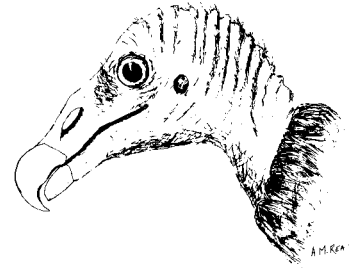


Vulture vibes



The first International Vulture Symposium concerning the biology and conservation of vultures of the world was held 23-26 March at Santa Barbara, California. The meeting was called in response to the surge of interest in vultures in both the Old and the New World, prompted by population declines in a number of species. A "Vulture Study Group" has been formed in Africa; the California Condor Recovery Team has been established to work toward the survival of one endangered form; and a number of graduate research projects have begun on other species. Much information has been accumulated and evidence is building that many species face similar problems and have similar needs.

Approximately 170 participants attended from across the U.S., Canada, England, Scotland, France, South Africa, and Rhodesia. One unique aspect of the symposium was the fact that everyone there had a singular interest — *Vultures*. We would hope that some of the input presented about the various Old World and New World vultures can be applied to the grave situation of the California Condor, whose population is rapidly declining. The latest count is 16 condors remaining.

Among the participants attending from the U.S. were several banders (who are also E.B.B.A. or W.B.B.A. members) who are involved in study projects concerning the Turkey Vultures (*Cathartes aura*) and Black Vultures (*Coragyps atratus*). A priority with these banders, who include Steve Abbors, Peter Bloom, Autumn Davidson, Sheila Gaby, Ed Henckel, Jerome Jackson, Nancy Karner, Patricia Parker, Richard

Theil, and Michael Wallace, is to form a protocol of color wing tags. There is much confusion as to who is using what color, and whose birds are whose — because of migratory patterns and study overlaps. Since leg banding has been discontinued on Turkey and Black Vultures because of damage to the legs, colored patagial wing tags are being used. These seem to be working with no affliction to the bird; however, the problem lies in the limited number of colors that can be used and the close proximity of the study areas. For example, a white-marked bird from Ohio and a white-marked bird from Virginia both migrate to Florida. Someone reports a white-wing-tagged bird — but from where? The importance of a protocol cannot be emphasized enough.

One of the objectives to come from the symposium is the correlation of vulture information. A North American Vulture Research Group is being formed in the hopes of combining efforts and exchanging ideas that will benefit both the bander and the birds. The group will be similar to the South African Vulture Study Group and, presumably, in time, will be as advanced and successful as they are.

We hope to have enough information and suggestions about vultures to make this a regular column in this publication. If you feel that you have anything that might be of interest to the vulture group, please forward it to Nancy Karner, 126 Pennsylvania Ave., Bangor, PA 18013; or to Ed Henckel, R.D. #3, Waterloo Road, Camp Mt. Allamuchy, Stanhope, NJ 07874.

Earthwatch Research Expeditions

Can these bird species survive?

Amateur ornithologists and ecologists will be investigating the prospects for survival and the effect of man on bird species in three widely different environments: the Sierra Nevada Mountains in California, the Hawaiian island of Hilo, and the Panamanian forest.

Sub-alpine breeding birds

In California, Dr. David DeSante of the Point Reyes Bird Observatory and volunteers will be censusing breeding birds and observing their behavior to find out how stable these communities are and whether human activity poses a threat to the more than 40 species of sub-alpine birds which inhabit the area. Participants will net, band, and observe birds, hike, swim, and enjoy the magnificent scenery of the Inyo National Forest. Each of four teams will spend three weeks in the field, beginning 10 June, 1 July, 22 July, and 12 August. Each participant's share of the costs is \$775 and is tax-deductible.

Endangered birds of Hawaii

Meanwhile, in Hawaii, Dr. Charles van Riper of the University of Hawaii and volunteers will be investigating the causes of the reduction of native Hawaiian bird populations. Two hundred years ago there were 70 species of birds native to the Hawaiian Islands. Today 24 species are believed to be extinct, and 27 others have been placed on the endangered list. Working in the lush tree fern forests, the team will net and band birds, take blood samples to determine whether diseases introduced from the mainland are depleting the populations, and release the birds. Two-week team studies begin in June, and each participant's share of the costs is \$650.

Tropical birds of Panama

The brilliantly-colored birds of the Panamanian forests are the focus of a study which will be con-

ducted by Dr. James R. Karr of the University of Illinois, with the help of amateur ornithologists and botanists. Participants will be netting, identifying, and banding the tropical birds, and sampling the plants which the birds use as food — to determine how these resources affect the abundance and distribution of bird species. The expedition offers a rare opportunity to observe many beautiful but secretive tropical birds. Teams will be in the field for two weeks, beginning 6 July. Each participant's tax-deductible share of the costs is \$725.

The match between laypeople and professional scientists is made by **Earthwatch**, a non-profit organization headquartered near Boston. It has opened new sources of funding to academics seeking increasingly competitive research dollars and, most importantly, has brought science closer to non-scientists.

The expeditions are working experiences, sharing the lives of professionals in the field, contributing to serious, and often vital research. Most team members are amateurs, people who simply want to work and learn. Families, retired couples, teachers and their students, business people, scientists and non-scientists can all be found participating. Earthwatch volunteers range in age from 16 to 75 and need no prior experience or skills. Volunteers pay their own way to the project site and contribute anywhere from \$475 (for three weeks of raccoon radio tracking in Georgia) to \$1450 (for a 20-day study of spotted hyenas in Kenya). These contributions and out-of-pocket transit expenses are tax-deductible.

Since funding an initial four-expedition pilot program in 1971, Earthwatch has grown into a national organization that, in 1979, will sponsor 135 research teams in 15 states and 27 foreign countries, involving more than 1,000 volunteers. The Summer/Fall Catalogue features expeditions in archeology, anthropology, earth, marine and life sciences, and the humanities. For more information write Earthwatch, 10 Juniper Rd., Box 127VR, Belmont, MA 02178.

Yosemite Natural History Association

Field Seminar Program 1979

Yosemite National Park is a remarkable natural laboratory of plant and animal life and spectacular geology. It reflects the National Park Service's concept of allowing natural processes to prevail, avoiding those acts that impact the ecosystem.

The seminar program provides an opportunity for the interested layman, the student or the teacher to gain field knowledge of these processes and of the plant and animal life from outstanding instructors in a unique outdoor situation.

Most courses and instructors are approved and accredited by the University Extension, University of California, Berkeley. For those who elect, classes carry one, two, or three quarter units of extension credit, depending on hours of instruction.

Bird Migration in Yosemite: A Bird-Banding Workshop.

August 31, September 1-2. Robert M. Stewart, Instructor. Seminar fee: \$40. Two Units: \$25.

This three-day course will include practical field experience in actual bird-banding, record-keeping, and data analysis. Students in teams will participate actively in the field endeavor.

There will be 12 hours of lecture time, 19 hours of field work. All equipment will be furnished. Participants camp in the Crane Flat campground and walk to the study site in Crane Flat meadow.

Robert Stewart, the instructor, received his MA in biology from Oregon State University. He is presently staff biologist at the Point Reyes Bird Observatory. Stewart has taught more than 35 courses in avian ecology and migration and has amassed a vast amount of knowledge on Yosemite's resident and migratory bird populations. He was recently elected president of the Cooper Ornithological Society's Northern Division.

(Other birding seminars are also offered.)

For further information, write or call: Seminar Coordinator, Yosemite Natural History Association, P.O. Box 545, Yosemite National Park, CA 95389. Phone: (209) 372-4532.

Hawk Mountain Research Award

The winners of the second annual Hawk Mountain Research Award were: Dean P. Hector of Oklahoma State University for the study of the Aplomado Falcon and Gary Bortolotti, University of Toronto, Canada, for the study of the Bald Eagle in northern Saskatchewan.

The Board of Directors of Hawk Mountain Sanctuary Association announces that its third annual award for raptor research has been increased to \$500.00. The Hawk Mountain Research Award is granted annually to a student engaged in research on raptors (*Falconiformes*).

To apply, students should submit a description of their research program, a curriculum vitae, and two letters of recommendation by 31 October 1979 to Mr. Alexander C. Nagy, Hawk Mountain Sanctuary Association, Route 2, Kempton, PA 19529.

A final decision will be made by the Board of Directors in February 1980.

Only students enrolled in a degree-granting institution are eligible. Both undergraduate and graduate students are invited to apply. Projects will be judged competitively on the basis of their potential contribution to improve understanding of raptor biology and their ultimate relevance to conservation of North American hawk populations.



Library of Natural Sounds

Composer Patricia Ruffer needed recordings of the sounds made by birds' feet, wings, and bills to help her write a ballet for a New York dance company.

A German biologist needed recordings of the sounds made by all the world's kingfishers for comparative studies of their ecology and behavior.

A college group from the Midwest wanted recordings of exotic bird songs to play at a performance of Olivier Messiaen's "Exotic Birds" composition for piano and orchestra.

These and many others—professional biologists, amateur ornithologists, museum exhibit planners, musicians, movie makers — have found the sounds they needed in the Library of Natural Sounds at Cornell University's Laboratory of Ornithology. The library supplied more than 1,500 recordings to some 100 individuals last year alone, according to the library's curator, James L. Gulledge.

With a new three-year, \$168,000 grant from the National Science Foundation, augmented by \$15,000 from the Laboratory of Ornithology's administrative board, Gulledge plans to make the library's vast collection even more accessible to those in need of natural sound recordings.

The grant will be used to edit and incorporate into the collection an extensive backlog of new material, to construct a computer-based catalog to the collection and to "safety copy" all recordings in the collection that have not yet been duplicated.

An assistant curator, Robert Beck, and two sound technicians, Alan Franklin and Ada Stephenson, have joined Gulledge and sound technician Andrea Priori on the Library of Natural Sounds staff in order to carry out the project.

Gulledge explained that the goal of the library is to serve as an archive and depository for both general collections, covering the sounds made by as many different species of vertebrates as possible, and for research collections of particular species or groups of species.

The library, founded by bird recording pioneer

Peter Paul Kellogg, now contains more than 32,000 recordings of approximately 3,500 species of the world's birds, as well as many mammals and amphibians, making it the largest and most comprehensive collection of its kind in the country, Gulledge said.

Especially strong in North American, West Indian, Central and South American and African material, the library also includes recordings from India and Southeast Asia, New Guinea, Micronesia, and the Hawaiian and Galapagos archipelagos.

In December 1976, Gulledge and Priori visited Venezuela to re-record the largest and most comprehensive regional collection of bird songs in the world — the Paul Schwartz collection of nearly 700 species of Venezuelan and Brazilian birds. The expedition produced the needed safety copy of the irreplaceable tapes and made access to the collection much easier for those outside Venezuela.

In 1977, Gulledge led a field expedition to the mountains of southeastern Arizona where the group made more than 500 recordings of some 100 species of birds. In a few weeks, he — together with Robert I. Bowman of San Francisco State University — will lead a group to the Galapagos Islands for another recording trip.

Cornell students, faculty and alumni — as well as professional and amateur biologists and ornithologists from throughout the world — also contribute material to the Library of Natural Sounds. Gulledge and his staff provide information, technical advice and assistance and, in some cases, tape and equipment to individuals willing to record for the collection.

Gulledge said he is particularly interested in recording and documenting the sounds of declining species and those inhabiting vanishing habitats.

Material in the library is available to anyone with an interest in animal sounds. Persons wishing to use the library, record for the collections, or contribute to its programs in other ways should contact Gulledge at Cornell Laboratory of Ornithology, 159 Sapsucker Woods Road, Ithaca, NY 14853.