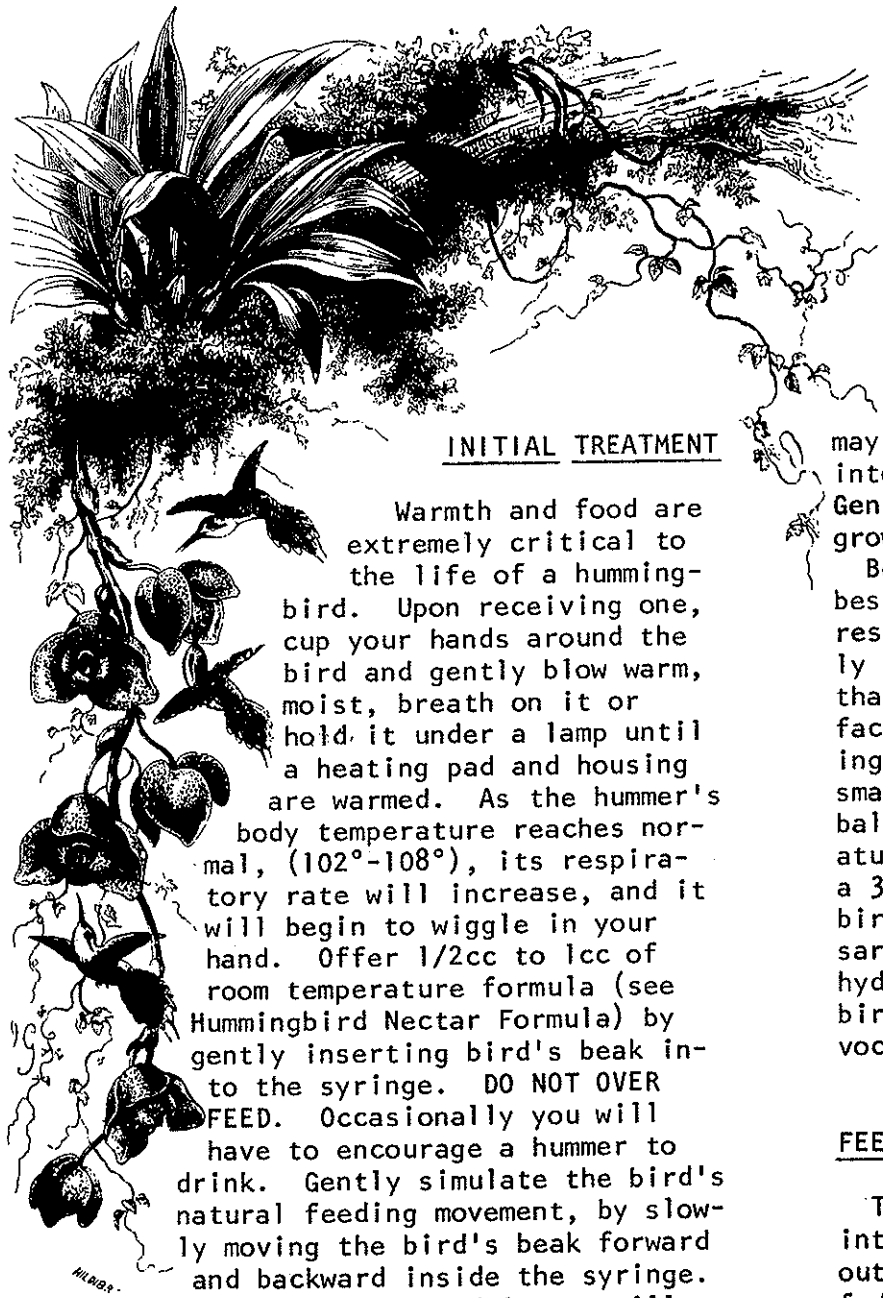
REHABILITATION WILDLIFE COUNCIL

WILDLIFE JOURNAL

Vol. 4 No. X 4 WINTER 1981



Injured Hummingbird Care

INITIAL TREATMENT

Warmth and food are extremely critical to the life of a hummingbird. Upon receiving one, cup your hands around the bird and gently blow warm, moist, breath on it or hold it under a lamp until a heating pad and housing are warmed. As the hummer's body temperature reaches normal, (102°-108°), its respiratory rate will increase, and it will begin to wiggle in your hand. Offer 1/2cc to 1cc of room temperature formula (see Hummingbird Nectar Formula) by gently inserting bird's beak into the syringe. DO NOT OVER FEED. Occasionally you will have to encourage a hummer to drink. Gently simulate the bird's natural feeding movement, by slowly moving the bird's beak forward and backward inside the syringe. CAUTION: Do not drip or spill formula on a hummer's feathers. Even the smallest amount of formula left on their feathers will cause feather rot. You may clean the feathers by dipping a Q-tip into a warm water and mild soap solution. Gently wipe in the direction of feather growth, rinse and pat dry.

Before the physical examination, it is best to give the bird a 30 to 60 minute rest period. Place hummer in a partially covered, 2 windowed (screened) box that is 2"x2"x2". Line with crumpled facial tissue atop a well covered heating pad. Provide humidity by filling a small jar with water saturated cotton balls and maintain a 75° to 80° temperature until no longer necessary. Secure a 3cc syringe within easy reach for the bird to self-feed. Hand feed if necessary every 15 minutes until bird is rehydrated or able to self-feed. Hummingbirds do respond to human contact and vocal sounds.

FEEDING SYRINGES AND HOUSING

The most accurate way to monitor daily intake of food is to use a syringe without the needle. For birds that are hand fed use a 3cc syringe and for the birds that are self-feeding use a 12cc syringe. Be sure syringes are always cleaned throughly before reusing. A dirty

syringe is a great place for harmful bacteria to grow.

For housing materials cardboard boxes and fiberglass window screening seem to be the best and most inexpensive to use. The box should have an open top and two large windows covered with fiberglass window screening. At either end of the box holes should be punched so syringes can be placed at different heights. The size of the box will depend on the hummer's physical condition. Always line the cages with white paper towels or facial tissue. This makes it easier to observe the bird's droppings, and newspaper is too slippery for the birds to walk on. Paper toweling is also safer for a hummingbird's wing and tail feathers. When the hummer has recovered from its injuries, you can give a daily bath by spray misting bird with warm water. Do not saturate the feathers, and protect the bird from any drafts until dry.

Hummingbirds occasionally gorge themselves with nectar one day and slack off the next day. This seems to be a normal occurance and does not harm the hummer in any way. It is always best to maintain an accurate account of each day's intake for quick reference. Place fresh cut flowers or pots of hummingbird type plants (Fuchsia, Citrus blossums,Hibiscus, Lilac) inside housing. Remember to remove all sowbugs and earwigs.

Cage Size	Daily Intake	Cage Capacity
Infants or injured birds		
2"x2"x2"	3cc's to 6cc's	1
3"x3"x3"	3cc's to 6cc's	1
Developing or recovering birds		
4"x4"x4"	6cc's to 7cc's	1
6"x6"x6"	6cc's to 7cc's	1
10"x7"x7"	6cc's to 8cc's	1
12"x12"x12"	8cc's to 10cc's	2
16"x16"x16"	10cc's to 12cc's	3
17"x26"x21"	12cc's to 14cc's	4
Netted outdoor aviary		
30"x36"x15"	12cc's to 15cc's	5

Place one syringe per bird in each of **the** enclosures.

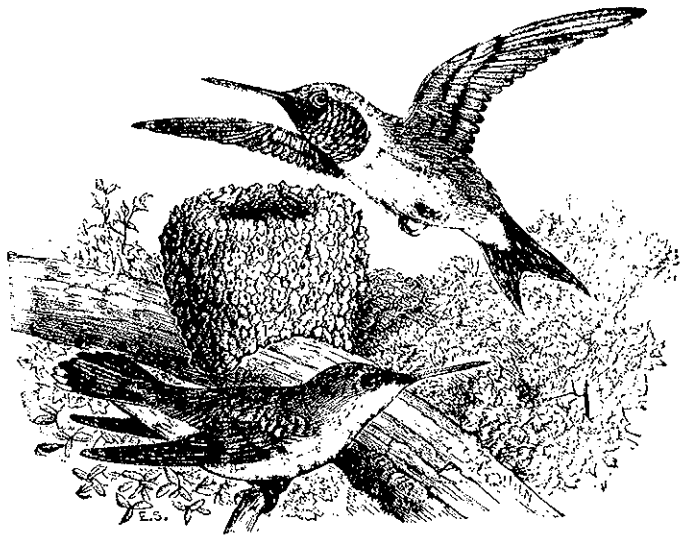
HUMMINGBIRD NECTAR FORMULA

This formula is not for outdoor garden feeders.

1 cup of boiled water
5 tablespoons white sugar
1 1/2 teaspoons of powdered mixture *
1/2 teaspoon Predigested Protein
1/2 oz. Tubeflex worms (drained)
or
180 mealworms (blended and strained through 4 pieces of cheese cloth)
1/4 teaspoon Super Hygliceron B oil
or
1/4 teaspoon "All-3" Brand oil
1 teaspoon Avia or Vionate
1/4 teaspoon Lederplex (vitamin B complex)
1/4 teaspoon Aqua-Vite (optional)

*Powdered mixture:
1/3 part lowfat soy powder
1/3 part dextrose powder
1/3 part powdered milk
Store unused portion in the freezer

While water is hot, add sugar and dissolve completely. Allow to cool. Add one ingredient at a time blending well after each addition. When all ingredients are added, blend on mix speed for 15 minutes. Pour into ice cube tray and freeze. Shelf-life in the freezer is 6 weeks. Defrost only one day's supply at a time and keep refrigerated.
(Formula from Kyra Bambo of Wildlife Rescue Inc., Palo Alto, CA)



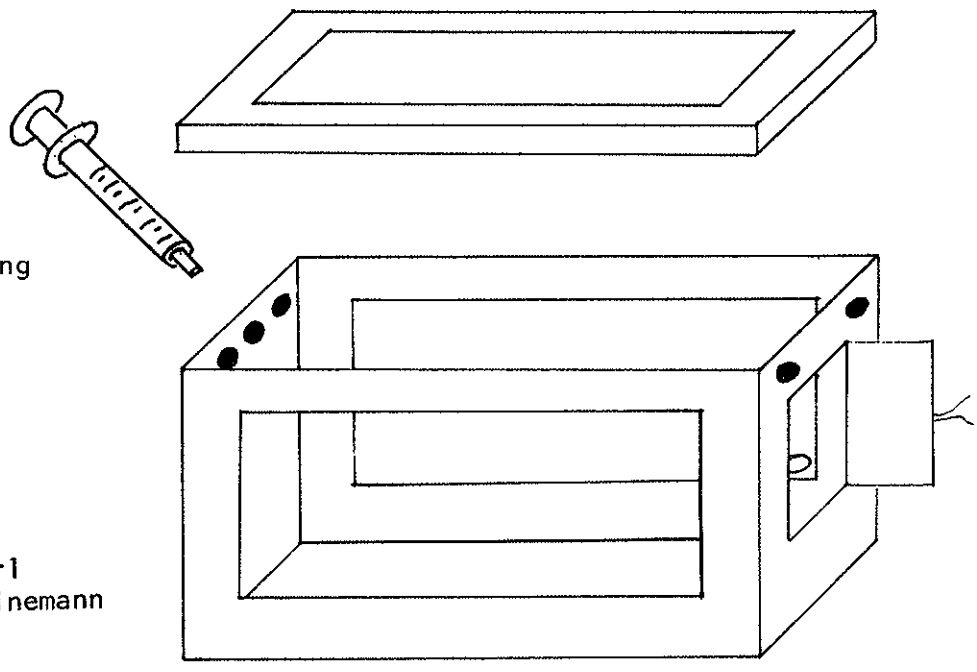
CRANIAL, SPINAL CORD OR INTERNAL INJURIES

Internal injuries caused by flying into objects usually result in massive or slow leak hemorrhage and death. Displaced feathers near the eye or anywhere along the spinal column are a good indication of cranial (head) injury and may take 24 hours before symptoms are manifested. Observe for any neurological symptoms such as swelling around the eye, twitching movements of the head or body, convulsions, inability to maneuver accurately, limp wing or leg, lack of grip reflex or the holding of the head to one side. With this type of injury it is most important to keep the bird as inactive and quiet as possible. Confine the hummer in a very small box with 1 or 2 small windows and low light. Provide small twigs or crumpled facial tissue for perches. Berry baskets are not recommended as housing for hummers, because their wings are small enough to get caught in the spaces, either stripping the feathers or causing fractures. It is most important to protect the wing and tail feathers from damage.

Children's aspirin (1 1/4gr.) tablets have been successfully used as an anticoagulant. Add 1/4 or less of one aspirin tablet and 1/16 of a teaspoon of Lederplex (vitamin B complex) to 8cc's of formula as daily intake. For a mild concussion give mixture for 2 days. For a severe concussion use for 5 days or until twitching has subsided. CAUTION: Monitor droppings for any intestinal problems with the long use of aspirin. Maintain confinement in a 2"x2"x2" or 3"x3"x3" box until all symptoms have ceased. Then very gradually increase exercise space. If symptoms return decrease exercise space and continue treatment. Concussions and spinal cord injuries require the most intensive observation and good nursing care.

INTESTINAL PROBLEMS

Normal hummingbird droppings will be small, formed, and brownish in color with a small amount of sticky liquid. A large, flat or messy dropping with a noticeable "wet" area will indicate dehydration, intestinal disorder, or both. Dehydration droppings usually improve within 24 hours. Droppings that remain large and flat with the "wet" area over a 48 hour period can be treated as an intestinal disorder. Adding 1/16 of a teaspoon of PLAIN YOGURT to 10cc's of formula for a period of 2 or 3 days usually takes care of the problem. If no improvement is seen by the third day, a fecal sample should be taken to your veterinarian for diagnosis and treatment.



Hummingbird Housing

Carl
Heinemann

FRACTURES

Set fractured bone in an anatomical position with a small strip of cloth or silk tape for 10 days. Cloth tape is the least harmful to feathers. Maintain small box housing and line housing with paper towels or facial tissue. When fracture is healed, gradually increase exercise space.

CAT CAUGHT INJURIES

Clean puncture holes or wound sites with a small amount of hydrogen peroxide and paint with Betadine or similar solution. Chloramphenicol 1% ophthalmic ointment may be used topically on wound sites. This type of ointment is more readily absorbed into the tissue and does not make the feathers and skin gummy or greasy, which can cause a chill, and it allows normal feather regrowth. A broad spectrum antibiotic may be given such as Chloramphenicol Palmitate oral suspension 1mm to 10cc's of formula once daily for two or three days, depending on the severity of injuries. CAUTION: Medicating hummingbirds is very tricky. It is best to weigh bird on a gram scale and calculate dosage according to the bird's weight. Consult you veterinarian.

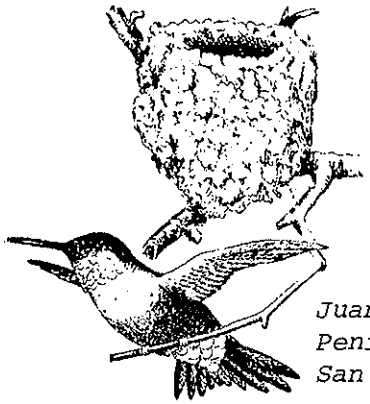
TORPIDITY

Hummingbirds become torpid when their body temperature drops 8 or more degrees below the surrounding temperature. This can be caused by injury, illness or stress. A bird in this condition may appear to be dead. In a captive situation the bird usually is perched, fluffed up, with its beak pointed up. To treat torpidity VERY carefully peel the toes off the perch and follow the same procedure as described in INITIAL TREATMENT to warm and rehydrate the bird.

ACCLIMATING AND RELEASE

Acclimate the hummingbird gradually to the night temperatures before release. It may take 2 weeks to fully acclimatize an adult bird. Once the bird is spending all day and all night outdoors, it is best to keep the bird one more week to be absolutely sure it is ready. Once the acclimating has started, be sure the bird does not become torpid.

A well developed and healthy hummingbird is very difficult to catch. It should be able to maneuver quickly and accurately, avoiding the net in a 15 minute chase without becoming overly stressed. Never rush a release. Be sure that you choose your release site carefully and that there are plenty of hummingbird type plants in the area.



Juanita Heinemann
Peninsula Humane Society
San Mateo, CA

PRODUCTS LIST

Predigested Protein, lofat soy powder, and dextrose powder can be purchased at most health food stores.

Tubeflex and Mealworms can be purchased at pet shops.

Avia, Super Hygliceron B, "All-3" Brand oil, and Vionate are manufactured by Nutra-Vet Research Corp., 201 Smith St., Poughkeepsie, NY, (914) 473-1900.

Lederplex is a liquid vitamin B complex made by Lederle and can be purchased at most drug stores.

Aqua-Vite is a water soluble vitamin and is manufactured by Nutritional Research Assoc., Inc., Dept. ACB, South Whitley, IN 46767

Juanita Heinemann is a member of Peninsula Humane Society's Wildlife Rescue Team. During the 1980 baby bird season she reared 18 infant hummers as well as providing nursing care for many injured hummingbirds during the year.

LEE WHITE MEMORIAL CONFERENCE

sponsored by

Wildlife Rehabilitation Council

San Francisco Zoo

WATER BIRD REHABILITATION

February 21-22, 1980

San Francisco State University

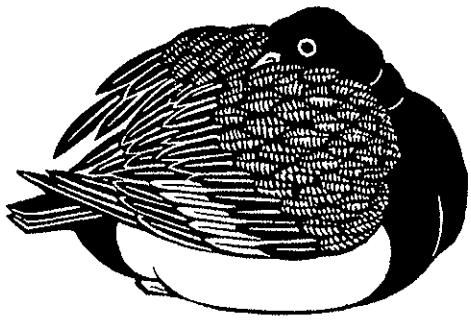
The following topics will be covered: Natural History and Identification; Handling, Housing and Diets; Diseases; Veterinary Care; Oiled Bird Care; and Release Procedures.

The format will include lectures, panel discussions, worshops and demonstrations. A schedule with times, topics and speakers will be sent out in early January.

Conference Fee: $15. This includes lunch both days and a packet of conference materials.

For more information contact:

Avian Conference
San Francisco Zoological Society
Sloat Blvd. at the Pacific Ocean
San Francisco, CA 94132
Phone No. (415) 661-2023



Holiday Gift Idea!

Help benefit WRC and several other wildlife groups by purchasing copies of "Birds of a Feather" a 12" by 12" 1981 wall calendar with spectacular color photographs of wild birds.

It is produced by Bo-Tree, which donates a portion of the income from its numerous calendars to various non-profit organizations involved with the themes of the calendars. WRC was selected as one of six national organizations that help wild birds to receive part of the proceeds.

"Birds of a Feather" is available at most bookstores but may be ordered directly from Bo-Tree. Write and ask for their catalogue which also features other calendars, nature wrapping paper, frameable prints and address books:

Bo-Tree Productions
P.O. Box 6132
San Francisco, CA 94101

GARY BOGUE'S WILDLIFE

If you have a question on any aspect of wildlife care and rehabilitation, send it in to Gary. Those questions that are particularly pertinent will appear in the next issue. If you wish to receive a personal answer, please enclose a stamped, self-addressed envelope with your question.

Dear Gary:

I would like to take this opportunity to respond to the first answer in your column in the Summer 1980 Wildlife Journal. There are a few points I would like to cover.

The first point I would like to address is the impact of starlings and house sparrows. I agree with you that the few individuals that are released will not have any impact on their populations. My concern is that the few that are released will parasitize nests of our local natives. In the literature there is enough documentation concerning the reduction of once abundant species that have declined due to the introduction of non-native species.

The second point concerns your bigger question: are you in the game management business, or the business of treating hurt animals? The profession of wildlife management is in the process of eliminating the concept of game management. Let us become more professional and eliminate archaic concepts.

I agree that we should try to save a life for release. However, how many small birds and mammals are kept alive that are unreleaseable and have become some rehaber's "little darlings"? "For educational purposes" is starting to be a rationalization for rehabers to have pets. Many groups go out into the classrooms and tell the kids not to have wild pets, yet they will go home to theirs. Let's be professional, let's get away from the "Bambi" and the "little old lady" syndromes.

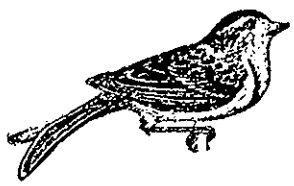
Carter Schleicher
Coyote Point Museum for Environmental Education
San Mateo, CA

Dear Carter:

I guess what it all boils down to is that each "rehaber" must make his/her own decision as to whether or not to treat non-native "pests." Your argument is a legitimate one. Undoubtedly some starlings or house sparrows we treat may parasitize nests of other native birds. But I--personally--feel that such impact is minor when compared to the postive side of handling any and all animals that are brought to you for help...regardless of race, creed, or etc.

If a child finds an injured starling, house sparrow, pigeon and brings it to you for help--they are bringing you a hurt animal. Are you going to treat that animal? Or are you going to euthanize it and give the kid a lecture on non-native pest species?

Here in California, the Virginia opossum is a non-native--yet it is also one of the most common mammals treated at rehab centers. In the San Francisco Bay Area the same situation exists with the Eastern Fox Squirrel. Shall we also stop treating these animals?





That means hundreds of citizens who use your services are going to be understandably upset at what you are doing--or not doing. It's not a simple issue, is it? Public relations is a nasty word to many people, but a cold fact of life to the financial survival of all rehabilitation centers.

Where do we draw the line?

I am not trying to convert anyone to my own way of thinking. Treating all injured and orphaned wild creatures is my personal policy. But this treating of non-natives has been an issue that's been boiling beneath the surface for a long time. Too long. It's time to get a dialogue started...to hear all the arguments--pro and con--so people can be in a better position to make their own decisions on this.

I have seen whole rehabilitation organizations split apart on this one question. Shall we? Or shan't we?

Anyone?

I agree wholeheartedly with you on your comments about personal pets. Keeping a permanently injured wild creature for educational purposes is--to me--a perfectly legitimate use of the resource-- as an educational resource. Keeping permanent species for "house animals"--such as adult songbirds in aviaries to socialize young orphans being raised in the same cage is also legitimate.

But strictly as personal pets? I think not. Isn't this one of the things our educational programs are dircted against? The keeping of wild pets?

Sorry about the use of the expression "game management". I've been at this so long I sometimes slip back into old habits when fighting editorial deadlines.

Game management is dead. Long live Wildlife Management!

Send questions or comments to:

GARY BOGUE'S WILDLIFE
P.O. Box 331
Walnut Creek, CA 94596

WRC Policy

At the last WRC Board meeting the members decided it was time to redefine the role of the Council. WRC has grown from a small San Francisco Bay Area group of rehabilitators to a national organization. Traditionally, being a member of WRC has signified a certain standard of expertise among the Professional and Organizational members.

With our growth, however, it is impossible to know what kind of care is being given to the animals at rehabilitation centers around the country. Therefore, the Board has decided that the Council's principal function is to serve as an educational organization for its members.

We provide information to rehabilitators through the Wildlife Journal, rehabilitation papers and other informational literature. We also sponsor an annual wildlife rehabilitation conference and act as an intermediary for people needing specific information and those who have it.

We believe the setting of standards for care should be left to the state departments of fish and game (wildlife) and the U.S. Fish and Wildlife Service. In California, WRC is working directly with the CA Department of Fish and Game to set standards for rehabilitators, but the DFG will enforce any regulations established.

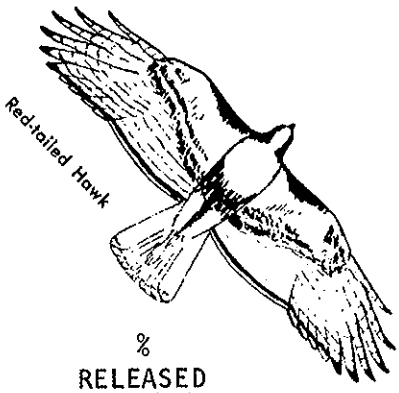
Our policy is one of encouraging all involved with wildlife rehabilitation to join WRC with the belief that all of us benefit by sharing ideas and resources.

Ann Brice

President



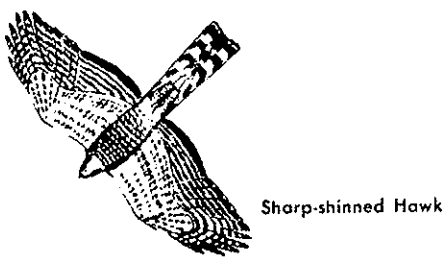




1979 WILDLIFE REHABILITATION COUNCIL
CALIFORNIA RAPTOR STATISTICS

SPECIES	TOTAL	RELEASED	% RELEASED
American Kestrel	271	159	58
Bald Eagle	0	0	0
Cooper's Hawk	12	5	42
Ferruginous Hawk	2	1	50
Golden Eagle	4	1	25
Goshawk	3	1	33
Harris' Hawk	3	3	100
Marsh Hawk	23	15	65
Merlin	5	1	20
Osprey	1	0	0
Prairie Falcon	2	0	0
Red-Shouldered Hawk	20	7	35
Red-Tailed Hawk	184	83	45
Rough-Legged Hawk	2	0	0
Sharp-Shinned Hawk	36	10	27
Swainson's Hawk	1	0	0
Turkey Vulture	13	5	38
White-Tailed Kite	26	8	30
OWLS			
Barn Owl	470	277	59
Burrowing Owl	35	9	25
Great Horned Owl	104	42	40
Long-Eared Owl	3	0	0
Pygmy Owl	3	0	0
Saw-Whet Owl	1	0	0
Screech Owl	98	55	56
Short-Eared Owl	7	2	28
Spotted Owl	1	0	0
TOTALS	1,329	684	51

The statistics represent the number of raptors handled and released from the 10 California WRC organizations that responded to the questionnaire sent out by the WRC Statistics Committee.


Sharp-shinned Hawk


Turkey Vulture

WILDLIFE JOURNAL INDEX

A limited number of copies of past issues of the *Wildlife Journal* are available from WRC at a cost of 75¢ each.

THE 1978 *WILDLIFE JOURNAL* INDEX

Vol. 1 No. 1
- The Drought Takes Its Toll. The 1976-1977 California drought.
- Peninsula Humane Society's Wildlife Team, San Mateo, CA
- Help. A critique of the New York Zoological Society Manual, "Help".
- The Use of Ketamine Hydrochloride in Mammals.
- Greenpeace on the Move

Vol. 1 No. 2
- Thermal Regulation in Birds and Mammals
- CCC Volunteer Work Crew Want to Help
- Help in Determining the Age and Sex of Various Birds
- Saving Oiled Seabirds
- Wildlife Rehabilitation Service, Inc, Fairfield, CA
- Growth and Development of Altricial Nestlings

Vol. 1 No. 3
- Pesticides and Wildlife
- The Marin Wildlife Center, San Rafael, California
- Progress in Rabies Treatment and Control
- Brood Parasitism in Cowbirds
- Wildlife Eco-systems to be Preserved

Vol. 1 No. 4
- Ban on Exotic Cat Ownership
- Aspergillosis
- Mealworms: How Nutritional are They? How to Raise Them
- Raptor Research Project. University of California, Davis.

THE 1979 *WILDLIFE JOURNAL* INDEX

Vol. 2 No. 1
- Mono Lake
- Trichomoniasis
- Raptors in England
- The Pacific Flyway
- Wildlife Rescue, Inc. Austin, Texas
- Organizational Directory

Vol. 2 No. 2
- Salton Sea - Avian Cholera Outbreak
- The Care and Feeding of Orphaned Blacktail Fawns
- Communicating With Lawmakers. How you say it, makes all the difference.
- Raptor Management Plan - California
- Organizational Directory
- Christmas Counts

Vol. 2 No. 3
- Initial Exam, Differential Diagnosis and Treatment For Birds
- Massachusetts Audubon Society Animal Care Program. Lincoln, MA
- More on Avian Cholera
- Raising Altricial Birds. Notes on substitute diet and Diseases
- Netting for Raptor Aviaries
- WRC 1978 Raptor Statistics

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- Cataracts in Young Raccoons
- Living Desert Reserve. Palm Desert, CA
- Wildlife Conference Review
- Questionnaire Results
- Check Your Local Pet Stores
- Case History: A Screech Owl with Ocular Bee Stings

Vol. 3 No.2
- Care and Handling of Killdeer
- Cryo Surgery for Bumblefoot
- San Joaquin Raptor Rescue Center Merced, CA
- Organizational Directory
- Gary Bogue's Wildlife
- Jack Rabbits
- California's Raptor Committee

Vol. 3 No. 3
- Raising and Releasing Shrikes
- Predatory Bird Research Group, University of California, Santa Cruz
- Conference Review
- Finches - Gold and Otherwise

Vol. 3 No. 4
- Public Attitudes Toward Wildlife
- Attorneys For Animal Rights
- Immobilization of Simple and Compound Fractures in Songbirds and Raptors (Informational literature insert)



Seasons Greetings

from the

Wildlife Rehabilitation Council



New Members

Stanely E. Bartkiewicz, DVM, Michigan
Kenneth Ey, New York
Pat Gonzales, California
Jane Greenlee, California
Beverly A. Haynes, California
Betsy Jones, California
Amy Kienitz, Wisconsin
Diann MacRae, New Hampshire
Robert Marold, DVM, Wisconsin
Barbara L. Mero, California
Ed Pembleton, Kansas
Donna Peterson, Minnesota
Terr A. Schulz, California
Kathy Sullivan, Pennsylvania
Susan Tellier, California
Victoria Welsh, California

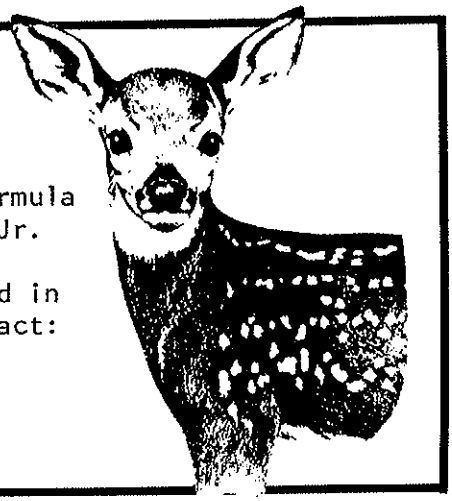
Ickes Wildlife Rehabilitation
Foundation, Inc.
P #2, Box 2705
Ft. McCoy, Fl 32637

The Orphan Animal Care Facility, Inc.
4643 South Main Street
South Bend, IN 46614

FAWN FORMULA

It is time again to order fawn formula for the spring. Alexander Lindsay Jr. Museum will not be distributing the formula this year. Those interested in purchasing fawn formula should contact:

Foremost Food Company
Research and Development Center
6363 Clark Ave.
Dublin, CA 94566



Informational Literature

Copies may be ordered at a cost of 50¢ each unless otherwise noted. There is also a postage and handling fee of 50¢ for 1-5 papers, 75¢ for 6-10 papers, and $1.00 for more than 10 papers. Please note some publications require additional postage.

"Care and Feeding of Orphaned Birds"
"Raptor Care"
"Emergency Care of Birds and Squirrels"
"Vector Borne Disease Potenial in California Mammals"
"Care of Sick and Injured Birds"
"Gardening to Discourage Deer Damage"
"Care and Feeding of Bushtit Babies"
"Necropsy Precautions and Procedures"
"Care and Feeding of Jack Rabbits"
"Cliff Swallows"
"Substitute Diets for Orphaned Birds"
"Substitute Diets for Orphaned Mammals"
"Care and Feeding of Orphaned or Abandoned Tree Squirrels"
"Water Turtle Care Sheet"
"Initial Care of Injured or Oiled Water Birds"
"Raptor Care and Rehabilitation" Unbound ($7.50 + $2.00 postage)
"Care and Feeding of Baby Doves and Pigeons" ($1.50)
"Avian Drugs and Dosages" ($3.50)
"Opossum Rehabilitation" ($2.00)
"Raccoon Rehabilitation" ($3.00)
"Goldfinches" ($2.00)
"Immobilization of Simple and Compound Fractures in Songbirds and Raptors" ($1.50)

WRC Quarterly Meeting

Date: January 10, 1981

Place: San Francisco Zoo, Zoo Road & Skyline Blvd. The meeting will be held in the aviary. Enter the zoo from Sloat Blvd. gate, turn left just before the orangatans, continue straight to monkey island, go around island and left to the aviary.

Time: 10:00 a.m. Business Meeting
11:00 a.m. General Meeting

Topic: Planning for the Water Bird Conference.

WILDLIFE JOURNAL Editorial Staff:

Gary Bogue
Wildlife Systems
Ann Brice
WRC
Susan Kelly
Peninsula Humane Society
Tina Papenhause
WRC

Anyone who received Immobilization of Simple and Compound Fractures in Songbirds and Raptors by Victoria Welsh, please make note of the following corrections. Section 6.1a and 6.2a should read (Figs. 3,4,5, and 11). Section 7.2a should read (Fig. 10).