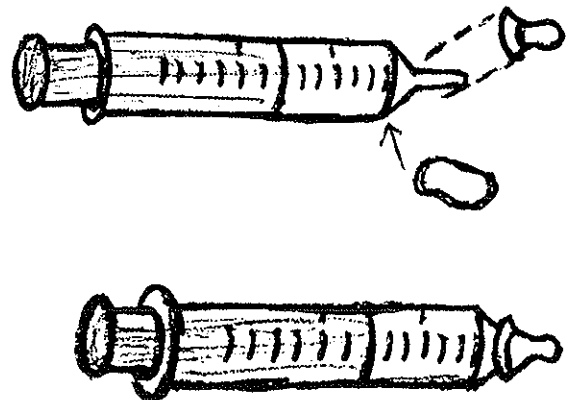
In utter frustration, one day when the raccoons were about 6 weeks of age, I hit upon the idea of returning to a syringe with a Pet Nurser™ nipple. In place of the 3cc syringe, I used a 60cc catheter-tipped (cone-shaped) syringe. I attached the Pet Nurser™ nipple to it by winding a small diameter and narrow rubber band over the nipple and syringe tip. The rubber band fits right into the groove in the nipple where it normally fits into the feeding bottle. Wind the rubber band around the groove several times and then around the exposed portion of the cone tip of the syringe. This will assure that the nipple is securely fixed to the

syringe so that the baby raccoon will not be able to pull the nipple off.

The first time I offered formula to 6 week old raccoons by this method, they looked at it as if to say, "Does she expect me to take my formula from this?" I just stuck the nipple into the mouth, slowly depressed the plunger, and was back in business.

The gagging all but ceased and the wild enthusiasm at feeding times returned. It was obvious that the animals preferred this method, and so did we. Feeding times were almost halved. This method was then maintained until the animal was totally weaned.

For convenience, the formula should be heated in the human baby bottles first and then poured into a wide-mouth container that will accept the large size syringe. Before beginning to bottle feed each raccoon, fill the necessary number of syringes to complete the individual feeding.



Syringe Nursing Assembly

Drawing by Christian D. Reynolds

****NEW FEATURE****

UP FOR DISCUSSION

Wildlife rehabilitators discuss many topics in addition to those involved with the direct care and handling of wildlife, including professionalism, standards, ethics, wildlife policy, community involvement, and much more. The following case studies present hypothetical cases with fictitious names. If these fictional cases look familiar, it is because they were created based upon a composite of actual situations. They are not intended to represent any specific circumstance or person.

The objective of the case and published responses is to generate open dialogue among rehabilitators and others involved in the wildlife rehabilitation field, on topics that could benefit from a broader and more public discussion. There is no single perspective or solution to these cases. Rather, the topics are "up for discussion." Some of the cases will also be discussed at upcoming IWRC conferences.

Each case is followed with several questions and responses from people involved in wildlife rehabilitation. Since the Journal is piloting "Up For Discussion" as a new feature, people from a variety of areas and different types of experience were asked to respond to these first cases. They were encouraged to be open and stimulating in their responses. Respondents were given the option to respond with or without using their names, but listing experience, position and general geographic region.

Due to space limitations, we will not be able to use all responses that are received, nor in all cases, the complete response from each contributor. We will make every attempt to include as many returns as we can, but even if your information is not used, we sincerely appreciate your participation in this project.

NOTE: The International Wildlife Rehabilitation Council (IWRC) makes no claims as to the accuracy or truth of the information contained in the following "Up for Discussion" cases, nor does it endorse any particular answer or response. They are fictional representations and all responses are printed exactly as they are received from respondents, with the exception of being edited for spelling errors and to fit available space. Any resemblance to actual current or past situations, or persons, living or dead, are purely coincidental.

Up for Discussion: Case I - "Hart to Hart"

John and MaryAnn Hart found themselves in the community spotlight again recently as various community groups and individuals helped them celebrate the "christening" of their new rehabilitation facility for mid-size mammals. The festive open house, showcasing their new enclosures, was a real tribute to the various groups and individuals who had helped with the fundraising campaign over the last three years, raising over \$55,000 to fund the design and construction of the cages on their 70 acre farm. The community, having bestowed various honors and awards upon them for their wildlife activities, was excited about the expanded facility. These enclosures were "world class" in design, featuring 6 quad and 8 duplex cages with double-entry systems, and the ability to incorporate many natural habitat rock outcroppings as well as vegetation.

So why now, before the enclosures have housed even their first raccoons, skunks and foxes, do John and MaryAnn have this sinking feeling in the pit of their stomachs that they may have to dismantle the entire enclosure complex?

About the same time as the enclosure construction was completed, John had received a

call from a rehabilitator who lived in another part of the state, who the Harts had worked with closely over the last eight years. He told John that he had heard, through the grapevine, that the Department of Natural Resources (DNR) was finalizing revisions to the wildlife rehabilitation regulations. The process was well underway, with the DNR having gathered input and suggestions for changes and revisions from two DNR employees, who also happened to be licensed rehabilitators.

The Harts were somewhat surprised at this, as they seemed to have enjoyed a good relationship with the DNR since being licensed years ago. Not that the two DNR employees were not knowledgeable, but they only rehabilitated raptors and waterfowl.

So the next day John called Tom Jenkins, their local DNR wildlife officer, who provided several reasons why a more comprehensive process was not being pursued to gather input from other rehabilitators across the state. It turns out the Assistant Regulations Manager who had been assigned this task, was already over-burdened with a major revision involving big game hunting regulations, and felt that input from the two DNR

rehabilitators was sufficient; and quite candidly, felt this was really not an area on his radar screen of things to be overly concerned about. But, Tom offered, John could contact the Secretary of State's office and request a copy of the draft regulations, and provide written comments to the DNR. John dialed the number immediately.

As John and MaryAnn later read through the package of draft regulations, their worst fears were realized. The sections on application procedures, caging requirements, release requirements, continuing education and annual reporting were basically workable. They knew they disagreed though, with granting a veterinarian or DNR employees an automatic license, as well as the stipulation that no animal could be kept longer than 45 days. But it was the last section, requested by the State Department of Health (DOH), that dealt with restrictions on rabies vector species, that was so troubling. If accepted into regulation, this section would essentially shut down rehab of most, if not all carnivores. This was very confusing, since the Harts knew that the annual survey of rabies incidence compiled by the Center for Disease Control had failed to show any terrestrial rabies in their state for the last 18 years.

What the Harts did not know was that the new director of the DOH had just moved to their state from the East Coast, and personally objected to the rehabilitation of all rabies vector species, feeling the risk was too great to public health and safety. The DNR, apparently, was prepared to accept all DOH suggestions and requirements.

John and MaryAnn sat on their back porch, apprehensively pondering what to do next. Call their state senator? Hire an attorney? Call in the media? Would these actions risk revocation of their license? Or should they just take a sledgehammer to the wonderful enclosures the community had helped them acquire? Suddenly, their thoughts and ideas were interrupted by the phone...a family of 4 orphaned juvenile raccoons had just been found.

Questions Posed

- How much input should a wildlife agency seek and consider from wildlife rehabilitators when revising wildlife rehabilitation regulations?
- How much should input from one state agency, such as the Department of Health, influence the regulations developed by another state agency, such as the wildlife agency?
- How can rehabilitators best address a wildlife agency or Department of Health's concerns about public health and safety issues?
- If the state puts severe limitations on what species can be rehabilitated, what happens to the wildlife?
- What can the Harts and other rehabilitators do about this situation?

UP FOR DISCUSSION: *Responses - Case 1*

Respondent #1: Anonymous. Wildlife Rehabilitator, 8 years, Western Region, USA, Birds, Mammals, Herps

This case brings up 2 major frustrations I have had since I've entered the field.

The first is that power no longer comes from knowledge; it comes from money. Government agencies would never think of changing regulations or major policy without input from the large lobby groups or stakeholder groups that generate significant income for that agency/state (i.e. hunter/anglers, ranchers, etc.), if those changes in any way impacted those groups. However, wildlife rehabilitators as a group are often completely overlooked when it comes to input on changes that can often not only impact but threaten to destroy their ability to continue their life-long work.

And, the largest constituency of the natural resource wildlife departments that have neither money nor voice - the wildlife themselves are usually only considered in terms of their direct economic impact to the state (manage populations that bring in revenue, kill the varmints).

The second frustration is the lack of knowledge regarding the field of wildlife rehabilitation. Most of the government agencies have no idea what we do. They have no idea how much knowledge, experience, training and commitment is needed to have success in the field. This is evidenced in this case by how lightly the licensing process is taken when they automatically license anyone.

The agencies evidently don't understand the public impact either. Where do they think we get our animals? Our animals are brought to us by concerned members of the public. Thousands of animals are brought to rehabilitators in each state each year. There is at least a fairly large portion of the public that want to see these animals cared for. To that end, we could be a valuable resource to several agencies, including the health departments. If rehabilitators are not allowed to care for rabies vector species, those same members of the public will take on the task themselves. Imagine the health impacts that could arise. Rehabilitators keep informed about epizootics and zoonotics. We learn the precautions and responsibilities. We do our homework. And yet it feels like a constant battle to have our voice heard.

Sometimes I wonder if it would be better to take a sledgehammer to the place. Sometimes it seems a whole lot easier to give up the fight. But what will happen to the wildlife if we all give up?

Respondent #2: Nancy Carey, Pine Haven Refuge, Underhill, Vermont, USA

Since Wildlife Agencies restrict and govern certain aspects of individual's lives and practices they need to consider as many differing points of view as possible along with repercussions caused by those regulations. That can be accomplished by written survey or inviting rehabilitators of varying philosophies to informational meetings.

Updated exchanges of vital information should be an ongoing process, however regulation interaction from one agency to another needs to be restricted to that which concerns the outside agency (i.e., Health Department = human health issues).

Practice good health and safety yourself first so you will have positive experience to share. Share that information in a non-confrontational way rather than self-righteously. Often we want to tell everyone how much we know rather than including the agency by asking if they can offer improvements on a procedure we are already doing. Example = tell the agency, "I always recall a rescuer the next day to confirm non-exposure with a RVS. Are there any other things I could do that might be helpful?" Ask their opinion whenever appropriate. It builds respect and communication.

Many wild animals will be indiscriminately killed causing the public to see a poor value standard expressed by the same agency called to care and protect those resources. Humans already have their own prejudices for one reason or another. Respect and conservation should be encouraged, instead of destruction. Killing is the last resort and should always include an explanation.

Get involved and remember we are a select few. Not everyone is permitted to do what we do. Because of our knowledge and experience we are allowed to care for wildlife. Respect that position and be professional.

If we are not working within the agencies someone else is calling our shots.

Respondent #3: Yvonne Wallace Blane, wildlife rehabilitator since 1985, SE Wisconsin, USA

I have learned over time and experience, that it is pointless to question outside forces in regard to events which have an effect on me. In the Harts' case, they made a single, but fateful error. They did not do their research prior to building their facility. To paraphrase an old adage, "ignorance is no excuse". While I would certainly feel for the Harts' disappointment and anger in this situation, and would want to try to help them put their caging into use, the initial issue remains the same. We must educate ourselves before making deci-

sions that hinge upon our knowledge being complete and correct, or risk the disappointment and loss that follow any type of bad judgment.

Assuming the Harts recognize their role in this situation, and decide to call in media reinforcement, they must be very careful to present both sides of the situation without becoming angry or blaming the agencies or agency individuals for the situation. In fact, they should go out of their way to find common ground, and have answers ready for the questions and concerns of the various agencies. An initial media blitz might bring strong support, perhaps thousands of dollars in donations, but it passes more quickly than it comes, and when it is over it will be only the Harts and their wildlife manager at the table. If this partnership is damaged in a media campaign, they won't have to worry about the future of their facility.

When wildlife rehabilitators receive a license, it is like signing a contract with a bank or a landlord, or anyone else that has something we want, but don't have. Rehabilitators accept certain conditions in order to maintain certain privileges. To renege on those conditions in public, especially through the media, and act discourteously toward the other party, is akin to a child stamping its foot at an adult. Is it any wonder that rehabilitators must fight to be treated like professional equals of state agency staff, when there are those of us who act like children when we deal with them?

The question of prohibiting rehabilitation of high risk species is really quite simple. Who rehabilitated raccoons before there were rehabilitators? Who rehabilitates skunks in those states where rehabilitators are denied possession? The public. Rehabilitators, in their "contract" with the licensing agency, acknowledge the risk to themselves, and in some cases, accept liability for the risk posed to others through their work. The public has no such contract and can and will sue should someone die from rabies because they cared for a raccoon, skunk or fox in the absence of a state agency allowing a licensed rehabilitator to take that animal into his or her care.

Wild creatures are held in trust for the public by local, state, and federal governments, implying that those government agencies are responsible for the creatures' well-being, as well as for their actions.

Respondent #4: Patrick P. Martin, NY State Dept. of Env. Conserv., Supervisor of the Special Licenses Unit, Wildlife Biologist for 13 years, New York, USA

The case of John and MaryAnn Hart occurs more frequently than is necessary in our

participatory democratic government. Briefly, this case highlights a situation where members of a regulated community were not active participants in the process to develop the regulations that govern their regulated activities. In this case, both the DNR and John & MaryAnn Hart have failed to do what is necessary and appropriate to develop an effective working relationship that would lead to a 'better' regulation. Each party bears some responsibility for this situation.

Role of the DNR: The DNR is the state agency with the responsibility of administering the laws of the state that are regulated to natural resources. These laws are promulgated by legislators elected by the public. The regulations are state agency actions designed to implement those laws. Regulations carry the weight of law. In each state there are established procedures for not only promulgating a law, but also for promulgating a regulation drafted by a state agency. These procedures provide for 'public participation' at many levels. In this case, it is the responsibility of the DNR to have an effective working relationship with the wildlife rehabilitators, the regulated community. Since it is unreasonable and ineffective for the DNR to work with each wildlife rehabilitator on a one-to-one basis, the DNR will most likely turn to an organization that represents the interests and concerns of the majority of wildlife rehabilitators. There may be more than one such organization in the state. However, the DNR will work with those organizations that have established some type of working relationship with the agency. It is incumbent on the DNR to determine that whoever they are listening to in the wildlife community (regulated community) is truly representing the wishes and desires of the majority of that community. This is not always self-evident or easy to do.

The DNR also must address the issues and concerns of other state agencies, other groups and other individuals who may have interests in the proposed regulation that may be significantly different from those of the wildlife rehabilitation community. These 'interests' may include different legal mandates, such as the charge of ensuring public safety held by the Dept. of Health, or a group may have an interest in the perceived effect of the regulation on wildlife.

In addition, the DNR must be able to allocate the staff and money to solicit the concerns of all interested parties and to determine how those concerns affect the agencies responsibilities for the wildlife resources of the state. This process will entail give and take on all sides to reach a mutually satisfactory solution. Ideally, this work should be done **before** an agency prepares a first

draft of the proposed regulation. The DNR will prepare a first draft of the regulation that is then sent to the key representatives of the interested parties for additional comments. It is during this review process that all of the sides can come together on most of the issues. This process should continue until an acceptable draft is submitted for 'official' public comment. Comments received during the official public comment period must be addressed by the DNR before the regulation becomes final.

Role of the Harts: It is obvious that the Harts spent an enormous amount of time and energy soliciting money, gathering materials and building cages. They have created the physical facilities to rehabilitate wildlife. **This is not enough.** The Harts failed to address a key component of the rehabilitation business, the regulations that govern that business. They did not establish or maintain an **effective** working relationship with the DNR. The DNR is the agency that regulates wildlife rehabilitation activities in the state and all wildlife rehabilitators have a direct interest in this agency's actions. After reviewing the proposed regulation, the Harts know that 1) the granting of automatic licenses to veterinarians and DNR employees will negatively affect the professional standing of the wildlife rehabilitation community and possibly compromise the care of some animals; 2) the stipulation that animals cannot be kept longer than 45 days will compromise the quality of care that a wildlife rehabilitator could provide; and 3) the restrictions on rabies vector species would effectively prevent the rehabilitation of most carnivores. By any measure, the proposed regulation represents a significant and unreasonable hardship to the wildlife rehabilitation community and the Harts' ability to provide quality rehabilitative care. How did this happen without the Harts' knowledge?

The Harts have a right, as residents of the state and as members of the regulated community, to be involved in the decision making process that affects wildlife rehabilitators. The Harts are responsible for making their voice heard by the DNR. They can do this by trying to maintain liaison, on a personal basis, with the DNR. However, this appears to have failed. Or, the Harts could belong to and support an active state organization of wildlife rehabilitators. This state organization would be the voice of the wildlife rehabilitator and the voice of the profession. The organization would establish and maintain an effective working relationship with the DNR and, quite reasonably, with the Dept. of Health too. The organization, composed of licensed wildlife rehabilitators, would be keenly aware of the issues and concerns

of the practicing wildlife rehabilitator and they would establish a presence on the DNR 'radar screen'. However, the Harts must do more than buy a membership in such an organization. They must participate in the organization's administration and activities. They must take an active role in the regulation of their profession by supporting a wildlife rehabilitation organization that works effectively with the DNR or they must live with what is imposed upon them.

What can the Harts do now? First, do not break any laws in an attempt to handle the four orphaned juvenile raccoons. Call the DNR for explicit directions concerning these animals. Second, I would normally recommend calling the state wildlife rehabilitation organization for support, but, as witnessed by the language of the proposed regulation, there does not appear to be any effective wildlife rehabilitation organization that has a working relationship with the DNR.

Therefore, the Harts should call a number of wildlife rehabilitators and inform them of the issue, send them a copy of the proposed regulation and ask them to attend a meeting, at their home, to prepare a list of concerns and issues related to the regulation. The Harts should then draft a clear position paper on the issues and then call Tom Jenkins at the DNR and ask for a meeting with the Assistant Regulations Manager to discuss the proposed regulation. The Harts should also invite a select few wildlife rehabilitators who are articulate and not confrontational to attend the meeting. Also, the Harts should ask the Assistant Regulations Manager to invite staff from the Dept. of Health and the two DNR rehabilitators to the meeting. The point of this meeting is to invite key people in the DNR, the Health Dept. and the wildlife rehabilitation community to discuss possible changes to the proposed regulation. The DNR staff needs to be made aware that they have a constituency group with valid concerns, that the group has identified their concerns and has prepared recommendations to address the concerns and that the group has come prepared to help them make a 'better' regulation. Hopefully, this meeting will result in compromises and changes that all parties can live with.

I cannot stress enough that the building of an effective working relationship between the DNR and the wildlife rehabilitation community is represented by one or more professional organizations. However, the truth of the matter is that few states have a large enough population of licensed wildlife rehabilitators to field more than one effective statewide wildlife rehabilitation organization. Therefore, it is in the best interest of all wildlife rehabilitators in a state to create a state-

wide organization that is designed to represent the majority of wildlife rehabilitators' interests in a broad public forum.

NOTE: The case study ends by suggesting possible courses of actions, such as "Call their state senator or hire an attorney or call in the media." These actions may lead to the successful resolution of this issue or they may fail, but they suggest a confrontational approach to working with the DNR that will compromise the ability of the rehabilitation community to create an effective working relationship over time.

Respondent #5: Allan M. Casey, Colorado, USA WL Rehab License holder, 11 years experience, small mammals, Rocky Mtn. Region

Just as wildlife agencies involve their other more traditional constituencies, namely the hunting and angling communities, when establishing hunting & fishing regulations, so should they also consider the wildlife rehabilitation community when changing or revising a state's wildlife rehabilitation regulations. This is especially important, in my opinion, since wildlife rehab is generally far outside the scope of a typical wildlife agency's primary focus on sporting and recreation. This involvement should help insure that the full range of wildlife rehab activities and issues are considered, and that the resultant regulations are workable and understood by both the agency and the general wildlife rehab community.

Clearly where there is an overlap of responsibility and authority between various state agencies, it would seem to make sense that the agencies collaborate to insure that conflicting regulations do not exist, and that the regulations that are adopted serve to meet the interests of all agencies, legislative mandates and the interests of the public. At a minimum, there should at least be discussion and dialogue. Clearly in the case given, the wildlife agency has the final responsibility creating the wildlife rehab regulations, and the responsibility to gather and consider input from other agencies. In doing so, it must balance, at times, conflicting interests and demands. In the end, the agency should feel the responsibility to insure that the final regulations are the best fit to meet the needs of constituent groups, other state agencies, and the general public.

It is understandable that someone (in the case given, the new DOH Director) moving from the Eastern US would naturally have strong feelings about rabies. It also appears that in this case that the Director's personal concern is clouding his judgment on this specific issue, given the fact that this state appears virtually free of terrestrial rabies. As to what the rehabilitators could do, they

could first make sure that the current CDC rabies surveillance data gets a wide distribution so that everyone is aware that the rabies risk in this state seems very low. Secondly, they should work with the wildlife agency to incorporate safe handling protocols into the regulations for rabies vector species (RVS). This could include such precautions as pre-exposure rabies vaccinations, close observational requirements and release restrictions. Thirdly, the results of prior studies should be made available to predict the behavior of those in the public that rescue the animals that come into rehab. One such study done at Cornell University in the early 1990's, coupled with more recent observations in Connecticut, suggest that if precluded from getting an animal to a rehabilitator, most rescuers will attempt rehab on their own. Clearly, if rabies was truly a threat, this would create the worst possible case scenario, with an untrained person potentially exposing themselves and family and friends to the virus and perhaps unknowingly transporting an infected animal into a clean area.

As cited above, either with RVS or other species that may be prohibited from rehabilitation for some reason, studies have suggested and observations have shown many people will attempt to rehabilitate the animal themselves. This generally results in such outcomes as poor development or often death of the animal, imprinting, or bites and scratches that may cause zoonotic disease transmission. Strong emotions of compassion for an animal's pain and suffering were shown to be one of the primary motivators for people to rescue wildlife, as concluded in the Cornell study. Such strong feelings may likely cause people to act in ways they consider to be in the best interests of the animal, regardless of what a regulation or law may prohibit. Alternatively, given no place to take them, some animals will just be left alone to die.

Most states must follow an Administrative Procedures Act (APA) that governs how regulations are established. In most cases, this involves some form of public involvement or at least input through providing written comments, or even oral testimony. At a minimum, the Harts should involve themselves to the extent the agency and the APA allows. This would be the best place to try to resolve this problem. Failing here, it seems the Harts enjoy strong and widespread community support for their rehab activities. They could mobilize this support to help influence the agency and/or the legislature. Influential state representatives and senators, especially those who sit on key legislative committees such as budget or agency oversight, can often open doors and prompt reconsideration of otherwise closed issues (espe-

cially in this case where a very strong {DOH} position seems unfounded and unwarranted). Involving the media could be another alternative, and could prompt the agency to reconsider, not wanting to be cast as not caring for the state's wildlife in need. Legal action might be a last resort, but would require some legal foundation, and would most likely be expensive.

Probably the best approach to the issues described in this case is anticipation and prevention. This is probably best accomplished through self education on how the state agencies work. What causes regulations to be changed or revised? How do they craft new regulations? How are constituent groups involved? What are the steps required in the APA? Who are the influential players? What is the state of the relationship between the agency and the legislature? Get to know the system, timing, and be ready to commit the time required to be part of the process. Also in addition to knowing the local wildlife officer, another approach is to develop a relationship with state agency headquarters staff, or those people who actually develop the regulations. Previously established professional and credible relationships here could likely result in invitations to help with regulatory revisions.

UP FOR DISCUSSION: *Case II - "Farley's Fawn"*

Even after 12 years, sharing an animal's final moments never gets any easier, watching as the struggle to overcome disease or injury finally succumbs to a peaceful withdrawal. Sitting next to the fawn that had just passed, Jane, a licensed wildlife rehabilitator, felt the usual mixed emotions of sorrow and relief. But this time, the strongest emotion she felt was anger.

The day before, Jane had received a phone call about this fawn from Mrs. Farley, the other rehabilitator that lived just outside of town. Mrs. Farley, widowed now for 17 years, had been taking in animals for well over 20 years, and was well known and liked in the small community for her compassion towards the wild critters. The local newspaper and civic groups regularly praised and recognized her hard work.

To have met Mrs. Farley, one quickly realized that trying to help wildlife was her primary reason for living. The family farm house where she lived was in some disrepair, but the wildlife enclosures she had in the back were immaculate, in both design and cleanliness. Building the cages and the regular cleaning and maintenance had become standard projects for the local, young, ambitious Eagle Scouts. Her preference was to

work with small birds, but she would take in almost any animal, just to have the experience of working with different species. Her rate of release back to the wild for mammals was less than 10%, and her success rate with the birds had recently only averaged about 20%.

Jane had met Mrs. Farley a year and a half ago when she moved to this community. Jane, who had developed her skills apprenticing at a major rehab facility in the Midwest and had continued to pursue continuing education at various regional and national conferences, was surprised (and shocked) to discover that Mrs. Farley had never received any training in rehabilitating wildlife, nor did she have any interest in such things. But when Jane had gently inquired about her seemingly low success rate, Mrs. Farley simply indicated that some animals' time comes quicker than others, and that sometimes her service was just allowing the animal to die with dignity.

Since Mrs. Farley was synonymous with injured wildlife in the community, her overflow was Jane's only source of wildlife needing rehabilitation. By the time Jane received the animals, they were in such rough shape, due to improper administration of diet, fluid therapy and medical care, that Jane could often do very little to save the animals. She had even reached the point of discretely calling the Department of Natural Resources (DNR) and asking if someone there was concerned about the low release rate. The DNR replied that as long as her cages were adequate and she submitted her annual report, her rehab license would continue to be renewed each year.

Driving over to pick up the fawn from Mrs. Farley, who had taken in the animal three days earlier, Jane hoped this animal would be in better shape. As usual, her disappointment grew when she saw the level of dehydration and emaciation of the animal. Mrs. Farley offered to give Jane the remaining formula of cow's milk and alfalfa tea, as well as the solid food she ground up and added to the formula. Declining the formula, Jane inquired about the left hind foot, which appeared to be broken and that Mrs. Farley had tightly wrapped with adhesive tape three days earlier.

As Jane now fought back the tears of both anger and frustration, she knew she had to do something. The situation was clearly and totally unacceptable. Jane knew these animals did not have to die, again and again. But, what can she do...?

Questions Posed

- How do you feel about this situation?
- Knowing that release rates can fluctuate, what do you consider acceptable?

- What should or can an individual rehabilitator do about standards of care by other rehabilitators?
- What, if any, is a wildlife agency's role in assessing a standard of care?
- Is there any issue for a wildlife agency if the rehabilitator, as in this situation, meets the letter of the law/regulations?

UP FOR DISCUSSION: Responses - Case II

Respondent #1: Yvonne Wallace Blane, Wildlife Rehabilitator since 1985, SE Wisconsin, USA

Unless a behavior can be measured, and then controlled, it cannot be legislated. Especially in the ethical arena, this is a source of great frustration. Time, in fact, does correct some injustices, though not without a great many unnecessary losses.

Release rate is problematic at this time, as it seems that almost everyone figures it differently. Some people don't count what dies during exam, during the first 24 hours, or before it is transferred. Some people don't handle critical care. Some people work only with more resilient species, or only with orphans, or only with adults. Some people don't work with anything that doesn't have much of a chance. Some work with anything that has even the slightest chance-and then pay the penalty for having to euthanize the animal later and have it "count against them."

It is good that we attempt to ascertain "average" release rates so that we rehabilitators have something against which to judge our performance, our expertise. But those release rates must compare apples to apples-raptor care only to raptor care-or full species, full care facilities only to their counterparts.

It is a stereotype that the rehabilitators which are older are somehow less proficient in our field. Lack of proficiency, downright substandard care, is more a result of individuals keeping themselves isolated in a time of rapidly expanding knowledge and consequent change in rehabilitative procedures.

Jane cannot change the fact that the area wildlife managers like Mrs. Farley and trust her knowledge and experience. Jane **can**, however, change how the area wildlife managers feel about her. A year and a half is a very short time in some agency circles. It can take two years for a new rehabilitator's name to even show up on some lists. In addition, many new rehabilitators do not last much longer than two years. Jane needs to ask herself what happened to the animals before she moved into Mrs. Farley's area. Nothing has changed, except that Jane is now aware of what was happening all along. As long as Jane is always

there to pick up the "overflow", Mrs. Farley and the area wildlife managers will learn that she is dependable. Jane has no obligation to pick up the pieces of Mrs. Farley's disasters and can spare herself much heartache by informing Mrs. Farley that she will not work with an animal unless she herself has the ability to admit the animal from the public and perform initial care. Mrs. Farley may simply refuse to work with Jane, but she also might decide that it would be nice to have some help. Either way, Jane is no longer a slave to the situation.

In terms of the regulating agency's allowing a license to continue as long as conditions and standards are met, there is one simple rule that is put into most regulations in draft form today that requires a consulting veterinarian. If Mrs. Farley was required under the law to have a consulting veterinarian, and this fawn situation occurred at that time, the state agency could follow up on a complaint by Jane checking to see why the veterinarian had not supervised the care of an injured animal.

Finally, while our field rushes toward the 21st century, and we move from our kitchens to facilities, from volunteers to paid staff-let us never forget the compassion upon which this profession is founded. Very soon there will be no more Mrs. Farleys-more animals will probably survive to be released-but they never would have had a chance, nor would we, without the people who pioneered the field of wildlife rehabilitation.

Respondent #2: Charles F. Traisi, Director, Fund for Animals Wildlife Rehabilitation Center, Ramona, California, USA

How do I feel about this situation? Frustrated! Although we routinely deal with these situations with citizens who only call when the animal is beginning to die, it is much more disheartening when the culprit is another rehabilitator.

In my opinion, the terms "release rates" and "success rates" should only be used with regard to orphaned babies who start out healthy and only need to be raised to dispersal age with proper nutrition, proper instincts and free of human imprinting. With regards to sick or injured wildlife, the terms should never be used. **If, repeat, if** the rehabilitator has taken all available and appropriate actions to address the animal's injuries and restore it to a releasable condition, any release rate is acceptable (i.e. during a one month period, I deal with 10 HBC coyotes. Nine are FUBAR and I euthanize them. One I am able to restore and release. Should I be depressed over such a low "release rate"? Of course not! I had no control over the extent of the injuries.

The answer to this question is predicated upon the assumption that the "other rehabilitator" has low standards which result in the loss of animals which might otherwise have been restored and released. A friendly and supportive "peer pressure" should be the first line of attack. Should this fail, contact the applicable federal agency which has licensing control over the rehabilitator. Some states, such as California, now have standards which go well beyond simple cage size requirements. If not, **all** states have humane laws for the treatment and care of all animals and all states have various veterinary practice standards. Do not hesitate to report this individual's disregard for fundamental standards to the applicable authorities.

As was done in 1997 in California, I feel that all state wildlife agencies should promulgate specific standards for wildlife rehabilitation.

Respondent #3: Anonymous, 12 years wildlife rehab experience, West Coast, North America

It is clearly unacceptable for Jane to continue to take overflow from Mrs. Farley. What a difficult (yet all too common) situation!

It is pointless to indicate a % rate of success unless all rehabilitators are using the same terms and conditions in defining their records. I think this question should be left out.

I believe we have a responsibility to share information, to bring information to the attention of other rehabilitators, and to pool resources. If this doesn't work, the wildlife rehabilitator has to decide what they will do in the individual situation.

I believe the agencies should use IWRC/NWRA Minimum Standards in assessing a rehabilitator's ability to provide care, and direct the public toward those centres/individuals best able to provide the care needed.

Yes, while the letter of the law may be being met, the **intent** clearly is not. Perhaps the agency can stipulate continuing education/recognized course/conferences/workshops, etc. to ensure permittees have the necessary skills.

Jane has several options. One could be to indicate to Mrs. Farley that she will take wildlife from her directly into her own (Jane's) care, but not after Mrs. Farley has compromised the care level. She can also offer some training in basic rehab to Mrs. Farley's volunteers, in the hope that they will realize that the level of care at Mrs. Farley's is unacceptable. Jane could open a dialogue with her state agency or responsible person, discuss wildlife rehabilitation issues, care levels, acceptable practices. Perhaps there is a state rehabilitation organization that can help Jane, or other rehabilitators.

Next Topic - "UP FOR DISCUSSION"

As part of the new series "Up for Discussion" included in the Journal beginning with this issue, IWRC is inviting its membership to actively participate in the dialogue that these cases are intended to prompt amongst the wildlife rehabilitator community. Each issue will include a case, such as the one that follows, which depicts a fictional situation, with fictional characters, that is drawn from a composite of actual or possible events. Readers are invited to submit their views on the case, discussing issues they see, and offering ideas and suggestions regarding the situation. Several responses will be chosen for publication in the next issue of the journal. After you have read the case, think about the questions posed at the end of the article or any other issues that come to mind. Talk about them with other rehabilitators, and, if you choose, share your thoughts with us.

Deadline for next Journal publication: March 6, 1998. Submit your responses directly to: IWRC Journal Editor, 4437 Central Place, Suite B-4, Suisun City, CA, 94585-1633, USA, or email to: iwrc@inreach.com

UP FOR DISCUSSION: Case III - "No Good Deed...."

Before this morning, Jeff Singleton had never heard of anything or anyone called a 'process server'. When the man entered the Johnson county Wildlife Rescue and Rehabilitation Center (JCWRRC), Jeff just assumed he was there regarding some wildlife situation. When the gentleman realized he was, in fact, talking to Jeff, he then introduced himself as Mr. Holland, a process server from the County Clerk's office, and handed over the papers.

Also before this morning, Jeff had never seen a court summons, just served to him by Mr. Holland. Certainly he had never seen one with his name on it! After a frantic call to his attorney, Jeff learned that JCWRRC and he were being named as co-defendants in a liability lawsuit filed earlier in the week at the county courthouse. The plaintiff, Mrs. Betty Jo White, was seeking \$875,000 in damages. In the back of his mind, he seemed to remember a newspaper article describing some fire damage to Mrs. White's house last week.

Jeff and his wife, Melinda, had built up the JCWRRC from scratch. As independent rehabilitators starting about 14 years ago, they dreamed of having their own facility. So ten years ago, they formed their activities into a non-profit corporation and filed for the Federal 501(c) 3 tax exempt status. With some aggressive fundraising and grantwriting, their dreams came true. They also benefited from donations from some major contributors who lived in the resort community, including a sizable gift nine years ago from none other than Mrs. Betty Jo White.

In addition to providing direct animal care under JCWRRC's rehabilitation license, Jeff also offered the community the service of providing humane solutions to wildlife conflict situations, including "critter-proofing" private residences and commercial buildings for a small fee. So when Mrs. White called during the past summer complaining of a raccoon in one of her six chimneys, Jeff could not respond fast enough for one of JCWRRC's major benefactors.

Due to an unusually heavy incoming animal load that day, Jeff asked Fred to tend to Mrs. White's request. Fred Garvin, a 56 year old retiree, volunteered every so often since the time he left the postal service two years ago with a minor disability. So, Fred found the 28 foot extension ladder, grabbed some welded wire from the back that was left over from recent cage construction, and was off to Mrs. White's.

Fred was a little unsure as he approached the 12 foot iron fence that surrounded Mrs. White's 12 acre estate. The ivy was so overgrown, he could hardly find

the entry gate. He navigated his way to the front door and rang the door chime. Mrs. White, just over five feet tall, appeared in a well-worn housecoat, her long silver hair flowing over her shoulders almost to her waist. Fred, thinking to himself, hoped that when he reached Mrs. White's age, he would still be active. It was commonly known throughout the community that Mrs. White's Alzheimer's was progressing rapidly.

Fred went about his business, fashioning caps for the chimneys with the 1/4" welded wire he had brought along. Surely this would keep out future raccoon visitors. (Unbeknownst to Mrs. White and Fred, the raccoon had already moved down the road.) Having to move the ladder several times was very tiring, so it took him most of the afternoon. He only slipped off the ladder twice, but fortunately was only two rungs up each time.

That winter, Mrs. White's son built a fire in one of the fireplaces, to help take the chill off the old house. He was there during his annual visit, hanging around just long enough to collect his Christmas check from Mother. Three hours later, the county fire department had just extinguished the blaze in the west wing of the house. The cause of the fire was determined to be an accumulation of hot embers in the chimney, not able to escape fast enough due to an obstruction. The obstruction was the chimney cap that Fred had installed that summer.

Six long weeks after Jeff met the process server, the Singleton's now sat in the courtroom, occasionally glancing over at Mrs. White's son and his three attorneys. The Johnson County Wildlife Rescue and Rehabilitation Center was soon to be history. Jeff and Melinda were hopeful they would still have their house after the bankruptcy proceedings.

Their earlier JCWRRC dream was now a nightmare. Jeff kept replaying in his mind where things went so wrong, so fast.

Some Issues to Consider

- What are the various liabilities that Jeff exposed the JCWRRC and himself to in this case? For example, what liabilities may be created when rehabilitators provide well-intended helpful suggestions to property owners regarding humane solutions for wildlife conflict situations?
- What ways exist to protect rehabilitation centers or individuals from exposure to such liabilities?
- What responsibilities do rehabilitators have in choosing, training and supervising volunteers?
- Other comments?

BOOK REVIEW

The Biology, Husbandry and Health Care of Reptiles

Lowell Ackerman, ed.

TFH

One TFH Plaza, Third & Union Aves.

Neptune, NJ 07753, USA

1997

(3 Volumes) \$250.00 US

Dr. Lowell Ackerman is a well-respected veterinarian, lecturer, author, and radio personality. This book represents the efforts of more than fifty authors, ranging from veterinarians to researchers, breeders, rehabbers, keepers, and knowledgeable herpetologists. It is broken into three volumes, each covering one aspect of the title. Biology, Husbandry, and Health Care, with articles gathered worldwide to specifically address those topics.

This is undoubtedly one of the most ambitious publishing projects in a number of years in the reptile subject area. There is substantial variation in the style of writing, ranging from the very dry, (esoteric subjects beyond the reach of anyone but the most technical reader) to generalized subjects that will be accessible to any well-read layperson. Some of the authors are widely recognized authorities in their areas of specialization: Melissa Kaplan and Jennifer Swofford - both rehabbers and wildlife educators; Ellis Greiner, PhD, - reptile diseases; Steve Grenard - medical herpetology; and Gretchen Kaufman, DVM - Assistant Director of Tufts Wildlife Clinic.

Following is a select list of articles illustrating the range of topics covered:

- "Venoms and Envenomation", by P. Gopalakrishnakone
- "Hearing, Taste, Tactile Reception and Olfaction", by Bruce A. Young
- "History and Clinical Examination", by James L. Jarchow, DVM and Lowell Ackerman, DVM
- "Human Parasitic Disease Originating from Reptile Consumption or Contact", by Huh Sun, MD, PhD
- "Husbandry of Turtles, Tortoises and Terrapins", by John Coborn
- "Monitor Lizards (Varanidae) and Tegus (Telidae)", by Micheal J. Balsai

Many of the articles are overviews of subject areas, such as a piece on reptile sensation, or reviews of husbandry practices for a specific family or species. These can be invaluable, since much of the serious research work on reptiles is being done by either breeders or by researchers and therefore largely unavailable to the layman or

generalist practitioner. Due to our increasing knowledge of reptile species, this book will be a good investment because it surveys a great many topics that are otherwise difficult to follow effectively. Each article includes substantial bibliographies on related material and references. Most of the articles are accompanied by color plates or other illustrations.

Thus the book achieves its editor's intended goal: "This book is the first to try to assimilate, in a comprehensive fashion, the diverse information collected by biologists, herpetoculturists, and veterinarians....It also provides a single source for identifying many of the fascinating aspects of reptiles that aren't available in other books". If you are already familiar with the basics of reptile biology, husbandry and rehabbing, then this book will substantially improve your knowledge.

One of the most interesting aspects of reading the book's articles in their presented order is the cumulative synergy that develops as the reader moves from a biologist's knowledge to thermo-regulation and its implications for the next piece on a herpetoculturist's keeping practices, which, in turn might influence the reader's view of nutritional or metabolic diseases confronting veterinarian's or rehabbers. It is the theme of inter-disciplinary knowledge that makes this particular book so useful.

My major quibble with the book is the shifts in style and technicality, followed by the presence of a significant number of minor but annoying typographical errors. I also found myself wanting a more systematic treatment of issues such as reptile anatomy, something that seems lacking in a book of this scope and size. Such information is present, for the most part, but it is scattered throughout all three volumes. This is perhaps the nature of a collaborative effort of this type.

Purchasing this book would represent a substantial portion of many rehabbers' book budgets. I am not sure I would recommend it unless you already own some of the standard books of herp medicine. It is possible to buy individual volumes, but the set has the most value, in my opinion, as a set.

-Franklin Gould-



The 21st Annual Call for Papers for the Conference of the International Wildlife Rehabilitation Council - IWRC

Fort Worth, Texas
October 15-18, 1998
Radisson Plaza Hotel

Each year at our annual conference, the International Wildlife Rehabilitation Council invites wildlife rehabilitators and other associated professionals to make presentations which will assist those working in this field. We encourage papers that describe new and current methods in wildlife rehabilitation, natural history, management of medical problems (e.g., trauma, pesticides, toxins, parasite control, nutrition-related disorders), diseases that occur in wildlife, health and safety issues including zoonotic and epizootic diseases, post-release studies, research projects and results. Papers discussing current organizational methods (administration, fundraising, volunteer/employee management, computerized records management, education programs, etc.) are also solicited. Topics which focus on ethics, standards of care, euthanasia, state and regional regulations, control and management of "pest" species, etc. are welcomed. We also invite international presentations on wildlife rehabilitation being carried on in all parts of the world.

In 1998, with a look to the future of wildlife and the ecosystem, we are focusing on habitat and the importance of conservation, not only of land mass, but all other natural resources vital to the continued existence of all living creatures, including man.

Proposals may be for paper and/or video presentations, workshops, roundtable or group discussion sessions, or poster sessions. **Proposal applications include your agreement to provide a complete manuscript by the deadline.** All proposals are subject to review by the IWRC Conference Committee for acceptance to the program.

What is the IWRC?

The International Wildlife Rehabilitation Council promotes education and networking as one of the most important methods of maintaining professional care and standards within the wildlife rehabilitation profession. We do this through a series of Skills SeminarSM training programs, which offer basic through advanced skills; our quarterly professional publication, the *Journal of Wildlife Rehabilitation*; a full catalog of wildlife care publications; standards and accreditation for wildlife care facilities and caregivers; referral services for assistance with specific animal care problems and non-releasable placements; member newsletter; and annual conference with its associated proceedings.

The IWRC is a non-profit, international membership-sponsored organization with a commitment to preserving our wildlife and its habitat.

Deadline: Proposals for the 1998 Conference should reach the IWRC office postmarked no later than August 31, 1998.

Proposal Application: IWRC'S 21st Annual Conference - 1998

All proposals must be submitted using this form. One proposal per form. Form may be duplicated. Please submit **original**, signed document.

Upon acceptance of the proposal, paper, workshop and roundtable presenters are entitled to receive full, non-transferable complimentary registration for the Main Conference Program. This applies to the **main presenter only**. Pre-conference Skills Seminars, field trips, banquets, etc. are **not** considered part of the main program. Poster presenters not otherwise scheduled on the program are entitled to 50% discount off the normal Conference registration fee.

Name: _____ Title: _____

Affiliation: _____

Contact Address: _____

City & State/Province: _____ Cntry: _____ Postal Code: _____

Home Phone: _____ Business Phone: _____

Fax Phone: _____ E-mail: _____

Best time to contact: _____

Categories of Presentation / Time Request

Note: If you wish to include Q/A time with your presentation, please allow for this in your time request. Workshop presenters allow for set-up & break-down time if needed.

Please circle time requested below.

| | | | |
|----------------------------|------------|-------------|------------|
| Poster Session/Case Report | 15 minutes | 30 minutes | |
| Paper/Video | 30 minutes | 45 minutes | 60 minutes |
| Workshop | 60 minutes | 120 minutes | |
| Roundtable Discussion | 45 minutes | 90 minutes | |

Presentation Title: _____

Conference Abstract (Minimum of one paragraph). Please attach extra page if more room is needed.

Note: Abstract will be printed in the conference program as it appears here.

Above is my presentation proposal for the 1998 IWRC Annual Conference. I hereby acknowledge and agree to IWRC procedures and deadlines for presentations.

Signature: _____

Return completed proposal to: IWRC 1998 Conference, 4437 Central Place, Suite B-4, Suisun City, CA 94585-1633, USA

IWRC JOBLINE ANNOUNCEMENTS

Rehabilitation Assistant needed for a growing Wildlife Rehabilitation and Education Facility, Full-time, salaried position with flexible hours including week-ends and on call. Must have 2 years experience in wildlife rehabilitation. Familiar with treatment and handling of all types of wildlife. IWRC Basic 1AB Skills Course a plus. Team-oriented and ability to oversee volunteers; enjoys communication. Must be highly self-motivated and reliable. Send resume to: Emily Fields, The Wildlife Center, PO Box 246, Espanola, NM 87532. Closing Date: February 1998.

The Wildlife Center near Santa Rosa, California is looking for a **Resident Caregiver**. Living accommodations provided. Days and weekends free. Will care for sick, injured and/or orphaned wildlife. Possible scholarship available. For additional information call Nancy Summers at 707-575-1000.

Internship available for qualified person, at least 18 years old, with a high school degree. Experience with and/or education in animal care and an interest in environmental issues required. Must also be mature, dedicated and willing to work hard and do a little of everything. \$200.00 per week, does not include housing. Intern will gain intensive experience in all phases of wildlife rehabilitation and education programs. 12 weeks, full-time, with an extension possible. For additional details, contact Barbara Dell, Wildlife Center Director, 23228 Woodland Way, Pass Christian, MS 39571, 228-452-9453 or 452-2270.

Wildlife Rehabilitation Intern position available. Will work with wildlife rehabilitation supervisors, staff veterinarian and trained volunteers. Training will be given by Wildlife staff, using hands-on work, video and reference books. 20 hours per week, for 5 months, April through August, with weekend and/or evening work required. Must have High School diploma, some previous experience with animals and an interest in wildlife rehabilitation. Small stipend. Contact Wildlife Rehab Director, Lindsay Wildlife Museum, 1931 First Ave., Walnut Creek, CA 94596, 510-935-1978 x 18.

Chief Rehabilitator needed for Wolf Hollow Wildlife Rehabilitation Center, located on San Juan Island, a popular destination and retirement community in Washington state. Located on 40 acres of woodland and grassland in the middle of the island. Chief Rehabilitator will work with Assistant Rehabilitator to implement care protocols for a wide range of wildlife species and to supervise interns and animal care volunteers. Salaried position, starting at \$18,000 to \$20,000, dependent upon experience. Send cover letter with current resume and 4 personal references to: Dr. David S. Pretz, Executive Director, Wolf Hollow Wildlife Rehabilitation Center, PO Box 391, Friday Harbor, WA 98250.



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IWRC'S 21ST ANNUAL CONFERENCE

Fort Worth, Texas

October 15-18, 1998

Make plans now to join us at the 21st Annual Conference of the International Wildlife Rehabilitation Council, being held in the "Lone Star" state of Texas. The meeting is being held at the Radisson Plaza Hotel in downtown Fort Worth. Located just 20 minutes from the Dallas/Fort Worth Airport, the Radisson boasts 502 newly renovated guest rooms, designed to make your stay as comfortable and enjoyable as possible. Enjoy some of their famous "Tex-Mex" cuisine in the Cactus Bar & Grill or relax in their heated rooftop pool, health club or sauna.

As always, IWRC is putting together a great selection of topics, with workshops and discussion groups that will challenge your minds and help to educate you in the latest methods and techniques in wildlife care. Of course, one of the best parts of the meeting will be the networking and the new contacts and friends you will make and take with you.

Don't miss out on this chance to be part of this important and exciting meeting! See you there.
