



WINGS·P·A·N

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MESSAGE FROM THE PRESIDENT

Dear RRF Members:

I would like to take this opportunity to thank the officers, Board of Directors, and general membership for their commitment and support of RRF during my 2-year term as President. As you know, following our 1995 annual meeting in Duluth, David Bird will be taking over as President of RRF. As is always the case, we have not accomplished everything we would have liked over the past couple of years, but a lot has been achieved.

RRF has been very active in developing new partnerships with other conservation organizations, both government and non-governmental. In August 1994, I signed a Memorandum of Understanding between RRF and the Bureau of Land Management to assist them with raptor-related issues and the implementation of their Raptor Management Plan. In June 1995, I signed the Partners In Flight MOU, making RRF a member of their Nongovernmental Organizations Committee. RRF was also instrumental in the establishment of an MOU involving eight major raptor conservation groups. This MOU provides the framework for the development of a Conservation Agreement and Management Plan (CAMP) for raptors worldwide. There are many opportunities for RRF members to become involved in these efforts, and I encourage you to do so.

Our publications have continued to improve in quality and distribution, thanks to the extraordinary commitments of our editors. We are in the process of transferring editorship of *The Journal of Raptor Research* from Carl Marti to Marc Bechard, and this past year we accomplished a smooth transition in *Wingspan* editorship from Karen Steenhof to Lenny Young. Our outgoing editors have done an excellent job, and I look forward to our new editors continuing this tradition.

I have been pleased to see RRF continue to grow and diversify. We now have over 1100 members representing 50 countries. To provide some perspective, over the past 10 years our membership has increased by 600. We also have continued to expand our involvement with meetings outside the U.S. and with other conservation and ornithological organizations. In 1995, we were co-sponsor to a very successful joint meeting between ADENEX and the World Working Group for Birds of Prey and Owls in Badajoz, Spain. In August 1996, RRF will be meeting jointly with the American Ornithologists' Union in Boise, Idaho. RRF also plans to convene a second European RRF meeting in the fall of 1996 in Urbino, Italy.



RRF continues to grow in stature and reputation because of the expertise and contributions of its members. I believe an example of this recognition occurred recently with the approval of our long-standing request to join the Ornithological Societies of North America (OSNA), a joint membership service of the four major ornithological societies in North America. I believe our association with these respected organizations will enhance our stature as a scientific and conservation organization, increase opportunities for attracting new members, and reduce our Treasurer's workload associated with subscriptions and maintaining the membership list.

RRF has come a long way, and I have enjoyed being involved during the past 20+ years. Today I belong to many scientific organizations and attend numerous professional meetings. RRF has always been and will continue to be one of the most stimulating and enjoyable societies with which I have been associated. I want to thank you for giving me the opportunity to serve as your President for the past two years and look forward to being actively involved for many years to come.

Michael W. Collopy

THE RAPTOR RESEARCH FOUNDATION, INC.
(FOUNDED 1966)

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Wingspan is distributed twice a year to all RRF members. It is also available to non-members for a subscription rate of \$10 per year. *The Journal of Raptor Research* (ISSN 0892-1016) is published quarterly and available to individuals for \$30 per year and to libraries and institutions for \$50 per year from: The Raptor Research Foundation, Inc., 12805 St. Croix Trail, Hastings, MN 55033 USA. Add \$3 for destinations outside of the continental United States.

Persons interested in predatory birds are invited to join The Raptor Research Foundation, Inc. Send requests for information concerning membership, subscriptions, special publications, or change of address to: Jim Fitzpatrick, Treasurer, 12805 St. Croix Trail, Hastings, MN 55033 USA.

1996 PRESIDENTIAL ELECTIONS!!!

Yes, not only is the United States undergoing the process of electing a new president in 1996, so is the Raptor Research Foundation! This year we are seeking nominations for the following positions:

Positions

Officers:	President-elect	Vice-president	Secretary
Board of Directors:	Eastern Region, U.S	International	At-large (2)

Duties & Responsibilities

- President-elect: As chairman of the Board, the President organizes, calls, and presides at Directors' meetings and assures that all Foundation business is conducted in accordance with policy.
- Vice-president: The Vice-president assists the President in executive matters, presides over Directors' meetings in absence of the President, and performs all duties and acts of the President in the event of presidential incapacitation or a vacancy.
- Secretary: The Secretary keeps records of all meetings of the regular membership, all actions of the Board, conducts and records all correspondence, maintains non-financial Foundation files and records, and runs Foundation elections.
- Board members: Board members control and supervise Foundation affairs, make rules and regulations, control and manage all Foundation funds and property, instigate preparation of the yearly financial statement and professional audit, and meet yearly for discussion of Foundation business.

For more details, please consult the front section of the *Kettle*.

Nominating Procedure

Each nomination should include the title of the position and the name, address, phone number, and e-mail address or fax number of the nominee. You may nominate yourself. Nominees for a regional directorship must reside in that geographic region. Each nominee will be contacted to verify her/his willingness to run and to accept the position upon winning. A biographical sketch must be submitted by March 15, 1996 to one of the following persons:

U.S. Positions

Patricia A. Hall
 436 David Drive E
 Flagstaff, AZ 86001
 520-774-0041 (phone)
 pah@alpine.for.nau.edu

European Positions

Massimo Pandolfi
 University of Urbino
 Istituto di Scienze Morfologiche
 Via M. Oddi, 21
 61029 Urbino, Italy
 39-722-328033 or -327893 (phone)
 39-722-329655 (fax)

THIS IS YOUR CHANCE TO BE INVOLVED IN THE ACTIONS AND DIRECTION OF YOUR SOCIETY--PARTICIPATE!

APLOMADO FALCONS NESTING IN TEXAS

On May 9, 1995, a nesting pair of northern aplomado falcons was discovered on rangelands near Brownsville, Texas. This is the first wild nesting pair of aplomado falcons known in Texas since 1941, and the first known in the United States since 1952. The nesting falcons are birds raised at The Peregrine Fund's World Center for Birds of Prey in Boise, Idaho and released into the wild in either 1993 or 1994, probably at Laguna Atascosa National Wildlife Refuge.

This restoration program began in 1982 when a remnant aplomado falcon population was discovered in southern Mexico. The Mexican Government permitted The Peregrine Fund to remove 10 aplomado falcon chicks from 10 different nests for captive breeding. As the breeding stock matured from this small core group of birds, reintroduction techniques were also developed. Since 1985, The Peregrine Fund has released 62 captive-bred aplomado falcons into the wild. In 1993 and 1994, 26 young aplomado falcons raised at The World Center for Birds of Prey were released at Laguna Atascosa.

The recently discovered nest is on top of a telephone pole amid grasslands and salt flats adjoining the Brownsville ship channel. The nest is 25-30 miles from the probable release sites at Laguna Atascosa.

RAPTOR RESEARCH FOUNDATION TRIVIA

by Richard Clark

This quiz will test your knowledge of The Raptor Research Foundation, Inc. (RRF) if you are a member and let you know a little about the organization if you are not. All questions are derived from the *Kettle*, a listing of RRF members that provides other useful information for people dealing with raptors. Answers are given on page 15.

1. RRF will celebrate its 30th anniversary in what year?
2. As of autumn 1995, the number of RRF members was about: a) 750, b) 950, c) 1150.
3. The number of countries in which RRF members live is: a) 43, b) 53, c) 63.
4. The country, outside of the United States and Canada, in which the largest number of RRF members live is: a) England, b) Germany, c) Italy, d) Japan, e) Spain,
5. The number of species of raptors (not including the vultures which are currently classified as Ciconiformes) currently recognized is: a) 389, b) 485, c) 517.
6. Of those species, the number that are nocturnal (i.e., Strigiformes) is about: a) 15%, b) 25%, c) 35%.
7. Of all current RRF members listed in the *Kettle*, the number that have reported publishing on one or more species of raptors is: a) 102, b) 202, c) 302.
8. How many RRF meetings have been held outside the United States and Canada: a) 0, b) 1, c) 2, d) 3.
9. How many RRF annual meetings have been held in Canada: a) 1, b) 2, c) 3.
10. Outside of South Dakota, which U.S. state has hosted the most RRF annual meetings: a) Minnesota, b) Pennsylvania, c) New York.

RRF JOINS PARTNERS IN FLIGHT

On July 5, 1995, by Addendum to the Memorandum of Understanding, the Raptor Research Foundation joined the Nongovernmental Organizations Committee of Partners In Flight. Partners In Flight is a consortium of federal agencies and non-governmental organizations established in 1991 in recognition of apparent declines in the populations of many species of birds that breed in North America and winter from Mexico south. The partners' goal is to develop a Neotropical Migratory Bird Conservation Program to conserve, restore, or enhance populations of neotropical migratory birds through habitat protection and management. Accomplishing this goal will require a comprehensive international initiative of monitoring, research, management, and education. RRF joins 37 other diverse non-governmental partners including the American Forest and Paper Association, American Ornithologists' Union, Association of Field Ornithologists, Hawk Mountain Sanctuary Association, National Audubon Society, National Wildlife Federation, The Nature Conservancy, The Peregrine Fund, Inc., Wildlife Management Institute, The Wildlife Society, and World Wildlife Fund. Signing the MOU establishes RRF's commitment to work with the other partners to accomplish program objectives. However, the MOU does not commit RRF to provide specific assistance or resources. Such commitments would be made via separate written agreements between RRF and the organization receiving the assistance (e.g., RRF's MOU with the Bureau of Land Management).

OSNA ADMITS RAPTOR RESEARCH FOUNDATION

On August 18, 1995, at Cincinnati, Ohio, the Ornithological Societies of North America (OSNA) Committee voted unanimously to admit the Raptor Research Foundation as a new partner. RRF will join the four current OSNA partners--American Ornithologists' Union, Association of Field Ornithologists, Cooper Ornithological Society, and Wilson Ornithological Society--as well as the Colonial Waterbirds Society, which was admitted at the same time as RRF. OSNA operations are defined in a Memorandum of Agreement (MOA) signed by the OSNA Committee. The Committee consists of the President and Treasurer of each member organization, the OSNA Director, and the OSNA newsletter editor. A new MOA will be drafted for signature by the expanded Committee.

The period from August 1995 to September 1996 will be a transition period. During this period, the RRF membership database will be organized into a format compatible with Allen Press' OSNA format, edited, and finally merged with the OSNA database. RRF members new to the OSNA database will receive their first OSNA newsletter beginning with the 1997 issues. RRF membership records will first appear in the 1997 *Flock*. RRF will first appear on the annual OSNA dues notice and subscription invoice for 1997, which will be mailed in September 1996. The first OSNA income check will be mailed to the RRF Treasurer in November 1996. OSNA membership management services will begin in January 1997, when OSNA begins supplying address labels to mail RRF journal issues. RRF will be responsible for mailing the 1996 issues of its publications.

(Editor's note: This report was excerpted and adapted from information provided to RRF by OSNA Director Fred Lohrer.)

U.S. SUPREME COURT RULES ON IMPORTANT ESA DEFINITION

On June 29, 1995, the U.S. Supreme Court upheld the U.S. Fish and Wildlife Service's regulatory definition of "harm," part of the statutory definition of "take," an important concept in the Endangered Species Act (ESA). The definition is important because the ESA prohibits any person from "taking" an endangered species and provides substantial penalties for violation of this prohibition. In the case of *Sweet Home Chapter of Communities for a Greater Oregon v. Babbitt*, the Court upheld the Fish and Wildlife Service's definition, which includes acts that unintentionally kill or injure wildlife by significantly modifying or degrading habitat.

Justice Stevens, writing for a majority of the Court, framed the issue in this case as whether the Secretary of the Interior exceeded his authority under the ESA by promulgating the "harm" definition. The Court majority found three reasons in the ESA text for concluding that the regulation is reasonable. First, the dictionary definition of "harm" supports the regulation. The dictionary defines "harm" as "to cause hurt or damage to: injure." In the context of the ESA, this naturally encompasses habitat modification that results in actual injury or death to members of an endangered or threatened species. Second, the broad purpose statement of the ESA supports the Secretary's definition. The Act is "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved ..." Third, Congress' passage in 1982 of the incidental take amendments to the ESA strongly suggests that Congress understood the "take" prohibition to include indirect as well as deliberate takings. Passage of this amendment supports the Secretary's conclusion that activities not intended to harm an endangered species, such as habitat modification, may constitute an unlawful taking unless permitted by the Secretary.

The Court majority then noted that the Secretary's definition was also supported by the legislative history of the Act. The Committee reports accompanying the bills that became the ESA make clear that Congress intended "take" to apply broadly to cover indirect as well as purposeful actions. Indeed the Senate Report states that "'take' is defined ... in the broadest possible manner to include every conceivable way in which a person can 'take' or attempt to 'take' any fish or wildlife." The House Report contains similar language. These comments support the Secretary's interpretation that "take" reaches far more than the deliberate actions of hunters and trappers. The Court majority concluded that "the Secretary reasonably construed the intent of Congress when he defined 'harm' to include 'significant habitat modification or degradation that actually kills or injures wildlife.'"

Justice Scalia, joined by Chief Justice Rehnquist and Justice Thomas, dissented. Justice Scalia argued that the regulation is not consistent with the ESA because it imposes liability for results that are not intended or even foreseeable, omissions as well as commissions, and injuries to animals not yet born through impairment of breeding provision.

(Editor's note: This report was excerpted and adapted from a preliminary analysis of the Court's decision written by Ernest Rushing, Washington State Assistant Attorney General.)

INTERNATIONAL CONFERENCE ON HOLARCTIC BIRDS OF PREY

Badajoz, Spain, April 17-22, 1995

by Jemima Parry-Jones

The International Conference on Holarctic Birds of Prey was held in Badajoz in the Extremadura region of Spain from April 17-22, 1995. Badajoz is situated about midway up Spain along its western border with Portugal. The region is quite beautiful, with grasslands and mountains. April was a good time for the conference, with the weather not too hot, wildflowers just coming out, and the chance of seeing many different species of raptors. The conference was held in a large hotel close to the river which runs through the center of town. Below the closest and most attractive bridge was a huge colony of nesting cattle egrets, along with some night herons. Add to these swallows, swifts, house martins, and a stork nesting high on a chimney of the building next door, and it was pretty easy to spot conference delegates as they bird watched on their way to the meetings from some of the smaller hotels.

The conference was co-organized mainly by ADENEX with assistance from the World Working Group on Birds of Prey and Owls, and a large number of delegates attended from all over the world. Keith Bildstein, David Bird, Mark Fuller, Vladimir Galushin, Charles Henny, Borja Heredia, Claude Kurtz, Bernd Meyburg, Ian Newton, Mike Wallace, and Clayton White all chaired sessions. These were quite varied, including biology and conservation of threatened diurnal raptors (dealing mainly with Holarctic species), biology and conservation of owls, socioeconomic aspects of raptor conservation, analysis of habitats, census techniques, recent technological advances in raptor research, and breeding biology of raptors. The final day of the conference featured sessions on migration of birds of prey and the use of captive breeding to support raptor populations in danger of extinction.

The papers were excellent, presented mostly in English with some in Spanish. Probably the people who deserve the highest praise were the translators who translated every talk either from English to Spanish or vice versa. These people were impressive to say the least--how they managed some of the more technical stuff I just don't know. I was at sea with much of it, and that was when the talks were given in English! The text of the papers was translated pretty much simultaneously, and it was very nice to be able to understand the talks through head phones regardless of one's lack of understanding of another language.

One entire day was taken up with field trips out into the wilds of Spain where delegates had the chance to see many different species of raptors in the field. Those that went had a great time, with good food, good company, plenty of time to chat, and lots of raptors to see. It was easy to spot those who had not gone as they were the only ones walking round the next day without burnt heads, noses, and faces!

As usual it was great to see old friends and meet new ones. For me, this has to be the main point of going to such conferences across the globe. For those older delegates who like me may have been set in their ways, it was hard not to be able to eat dinner until after 9 PM. But the wine available more than made up for it. Certainly our table consumed enough to be able to give a wide sampling and data base for accurate evaluation! Generally, it was a good conference. The Spanish deserve to be congratulated for organizing a meeting to accommodate the needs of such a diverse group of conservationists.

RAPTORS IN HUMAN LANDSCAPES

Here's a list of the papers that will appear in the upcoming book, *Raptors in Human Landscapes*, based on the symposium that was part of the 1993 RRF meeting in Charlotte, North Carolina. Use the blue insert to order your copy before March 30, 1996 and receive a special 20% pre-publication discount.

I. Raptors in Urban Landscapes

Peregrine Falcons in Urban North America (T. J. Cade, M. Martell, P. Redig, G. A. Septon, and H. B. Tordoff)

Bridge Use by Peregrine Falcons in the San Francisco Bay Area (D. A. Bell, D. P. Gregoire, and B. J. Walton)

Eggshell Thickness and Contaminant Analysis of Reintroduced, Urban Nesting Peregrine Falcons in Wisconsin (G. A. Septon and J. B. Marks)

The Urban Buteo: Red-shouldered Hawks in Southern California (P. H. Bloom and M. D. McCrary)

Urban Nesting Biology of Cooper's Hawks in Wisconsin (R. N. Rosenfield, J. Bielefeldt, J. Affeldt, and D. J. Beckmann)

Urban Ecology of the Mississippi Kite (J. W. Parker)

Costs and Benefits of Urban Nesting in the Lesser Kestrel (J. L. E. Tella, F. Hiraldo, J. A. Donazar-Sancho, and J. J. Negro)

Nesting Success of Western Burrowing Owls in Natural and Human-altered Environments (E. S. Botelho and P. C. Arrowood)

Eastern Screech Owls in Suburbia: A Model of Raptor Urbanization (F. R. Gehlbach)

II. Raptors and Artificial Nest Sites

Red-tailed Hawks Nesting on Man-made and Natural Structures in Southeast Wisconsin (W. E. Stout, R. K. Anderson, and J. M. Papp)

Documentation of Raptor Nests on Electric Utility Facilities Through a Mail Survey (R. Blue)

Osprey Population Increase Along the Willamette River, Oregon, and the Role of Utility Structures, 1976-93 (C. J. Henny and J. L. Kaiser)

The Use of Artificial Nest Sites by an Increasing Population of Ospreys in the Canadian Great Lakes Basin (P. J. Ewins)

The Osprey in Germany: Its Adaptation to Environments Altered by Man (B.-U. Meyburg, O. Manowsky, and C. Meyburg)

Effectiveness of Artificial Nesting Structures for Ferruginous Hawks in Wyoming (J. R. Tigner, M. W. Call, and M. Kochert)

Peregrine Falcons: Power Plant Nest Structures and Shoreline Movements (G. A. Septon, J. Bielefeldt, T. Ellestad, J. B. Marks, and R. N. Rosenfield)

Competition for Nest Boxes Between American Kestrels and European Starlings in an Agricultural Area of Southern Idaho (M. J. Bechard and J. M. Bechard)

III. Raptors in Cultivated Landscapes

White-tailed Kite Movement and Nesting Patterns in an Agricultural Landscape (A. L. Erichsen, S. Smallwood, A. M. Commandatore, B. W. Wilson, and M. D. Fry)

Association Analysis of Raptors in a Farming Landscape (S. Smallwood, B. J. Nakamoto, and S. Geng)

Sparrowhawks in Conifer Plantations (I. Newton)

Adaptations of Raptors to Man-made Spruce Forests in the Uplands of Britain (S. J. Petty)

Spotted Owls in Managed Forests of Western Oregon and Washington (S. P. Horton)

Goshawk Adaptation to Deforestation: Does Europe Differ from North America? (R. E. Kenward)

Rain Forest Raptor Communities in Sumatra: the Conservation Value of Traditional Agroforests (J.-M. Thiollay)

Diurnal Raptors in the Fragmented Rain Forests of the Sierra Imataca, Venezuela (E. Alvarez, D. Ellis, D. G. Smith, and C. T. Larue)

Value of Nest Site Protection in Ameliorating the Effects of Forestry Operations on Wedge-tailed Eagles in Tasmania (N. J. Mooney and R. J. Taylor)

IV. Raptors in Industrial Landscapes

Use of Reservoirs and Other Artificial Impoundments by Bald Eagles in South Carolina (A. L. Bryan, Jr., T. M. Murphy, K. L. Bildstein, L. I. Brisbin, Jr., and J. J. Mayer)

Attraction of Bald Eagles to Habitats Just Below Dams in Piedmont North and South Carolina (R. D. Brown)

Reclaimed Surface Mines: An Important Nesting Habitat for Northern Harriers in Pennsylvania (R. W. Rohrbaugh, Jr. and R. H. Yahner)

Raptors Associated with Airports and Aircraft (S. M. Satheesan)

V. Raptors at Large

The Effect of Altered Environments on Vultures (D. C. Houston)

The Impact of Man on Raptors in Zimbabwe (R. R. Hartley, K. Hustler, and P. J. Mundy)

Response of Common Black Hawks and Crested Caracaras to Human Activities in Mexico (R. Rodriguez-Estrella)

Occurrence and Distribution of Diurnal Raptors in Relation to Human Activity and Other Factors at Rocky Mountain Arsenal, Colorado (C. R. Preston and R. D. Beane)

NEW RRF EDITOR-IN-CHIEF

Dr. Marc J. Bechard, Professor of Biology at Boise State University, is the new Editor-in-Chief of the Raptor Research Foundation. Marc is a long-time member of RRF who received his M.S. in Botany and Ph.D. in Zoology from Washington State University. His current research includes investigations of the breeding ecology of ferruginous hawks in Washington and Idaho, breeding ecology of northern goshawks in aspen habitats of northern Nevada, and natal dispersal and lifetime reproduction of American kestrels in southern Idaho. In addition to his duties as Professor, Marc currently serves as Associate Chair of the Biology Program and Coordinator of Graduate Studies for the Raptor Research and Technical Assistance Center, both at BSU. Marc will replace outgoing editor Carl Marti in January 1996. All manuscripts and correspondence for *The Journal of Raptor Research* should be sent to Marc from this time on. Marc can be reached at the Department of Biology, Boise State University, Boise, ID 83725, phone: 208-385-3530, fax: 208-385-3006, e-mail: rbibecha@idbsu.idbsu.edu.

1996 RRF / AOU MEETING SYMPOSIA

The 114th Stated Meeting of the American Ornithologists Union will be held jointly with the annual meeting of the Raptor Research Foundation at Boise State University in August 1996. Four symposia have been accepted and are being organized as part of the meeting: "Ecology and Conservation of Raptors in the Tropics" (contact Rich Watson of the World Center for Birds of Prey, e-mail: wcbp@aol.com), "Raptor Monitoring Techniques" (contact Mark Fuller of the National Biological Service, e-mail: mfuller@eagle.idbsu.edu), "The Role of Zoos and Aquaria in Avian Conservation" (contact David Blockstein of the Ornithological Council and American Zoo & Aquarium Association, e-mail: cnie@access.digex.ngt), and "Problems with the Analysis of Molecular Data and Some Solutions" (contact Shannon Hackett of The Field Museum, e-mail: hackett@fmnh.org, or Carole Griffiths of the American Museum of Natural History, e-mail: csg@amnh.org). It may still be possible to accommodate other symposia; if you wish to propose an additional symposium, contact Peter Lowther of The Field Museum, e-mail: lowther@fmnh.org.

ANNOUNCEMENTS

UPCOMING MEETINGS

1996

February 10-13
INTERNATIONAL ASSOCIATION OF
AVIAN TRAINERS AND EDUCATORS
St. Louis, Missouri

Contact: Joanna Watson Eckles, Minnesota Zoological Gardens, 13000 Zoo Boulevard, Apple Valley, MN 55124, phone: 612-432-9356.

August 13-17
RAPTOR RESEARCH FOUNDATION
Boise, Idaho

Contact: Marc Bechard or Alfred Dufty, Department of Biology, Boise State University, Boise, ID 83725, phone: 208-385-3530, fax: 208-385-3006.

October 2-5
RAPTOR RESEARCH FOUNDATION
Urbino, Italy

Contact: Massimo Pandolfi, Istituto di Scienze Morfologiche, Università di Urbino, Via M. Oddi 21-61029 Urbino, Italy, phone: 39-722-328033 or 39-722-327893, fax: 39-722-329655.

1997

February 5-9
SECOND INTERNATIONAL
SYMPOSIUM: BIOLOGY AND
CONSERVATION OF OWLS OF THE
NORTHERN HEMISPHERE

Winnipeg, Manitoba
Contact: James Duncan, Manitoba Conservation Data Centre, 1007 Century Street, Winnipeg, Manitoba R3H 0W4,

Canada, phone: 204-945-7465, fax: 204-945-1365.

September 21-23
FORUM ON WILDLIFE TELEMETRY:
INNOVATIONS, EVALUATIONS, AND
RESEARCH NEEDS

Snowmass, Colorado

Contact: Jane Austin (jane_austin@nbs.gov) or Pamela Pietz (pam_pietz@nbs.gov), National Biological Service, Northern Prairie Science Center, Jamestown, ND 58401, phone: 701-252-5363, fax: 701-252-4217.

POSITIONS AVAILABLE

FIELD RESEARCH ASSISTANTS (volunteers) are needed to help in a project about dispersal of red and black kites (*Milvus milvus* and *Milvus migrans*) in Doñana National Park (southern Spain) from early March to early September 1996. It is not necessary to work during all that period, but only for some months between these two dates. The study will be focused on following radio-tagged individuals of these two species to determine the different strategies of natal and breeding dispersal. Previous field work and radiotelemetry experience is desirable. We offer free food and housing inside Doñana National Park. These field assistants will have a work assurance. People interested must send a letter of interest, resume, and the names and addresses of three references to **Manuela G. Forero** or **Fernando Hiraldo**, Estación Biológica de Doñana, Avd. María Luisa, s/n. Pabellón del Perú, 41013 Sevilla, Spain. fax: 5-4621125, e-mail: Forero@cica.es.

HAWK MOUNTAIN RESEARCH INTERNSHIPS Research interns are needed at Hawk Mountain Sanctuary from April-July and mid-August to mid-December 1996. Successful applicants will work as part of an international team of 4-5 research, education, and sanctuary-management interns that helps conduct the Sanctuary's education and research programs. Research interns are involved in many aspects of Sanctuary research, including both field and library research, data management, and analysis of the Sanctuary's databases. Fall interns work on projects involving (1) raptor migration ecology and management of the Sanctuary's long-term raptor migration database, (2) wintering ecology of raptors, (3) data management, and (4) analysis of existing databases. Spring interns work on projects involving (1) Appalachian landscape ecology, (2) raptor breeding biology, (3) data management, and (4) analysis of existing databases. Research interns live on-site in a three-bedroom, five-intern apartment. Interns receive a \$375 (after taxes) monthly stipend for their work. Letters of interest and requests for application forms should be sent to: **Keith L. Bildstein, Director of Research, Hawk Mountain Sanctuary, RR 2 Box 191, Kempton, PA 19529.**

INTERNATIONAL SUMMER STUDENT INTERNSHIPS, AVIAN SCIENCE AND CONSERVATION CENTRE OF MCGILL UNIVERSITY Each spring and summer, the Avian Science and Conservation Centre of McGill University offers up to four non-salaried internships. This includes free residence with kitchen facilities provided within walking distance of the Centre. We are located just a short bus ride from downtown Montreal. In the last three years, our interns

have hailed from Canada, USA, England, Scotland, China, Turkey, Italy, Mexico, and France. Each intern gains experience in the care, handling, and propagation of captive birds (mostly birds of prey) and most important becomes involved in scientific research either on captive birds or in the field depending on annual funding. Our main research areas include behavioural ecology, nutrition, reproductive physiology, parasitology, toxicology, and management. We have also initiated a captive breeding program for endangered loggerhead shrikes for research purposes. If interested, submit a letter of recommendation, a resume of experience, and a covering letter indicating your research interests by February 1, 1996 to: **Dr. David M. Bird, Director, Avian Science and Conservation Centre of McGill University, 21,111 Lakeshore Road, Ste. Anne de Bellevue, Quebec H9X 3V9, Canada, phone: 514-398-7760, fax: 514-398-7983, e-mail: bird@nrs.mcgill.ca.**

POST-DOCTORAL FELLOWS IN RAPTOR BIOLOGY SOUGHT BY THE AVIAN SCIENCE AND CONSERVATION CENTRE OF MCGILL UNIVERSITY David M. Bird, Director of the Avian Science and Conservation Centre (ASCC) is seeking interested parties to apply for post-doctoral fellowships in raptor biology. Applicants with the best chances for obtaining one should have recently been awarded their Ph.D. and should have a fairly substantial list of papers published in refereed journals. For more information on funding opportunities for post-doctoral positions with the ASCC, serious applicants can contact **Dr. Bird by phone: 514-398-7760, fax: 514-398-7990, or e-mail: bird@nrs.mcgill.ca.**

PUBLICATIONS AVAILABLE

"HAWKS ALOFT WORLDWIDE'S RAPTOR MIGRATION WATCH-SITE MANUAL" Hawk Mountain Sanctuary has worked to protect raptors in northeastern North America for more than 60 years. Although the Sanctuary has been quite successful in this regard, many of the threats currently facing raptors are international in nature. Recognizing the need to protect raptors throughout their migratory journeys, in 1988, Hawk Mountain Sanctuary embarked on a cooperative conservation initiative called Hawks Aloft Worldwide. This initiative provides a strategy for strengthening local conservation action along the world's major raptor-migration corridors. Hawks Aloft Worldwide's Raptor Migration Watch-site Manual reflects Hawk Mountain's half-century of experience in raptor conservation. The manual provides an introductory guide to operating raptor migration watch-sites, as well as to the issues facing watch-site operators. Thirteen chapters include information on raptor migration and conservation biology, investigating raptor migration, monitoring the abundance and distribution of migrating raptors, managing watch-site data, opportunities for environmental education and ecotourism at watch-sites, membership programs, and the use of volunteer resources at watch-sites. English and Spanish versions of the manual are available from: **Keith L. Bildstein, Hawks Aloft Worldwide, Hawk Mountain Sanctuary, RR 2 Box 191, Kempton, PA 19529.**

"LADY GRAYL: OWL WITH A MISSION" This new book by Robert W. Nero tells the story of Lady Grayl, an imprinted great gray owl raised by Dr. Nero and featured in a decade of conservation education presentations to school and public

groups. The book may be purchased directly from the publisher: **Natural History / Natural Heritage, Inc., P.O. Box 95, Station O, Toronto, Ontario M4A 2M8, Canada, phone: 416- 694-7907.**

"A LANDOWNER'S GUIDE TO PRAIRIE RAPTOR," a 48-page booklet by Geoff Holroyd, Ivan Shukster, Diana Keith, and Laurie Hunt promotes conservation techniques that will benefit prairie raptors. Free copies are available from: **Communications Directorate, Environment Canada, Room 200, 4999-98 Avenue, Edmonton, Alberta T6B 2X3, Canada.**

"LIFE ON THE EDGE: A RESOURCE GUIDE TO CALIFORNIA'S ENDANGERED PLANTS AND WILDLIFE" *Life on the Edge* is a 560-page compilation of endangered species accounts, essays, interviews, and historical perspectives that frames endangered species biology within ecological and cultural contexts. The book describes 115 of California's endangered and threatened species, the causes of their endangerment, and how conservation efforts are being applied. Each account contains a detailed map showing the current and historical range and distribution of the species. Color photographs and specially commissioned paintings illustrate the animals in their natural habitats. Essays on topics such as the diversity of California's landscape, the evolution of resource legislation, and the effects of dramatic land use changes, as well as interviews with resource experts offer insights to the world of endangered species conservation. Native American legends, artwork and artifacts, and extensive historical sections encourage the reader to see California through the eyes of Native American societies, explorers, settlers, and early natural historians. The book may be purchased directly from the publisher: **BioSystems Books, 303 Potrero**

Street, Suite 29-101, Santa Cruz, CA 95060, phone: 800-983-5433.

"MITIGATING BIRD COLLISIONS WITH POWERLINES: THE STATE OF THE ART IN 1994" The Avian Power Line Interaction Committee (APLIC)--a combined effort of the electric utility industry, the U.S. Fish and Wildlife Service, and the National Audubon Society--has recently published *Mitigating Bird Collisions with Power Lines: The State of the Art in 1994*, a manual outlining potential problems and solutions to avian power line interactions. Like its companion publication, *Suggested Practices for Raptor Protection on Power Lines--The State of the Art in 1981*, this publication helps the reader identify whether a bird collision problem exists, how to mitigate the problem if one exists, and how to avoid the problem initially. This manual will be useful to resource agency and utility biologists, engineers, and planners in dealing with this issue. Four years in the making, this publication represents the most comprehensive treatment of bird power line interactions ever produced. The manual can be obtained from: **Joel Mazelis, Edison Electric Institute, 701 Pennsylvania Avenue NW, Washington, DC 20004-2696, phone: 202-508-5461.**

"A PHOTOGRAPHIC GUIDE TO NORTH AMERICAN RAPTORS" This new field guide by Brian K. Wheeler and William S. Clark features 377 color photographs depicting all 42 species of diurnal raptors recorded in North America. Supporting text describes plumages, notes easily confused species, and presents data on length, wingspan, and weight. The guide concludes with a special section that examines 14 of the most difficult North American raptor identification problems. The guide may be purchased directly from the publisher:

Academic Press, Marketing Department, 525 "B" Street, Suite 1900, San Diego, CA 92101-4495, phone: 800-321-5068, fax: 800-336-7377, e-mail: ap@acad.com.

NEWS OF MEMBERS

Professor **John E. Cooper** has relinquished his post as Director of the Centre Vétérinaire des Volcans in Rwanda but is retaining links in Kenya, Tanzania, and Uganda. He and his wife, Margaret, may now be contacted via the Durrell Institute of Conservation and Ecology (DICE), The University, Canterbury, Kent CT2 7PD, UK.

REQUESTS FOR ASSISTANCE

AUDIO-VISUAL EDUCATIONAL MATERIALS The Education Committee of the Raptor Research Foundation is compiling a catalog of audio-visual materials on raptors. The following information is requested: author/producer, title, production date, a brief summary (50 words or less), type of media (slide show, audio cassette, VHS, etc.), loan/rent/sale policies and prices, and contact name and address (phone number optional). Contact: **Nancy Read, Education Committee Chair, P.O. Box 714, Los Alamos, CA 93440-0714, phone: 805-344-2428.**

BARRED OWL INFORMATION Barred owl (*Strix varia*) information is needed for the *Birds of North America* account of this species. Any unpublished information, obscure references, or personal observations would be greatly appreciated and acknowledged in the final account. Please

send information to: **Kurt Mazur, Department of Biology, University of Regina, Regina, Saskatchewan S4S 0A2, Canada, phone: 306-982-4643, fax: 306-585-4894.**

COLOR-BANDED PEREGRINE FALCONS Recently 2 color-banded peregrine falcons without a U.S. Fish and Wildlife Service band were recovered on the Texas Gulf Coast. The first bird had a yellow plastic band on each leg. The band on the left leg was narrow and inscribed with the code, "RU3111." The band on the right leg was wider and inscribed with the code, "11." The second bird had a single narrow, yellow plastic band inscribed with the code, "RO025372." If you know where either of these birds was banded, please contact: **Dr. Robert W. Dickerman, Museum of Southwestern Biology, Department of Biology, University of New Mexico, Albuquerque, NM 87131-1091, phone: 505-277-3315.**

DONATIONS OF BINOCULARS AND FIELD GUIDES The Education Committee of the Raptor Research Foundation is seeking donations of binoculars and field guides for international distribution to needy individuals and organizations involved in raptor research, conservation, and education. Projects benefitting from this service include the Veracruz Migration Project and raptor research in the former Soviet Union. If you are upgrading your equipment or just have an extra pair of binoculars lying around, please consider donating them to this worthwhile project. To make a donation, or to nominate an individual or group for receipt of donations, contact: **Nancy Read, Education Committee Chair, P.O. Box 714, Los Alamos, CA 93440-0714, phone: 805-344-2428.**

PRINTED EDUCATIONAL MATERIALS The Education Committee of the Raptor Research Foundation is currently compiling a bibliography and resource base of educational materials and activities related to raptors. RRF has provided a limited budget to pay for copying and distribution of printed materials. If you or your organization charges for use of its materials, this information will be included in the listing. However, we are encouraging the free sharing of information whenever possible, with the covenant of providing proper credit to each institution. For the bibliography, send a complete description of the materials, including all species and/or topics covered. Or, preferably, send samples of materials. All material should be clearly labeled with the organization and/or author's name or logo. Volunteers are also needed for translation of materials into other languages, as our focus will be on assisting groups in "developing" countries that have little or no access to such material. Contact: **Nancy Read, Education Committee Chair, P.O. Box 714, Los Alamos, CA 93440-0714, phone: 805-344-2428.**

RAPTOR CONSERVATION STRATEGIES Hiromu Nakatsu, a student with the Faculty of International Relations at Ritsumeikan University in Kyoto, is conducting a survey of raptor conservation efforts both inside and outside Japan. Specifically, he is seeking information on "environmental strategy"--strategies taken by people to utilize environmental resources in consideration of their protection. The purpose of this project is to analyze the strategies employed in raptor conservation throughout the world to extract the substantial characteristics of the raptor protection movement. If you can contribute to this important project, please contact: **Hiromu Nakatsu, 30-3 Nakano-honmachi, Shijonawate-shi, Osaka, 575 Japan.**

SALVAGE SPECIMENS REQUESTED

The Bell Museum of Natural History is creating a new exhibit on peregrine falcons entitled, *The Peregrine Falcon: Return of an Endangered Species*. The Museum requests your help in securing specimens and objects for use in the exhibit. Items needed include: frozen specimens of adult and immature peregrine falcons; frozen specimens of other falcon species; infertile or broken peregrine falcon eggs, showing the effects of DDT, or photos of DDT-killed eggs; peregrine falcon remains (roost predation by a great horned owl or other predator); peregrine falcon prey remains; objects such as old DDT containers that illustrate the pesticide story involved in the decline and recovery of peregrines; paraphernalia used in the captive rearing of peregrines such as puppet parents, dummy eggs, incubators, hoods, and handling gloves; and photographs of peregrine behavior, natural history, breeding, reintroduction and conservation efforts, and current nesting sites. The Museum holds federal permits and would acquire specific permits for any specimens

received. Please contact: **Curt Hadland, Bell Museum of Natural History, 10 Church Street SE, Minneapolis, MN 55455, phone: 612-624-3849, fax: 612-626-7704** or **Mark Martell, The Raptor Center, University of Minnesota, 1920 Fitch Avenue, St. Paul, MN 55108, phone: 612-624-9790, fax: 612-624-8740.**

TAGGED TURKEY VULTURES The sophomore biology classes at Belvidere High School, New Jersey, are conducting a turkey vulture migration study from spring 1995 through spring 1996. The purpose of this study is to investigate the location and regional movements of turkey vultures. Working with Ed Henckel, students are placing red streamers on the left wing. If you sight a tagged turkey vulture, please call or write (include date and location of sighting): **Belvidere High School, Oxford Street, Belvidere, NJ 07823, Attn.: Roxanne Kaiser, phone: 908-475-4025.**

WINGSPAN CONTRIBUTIONS

The Raptor Research Foundation wishes to thank the following people who contributed material to this issue of *Wingspan*: **Karen Allen, Marc Bechard, Keith Bildstein, David Bird, Michelle Breidenstein, Richard Clark, Michael Collopy, John Cooper, Eric Cummins, Robert Dickerman, Patricia Hall, Susan Hartzog, Geoff Holroyd, Roxanne Kaiser, Lloyd Kiff, Peter Lowther, Carl Marti, Kurt Mazur, Carol McIntyre, Hiromu Nakatsu, Lynne Olson, Jemima Parry-Jones, Pamela Pietz, S. E. Piper, Nancy Read, Karen Steenhof, and José Tella.**

Wingspan welcomes contributions from RRF members and others interested in raptor biology and management. Articles and announcements should be sent, faxed, or e-mailed to: Leonard Young, Editor, 5010 Sunset Drive NW, Olympia, WA 98502-1576 USA (phone/fax: 360-866-8039; e-mail: wingspan@msn.com). The deadline for the next issue is 15 February 1996.

RRF Trivia Answers: 1) 1996, 2) c, 3) b, 4) c, 5) b, 6) c, 7) a, 8) d, 9) a, 10) a.

RECENT THESES ON RAPTORS

Brodeur, S. 1995. DOMAINES VITAUX ET DEPLACEMENTS MIGRATOIRES D'AIGLES ROYAUX NICHANT DANS LA REGION DE LA BAIE D'HUDSON AU QUEBEC. M.S. Thesis, McGill Univ., Montreal, Quebec. 144pp.

Chabot, A. 1994. HABITAT SELECTION AND REPRODUCTIVE BIOLOGY OF THE LOGGERHEAD SHRIKE IN EASTERN ONTARIO AND QUEBEC. M.S. Thesis, McGill Univ., Montreal, Quebec. 161pp.

Cunningham, H. 1995. EVALUATION OF INBREEDING, LINKAGE AND GENETIC DRIFT IN A CAPTIVE POPULATION OF AMERICAN KESTRELS USING DNA FINGERPRINTING. M.S. Thesis, McGill Univ., Montreal, Quebec. 86pp.

MacLellan, K. 1994. THE EFFECT OF O-P DICOFOL ON TWO GENERATIONS OF AMERICAN KESTRELS. M.S. Thesis, McGill Univ., Montreal, Quebec. 104pp.

McIntyre, C. L. 1995. NESTING ECOLOGY OF MIGRATORY GOLDEN EAGLES *AQUILA CHRYSAETOS* IN DENALI NATIONAL PARK, ALASKA. M.S. Thesis, Univ. Alaska, Fairbanks, 57pp.

Piper, S. E. 1994. MATHEMATICAL DEMOGRAPHY OF THE CAPE VULTURE. Ph.D. Thesis, Univ. Cape Town, South Africa. 533pp.

Soendjoto, A. 1995. VOCALIZATION BEHAVIOUR OF CAPTIVE LOGGERHEAD SHRIKES (*LANIUS LUDOVICIANUS EXCUBITORIDES*). M.S. Thesis, McGill Univ., Montreal, Quebec. 85pp.



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