Sample

Vol. 10, No. 4

# WILDLIFE JOURNAL

Journal of the International Wildlife Rehabilitation Council



Housing Songbirds...Page 3

# **WILDLIFE HOTLINE!** A Little Help From Your Friends!

Wildlife emergencies usually happen at the most inconvenient times — leaving many rehabilitators feeling isolated and helpless. Are you a rehabilitator who can't reach your veterinarian? Are you a veterinarian who can't reach your rehabilitator? The WILDLIFE HOTLINE was designed to help people in such instances by offering advice, or referring you to an expert who can. Whether it's a "strange" animal you've never seen before...or a "problem" you've never dealt with...the WILDLIFE HOTLINE is open 24 hours a day — manned by experts who care. (And the WILDLIFE HOTLINE is not limited to emergencies. It is also available for questions regarding any kind of wildlife care. Non-emergency calls should be made during regular hours; Pacific Time.)

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## Need Some Help?



# GUIDELINES FOR AUTHORS

The following is a guideline for articles to be submitted to the Wildlife Journal. All manuscripts submitted to the Journal are subject to review and revision by our editors.

1. Submissions should be typed and double-spaced, with 1 inch margins.
2. Full length articles run between 1500 and 2500 words.
3. Fillers and short articles run between 500 and 1500 words.
4. The writer's name and address and organization should be typed on the first page, and name and page number should appear on all consecutive pages.
5. It is the writer's obligation to obtain permission or reprint rights if submitted copy has been published elsewhere.
6. Provide a stamped, self-addressed envelope if you wish manuscript and/or photos returned.
7. We accept black and white glossy photos only, preferably 8 × 10.
8. We pay $25 for any feature article accepted; $5 for any fillers and "Handy Hints" under 500 words.

Articles should be mailed to: Editor, IWRC Journal, 1171 Kellogg St, Suisun, CA 94585.

# WILDLIFE JOURNAL

Winter 1988 Vol. 10, No. 4

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San Mateo, California

Printing by Peninsula Blue Print
Mountain View, California

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**Cover photo courtesy of Jan White.**

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The *Wildlife Journal* (ISSN: 0893-6560) is published quarterly by the International Wildlife Rehabilitation Council, 1171 Kellogg St., Suisun, CA 94585.
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# President's Message

On a foggy, cool February morning in 1971, two oil tankers collided underneath the Golden Gate Bridge north of San Francisco, CA. The result was an oil spill that effected thousands of wintering waterfowl and covered local beaches with a layer of black crude oil. Volunteers from the San Francisco Bay Area responded to rescue the oiled birds. However, lack of direction, leadership, planning and knowledge of wild bird care resulted in only 1% of the oiled birds collected for cleaning being released.

Among these volunteers were a handful of local wildlife rehabilitation specialists that became painfully aware of what they had already known. The need for a forum was recognized to encourage wildlife rehabilitation specialists to share their ideas, techniques, individual successes and failures. This national network system would bring wildlife rehabilitators to the level of professionalism that would be respected by others in the field of wildlife preservation. Best of all, it would stimulate the search for knowledge and accelerate its dissemination resulting in improved care for wild animals requiring human assistance. As the memory of the spill faded, enthusiasm among these people grew. By 1972, the Wildlife Rehabilitation Council had been formed.

To say that the IWRC has come a long way would be an understatement. The magnitude of growth that this organization has experienced in 15 years has been astronomical. An example is our first wildlife conference. It was a one-day event, held in a classroom with approximately 25 participants. The current techniques of wildlife care were very basic and limited in scope. Last year, our tenth annual conference was attended by some 250 rehabilitators from all over the United States. To our delight, participants from Canada, Mexico and England attended also. The four-day event was held in a large conference hotel and provided a variety of subjects and speakers. Unlike early conferences, we now offer topics of interest to both the new and advanced wildlife rehabilitators.

Another example of our growth is the Skills Seminar series. Five years ago we developed a curriculum to standardize training in the field of wildlife care. The Skills Seminar program was designed to address the need for trained personnel who needed skills beyond the basics. We later discovered that not everyone had the same core of basic knowledge. We then developed the Wildlife Rehabilitation 1AB course. Initially offered to California rehabilitators, requests from across the country arrived and the class has now been offered from Anchorage, Alaska to Orlando, Florida. In 1987 alone, we taught 9 Basic Wildlife Rehabilitation 1AB classes with 360 rehabilitators from Canada, Mexico, and 17 states graduating from the Basic Wildlife Rehabilitation 1AB class. The advanced classes were taught in Maryland, Oregon and California to 200 interested wildlife rehabilitators. We have come a long way from the early days of frustration and lack of knowledge.

Our trend of growth continued in 1987. It was a year of intense review and reorganization for the IWRC Board of Directors. It was clear that we needed to focus on the needs of our members. The directors decided to donate more time to the goals and programs that are in direct accord with the organization's purpose which is to provide education and training for wildlife rehabilitators. With this in mind, we made exciting changes within our internal structure that will allow us to do our jobs more efficiently.

For years our workload has exceeded the capabilities of the board and committee members (many of whom operate wildlife care centers or organizations in their own communities). Much of the work performed was clerical and not

(continued on page 12)

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# HOUSING SONG AND GARDEN BIRDS

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Correct housing of young or recuperating song and garden birds is frequently neglected yet is essential to a less stressful period in captivity. Since stress can kill, good housing contributes to the success of rehabilitation efforts. This paper will show some different ways to house songbirds in order to alleviate stress; that is, to house them in a manner which satisfies the needs of their instincts. Bird behavior is built-in according to the species, perhaps even at the cellular level. They do know what is right for them and are more at ease when that is provided. Become familiar with the requirements of each species you are handling, then think like a bird and adapt your housing to provide for these needs.

Many different housing methods have been tried over the last eleven years by myself and others in the rehabilitation organization of which I am a member, in an effort to find something both comfortable for the birds and easy for the rehabilitator, too. Ease for the rehabilitator is very important, especially at the height of the busy season. There is no absolute only way to house songbirds, but there are a few universally accepted procedures over and above providing appropriate food and medication. Clean surroundings, warmth when needed, quiet, and correct photoperiods are all important housing considerations. One more very important need, not often occuring to many, is a hiding place to provide privacy from prying human and animal eyes. All of these give a feeling of security to a bird and help relieve damaging stress.

Tiny naked hatchlings with eyes closed are all housed the same way regardless of species. They need warmth (85 - 90° F.), moist air, moist food, and a close-fitting nest of the proper size.

The proper nest can be made of a small bowl, box, or berry basket (Figure 1, following arrows downward). First, line the bottom of the basket with a folded paper tissue or a few sheets of toilet tissue. Then wind a length of toilet tissue two to three feet long loosely around your hand to shape the lining for the sides. Fit the lining against the sides of the basket. This lining is necessary for padding and also keeps little legs etc. inside the nest. Add another layer of lining inside the first one if the hatchlings are very tiny as they should not roll around loosely on a flat surface. If they do, they can dislocate their hips and they also won't stay warm enough. Lastly, add a top layer of paper tissue pushed down into the center of the nest. This single tissue can be changed when the nest becomes soiled. Tuck a small thermometer between the layers to keep track of nest temperature.

Place the nest on a heating pad set on LOW (when the birds are on the heating pad, never use a setting other than LOW) with a double layer of terry towel between them for insulation. Add or remove towel layers as needed to main-

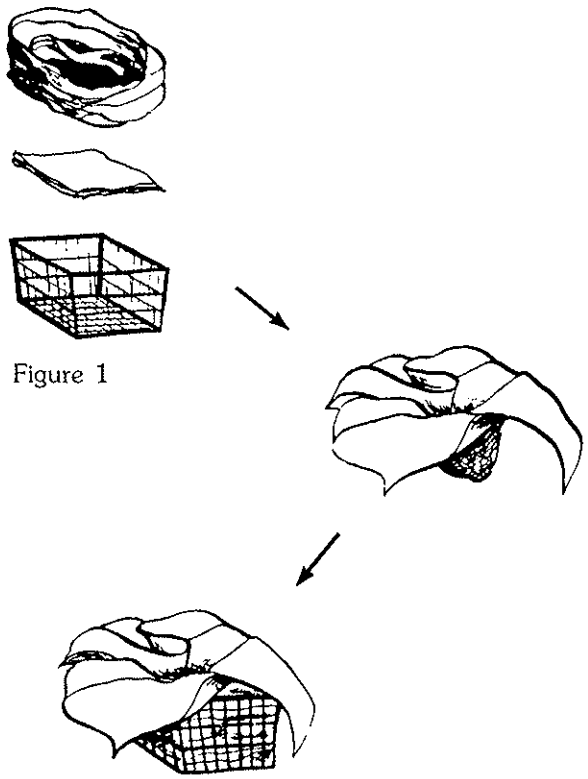


Figure 1

tain the desired temperature indicated by a thermometer placed either on the towel covering the heating pad or in the nest.

If you must pre-heat the heating pad on MED or HIGH, do it BEFORE you place the bird's nest (or box/basket) on it and turn the control back down to LOW immediately when the birds are placed on the pad. Too high a temperature even for a short period can overheat and kill the birds. Use a cake rack underneath the heating pad (Figure 2). This is a safety measure as it gets very hot under the heating pad. Be aware of fire hazards and never use newspapers or other flammable materials under heating pads.

There are various ways of providing necessary humidity for hatchlings without a real incubator. Placing the nest of birds inside an unsealed plastic bag with a small jar containing a wet cotton ball (as shown in Figure 3) is one such method. The jar lid should have many holes punched in it so that the moisture can escape. The plastic bag and its contents are placed on the heating pad insulated from the heat by a double layer of toweling. If you have trouble getting the temperature high enough (85 - 90°F), cover the plastic bag with a towel to keep the heat in. As mentioned before, keep a small thermometer in the nest to monitor the temperature accurately.

Another incubator that works well is made from two plastic 4" x 4" gauze containers. Twist ties or tape are used as hinges (Figure 4). Placed in the bottom container is a wet tissue to supply the humidity, topped by a plastic lid from a margarine container. This keeps the nest from getting wet. The completed nest fits right inside and the top gauze container closes to keep the hatchlings moist and warm. The container is placed on a heating pad with the double toweling mentioned above. Again a towel can be placed over the top of the closed container if needed to keep the temperature between 85 - 90° F. Larger containers can be found among plastic laboratory supplies that can be used to create (the same as above) an incubator that will hold two berry basket nests at once. The holes around the edges of the box are made with a single hole paper punch and are necessary in case you are getting too much humidity. Water droplets can form on the roof and drip onto the birds and nest.

Watch carefully for dripping when you first set up the incubator and punch as many holes as are needed to achieve a balance of humidity without dripping, to be sure that the nest stays dry. If the nest should get damp while you are experimenting with this be sure to replace the nest material with dry tissues immediately, punch a few more holes and check again in a few minutes. This sounds more difficult than it is. But once you have it right, you will not have to worry about it again.

Other heat sources: Light bulbs are not recommended as a heat source for several reasons.

1. The temperature is difficult to regulate.
2. Young birds can easily be burned on the hot bulbs.
3. If a light source is used for heat, the birds will have no normal photoperiods.

(Note) Rheostatic light bulb operated incubators or those with heating elements are acceptable where birds are shielded from constant light.

Correct photoperiods are very important to the normal development, physiology, behavior and existence of all life. Birds, like most other organisms possess daily twenty-four hour or circadian rhythms. Their body temperature, for example, fluctuates on a twenty-four hour basis. These rhythms also affect locomotor activity, various metabolic functions, and the flow of hormones; which in turn influences when the bird moults, breeds, migrates or learns his song. Consistently subjected to twenty-four hours of light, the bird will have his biological clock totally confused. Even a weak red light is sufficient to induce sperm production when applied for long days much less when dark hours are eliminated altogether.

Heating pads have proved for many years to be a dependable heat source. Be sure they are in good condition and replace them when needed.

## HOUSING CONTAINERS

Cages are not recommended for young songbirds because of the potential for feather damage. When older birds are housed outside, cages need to be used to protect occupants from predators. Do not use cages, however, when housing injured adults who tend to panic when caged. It only takes a few minutes for a panicky bird in a cage to strip his feathers badly enough so that you have to wait for a moult before the bird can be released. Anytime a bird panics in any container quickly cover the entire container with a large cloth and leave him alone for a few minutes. This will calm him; he will think he is alone as he can no longer see what is frightening him—and that is YOU! Remover the cover slowly and only partially, leaving him a place to hide.

Plastic laundry type baskets work well as basic housing containers (Figure 5). These four sizes of baskets have been used successfully by the author and are listed here only as a guide. Various manufacturers such as Rubbermaid or Beacon use many different sizes and as many different names, such as Maxi, Mini, Utility, Laundry, etc.

Extra small - 7½" x 11" x 4" tall
Small - 10" x 14" x 5¼" tall
Medium - 11"x 16" x 8" tall
Large (Laundry basket) - 15¼" x 22" x 10" tall
(Measurements taken from the top)

Plastic baskets can be purchased in most variety, drug, and discount-type stores. They provide light and air circulation for the birds in the hot summer. In addition, they are very handy and easy to keep clean. Smaller baskets can even go in the dishwasher. They come in many colors, but the lighter-colored baskets reflect more light. Fiberglass screening (purchased from hardware stores) is smooth, soft and pliable. It is used as a cover and is mitred and clipped at the corners with clothespins. The screening can also have elastic sewn around the edges, making it easier to put on and take off. Line the bottom of the basket with paper towels or similar material.

Box housing (Figure 6) is acceptable if necessary. They can be made any size, but when boxes are soiled, they must be discarded and new ones made. Making new ones quickly becomes a chore and is only one of the reasons why the

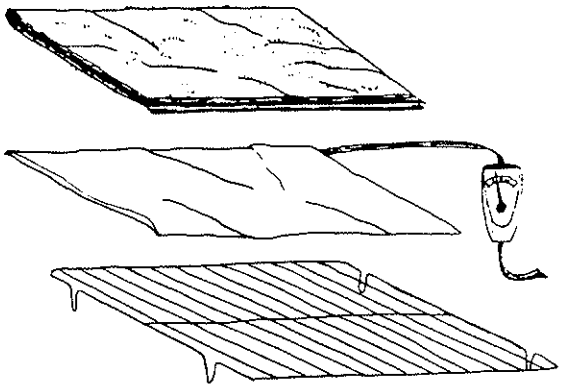


Figure 2

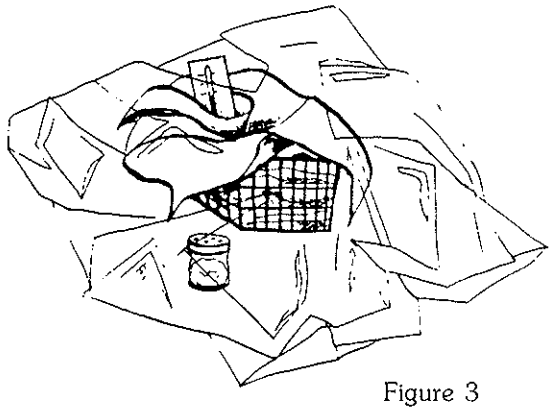


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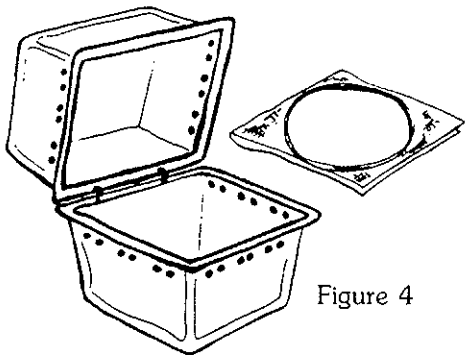


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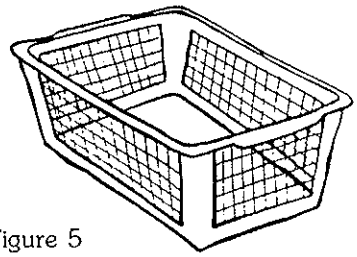


Figure 5

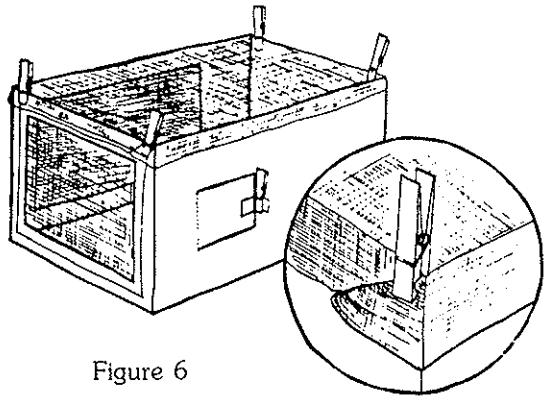


Figure 6

author prefers plastic baskets. Contact paper lining or coats of varathane extend their use a little, but ultimately, you are taking the time to build another box. If you use boxes, at least two sides should have large windows cut in them and fiberglass screening taped on the outside of the openings with a good quality duct tape. This will provide at least some air circulation, as birds in boxes appear to be too warm in very hot weather. A small door can be cut in the side (handy on very large box houses) for feeding and cleaning, or you can feed through the top by carefully removing one corner clip. The door is latched with tape tabs and a clothespin. Be sure to place the door in a spot that is convenient to use. Fiberglass screening is used on the top with the corners mitred to prevent escapes. Do not secure with one clip in the middle of each side as the corners will flip up. The fiberglass screening is reusable. Take it out before you discard the box and it launders well in the washer and dryer.

Whether you use box or basket housing, watch the placement of perches to avoid tail feather damage. Keep the food out from under the perches so it won't be contaminated by droppings. Change papers often to keep the floor clean. Perches must be cleaned also. They can be scraped with the back of a knife or sandpapered clean. If you scrub them in water, be sure they are thoroughly dry before using again. Foot problems develop if the perches are cold and damp.

Birds (not being the neatest eaters) will make a mess everywhere unless some sort of tray is used underneath the baskets. A kitty litter pan or a cut-down cardboard box can be used. Some boxes, such as the kind duplicating paper comes in, have lids that are perfect for this purpose.

When housing older nestlings, it is necessary to look at how their nests are constructed in the wild. There are many types of songbird nests, but they may be divided into four very broad categories.

1. Open cup-shaped nests—hummingbirds, sparrows, robins, mockingbirds
2. Enclosed or mud nests—swallows, phoebes
3. Hanging nests—bushtits, orioles
4. Cavity nests—woodpeckers, bluebirds

Older nestlings from open nests can be housed, one or two berry basket nests per small mini basket, and covered with a cloth or placed on a heating pad if more warmth is needed.

Birds accustomed to hanging nests, where darkness is a natural element, can have their nests and entire basket wrapped in a towel so they can sleep in darkness between feedings. Again, a heating pad may be used if needed.

A plastic mini basket enclosed in a laundry mesh bag (sold in variety, drug and discount-type stores for machine washing delicate clothing) is very handy if you expect that older nestlings are about to fledge. This basket and bag can hold two berry basket nests, and clipped closed, will keep them safe from escape if they fledge when you are not around.

When older nestlings finally do fledge, they will need quarters that are a little larger. Move them to a larger basket covered with fiberglass screening. An appropriate type perch and a cloth placed over one end for privacy provides the finishing touch.

Enclosed mud nests can be imitated by the use of a box with a hole in the front of it (Figure 7). Swallow nestlings will turn and defecate out of the hole because they have been "programmed" by nature to keep their nests clean. If housed in an open nest, they do not do this. This is an excellent example of what happens when young birds are placed in the wrong type of nest. Swallows, for example, will stand and let droppings run down their legs. They also do not gape well and tend to be nervous. Place a paper tissue in front, under the hole in the box, and it will catch most, if not all, of their droppings, keeping the nest clean. The birds can be fed through the hole as the mother bird would do, or from the top through a removable lid. If the box is made of wood, do not use a hinged lid as birds can be caught and injured in the space created when the lid is raised. Let the wooden lid simply rest on top of the box.

Cavity nesters such as woodpeckers can use similar boxes which have bigger holes and are larger all around. Small ones can be made from a half of a shoe box and can house the smaller species of woodpeckers such as Downys. Larger species of woodpeckers require a slightly larger box. Cardboard lids can be hinged with tape and will flip up safely for feeding. Inside there should be a padded lining, covered with paper towels and tissue so you can change the top layer when it is soiled.

When woodpeckers are ready to leave the nest, it is often not a permanent departure as they scurry back in whenever they want to hide. The housing shown in Figure 8 is good for that stage when they have to learn to eat, are still being hand-fed, and want to hide all at the same time. Note in addition to the house, there is also a log for the bird to cling to. A fiberglass screen top and a cloth covering the back portion of the basket provides the necessary feeling of security and keeps the bird confined.

A hollow log can be used as a hiding place inside a larger

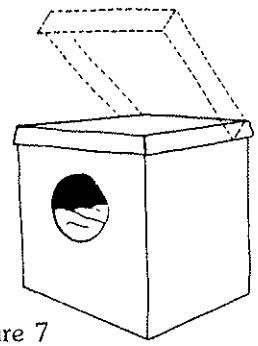


Figure 7

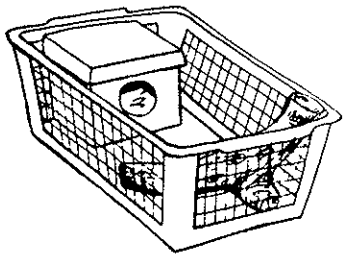


Figure 8

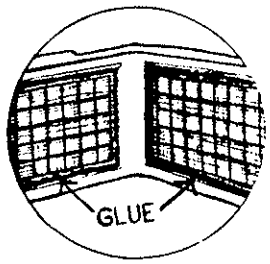



Figure 9

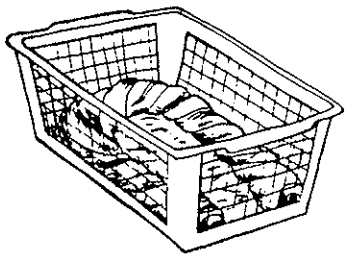


Figure 10

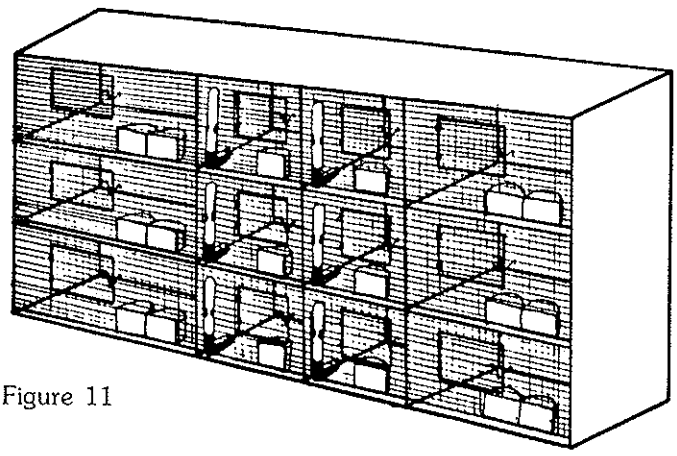


Figure 11

basket, or a small basket can be covered with a cloth and placed inside another basket to provide a house.

Some plastic laundry or utility baskets may have holes that are too large if you are housing small birds. They can easily wiggle through them. Larger holes can be covered with fiberglass screening cut to fit at least one inch beyond the area covered by openings and attached with glue and a hot glue gun as illustrated in Figure 9. The screening stays attached even when the basket is washed. Hot glue guns are available in hardware and craft-type stores.

Very large housing can be provided by inverting one laundry basket on top of another. Notches should be cut out of the top edges of the baskets so they can be clipped together - two clips on each side. Do not glue them or otherwise permanently attach them together as it will then be very difficult to clean them well. A door may be cut out of the basket's plastic mesh and a piece of rigid plastic clipped over the opening. Covering one end with a large cloth is the final step. Perches can be placed at any level.

Another handy set-up for larger housing is a play pen. A rope or free standing objects can be used for perches. Again, use a fiberglass screening cover, with a cloth covering at least one corner for privacy. If you use a playpen with a particle board flooring it is best to apply a few coats of varathane first to seal it, so it can be washed thoroughly and dry more quickly too.

Injured birds require special accommodations. For a songbird unable to stand, use the smallest basket lined on the bottom with a clean mealworm bag or other non-stringy cloth. Next, twist another cloth into a coil and lay it around the edges like a horseshoe (Figure 10). Cover the twisted cloth with soft paper toweling and finally a layer of paper tissue to change when soiled. Add a screening top and a cloth for privacy. This housing arrangement will hold a weak, ill bird upright and cozy. A food dish can be placed in the opening of the cloth "horseshoe". A water dish is not recommended for incapacitated birds as they may drown in them. In this case water must be administered by hand. The entire package can be placed on a heating pad if necessary.

It is important to note that you are not doing an injured or ill bird any favors by allowing him the freedom of a large room or box. "Cage rest" (better known as "Bed rest;") or limited activity is what is best. It is not "mean" to confine a disabled bird. Small baskets are perfect for this purpose and they can be adequately cleaned and disinfected when needed. Highly-strung birds such as woodpeckers who do not tolerate taping (for fractures) well can be confined in these tight quarters. Twice in one year Downy woodpeckers with shoulder fractures who would not leave any tape on were confined in an extra small basket. One end of the basket was wrapped in a cloth to provide a house, a small log and food and water dishes were placed inside. Hardly any room remained for the birds to move around, which was exactly what was needed to heal the shoulders without taping. This is by no means a foolproof method but in both these cases the birds were released.

It must be noted that the housing described above is not indoor predator-proof. In other words if you have hunter pets, common sense caution must be exercised. Wildlife rehabilitators are animal lovers and usually have household pets. Most of us have no problems if we remember that the best protection from in-home disasters is a watchful eye and a closed door.

Figure 11 illustrates a structure we call our "Bird Condominium," which is located at our shelter. The walls and floors are made of solid wood and it is made rather like a bookcase with dividers. The back is peg board so "some" air can circulate (if the unit is not against a wall). The apartments are quite easy to wipe out, and by using a spray disinfectant they can be cleaned well. Each apartment also has food and water dishes and paper lining that slips in and out from the front making it very easy to use. The smallest apartment is one foot square. The others are either one and one half or two feet long and one foot high. This type of housing is very useful in the shelter as a temporary holding place for birds awaiting further treatment. They can safely be housed here for periods ranging from a few hours to several days, or until the bird is ready for larger quarters.

Detail of One Apartment in the "Bird Condominium"

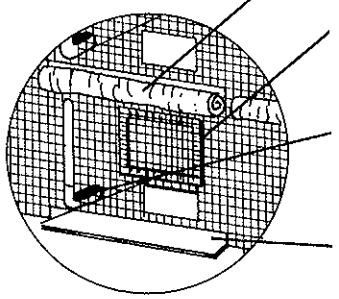



Figure 12

Wooden free-standing perches such as the one in Figure 13 are available to fit into the apartments whenever needed. Branches or doweling can also be used as perches as long as they have no sharp edges and are clean and dry. Doves and Pigeons seem to prefer standing on blocks of wood rather than thin perches.

Building an aviary is a subject in itself, but housing within the aviary must also be a concern. In an outside aviary birds need a secure hiding place in which to take refuge or spend the night. In nature (even in good weather) birds don't sleep out in plain sight. They are always hidden. Imagine the stress the birds would experience in an aviary with no housing if they had to perch out in the open all night. The house shown in Figure 14 is basically an upside down box. It is designed to keep out the wind and the prying eyes of neighborhood predators, and, because it is floorless, cleaning is minimal. It should be located in the most protected part of the aviary.

Figure 15 is a detailed diagram of the aviary house showing the bottom perch that birds fly to initially. They can then hop up to two perches that are well concealed inside. When

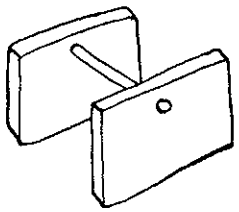


Figure 13

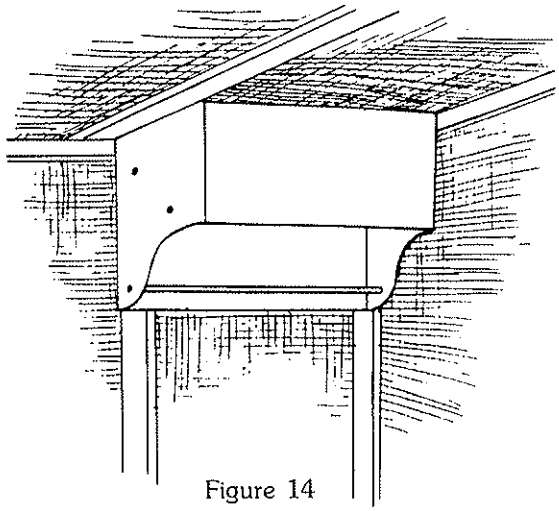


Figure 14

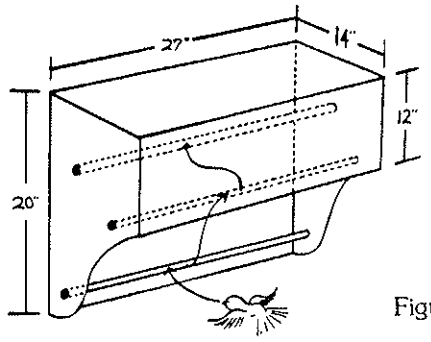



Figure 15

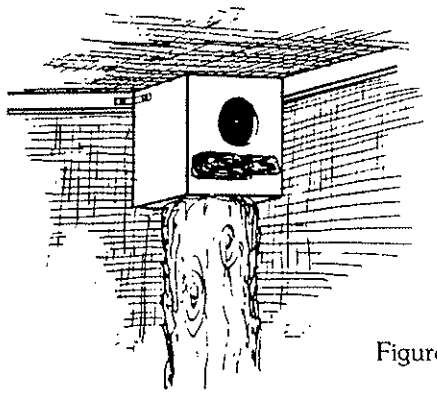


Figure 16

made of wood this house is very sturdy.

Woodpeckers, also, need a dark hole in the aviary to climb into (Figure 16). They really panic without it and may become so nervous they will not eat. The author recalls that one box she had in her aviary was well battered by a Flicker who tried immediately to fit into a hole that was not quite large enough for his shoulders. Before a saw could be retrieved to correct the problem, the Flicker had already desperately begun the remodeling. Attached to the front of the box, under the hole, is a piece of driftwood which makes a good surface for the claws to grab onto. Bark seems more fitting and logical, but it crumbles and constantly needs replacing. Mount woodpecker houses securely but not too permanently as you will have to take them down periodically to clean the insides.

These two types of aviary housing are readily used by birds. At dusk (especially in bad weather) you are not likely to see a single bird in your aviary. They will all be tucked away in their houses for the night.

Unfortunately, in this paper, little time has been spent on CLEANLINESS but it must be emphasized. Change papers and bedding at least daily and more often if they become unduly soiled. Keep perches clean. Use clean food and water dishes each day. Dirty dishes should be washed thoroughly in hot soapy water, rinsed well and soaked in a disinfectant for at least 15 minutes. A simple solution of 1 tablespoon of household chlorine bleach to 1 gallon of water is effective. Allow the dishes to dry before storing. Do not try to house too many birds in one space. Overcrowding is very detrimental. These points are vital in keeping your birds' housing a healthy place.

Finally, to sum up, think about the natural behavior of the birds you are housing - the open nests, the hanging nests, the enclosed nests, and the cavity nests. THINK LIKE A BIRD and put yourself mentally into their surroundings. WOULD YOU WANT TO LIVE THERE? Provide CLEANLINESS, SAFETY, SECURITY, PROTECTION FROM THE ELEMENTS AND PRYING EYES. Adapt your own housing methods or use some of these ideas to provide the birds in your care with a less stressful stay in captivity.

© Joyce Long March 1, 1987

## ACKNOWLEDGEMENTS

I wish to acknowledge the many contributions of Carol Hamilton, Carol Meaney, Courtney Dawson-Roberts and Juanita Heinemann to the methods and information included in this paper. Without their help and the help of other rehabilitators with which I have worked over the last eleven years, these ideas could not have developed.

*EDITOR'S NOTE*

This article was reviewed and edited by Wildlife Journal staff.

## REFERENCES

WELTY, Joel C. 1975. *The Life of Birds.* Philadelphia: W.B. Saunders Co.

WALLACE, G.J. and Mahan, H.D. 1975. *An Introduction to Ornithology.* Third Edition. New York: Macmillian Publishing Co. Inc.

O'CONNOR, R.J. 1984. *The Growth and Development of Birds.* Chichester, New York: John Wiley and Sons.

KIRK, David 1975. *Biology Today.* Second Edition. New York: Random House Inc.

# YOUR WILDLIFE REHABILITATION PROGRAM AND THE MEDIA: FORMING A SYMBIOTIC RELATIONSHIP

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**Suisun, CA 94585**

## Introduction

For those who are involved in wildlife rehabilitation programs, working with the media is a crucial part of your organization's growth and survival. A successful wildlife rehabilitation program depends upon a successful media campaign. In order for your community to be sympathetic and supportive of your services, it must first be aware of your existance. However, putting your group's phone number in the telephone directory or placing a few flyers in the laundromat are not enough.

## Setting up a Public Relations Program

The campaign plan begins by choosing a Public Relations director who will meet the right media representatives, learn how to work with them and gain their cooperation. Although it may not be possible to change the basic way the media thinks or operates, your wildlife program will at least have an opportunity to try to influence what the media says about your cause and how communication channels perceives your group as a source of useful information.

Wildlife programs need the media in order to increase the public's awareness of the services they offer and the media needs unique, interesting, and/or heart-warming stories for its purposes. This symbiotic relationship can prove to be very rewarding.

## Taking the Media Seriously

In order to influence the media, it must be taken seriously and public relations (PR) can play a central role in the organization. To accomplish the necessary tasks, it is important to appoint a knowledgeable volunteer as an ongoing PR director. This person needs to have the time, inclination, and the personality to interact with media personnel.

It is imperative that the PR director be in agreement with the goals of the wildlife organization and be able to convey reliable information about its efforts. The director also should be able to write well, be interested in learning about the media and be willing to make himself/herself known to all appropriate communication channels. The personality of your new PR director needs to be friendly, approachable, composed and well-liked within your organization. He/she must have easy access to the leadership of the organization and be kept informed of pertinent decisions.

Your program's PR director/spokesperson should not be your current president, volunteer coordinator, training instructor, or anyone else who is already busy performing major tasks for the organization. The position of PR director requires a considerable amount of time and should be delegated to another responsible person.

One of the tasks of the PR director is to prepare announcements or suggest articles about the organization for the media. Feature stories, including captioned photographs, can offer dynamic insight into the good works of the organization. If a publication or broadcast medium elects to do its own feature on your wildlife program, it is the role of the PR director to be contacted first in order to provide background information, secure photo releases and identify volunteers to be interviewed.

This information should be conveyed to all volunteers who handle calls from the public. If you have a center, post the PR director's phone number in a visible location. If you have on-call volunteers, be sure each one knows how to handle a call from the media. No one, unless scheduled to do so, should discuss a story about the wildlife group except for the designated spokesperson such as the PR director. However, the executive director or clinic supervisor may be called upon to respond to inquiries from the press in the event the PR director is unavailable.

Never underestimate the usefulness of media coverage. A line from any publication that describes the efforts of your group is valuable. Stories can later be reproduced and used as hand-outs to supplement brochures, special events and fundraising campaigns.

The relationship between your PR director and the media is particularly important in a crisis situation. Acting as the spokesperson for an organization is a significant responsibility. The PR director never interprets or determines policy without the approval of the board of direc-

tors and must be readily available to respond to all requests for information. If this information cannot be supplied by your PR director, simply have this fact be explained to the media. Finagling or forms of deception are taboo. Ensure that your spokesperson organizes his/her thoughts prior to speaking, can choose words carefully on his/her feet and can remain calm at all times. To be taken seriously by the media, the PR director must always be consistent and reliable.

## Identify the Communication Channels

There are several publications and organizations available to assist in locating media representatives in your community. Many printers' unions prepare directories of their districts' publishers. Other directories provide descriptions of all communication channels in a given area. Other methods include calling your library, local chamber of commerce, public affairs office, or any local college to see if they have publicity outlets or other lists available to the public. The PR director may also want to seek advice and support of other nonprofit agencies such as your local S.P.C.A., National Audubon Society Chapter, or similar organizations.

## The Media and Contact Files

There are two main media categories: publications and broadcast stations. From publications, have the program's spokesperson investigate all newspapers, newsletters, tabloids and magazines in your service area. List the people to reach; find out when they are normally in their offices and meet them. The most professional social activity in vogue is offering to take the reporter to lunch. Each media contact should receive a media kit*. Your PR director should describe your organization to the media representative and discuss preparations of promotional material. Identify each station's audience and determine the type of news that interests the reporter. Inquire about preferable formats for your press releases and announcements. See the list of references for more information.

A special file of media information should be prepared for your service area. The PR director will need specific information about the print media, such as the scope of each publication's audience, its use of the Public Service Announcement (PSA) and the Free Speech Message (FSM), names of contacts and entry deadlines. A copy of a press release or PSA that illustrates the media's format should be obtained. It is important to know as much as possible about the communication channel to help identify the audience that listens to the station or reads the publication.

The communication representative should know that the members of your wildlife program care about how the media presents their group to the public. This may be accomplished on a personal level by the PR director and/or on a formal level by your entire membership. The PR director can send a special "thank you" note, an occasional greeting card, and/or present an award to a particular editor, reporter, publication, or station for an outstanding story or for excellent continuing support.

*The media kit is a standard pocket folder that contains all of your program's promotional material - e.g., brochures, press releases, annual report, business card, etc.

It is the PR director's responsibility to be aware of any correspondence sent to media representatives. This spokesperson should personally recognize a special effort, offer direction for clarity, when needed, and clarify any incorrect information.

Sometimes inadequate or partially incorrect stories may appear in a printed story or broadcast. When this occurs, good rapport between your PR director and the media is crucial. Your spokesperson should be tactful and clear when identifying a problem area and offer the correct information to the media. Inform center staff and/or on-call volunteers of the situation and advise them how to handle potential hostile calls from the public or your members.

If the reporter does not think that a follow-up story with the corrected information is necessary, your PR director should offer this information for a future piece. If the story has an adverse slant, be sure that your spokesperson does not get emotional. This negative response by your PR director could lead to a follow-up story that would only increase "bad press." If after careful consideration, it is still thought that a correction is warranted, the program spokesperson can telephone the editor or general manager and mention the story. Be sure that the facts are in order so that they can be calmly discussed as to why the story was incorrect. Your PR director should politely suggest that a different reporter research the subject for a follow-up story. Be careful that your relationship with the media is not abused by making unnecessary demands for time and coverage. If a problem arises, ensure that your program's spokesperson deals with it immediately. A concern and a willingness should be shown for cooperation in presenting accurate information about your wildlife rehabilitation center.

In order to present information to the public, your wildlife organization needs to decide which audience to reach and the best time to do so. Publications reach a more select, and generally more interested, audience than either radio or television. However, in the media community, there is a tendency towards the "ripple effect." A story in one medium will often generate a story in another.

## Standard Media Procedures

There are standard media procedures that are essential to know before you begin (the list of references following this article is an excellent resource). Basic tools of the trade include the Events Announcement, the News or Press Release, the Public Service Announcement and the Free Speech Message. All are free.

1. *Events Announcement:* Public events such as volunteer classes, nature walks, membership meetings, annual bazaars, etc. can be announced in local newspapers (check calendar listings), radio or television. Contact the chosen medium and read a typical column for the writing style or listen to a normal announcement. Note the wording and format. Events Announcements should be brief, double-spaced and contain your name and phone number for verification or additional information.

2. *The News or Press Release:* The news release is one of the most important tools for building and maintaining an effective communication program. Each should be reviewed by the executive director or other designated staff depending on the subject. The themes and philosophy must be consistent with the views of the Board of Directors as well. Prior to preparing the release, the PR director should determine

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| **Session II** - RESTRAINT OF WILD ANIMALS by Dave Jessup, DVM, William Clark and Brian Hunter, California Department of Fish and Game<br>These materials cover basic considerations and responsibilities for restraint procedures, pharmacology, medical concerns, equipment and safety considerations for the rehabilitator handling wild animals.<br>**Price: $5.00** | | |
| **Session III** - LABORATORY PROCEDURES AND DIAGNOSTICS by Tami Anderson, AHT<br>Procedures covered include the various aspects of hematology, laboratory tests, urology, parasitology, testing done for heart worm and basic information on bacteriology and culture and sensitivity testing. Revised 1987.<br>**Price: $5.00** | | |
| **Session IV** - PHYSICAL EXAMINATION AND INITIAL CARE by Sandra Emanuelson, DVM and Jan White<br>Topics covered include intake procedures, initial exam, basic shock and treatment for selected poisons.<br>**Price: $5.00** | | |
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| **Session VI** - PHYSICAL THERAPY IN RAPTORS by Nancy Horowitz, RPT<br>A registered physical therapist, Ms. Horowitz brings to our field her knowledge of the principles, application and cautions in the use of physical therapy on wild raptors. This packet also includes "A New Method for Exercising and Rehabilitating Raptors," by Terry Schulz, Julie Klingman and Russell Tucker.<br>**Price: $5.00** | | |
| **Session VII** - BASIC NECROPSY PROCEDURES by Pat Gullett, DVM<br>This packet provides rehabilitators with a procedure for both avian and mammal necropsy complete with diagrams. Reptile illustrations are included for reference along with a necropsy form for the rehabilitator.<br>**Price: $5.00** | | |
| **Session VIII** - FLUID THERAPY IN WILDLIFE CARE by Michael Murray, DVM<br>Dr. Murray explains the different types of fluids available, when to use them, criteria for their use and routes of administration. Basic acid-base balance is also covered in this packet.<br>**Price: $5.00** | | |
| **Session IX** - WOUND MANAGEMENT IN WILDLIFE CARE by Michael Murray, DVM<br>This packet offers step-by-step instructions on how to deal with wounds. The information includes sections on wound healing, management of contaminated and infected wounds, wound protection and preparation of the surrounding area, debridement, lavage antibiotics, wound closure and open-wound management.<br>**Price: $5.00** | | |

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| **WILDLIFE REHABILITATION TODAY 1985**<br>These proceedings are divided into four sections: avian, mammal, reptile and education, ethics and management. The titles include: Wildlife Medicine and Rehabilitation, James Roush, DVM; Emergency Care of Wild Birds: Fluid and Electrolyte Therapy, Joanne Paul-Murphy, DVM; Feet, Feathers and Food: The Care of Sick and Injured Seabirds and Marsh Birds in Captivity, Meryl Faulkner; Care of Loons and Grebes, Jay Holcomb; Hummingbird Care, Juanita Heinemann; Immunoprophylaxis in Rehabilitated Mammals, Murray Fowler, DVM; Post-Anesthesia Care of Wild Mammals, Marguerite A. Comstock, AHT; Marine Mammal Strandings: Do's and Don'ts, Jan Roletto; A Review of Basic Husbandry Practices for Captive Herpetofauna, Kenneth E. McCloud. Several of the papers also include helpful charts and illustrations.<br>**Price: $15.00** | | |
| IMMOBILIZATION OF SIMPLE AND COMPOUND FRACTURES IN SONGBIRDS AND RAPTORS by Victoria Welsh, 1983.<br>This booklet covers many aspects of dealing with fractures in birds. Areas covered include cleaning and disinfecting wounds, fractures of specific bones and their treatment and post-treatment rehabilitation.<br>**Price: $3.50** | | |
| INITIAL CARE OF INJURED AND OILED WATER BIRDS by Kathy Hobson<br>Starting with the safety of your volunteers, this paper goes on to cover such subjects as recordkeeping, examination of the birds, treatment of sick or oiled birds, housing, salt water tolerance and much more. Recipes for the diets of the different groups of water birds are also included.<br>**Price: $2.50** | | |
| RACCOON REHABILITATION by Jan White and Debbie Marcum, 1979<br>A 20-page booklet of the care, handling and release of raccoons. It includes details on infant and adult diet, medical problems, vaccinations, caging, growth charts and much more.<br>**Price: $3.50** | | |
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| RAPTOR CARE AND REHABILITATION by Gary Bogue and Dave Garcelon, 1977<br>A 140-page book on the complete care of raptors for rehabilitation. Sections include initial care, housing, medical problems, training and rehabilitation. Each section goes into great detail and addresses common and not so common problems that are encountered with these birds. Illustrations include perches, flying equipment, splints and wing and body wraps.<br>**Price: $16.00** | | |
| WILDLIFE FLOW CHART by Sandra Emanuelson, DVM, 1983<br>This 11"x17" coated flow chart shows you what steps should be taken upon receiving an injured animal. You start at the bottom of the chart, decide what condition your animal is in and determine what drugs or procedure should be followed. There is also a list of treatment drugs and their dosages for easy reference.<br>**Price: $3.50** | | |

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| A NEW METHOD FOR EXERCISING AND REHABILITATING RAPTORS<br>by Terry Schulz, Russell Tucker and Judy Klingman<br>This paper introduces a new method of exercising raptors with a minimum amount of human contact. This method is ideal for the rehabilitation program that does not have room for a large flight aviary. Complete instructions to build a fixed flight line and harness are included.<br>**Price: $1.50** | | |
| AVIAN DRUGS AND DOSAGES<br>by Charles Galvin, DVM (1976)<br>A 48-page booklet that is an A to Z guide for drugs used on avian species. This booklet lists approximately 200 drugs that are used in birds and their recommended dosages.<br>**Price: $5.00** | | |
| SWALLOWS, VARIOUS SPECIES by Carol Meaney, 1980<br>This paper contains special housing needs, pesticides and the specific problems that can happen when caring for swallows.<br>**Price: $2.50** | | |
| WILDLIFE RESTRAINT HANDBOOK edited by Wildlife Investigations Staff, California Department of Fish and Game 1986<br>The emphasis of this book is information designed for the wildlife rehabilitator and the biologist in the field.<br>**Price: $15.00** | | |
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how it fits into the group's communication plans, and which medium will most effectively distribute the information. Ensure that all issues regarding the journalistic who, what, where, when and why be clearly mentioned at the beginning of every news release. Radio and television stations do not devote as much air time to a story as do newspapers, newsletters and magazines.

Your spokesperson should consider the release's newsworthiness and determine who it will interest, how it offers new information, what action may affect the lives of a large population and which medium will reach those most interested in the subject. Every piece of information should remind the audience of your organization's scope and goals. Brief sentences relating the activity being addressed to the overall goals of the group will help create a more accurate description.

The appearance of the news release is very important. Each release is typed, double-spaced and one-sided only. It should either be on letterhead stationary or clearly have the name and address of the organization typed on it. Additionally, the name of the PR director and his/her phone number is always included as a reliable source on the upper right-hand corner. Details of the news release format are in the references following this article.

3. *The Public Service Announcement (PSA):* A PSA is a type of commercial. Both radio and television stations regularly air these throughout the day. Although competition with other nonprofit agencies for air time is high, PSA's remain an essential part of your media campaign. They are worth the production effort and good ones can have a measurable impact.

4. *The Free Speech Message (FSM):* An FSM is similar to a PSA; however, it is used to express a position, oppose an action and/or urge support for your own group. FSM's are typically expressed on television. And although stations have some discretion, there are a few issues that can be refused for air time because they are too controversial. Nonprofit organizations do have restrictions on the amount of time spent lobbying for political changes and should consult their organizational attorneys or tax consultant if the message is political.

Stations are more discriminate about FSM's than about PSA's. There are fewer of them; they take longer to produce; and unlike the other media tools, FSM's involve scheduling a taping session at the station with a representative of your wildlife group. Because of all the details necessary for an FSM, be prepared for rejection. The best method for getting time aired is the same as PSA's-the personal approach. FMS's with immediate release value are selected over those issues that do not require prompt action. The more specific you can be, the better the chance of your FSM getting selected by the station.

To ensure that your PR campaign is successful, there are two primary ways to assess the results of the PR director's efforts:

1. *File clippings:* Subscribe to publications and/or a clipping service (check local telephone book) and file any stories about your wildlife program. Ask your volunteers and members to send in stories they may see to your PR director.

2. *Maintain a written media report:* Log all media appearances in a monthly written report by press, radio and television spots. Keep this information for your annual report.

Good publicity can be an internal morale booster as well as a means of relating to the public. Reproduce your clippings and/or media report and circulate them to your members, prospective members and the public via your mailing list. Add them to your media kits. Announce achievements at your board meetings and keep your volunteers appraised of your success.

## Conclusions

In present society, every individual is bombarded with more information than can possibly be absorbed. To ensure that your wildlife group's message is heard, it must be properly prepared and be constantly present in all the appropriate mediums (see Figure 1). The quality of the information you send reflects the quality of your wildlife program and projects an image of your work in the community. Designing a good public relations program will be invaluable to your organization in achieving this goal.

Figure 1.

52 STORY/EVENT IDEAS TO BE COVERED BY THE MEDIA FOR YOUR WILDLIFE REHABILITATION PROGRAM

A minimum of one announcement for each week of the year # #

MEDIA TOOLS **

| | EVENTS ANNOUNCEMENTS | NEWS (PRESS) RELEASE | PUBLIC SERVICE ANNOUNCEMENTS | FREE SPEECH MESSAGE |
|---|---|---|---|---|
| 1. Animal care training classes | X | | X | |
| 2. Volunteer orientation | X | | X | |
| 3. Seminars/lectures | X | X | X | |
| 4. Baby bird season | | X | | X |
| 5. Birds flying into clear glass windows | | X | | |
| 6. Illegal poisoning/trapping | | X | | X |
| 7. Poaching | | X | | X |
| 8. Annual Meeting | X | | X | |
| 9. Open house | X | | X | |
| 10. Tour of wildlife center | X | | X | |
| 11. Nature walks | X | | X | |
| 12. Request for donations | X | | X | |
| 13. Request for members/community support | | X | X | X |
| 14. 6-pack plastic holders and water birds | | X | | X |
| 15. Award presentations | X | X | X | |
| 16. Banquets | X | | X | |
| 17. Donations provided by corporations | | X | | |
| 18. Donations by special people/celebrities | | X | | |
| 19. Automobiles and fawning season | | X | | X |
| 20. Anniversary celebration | X | X | X | |
| 21. Moving or making changes celebration | | X | | |
| 22. Benefit dance | X | | X | |
| 23. Holiday greetings to the community | | X | X | |
| 24. Fun run | X | | X | |
| 25. Charity walk | X | | X | |
| 26. Harvest festival | X | | X | |
| 27. Food and wine experience | X | | X | |
| 28. Summer jubilee | X | | X | |

| | MEDIA TOOLS ** | | | |
|---|---|---|---|---|
| | EVENTS ANNOUNCEMENTS | NEWS (PRESS) RELEASE | PUBLIC SERVICE ANNOUNCEMENTS | FREE SPEECH MESSAGE |
| 29. Festival-by-the-(Bay, Marsh, River, Forest, whatever) | X | | X | |
| 30. Masquerade-as-Favorite-Wild-Animal Party | X | | X | |
| 31. Arts and crafts fair | X | | X | |
| 32. Antique show | X | | X | |
| 33. Rummage sale | X | | X | |
| 34. Volunteer picnic | X | | X | |
| 35. Exhibits | X | | X | |
| 36. Group's booth at county fair, trade show, etc. | X | X | | |
| 37. Feeding wildlife during winter months | | X | | X |
| 38. Wildlife appreciation program in grade schools | | X | | |
| 39. National Wildlife Week | X | X | | X |
| 40. Blackbirds/starlings "attacking" people | | X | | |
| 41. Woodpeckers and wood sidings | | X | | |
| 42. Gophers and yard/garden care | | X | | |
| 43. Current legislation regarding wild animals | | X | | X |
| 44. Building construction & how it affects urban wildlife | | X | | X |
| 45. Pigeons and people-living in harmony | | X | | |
| 46. Benefit auction | X | | X | |
| 47. The start of a new community service | | X | | |
| 48. Annual car wash | X | | X | |
| 49. Rattlesnake season-what to be aware of | | X | | |
| 50. Pets and Wildlife | | X | | |
| 51. Contest (rules & prizes/winners) | X | | X | |
| 52. Raccoons under the roof-how to humanely evict from homes | | X | | X |

** In case two or more media tools are suggested, use only one

## two or more events can be covered in a one-week period


**REFERENCES**

1. Bortin, Virginia. PUBLICITY FOR VOLUNTEERS: A HANDBOOK. Walker and Company, 1981.
2. Durbo, Alec. MEDIA HOW-TO NOTEBOOK.* Media Alliance/United Way, Inc., 1983.
3. Maddalena, Lucille A. A COMMUNICATIONS MANUAL FOR NONPROFIT ORGANIZATIONS. AMACOM, 1981.


* This is an excellent resource and can be ordered by contacting the following:
Media Alliance
Bldg. D., Fort Mason
San Francisco, CA 94123
(415) 441-2557
Cost is approximately $5 plus shipping/handling.

## Scientific Reviewers for the *Wildlife Journal* Volume 10 Series

We would like to extend our appreciation for the willingness of these people to review materials submitted to the *Wildlife Journal*. While the Journal Committee has always worked with authors to review, edit and clarify articles, the scientific reviewers bring to the publication their specialty knowledge which we think has helped in our continuing efforts to publish the most accurate, up-to-date information in the field of wildlife rehabilitation. We thank them for taking the time to assist us in the preparation of articles in this series.

Alice Berkner
International Bird Rescue and Research Center
Berkeley, California

Richard Evans, D.V.M., M.S.
Pacific Wildlife Project
Laguna Niguel, California

Lynne Frink, M.S.
Tri-State Bird Rescue & Research, Inc.
Wilmington, Delaware

Michael Fry, Ph.D.
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School of Veterinary Medicine
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School of Veterinary Medicine
Davis, California

## President's Message

(continued from page 3)

particularly challenging. Daily administrative responsibilities of the council have been shared by a few volunteers who have worked an incredible amount of hours. The increased workload resulted in unmet deadlines, burnout, and waning enthusiasm. By requiring board members to perform tedious tasks, we felt that we were not utilizing their creative talents in the best way. To resolve these problems and provide for future growth, the Board of Directors moved to create a central office that would be the center of our daily work.

On January 1, 1988, we opened our central office at the new Sandra Emanuelson Memorial Wildlife Center (SEMWC) operated by the Suisun Marsh Natural History Association in Suisun, California. The SEMWC is a new, state-of-the-art facility directed by its founder, Jan White, who offered the space to

(continued on page 20)

# 1987 Graduates of the Basic Wildlife Rehabilitation 1AB Class

All individuals listed below received a passing score of 70% or better on the IWRC Basic Wildlife Rehabilitation Exam and have completed two sets of homework involving wildlife nutrition and drug dosage calculation. In addition, all participants have successfully demonstrated adequate skills in wildlife care and handling in a supervised laboratory session. These individuals are IWRC certified in Basic Wildlife Rehabilitation.

## WEST COAST GRADUATES

Sandy Armstrong
Silverton, WA

Margie Bailey
Seattle, WA

Linda Borg
Marysville, WA

M. Stuart Boyle
Seattle, WA

Elaine Caligiuri
Olympia, WA

Tina Carlson
Seattle, WA

Tim Cavanagh, DVM
Arlington, WA

Colleen Cook
Seattle, WA

Diane DeLerno
Bellingham, WA

Charles Ely
Seattle, WA

Lorne Gould
Vancouver, BC

Diane Hardie
Coquitlam, BC

Melody Harris
Gold Bar, WA

Debbie Johnson
Lynnwood, WA

Suzanne Keeney Lucy
Deming, WA

Cheryl Kleimbart
Marysville, WA

Carolyn Krieg
Seattle, WA

Tammy Lowdon
Deming, WA

Patricia Mercer
Snoqualmie, WA

Jan Ayers
Woodland, OR

Leonard Bottleman
Beaverton, OR

Howard Bruner
Astoria, OR

Darren Craig
Scappoose, OR

David Craig
Portland, OR

Mary Jo Douglas
Bend, OR

Kathy Durden
Beaverton, OR

Rita Finlay
Portland, OR

Elizabeth Gardner
Portland, OR

Frances Hanselman
Beaverton, OR

April Hansen
Portland, OR

Maria McGeorge
Portland, OR

Meg Muldown
Portland, OR

Linda Neithammer
Tigard, OR

Karen Nelson
Ashland, OR

Alyssa Ottomeier
Corvallis, OR

Louise Culver
Squaw Valley, CA

Cora Dittrich
Downieville, CA

Connie Dreyer
Oceano, CA

Terrianne Du Bois
Petaluma, CA

Chris Greszizuk
Vacaville, CA

Fiona Hibbard
Suisun, CA

Pamela Jones
Suisun, CA

Sandra Land
San Jose, CA

Barbara Lissone
Morgan Hill, CA

Pat Maupin
Fairfield, CA

Crystal Norris
Sebastopol, CA

Betsy Patterson
Morgan Hill, CA

Susan Patton
Arroyo Grande, CA

Marilu Paulson
Willits, CA

Jacki Pealatere
Willits, CA

Todd Monette
Olympia, WA

Katherine Moran
Vancouver, BC

Lorre Myers
Seattle, WA

Colleen Newell
Arlington, WA

Elfriede Pederson
Burnaby, BC

Elene Peterson
Snohomish, WA

Lorinda Prottero
Kingston, WA

Gloria Smith
Arlington, WA

Jean Thorpe
Port Coquitlan, BC

Connie Campbell
Snoqualmie, WA

Linda Abernathy
Vancouver, WA

Michael Abernathy
Vancouver, Wa

Carol Ottomeier
Albany, OR

Diann Palmer
Beaverton, OR

Alex Prentiss
Tigard, OR

Dana Lyn Richards
Portland, OR

Christy Sallee
Corvallis, OR

Lonni Sickenberger
Portland, OR

Jane Stevens
Bend, OR

Diane Terhune
Portland, OR

Rita Weir
Newberg, OR

Leslie Winnop
Estacada, OR

Gary Winter
Bend, OR

Naomi Adams
Sierra City, CA

Norma Clerici
Crockett, CA

Bonnie Cromwell
Petaluma, CA

Julie Cromwell
Petaluma, CA

Julie Ricci
Santa Rosa, CA

Joan Schimmelman
Lafayette, CA

Yehudit Sherman
Lafayette, CA

Sandy Spafford
Mill Valley, CA

Carol Staggs
Sebastopol, CA

J. Shannon Thomas
San Rafael, CA

Diane Trowbridge
Santa Rosa, CA

## EAST COAST GRADUATES

Lesley Aries
Winter Springs, FL

William Beck
Orlando, FL

Katherine Beckett, DVM
Stuart, FL

Mary Bristow
Naples, FL

Judy Bryant
Orlando, FL

George Carson
Orlando, FL

Ken Christensen
Hobe Sound, FL

Resee Collins
Maitland, FL

Robert Collins
Orlando, FL

Buck Cooper
Winter Haven, FL

Sara Denham
Naples, FL

Patrick Dempsey
Orlando, FL

Karen Elling
Sanibel Island, FL

Linda Fiducia
Tavernier, FL

Bonnie Findlay
West Palm Beach, FL

Barbara Gordon
Lake Wales, FL

David F. Griffin
Gainesville, FL

Sharon Hollingworth
Apopka, FL

Maria Holmes
Cassilberry, FL

Kimberly Hopkins
Orlando, FL

Denise Kiley
Altamonte Springs, FL

Betsy Knight
Blountstown, FL

Tom Leitner
Maitland, FL

Garry Lockwood
Winter Park, FL

Rachel Martinez
Jacksonville, FL

Elizabeth Moses
Orlando, FL

Cynthia Mosling
Jacksonville, FL

Barbara Neumeyer
Daytona Beach, FL

Cliff Place
Orlando, FL

Laura Quinn
Islamorada, FL

Donna Ritchey
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Marianne Scholer
Orlando, FL

Dyanne Singler
Naples, FL

Donovan Smith
Naples, FL

Patty Speigel
Frostproof, FL

Carol & Gary Swain
Edgewater, FL

Joan Waters
Auburndale, FL

Michael Weingart
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Diane Bader
Vincentown, NJ

Byron Balliet
Vincentown, NJ

Cindy Bogan
Watchung, NJ

Charmaine Calnon
Mt. Holly, NJ

Donna Chester
Tabernacle, NJ

John D'Autrechy
Cinnaminson, NJ

Connie Douglas
Berkeley, NJ

Susan Fluck
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Lois Gagliardi
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Brigantine, NJ

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Titusville, NJ

Gale Johnston
Toms River, NJ

Darlene Kinsey
Riverside, NJ

Ginger Kop'Kash
Brigantine, NJ

Janet Lipman, DVM
Hamilton Sq., NJ

Susan Mahler
Tuckahoe, NJ

Kathy Morris
Indian Mills, NJ

Alberta Neville
Magnolia, NJ

Therese Ogden
Mt. Holly, NJ

Lynn Pasquarella
Medford, NJ

Richard Pease
Vincentown, NJ

Althea Quigley
Hackensack, NJ

Susan Radich
Glendora, NJ

Joan Re
Bath, PA

Jan Reichert
Woodbury, NJ

Barbara Scavelli
Medford, NJ

Joseph Schmeltz
Trenton, NJ

Sandra Shumann
Vincentown, NJ

Gail Shaw
Westville, NJ

Barbara Smyth
Riverton, NJ

Clara Spooner
Delron, NJ

Gordon Stull
Tabernacle, NJ

Joe Szczepanski
Audubon, NJ

Loretta Torsey
Antrim, NH

# CHANGES FOR THE JOURNAL

With the completion of Fall '87 IWRC Journal, the Journal committee bids farewell to two of its most hardworking members, Susan Kelly and Susan Brain. Ms. Kelly served as assistant editor from 1979 to 1985 and later transferred to graphics, layout and production. Ms. Kelly has been instrumental on the Journal committee. She has helped to make it the most important publication in the field of wildlife rehabilitation today. Ms. Kelly has also played major roles in the annual Wildlife Conference and has served as the head of the IWRC literature department for ten years. Her outstanding contributions have been appreciated and she will be greatly missed.

Ms. Brain had served as assistant editor of the Wildlife Journal since 1985. Her advanced technical and editing skills along with her continuing work in wildlife rehabilitation enabled her to contribute to the Journal committee in many ways. We are grateful to Ms. Brain for her efforts and we wish her well in the future.

The Journal committee would like to welcome the new assistant editor, Sally Lewis. Ms. Lewis has over 10 years experience in wildlife rehabilitation. During this time, she has earned a degree in Avian Sciences from the University of California, Davis, has served as member of the IWRC Board of Directors (1982-1986) and has worked in the Public Information Dept. at the San Francisco SPCA. Ms. Lewis is currently instructing a new class in the Skills Seminars series entitled "Volunteer Management for Wildlife Care Programs." We look forward to Ms. Lewis joining the Wildlife Journal team.

The job of design and layout for the Journal will be handled by Ancona Graphics in San Mateo, California. Mailing procedures will be handled at the new IWRC office in Suisun, California. The President's Message gives further details on organizational changes.

Like a wildlife center recuperating from a successful spring and summer, the Journal committee currently rests from a winning 1987. Committee members are now planning for the many challenges of a new season. The words for 1988 are "active participation." We encourage active participation by our readers in two ways. First, we are very interested in opinions relating to the journal's topics and second, articles written by our readers are always welcomed.

# Clinician's Corner

# Giving Sub-Cutaneous Fluids to Birds

**Jan White**
**Suisun Marsh National History Association**
**1171 Kellogg St.**
**Suisun, California**

Avian patients suffering from a wide variety of injuries are presented to wildlife rehabilitators for care and treatment. Often the birds are suffering from multiple problems such as shock, septicemia, dehydration, hypoglycemia, hypoproteinemia, and weight loss in addition to any traumatic injuries they may have received. The rehabilitator must be able to evaluate an injured bird and perform life-saving procedures when necessary. It is vital that the procedures assist the bird or at least follow the maxim "do no harm."

## CANDIDATES FOR SQ FLUIDS

Subcutaneous (SQ) fluids can be very helpful when used in birds that are not able to receive oral fluids and are in satisfactory medical condition so that they do not require IV fluids. A candidate for SQ fluids is bright-eyed, alert, and responsive to environmental stimuli (called "BAR"). Birds showing signs of moderate or severe shock (not BAR) should be given fluids intravenously. However, if the veins are collapsed and venipuncture is not possible, SQ fluids can be used initially to help elevate the blood pressure, followed by IV fluids later in the course of therapy. Stable birds, can be switched to SQ fluids, and then to oral fluids as their condition improves.

Birds that are vomiting or have jaw or mouth injuries that make access difficult are also good candidates for SQ fluids. Emaciated birds who arrive at 50-60% of their body weight are often dehydrated. They have difficulty assimilating fluids because the gastrointestinal tract is not functioning normally. These birds should not receive oral fluids initially, so fluids are given SQ or IV, depending on their BAR status. SQ fluids are often given to maintain adequate hydration status in birds that are not consuming enough food during their initial adjustment period in the wildlife care facility. This is referred to as maintenance fluids, 30-60 ml/Kg/day.

## TYPES OF FLUIDS USED IN SQ INJECTIONS

It is imperative that the maxim "do no harm" be used as a guide for the selection of fluids given by this route. All fluids given SQ must be isotonic. Hypertonic solutions tend to draw fluid out of the tissue and bloodstream into the SQ injection site resulting further initial dehydration and slightly lower blood pressure.

Fluids should be balanced electrolyte solutions such as Lactated Ringers, Acetated Ringers, or either Ringers type (1/2 strength) with 2½% dextrose in them. The two Ringers solutions differ in their buffers. Buffers are converted by the animal to bicarbonate and used to maintain the blood pH within narrow limits found in the living animal. Acetated Ringers uses acetate which can be utilized by tissues other than liver (i.e., muscle). Since acetate requires the less metabolism, it is a wise choice for use in an animal who is very ill.

## THE IMPORTANCE OF DATING OPENED FLUID CONTAINERS

Fluids must be sterile when used for injection purposes. Once a bag or bottle has been entered or hooked to a drip, the sterility has been broken and it should be dated and used for injection purposes on a timely basis. Generally, at the facility from which I operate, the fluid container is used for IV administration for the first twenty-four hours and SQ for a maximum of five days. After that time, the bottle is restricted to oral use. Fluids can be refrigerated to help slow bacterial growth. Solutions containing small amounts of sugar in their ingredients are especially noted for their ability to support bacterial growth.

## SITES FOR SQ INJECTION IN AVIAN PATIENTS

While various sites have been recommended for SQ injection in avian species, the inguinal region will hold the most fluid per injection. Other sites used include the patagium (wing web) and the mid-back. The patagium is a very important tissue to flying birds and cannot hold much fluid. Additionally, circulation to the patagium is poor and so fluids are absorbed slowly. Care must be taken not to give too much as the entire area may slough (necrose and fall off). While I have heard it advocated, I do not recommend putting fluids in the dorsum (back) of the neck in birds as is done in mammals. The cervicocephalic air sacs are located in this region and injection into the respiratory tree is contraindicated.

# Avian Fluid Therapy Simplified

## by John & JoAnn Hicks

### Day One

The graphs on this page give the amount of fluids to be administered in the first 24 hours of a 72 hour plan for recovery. They include both daily maintenance and fluid deficit lost through dehydration. The deficit amounts are shown for 6%, 8%, 10%, and 12% dehydration and the maintenance amounts are based on a daily requirement of 50 ml/Kg. Also, they do not take into consideration fluids lost through vomiting, diarrhea, or wound drainage.

Figure 1 may be used for birds weighing between 10 g. and 100 g. Figure 2 ranges from 100 g. to 1000 g. and Figure 3 is for 1000 g. and 10,000 g. The left side of the graph indicates the admission weight of the bird. The top of each graph indicates the total amount of fluid in ml (cc) to be administered in a 24 hour period.

The plot line nearest the left side of each graph is for 6% dehydration. The next line to the right is 8%, the next one is 10% and the line on the far right is for 12% dehydration. Remember, fluid amounts are for one full day and must be divided by the number of times you wish to administer it.

If you chose to calculate the exact quantity based on the above criteria, you may use the following multiplication factors.

6% = admission weight X .0848
8% = admission weight X .0972
10% = admission weight X .1100
12% = admission weight X .1232

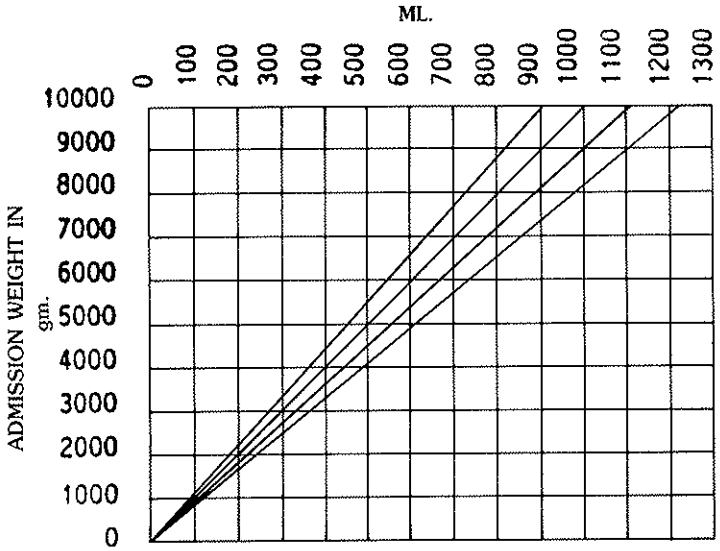



FIGURE 3

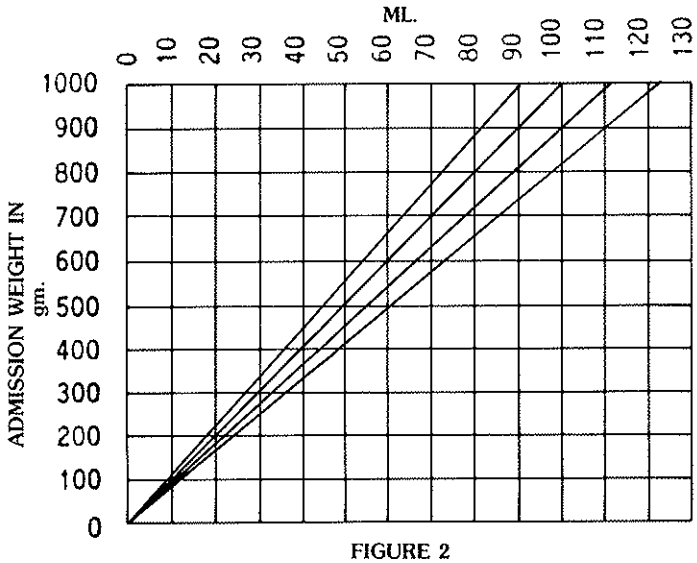



FIGURE 2

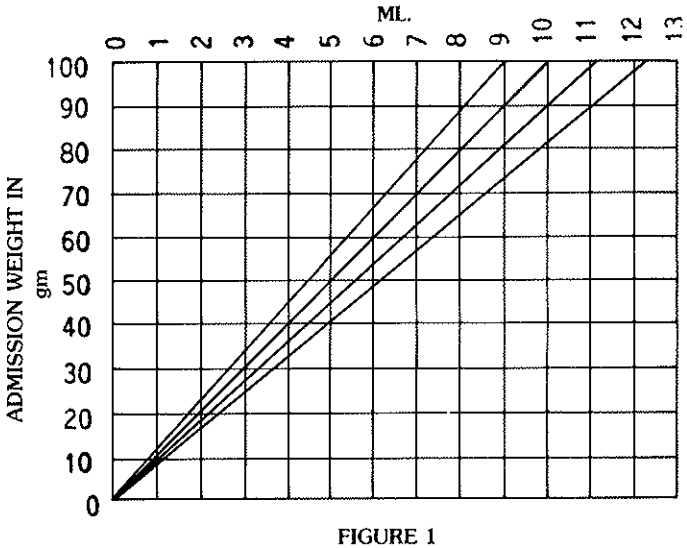



FIGURE 1

# AVIAN FLUID THERAPY CHARTS

## Days Two and Three

From these charts the amount of fluids to be given to a bird on the second and third days of a 72 hour recovery plan can be determined. As with day one, they include both daily maintenance and fluid deficit lost through dehydration. Again the deficit amounts are shown for 6%, 8%, 10%, and 12% dehydration and the maintenance amounts are based on 50 ml/Kg. Remember, avian species requirements may vary from 40 to 60 ml/Kg. Also, they do not take into consideration fluids lost through vomiting, diarrhea or wound drainage.

Figure 1 may be used for birds weighing between 10 g. and 100 g. and Figure 3 is for 1000 g. and 10,000 g. The left side of the graph indicates the admission weight of the bird. The top of each graph indicates the total amount of fluid in ml (cc) to be administered in a 24 hour period.

The plot line nearest the left side of each graph is for 6% dehydration. The next line to the right is 8%, the next one is 10% and the line on the far right is 12% dehydration. Remember, fluid amounts are for one full day and must be divided by the number of times you wish to administer it.

If you chose to calculate the exact quantity based on the above criteria you may use the following multiplication factors.

6% = admission weight X .0689
8% = admission weight X .0756
10% = admission weight X .0825
12% = admission weight X .0896

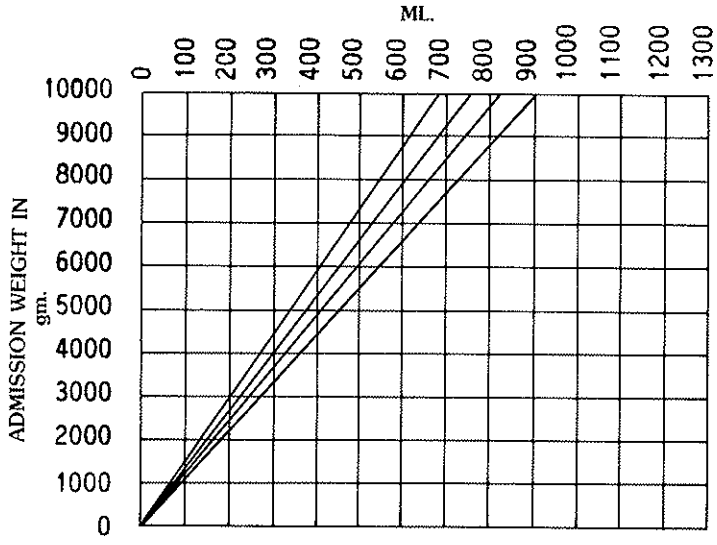



FIGURE 3

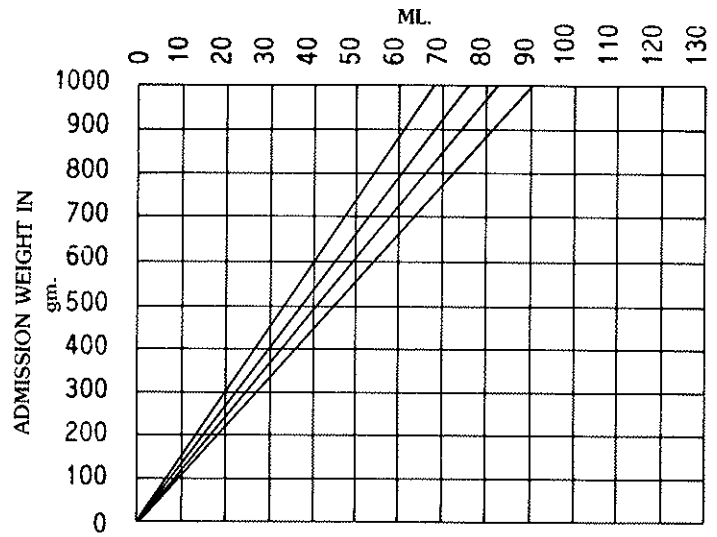



FIGURE 2

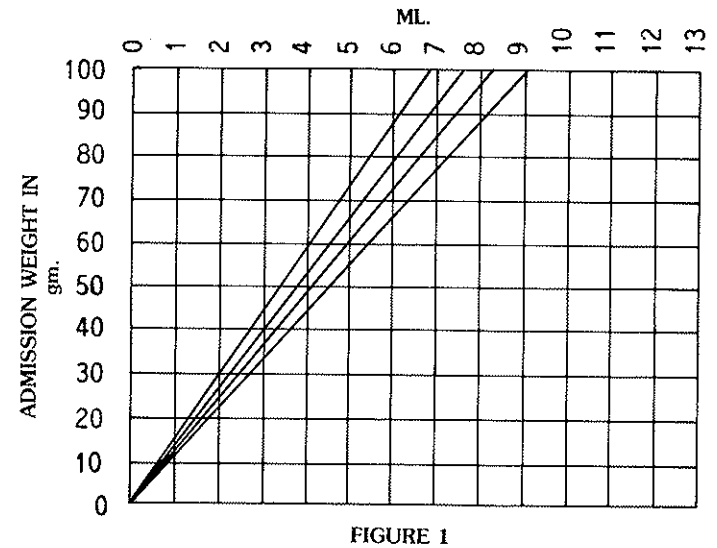



FIGURE 1

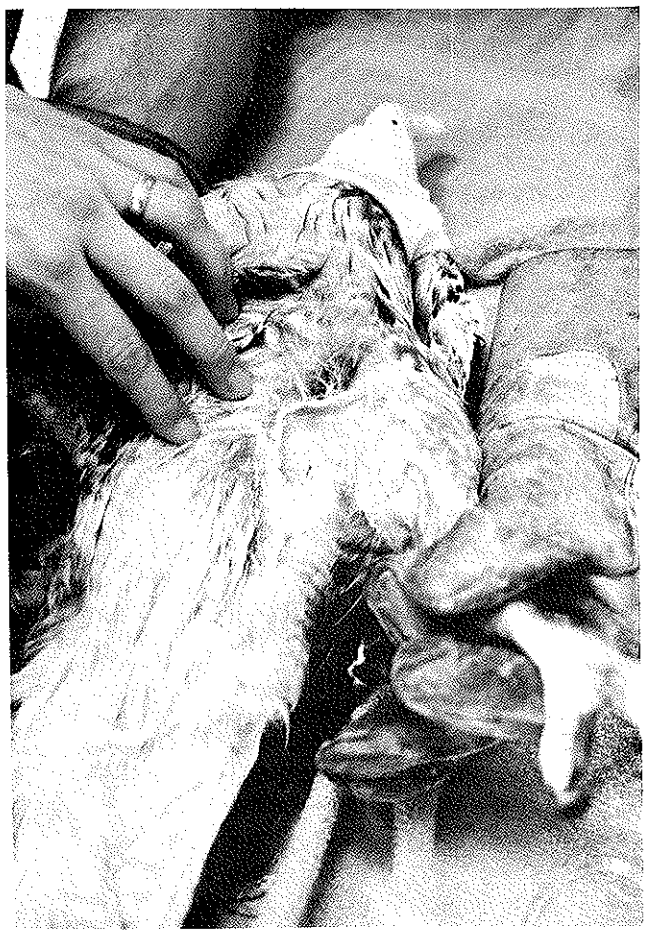
## PROCEDURE

If possible, place enough isotonic fluids in a syringe so that the fluid container will not have to be reentered thus eliminating the need for a needle change. The fluids are warmed until they feel warm to the touch. If they are too warm they can harm the animal and if taken directly from a refrigerator they will chill the animal. Warming is easily accomplished by running warm water over the syringe barrel for a few minutes. Caution must be exercised if a microwave oven is used to warm fluids as fluids may be hotter centrally rather than peripherally (where you feel them).

A medium to large bore needle is placed on the syringe to enable fluids to be bolused into the subcutaneous tissue on a timely basis. This increased pressure on the tissue does cause discomfort to the bird and is best done as quickly as possible. Examples of needle sizes would be a 22-25 gauge needle for medium-sized songbirds, a 20 gauge needle for medium-sized game birds, and an 18 gauge needle for large birds such as a pelican, swan, or eagle.

The bird is restrained and environmental stimuli are reduced. This is accomplished by covering the bird's head and reducing the noise level in the room. One leg is gently pulled forward and rotated away from the body wall. The feathers are parted and may be moistened with water if necessary. The needle is inserted through the epidermis and dermis into the subcutaneous tissue below. This tissue matrix is loose and can handle excess fluids on a temporary basis. These fluids are then absorbed into deeper tissues including the vasculature. When the needle is properly placed, it feels loose when moved slightly. As the fluids are slowly injected the area inflates somewhat like a balloon and the pocket size is that of the inguinal region. In other words, we do not get tiny bubbles that look like blisters. When those are seen, the needle may not be deep enough and sloughing may occur. When the inguinal area is filled with fluids and the skin is *beginning* to appear taut, the injection is terminated by slow withdrawal of the needle. As the needle is withdrawn, the skin on two sides of the needle is pinched together with thumb and forefinger and held for about 10 seconds so the skin will close over the injection site and minimal fluid loss will occur. Do not simply place one finger on the hold and press to the body or the fluid loss will be increased. If you touch the needle during this process, change needles before repeating the procedure on the other leg.

Generally speaking, the inguinal region can take approximately one-fourth of the daily fluid dose per administration and therefore the fluids can be given twice daily. If this is not the case on a given bird, the other sites can be utilized. Fluid volume administration is determined by multiplying the estimated percent dehydration observed in the animal by its weight and then using common sense regarding the amount given per injection site. Specifically, the animal's weight gain in grams is multiplied by the percent of dehydration which equals the fluid deficit (ml). This deficit can be compensated over a 48-72 hour period. The total deficit is then divided by three (if replacement is planned for 72 hours) and a daily maintenance fluid requirement is added (50-60 ml/Kg of body weight). This calculation has been simplified into charts courtesy of John and JoAnn Hicks. These charts are based on a daily requirement of 50 ml/Kg of body weight and it should be noted that some birds may have a higher fluid replacement rate (60 ml/Kg of body weight).



## REFERENCES


EVANS, Richard. 1984. "Notes on Fluid Therapy." In *Wildlife Rehabilitation Volume 3.* New York: Exposition Press, Inc. pp. 134-138.

HARRISON, Greg & Linda. 1986. *Clinical Avian Medicine and Surgery.* Philadelphia: W.B. Saunders Co. pp. 48-51.

HICKS, JoAnn & John. 1987. "Avian Fluid Therapy Simplified" in *Basic Wildlife Rehabilitation 1AB Manual.* Walnut Creek: International Wildlife Rehabilitation Council pp. 40-43.

MURRAY. Mike. 1985. "Fluid Therapy and Administration in Wildlife Care." Walnut Creek: International Wildlife Rehabilitation Council.

PAUL-MURPHY, Joanne. 1985. "Emergency Care of Wildlife Birds: Fluid and Electrolyte Therapy" in *Wildlife Rehabilitation Today.* pp. 7-13.

WHITE, Jan. 1987. *Basic Wildlife Rehabilitation 1AB.* Walnut Creek: International Wildlife Rehabilitation Council. pp. 36-45.

# Letters to the Editor...

Dear IWRC:

I recently wrote to you for information on raising mealworms, and would like to thank you so very much for your prompt and informative reply.

Now I am writing for another reason. In a recent review of the many books and printed proceedings I have on wildlife rehabilitation, I find virtually no information on raising Belted Kingfishers.

I read the extensive and excellent life history of these creatures in Bent's Life Histories, and as a result have a detailed account of development of the young. From that information I gather that once the nestlings are some 14 days or a bit less old, raising them would not be difficult. However, for the first seven or so days of life they are fed a liquid, rather smelly, fluid by the parent, and even once small fish are offered, they are partially digested by the parent.

So what would we rehabilitators feed for that period of time? I wondered if you know of a rehabilitator who has successfully raised these creatures who would be prepared to write an article for your journal so that the rest of us could have the valuable information. Over the years, I have as an IWRC member, found such articles in your journal invaluable, and would like to take this opportunity to compliment you on the journals you publish. If ever I spent money wisely, it is on my annual subscription to the Council. I look forward to hearing further from you relative to raising kingfishers.

Regards,
Raine Carson
Milford, NH

*Dear Raine:*

*Thank you for sharing your praise and your request with the IWRC journal staff. We are sharing it with our readers in hopes that someone who has experience with hatchling Belted Kingfishers will volunteer to write an article about it. Presently we are putting together a member questionnaire to querry our readers about the types of information that they would like to see researched and published in the wildlife journal. However, letters like yours are very important to us because they tell us areas where information needs to be developed. Anyone who is interested in doing this article should contact me and remember, we will help in the article preparation.*

Dear IWRC:

We (The Washington State Dept. of Game) received a nonreleasable spotted owl that had been hit by a car in the area of Vancouver, Washington. In trying to find a facility to place this bird for public display and education, we found a *tremendous* interest among three regional zoos in displaying the owl. All of these zoos have received national recognition for advances in modern zoo design, and each would do a superb job of providing an educational message to the public about the spotted owl and old growth forest habitats.

With only one owl on display here in Washington State, we are not reaching the potential public represented by these three zoos. Therefore, I would like to solicit the help of the wildlife rehabilitation community in securing some additional spotted owls that would be suitable for use in educational programs in Washington and Oregon. I would expect that we would coordinate with other state conservation agencies in this endeavor. Any assistance that you could offer in our efforts to secure non-releasable spotted owls would be greatly appreciated.

Sincerely,
Stephen Penland
Urban Biologist,
Washington Dept. of Game

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## President's Message

(continued from page 12)

IWRC. The office will centralize various council functions and activities. Our membership, literature, and skills seminars departments will move in first, followed by the production crew for this journal. The office staff will provide support for various committees such as conference, species papers, and standards & accreditation program. We have long needed staff to help us keep up with the avalanche of paper generated to serve our members.

The recently established job of Executive Director is needed to manage the council's day-to-day business affairs. This includes performing accounting procedures, employee and committee organization, coordination and supervision. The Executive Director will also serve as liason to the Board of Directors keeping them informed of business activities and implementing the policies developed by the Board of Directors. Our first Executive Director will be Jan White, who has worked on many of the IWRC committees and has a thorough working knowledge of IWRC.

For our office, we have hired an administrative assistant to be responsible for the necessary duties. Sally Lewis, an IWRC volunteer for the Journal Committee and Skills Seminar instructor, has been hired temporarily to help develop office support systems. The administrative assistant position, supervised by the Executive Director, will benefit the organization by implementing the program infrastructure that was requested by the BOD in 1987.

The Board of Directors has been reduced in number from 15 to 11 members. This new board is less localized with new members from different states around the country. We hope that this diversity will better reflect the views of our membership. A smaller number was chosen in an effort to facilitate a tight cohesive working relationship. With the support staff at the IWRC office, the board of directors is free to work on creating new programs. Existing programs will be remodeled to meet the changing needs of rehabilitators. In addition, we would like to work more closely with state wildlife councils (or associations) to facilitate resolution of the various state issues and concerns. We hope to implement a joint membership package with state organizations that would include the Wildlife Journal.

As you can see, IWRC is forever changing and our Board of Directors is committed to serving our members at the highest level possible. I want to take this time to thank the individuals who served on the Board in 1987. It was their honesty and willingness that allowed us to move through some growing pains and go for the vision that we share. Without their input, we never could have come this far. —Jay Holcomb—

**IWRC Presents**

# *Lessons of the Past - Pathways to the Future*




Proceedings of the 1988
International Wildlife Rehabilitation Council
Conference

Papers cover the following topics: Release of One-eyed, 0ne-footed & Otherwise Physically Impaired Raptors by Pat Redig, D.V.M., Aspergillosis, Diagnosis, Treatment, & Prevention by Douglas Yearout, D.V.M., Avian Orthopedics: Practical Applications for Rehabilitation by Russell Tucker, D.V.M., Hand-rearing Infant Tree Squirrels, Injury & Illness in Tree Squirrels by P.C. Hanes, Raising Orphaned Flying Squirrels by Jeanne Wasserman, Deformities in San Juan Islands' Deer by Jessica Porter, D.V.M. & Athena McEntyre, Raising Orphaned Beavers by Jo Ann & John Hicks, Application of Data from Research on Wild Populations to the Rehabilitation of Harbor Seals by Julie Knight, Natural History & Captive Care of Turkey Vultures by Kirstine Thorne, Tourism & Wildlife Rehabilitation in Peru by Paul Beaver, Ph. D., and New In-vitro Techniques for Testing Oil & Dispersant Toxicity to Seabirds & Sea Mammals.

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