WINGSPAN

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MESSAGE FROM THE PRESIDENT

Those of you who have been following the business of the Board of Directors on the RRF web site know that over the past few months, we've been debating the need to raise RRF dues. During his term as President, Mike Kochert created a Financial Planning Committee to assist RRF with developing a business plan. The Committee has made good progress on its original charge, so late last year I asked the Committee to focus its efforts on looking at various options to address RRF's financial shortfall. This summer, the Financial Committee came forward with their well-researched recommendations: (1) increase Regular Member dues by $10 per year, from $30 to $40; (2) increase Student Member dues by $5 per year, from $15 to $20; (3) keep Life Membership dues as is; (4) increase institutional subscriptions by $15 per year, from $50 to $65; (5) create a new dues category for members in developing nations--Regular Members in these nations would pay the same rate as Student Members; and (6) retain the $3 late dues payment charge. With regard to item (5), the committee recommended basing eligibility on the list of developing nations adopted by the American Ornithologists' Union (AOU), but adding Monaco. Thus, members in all nations except the following would be eligible for the developing nations rate: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Iceland, Ireland, Israel, Italy, Japan, Luxembourg, Monaco, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, and United States.

I strongly recommended that the Board accept the Committee's proposal, and in August, after some debate, the Board voted to do just that. As a result, the dues structure outlined above will be in place in 2005, so most of us will be paying a little more next year to belong to RRF. Dues increases are tricky things, because increased dues can lead to decreases in membership, which leads to declines in income. Besides just losing the revenue that members bring, we value our members and don't want to drive any away because of cost. We took all that into consideration, but in this case we were faced with a clear choice: raise dues or substantially cut services. Our decision reflects our belief that the membership as a whole values the gains RRF has made in the quality of its publications enough to willingly bear the cost of paying for those gains. We hope we are right, but to hedge that bet, we re-energized the Membership Committee (chaired by Ted Swem), and tasked it with implementing an ambitious plan to grow RRF's membership. You'll hear more about this in a future *Wingspan*.

Please join us in Bakersfield in November for our joint meeting with the California Hawking Club (CHC). This promises to be a great meeting, with the added benefit that anyone with an interest can get a quick short course on how falconry is practiced in the United States in 2004. CHC is an institutional member of RRF, and I hope that by

the time the meeting is over, many CHC members will become Regular Members as well. We share many of the same goals, and certainly are deeply linked by our mutual interest in raptor conservation.

I hope everyone took the time to vote on the recent mail ballot. Judy Henckel deserves special thanks for her hard work putting that ballot together, as do the candidates who stepped forward to offer their time on our behalf. For my part, I decided not to seek a third term as RRF President. I've enjoyed the three years I've been in the job, but I think after four it will be time to let someone else step in and take the reins. Fortunately, we have a great candidate for this position on the ballot, and I look forward to working with the new President-elect over the next year. I hope you'll join me in welcoming this new team on board in January. In the meantime, pack your bags for Bakersfield, enjoy this issue of *Wingspan* and the most recent issue of *The Journal of Raptor Research*, and visit the RRF web site to catch up on the latest news.

Best regards,

Brian Millsap

BAKERSFIELD CONFERENCE RAFFLE ITEMS NEEDED !

Those attending the Bakersfield meeting are asked to bring one or more raffle items. Raffle items include such things as an enlargement of your favorite raptor photograph (matted or not, framed or not), tickets to a California team's professional sporting event (e.g., to see the 49ers or the Padres play), a raptor book, and a raptor trap. Proceeds will go to defray meeting costs. If costs are met, profits will be divided equally between RRF and the California Hawking Club, our meeting partner.

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 $33 per year ($18 per year for students) and to libraries and institutions for $50 per year from: Ornithological Societies of North America, P.O. Box 1897, Lawrence, KS 66044, USA. Add $5 for destinations outside of the continental United States. Individual and student memberships renewed before November 15 are $30 and $15, respectively. 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: Ornithological Societies of North America, P.O. Box 7099, Lawrence, KS 66044, USA.

RAPTOR RESEARCH FOUNDATION
2004 ANNUAL MEETING

Bakersfield, California
10-14 November

* California Condor Field Trip Added *

The Raptor Research Foundation 2004 annual meeting will be held from 10-14 November 2004 at the DoubleTree Hotel in Bakersfield, California in conjunction with the California Hawking Club (CHC) annual field meet (learn more about the CHC at **http://www.calhawkingclub.org**). Details on the joint meeting are posted and updated periodically on the CHC and RRF web sites (RRF site **http://biology.boisestate.edu/raptor**). The deadline for submission of abstracts has now passed (July 31), but you may register up to and even during the meeting. You may register online at CHC's secure web site, which is linked to the RRF web site. Just go to our web site, find the information on the Bakersfield conference and click on "Register Online."

Special sessions under consideration include Ecology and Conservation of Wetland-dependent Raptors, West Nile Virus, and Management of Raptor Electrocutions in California. Among the field trips are tours to see California Condors and learn about the Recovery Program (see below), tours of the California Living Museum and the Facility for Animal Care and Treatment at the University of California, Bakersfield and viewing of the CHC Sky Trials. In Sky Trials, trained raptors test their skills against racing pigeons.

A field trip to see California Condors and learn about the California Condor Recovery Program was recently added to the meeting schedule. The field trip will be held Sunday, November 14 from 7:00 AM to 5:00 PM, and is $40 per person. This field trip replaces one planned to the Carrizo Plain National Monument (note: date, time, and cost are the same as for the Carrizo trip). If you have registered for the meeting and wish to join this field trip, register online at the CHC web site or contact Rick Holderman (parabuteo1@cox.net).

The California Condor is being reintroduced into its former range in the mountainous areas of southern and central coastal California. There are 47 condors now flying free in the wild in California. RRF was a strong and outspoken advocate of the captive breeding program begun in 1980. This program literally saved the species from certain extinction. The field trip will travel through historic condor habitat where we can view recent historic nests as well as current threats to the species. Our destination will be Hopper Mountain National Wildlife Refuge where condors have been reintroduced since 1992. There will be opportunities to view numbers of condors soaring over the refuge and feeding. We will be joined by several condor biologists who will bring us up to date on the program. Bring binoculars and warm clothing. Field trip leaders will be Jesse Grantham, a U.S. Fish & Wildlife Service biologist who worked on the species from 1980-86 and is working with the species presently, and Dr. Allan Mee, a condor researcher with the San Diego Zoological Society.

For more information, contact Dan Varland, RRF Conference Committee Chair, (Rayonier, 3033 Ingram Street, Hoquiam, WA 98550, USA; phone: 1-360-538-4582; e-mail: daniel.varland@rayonier.com).

THE ASIAN VULTURE CRISIS - WHERE ARE WE TODAY?

by Jemima Parry-Jones MBE

As many people will know, the three species of Asian *Gyps* vultures have suffered massive and unprecedented declines of between 97-99% in perhaps less than one decade. This was first documented by Dr Vibhu Prakash at Keoladeo National Park. In May 2003, Dr. Lindsay Oakes announced his work that the most probable cause of the decline throughout most of the birds' ranges, and certainly in Pakistan, was diclofenac.

The discovery surprised Dr. Lindsay and indeed all working on the problem. How could a non-steroidal anti inflammatory drug (NSAID), discovered and licensed in the 1970s for human use, kill over nine million (at a conservative estimate) birds in the 1990s, in probably ten years? Who could possibly have foreseen such a happening? But for those who do not believe, it has happened. Millions of vultures have died. And ironically, from my point of view as I came to work with these particular vultures through the Parsis, who had their dead devoured by vultures, or as is the case now not devoured, there is a reasonably high chance that the first vultures to die were those eating the dead of the Parsis.

In February 2004, two workshops were held, one in Kathmandu, Nepal organised by the Peregrine Fund and Nepal BirdLife, and one in Parwanoo, India. The Parwanoo workshop was co-organised by the Bombay Natural History Society, the Royal Society for the Protection of Birds (RSPB) and the Zoological Society of London (ZSL, with Darwin Funds). The workshop was to develop a vulture recovery plan. Both workshops produced recommendations and a memorandum of understanding for those attending to sign. The attending governments of Pakistan, Nepal, and India, and all the various scientists and non-governmental organizations (NGOs) signed up willingly to these recommendations.

At the Parwanoo workshop, further details on the crisis were presented. Modeling predictions support the relationship between diclofenac and recorded declines in vulture populations. Every other possible cause for the decline was looked at, from other toxins right through to the competitive flying of kites, and no evidence for any of them was available to disprove that diclofenac is responsible. Heightening concerns, the vulture populations continue to sharply decline. So the time span left to save these species is fast running out.

Two main recommendations came from the workshops. The first was that these three species of *Gyps* vultures need to be urgently removed from the source of the decline. So it was decided to initiate captive breeding schemes for all three species. A *minimum* of three centres needed to be initiated, each holding 25 pairs of each species--preferably 60 individuals from each species. This is the absolute minimum, and more would be desirable and sensible.

One centre already exists in Pinjore in Northern India. The Pinjore Centre was set up with funding from the Darwin Initiative grant to ZSL, with some extra funding from the National Birds of Prey Trust (NBPT), RSPB, and ZSL. Initially its remit was to look for the cause of the decline, and after the cause had been substantiated, to prepare for a captive breeding programme. This centre will be extended and permission within India has been recently granted for two other centres. Sadly permission to take birds was not as fast in coming as it should have been, and the 2003-04 breeding season is past. However preparations are in hand for the 2004-05 season. This captive breeding programme has the long term aim of self-sustaining populations of all three species of vultures back in the wild by 2030.

At a meeting in Delhi in May 2004, the Indian Government, some of the large drug companies, veterinary institutes from within India, and the various national and international NGOs involved met to discuss the situation. The main thrust of the meeting turned out to be the banning of diclofenac as it is used in veterinary medicine. Surprisingly, the companies represented there were well on the way to not only understanding the need, but also realizing the ban had to go ahead. Someone thinking cynically might have said that with all the publicity within India in the months prior to the meeting, the companies had seen the writing on the wall and decided to play the good guys. However generally, and although those representing government were not all convinced, the banning of diclofenac took a good step forward at that meeting, with a possible ban within 12 months being openly discussed.

For those who might be thinking that if diclofenac is banned within 12 months, then after that time the vultures will not need to be kept safely in captivity, or the huge commitment of a captive breeding programme be embarked upon, consider this. DDT was banned in the UK in the 1960s and is still found today in farm sheds and cupboards, and that in a country which supposedly has a good education system and methods of communication, the damage that DDT caused could hardly be called a secret. There will undoubtedly be diclofenac in cupboards, pharmacies, and veterinary practices for years to come. And as the vulture populations decline, it would not take much to finish the job and complete their extinction. Diclofenac is found in at least 21 different veterinary products on the market. Thus, we all feel that as many birds as possible should be got in for the sake of their lives. If at a later date we can be assured that all diclofenac, and any other lethal drugs, are no longer around, then birds can easily be released.

After the February workshops, a survey was send round to as many zoos and veterinary surgeons as possible to establish what NSAIDs had been used in captive birds and to what effect. Although the sample size is not huge it looks as if some of the more modern and specific NSAIDs may be safe for animal use in vulture habitat.

Initial testing of *Gyps africanus* has found them at least as sensitive to diclofenac as the Asian species; further testing has found that *Gyps fulvus* is also as sensitive. This points to a possible answer to the decline in Eurasian Griffon vultures that winter in India and Pakistan. Further tests are being initiated to verify the safety of other NSAIDs that have been used in *Gyps* vultures and other raptors in captivity.

In surveys in India recently, it appears that there are declines in other scavenging species of birds of prey as well, not just *Gyps* vultures, but other vultures and possibly even the ubiquitous Black Kite. There is a high chance that the effects of diclofenac are more lethal and widespread than first thought.

So where are we? We know the cause, we know what we need to do to save at least remnant populations, we know we need willing assistance and authorities from the various governments in the birds' range states. We have the expertise available around the world, and we have the desire to stop this staggering extinction before it's too late. All we have to do is work together and get the job moving more quickly and face up to the long-term commitment. To lose species now, with all we know is in my book unforgivable.

But, for those of you who had the luck to see these vulture species at the height of their success, you saw a sight that will never be seen again. Never will the vultures be as numerous as they were in the past. Methods of disposing of carcasses will have to change, and indeed are already changing, as the vultures are no longer there to do the task. Feral dogs are increasing enormously, and the situation that gave the vultures the ability to be so incredibly numerous in the past is fast shifting. So, if anyone took photos of these birds then, treasure them, they cannot be repeated.

CALIFORNIA CONDOR RESTORATION PROJECT WINS NATIONAL AWARD

The Peregrine Fund was specially recognized earlier this month for efforts in restoring California Condors to the Grand Canyon area, and received the 4 C's Award from the U.S. Department of the Interior through the Bureau of Land Management (BLM). The award acknowledges performance that epitomizes the philosophy of consultation, cooperation, and communication, all in the service of conservation.

BLM Director, Kathleen Clarke came from Washington, D.C. to present the award at a meeting of the Southwest Condor Working Group and recognize the tremendous collaborative efforts involved in this project. Director Clarke commented, "Rules and regulations will never recover a species. You need passion and conviction. Those are exactly the traits exhibited from this group that exemplifies the benefits and potential that can be achieved when agencies cooperate toward a common goal."

Other member organizations in the Working Group--including U.S. Fish & Wildlife Service (USFWS) Arizona Ecological Services Field Office, Utah Division of Wildlife Resources, Arizona Game & Fish Department, Kaibab National Forest, and Grand Canyon National Park--were also recognized for their efforts in the program.

The California Condors are being released as a "non-essential/experimental population" under section 10(j) of the Endangered Species Act. Section 10(j) provides that the species can be released in an area without impacting current or future land use planning. This authority has been spelled out further in an implementation agreement between USFWS and local governments. There are currently 102 condors flying free in California, Arizona, and Baja Mexico. Two condor chicks hatched in the wild in Arizona during 2004. On 1 August 2004, the entire wild and captive California Condor population reached a total of 248 birds, up from a low of 22 in 1982.

RRF RESOLUTIONS

by Mike McGrady, Chair, Resolutions Committee

Resolutions are provided for in the RRF bylaws. Their purpose is to make known the will of the Foundation, and they allow it to comment and clarify its stand on issues and influence decision makers. So that draft resolutions are thoroughly considered, the bylaws require that they be submitted at least three months prior to the Annual Business Meeting. During that three month period, the resolutions committee works with the proposer and the RRF board to craft a resolution that is clear, balanced, and scientifically defendable. Other experts in the field may be asked to comment on the draft resolution.

Despite the wording of the resolution section of the bylaws, in the case of urgent issues the board has been willing, in general, to work around the limitations of the resolutions process by issuing letters from the president or from the conservation committee chair expressing the will of the board. Because e-mail has made communication easier and decision making potentially faster, the resolutions committee is willing to accept draft resolutions within the three month submission period and will work on them to prepare them for board approval and membership vote at the Annual Business Meeting.

Resolutions can be submitted at any time to the Resolutions Committee Chair: Mike McGrady, Am Rosenhügel 59, A-3500 Krems, Austria (phone/fax: 43-2732-72028, e-mail: mikejmcgrady@aol.com).

LESLIE BROWN MEMORIAL AWARD, 2004

Graham Fairhurst

Reproductive Biology of African Goshawks (Accipiter tachiro) in Fragmented Landscapes of the Taita Hills, Kenya

Graham D. Fairhurst is the winner of the 2004 Leslie Brown Memorial Award for his proposed work on "Reproductive Ecology and Movements of African Goshawks (*Accipiter tachiro*) in Fragmented Landscapes of the Taita Hills, Kenya." Graham recently completed his M.S. in Raptor Biology at Boise State University (USA) where he studied Northern Goshawk population ecology. Prior to his graduate studies, he worked with raptors in scientific, educational, and volunteer capacities; he has conducted field work in the USA, Canada, and Kenya. He developed an interest in African raptor conservation while participating in a study abroad program in Kenya. During a second visit to Kenya, and throughout his M.S. program, his interest continued to grow and gain in scientific dimensions. Graham will return to Kenya to study African Goshawks in fragmented landscapes of the Taita Hills. He will use the Leslie Brown award to fund an important radio telemetry study that aims to estimate breeding season home ranges and document habitat use. Graham intends to expand this project into dissertation research addressing the influences of habitat fragmentation and degradation on forest raptors.

SWAINSON'S HAWKS BANDED IN ARGENTINA

by José Hernán Sarasola & Michael I. Goldstein

The Argentine pampas (grasslands) support wintering populations of Swainson's Hawks (*Buteo swainsoni*) for 3 to 4 months each year, typically during November through March. Despite high local abundance recorded in some areas along this region, and the conspicuousness of the species, Swainson's Hawks have received little attention by local biologists and ornithologists. Thus, many aspects of the hawk's biology and ecology remained unknown up until a few years ago. The interest in this species increased since the discovery of mass mortalities during the last decade, with ecological studies conducted in Argentina since then.

In 1996 and 1997, following mass mortality incidents, wintering Swainson's Hawks were first banded in Argentina. We (in combination with Pete Bloom, Brian Woodbridge, and Marc Bechard) banded 133 hawks during that winter. A USGS band was placed on the bird's right leg, and an Argentine National Park Service band was placed on the bird's left leg. Another 107 Swainson's Hawks were trapped and banded during subsequent field seasons (2002-04). The Dirección Nacional de Parques Nacionales de Argentina (DNPNA) generously provided all Argentine bands.

Despite the existence of DNPNA bands, and although the DNPNA bands are identified by name and have unique numbers, no Argentine government agency (nor the DNPNA) has a banding lab aimed to receive and systematically catalog information on band recoveries. For this reason we request your assistance by providing information on recaptured Swainson's Hawks, as well as band recoveries, to the following address: Centro para el Estudio y Conservación de las Aves Rapaces en Argentina, Facultad de Ciencias Exactas y Naturales, Universidad Nacional de La Pampa, Avda. Uruguay 151, 6300 Santa Rosa, La Pampa, Argentina.

ANNOUNCEMENTS

UPCOMING MEETINGS

2004

November 10-13
RAPTOR RESEARCH FOUNDATION
Bakersfield, California
Contact: **http://www.calhawkingclub.org/field_meet/34th_Annual/** or Rick Holderman, phone: 1-619-660-2175, fax: 1-619-670-8388, e-mail: parabuteo1@cox.net

2005

October 12-16
RAPTOR RESEARCH FOUNDATION
Green Bay, Wisconsin
The Raptor Research Foundation 2005 annual meeting will be held from 12-16 October at the KI Convention Center in Green Bay, Wisconsin (**http://www.regencygb.com/convention.html**). The meeting will be hosted by the Cofrin Center for Biodiversity, which is part of the University of Wisconsin, Green Bay (**http:www.uwgb.edu/biodiversity**). Green Bay is located in eastern Wisconsin on Lake Michigan, a favorite place for birdwatchers and a thriving community with many attractions (**http://www.titletown.org/default.asp**).

POSITIONS AVAILABLE

VOLUNTEER RAPTOR MIGRATION COUNTERS (4 positions) needed for fall 2004, 2005 and spring 2005, 2006 project at Eilat, Israel. Project runs in autumn from 1 September through 30 November, and in spring from 15 February through 31 May. Applicants must have experience with raptor identification, and must be in good physical condition to be able to endure long hours in the field. Counters will receive board, lodging, and transportation. Send cover letter, detailed resume, 3 current references with phone numbers or e-mail addresses, and dates of availability to: ryosef@eilatcity.co.il.

PUBLICATIONS AVAILABLE

"GUIDE TO HAWK-WATCHING IN NORTH AMERICA" (ISBN 0-7627-2670-9) by Donald S. Heintzelman is now available as a revised and updated second edition (this is the first revision of the book since it was originally published in 1979). This 448-page paperback may be purchased directly from the publisher, Globe Pequot Press (**http://www.globepequotpress.com**) for US$16.95.

ON-LINE RESOURCES

"IAF NEWS BULLETIN" The International Association for Falconry and Conservation of Birds of Prey (IAF) has begun distribution of an electronic news bulletin to keep falconers, conservationists, and fieldsportsmen aware of what IAF is doing around the world. Those who wish to receive the bulletin should contact: Gary Timbrell, IAF Public Relations, Kilnagnady, Upton, County Cork, Ireland; phone: 353-21-7330298; e-mail: iaf.informationbureau@dublin.com.

SAKER FALCON WEB SITE The Emirate of Abu Dhabi Environmental Research and Wildlife Development Agency has launched a new web site, "Save the Saker" (**http://www.savethesaker.com**), to explain the global status of the Saker Falcon, the threats it faces in the wild, how it is being conserved, and its relationship with man. The site reflects a decade's worth of work by biologists and veterinarians, much of which has yet to be published.

"THE OWL PAGES" (**www.owlpages.com**) provide lots of information about owls: basic biology, photographs, recorded calls, human

perceptions and interactions, and links to many other owl information resources.

REQUESTS FOR ASSISTANCE

AMATEUR RAPTOR PHOTOS WANTED FOR BOOK We need color photos of several raptor species to complete our book "Raptors of the Northeast", by Drs. Thomas Bosakowski and Dwight G. Smith. We can't pay, but we will print your name under each photograph (byline) and give you two free copies of the book for your efforts. You will NOT have to relinquish copyrights for any slides that are used in the book, as you will be given one-time reproduction rights. We are looking for shots of adults and young in the wild as well as head shots, zoo shots, and hand-held shots from banders. Captive shots must not show cage bars, falconry equipment, or people holding raptors. Photos of nest sites are also welcome (all species), but those must be from the Northeast United States. We still need shots of Black Vulture - flight; Northern Harrier - perched; Sharp-shinned Hawk - adult flight & perched; Northern Goshawk - juvenile, adult, flight, perched; Red-shouldered Hawk - adult flight & perched; Rough-legged Hawk - dark & light, flight or perched; Golden Eagle - adult & juvenile flight, juvenile perched; American Kestrel - juvenile, adult female, flight or perched; Merlin - juvenile male & female, adult male & female, flight & perched; Gyrfalcon - dark & gray, flight or perched; Barn Owl - perched & flight, young; Eastern Screech-Owl - adult, young; Great Horned Owl - adult; Northern Hawk Owl - perched or flight; Barred Owl - perched; Great Gray Owl - perched, flight; Long-eared Owl - adult, young; Short-eared Owl - adult, flight; Boreal Owl - adult & young; Northern Saw-whet Owl - young, nest hole.

If you wish to contribute, please send Kodak quality duplicate slides or 4x6 photo and include your name, species, sex and age (if known), location, behavior, etc. on each slide/photo. High-resolution digital photos may be acceptable (send only hard copy for now). Only sharp, non-fuzzy, non-blurry images will be considered. It is up to the photographer if you wish to submit original slides or negatives, but we can't be held responsible for any loss in the mail. All materials will be returned in a month or two. Before submission of images, please send a quick confirmation of what you intend to send by e-mail to: tombosak@aol.com, or snail mail to: Dr. Dwight G. Smith, Biology Department, Southern Connecticut State University, New Haven, CT 06515, USA.

RAPTOR TAXONOMY In order to finalise our ongoing project on the phylogeny and molecular taxonomy of raptors we are interested in receiving samples (feathers, blood or tissue samples) of the following species: *Aviceda* (all species); *Leptodon* (all species); *Chondrohierax uncinatus*; *Henicopernis* (all species); *Pernis ptilorhynchus*, *Pernis celebensis*; *Elanoides forficatus*; *Macheiramphus alcinus*; *Elanus scriptus*; *Rostrhamus* (all species); *Harpagus* (all species); *Itinia* (all species); *Ichthyophaga* (all species); *Circaetus* (all species except *gallicus*); *Spilornis* (all species); *Dryotriorchis spectablis*; *Eutriorchis astur*; *Circus melanoleucos*; *Polyboroides radiatus*; *Melierax* (all species except *metabates*); *Accipiter* (all species except *fasciatus*, *cooperi*, *striatus*, *gentilis*, *nisus*, *cirrocephalus*); *Erythrotriorchis* (all species); *Megatriorchis doriae*; *Urotriorchis macrourus*; *Butastur* (all species except *indicus*); *Geranspiza caerulescens*; *Leucopternis* (all species); *Buteogallus* (all species except *meridionialis*); *Harpyhaliaetus* (all species); *Asturin* (all species); *Buteo* (*magnirostris*, *ridgwayi*, *platypterus*, *leucorrhous*, *brachyurus*, *albigula*, *swainsoni*, *albicaudatus*, *polyosoma*, *albonotatus*, *solitarius*, *ventralis*, *brachypterus*, *auguralis*, *augur*, *archeri*); *Morphnus guianensis*; *Harpia harpya*; *Pithecophaga jefferyi*; *Ictinaetus malayensis*; *Aquila gurneyi*; *Hieraaetus* (*ayresii*, *kienerii*); *Spizastur melanoleucos*; *Spizaetus* (all species except *cirrhatus*, *nipalensis*); *Stephanoaetus coronatus*; and *Oraetus isidori*. If you could provide a sample, please contact: Prof. Dr. Michael Wink, Heidelberg University, Institute of Pharmacy & Molecular Biotechnology, INF 364, 69120 Heidelberg; Germany; e-mail: wink@uni-hd.de.

ASSISTANCE OFFERED

EQUIPMENT GRANTS Sandpiper Technologies specializes in electronics for wildlife research and offers free use of its rental equipment to U.S. and Canadian students. Available equipment includes a pole-mounted video system, a time-lapse surveillance system, and burrow probes. Applications for the 2005 breeding season must be received by December 1, 2004. Equipment specifications and application requirements can be found at the company's web site: **http://www.sandpipertech.com/grants.html**.

NEWS OF MEMBERS

Keith Babcock has a new address: Impact Sciences, Inc.; 3256 Penryn Road, Suite 120; Loomis, CA 95960, USA; e-mail: keithb@impactsciences.com.

FOR SALE

RRF PUBLICATIONS Back issues of *The Journal of Raptor Research* (TJRR) Vol. 1-30 and all Raptor Research Reports may be purchased directly from RRF (Jim Fitzpatrick, Carpenter St. Croix Valley Nature Center, 12805 St. Croix Trail S, Hastings, MN 55033, USA; phone: 1-651-437-4359; fax: 1-651-438-2908; e-mail: jim@carpenternaturecenter.org). Some older issues of TJRR are not available. See **http://biology.boisestate.edu/raptor/rrf.htm#Back issues** for details and prices. Orders for four or more volumes receive a 30% discount. RRF decals and pins also are available. Vol. 31+ of TJRR may be purchased from the Ornithological Societies of North America (Becky Noordsy, P.O. Box 7099, Lawrence, KS 66044, USA; phone: 1-800-627-0629 x233; fax: 1-785-843-1274; e-mail: rnoordsy@allenpress.com).

RECENT THESES ON RAPTORS

The U.S. Geological Survey's Richard R. Olendorff Memorial Library greatly appreciates receiving a copy of each thesis abstracted in *Wingspan*. This allows the Library to make theses available to scientists and managers worldwide through its Raptor Information System (RIS, see *Wingspan* 7(1):16). Please send theses to: Olendorff Memorial Library, U.S. Geological Survey, Forest and Rangeland Ecosystem Science Center, Snake River Field Station, 970 Lusk Street, Boise, ID 83706, USA.

Harrold, E. S. 2003. BARRED OWL (*STRIX VARIA*) NESTING ECOLOGY IN THE SOUTHERN PIEDMONT OF NORTH CAROLINA. M.S. Thesis, Univ. North Carolina, Charlotte.

An improved understanding of the essential structural habitat components critical for occupation by Barred Owls was obtained from a comparison of habitat structure in relatively unmodified rural sites to sites in suburban residential areas with high human densities. This study showed that suburban landscapes can contain features characteristic of old forests including an open understory, large trees, and dense canopy cover. Older residential areas in Charlotte are best described as a wooded landscape in which the dominant trees are planted oak trees >50 years of age. The home range size of owls in suburban Charlotte, North Carolina is smaller than that of owls of northern populations occupying natural forest habitats. Owl home ranges were located in areas consisting primarily of residential land use. Comparison of data obtained from suburban and rural nests suggests that owls are selecting similar prey in these environments. Birds were the most commonly occurring categorical prey item for both suburban and rural sites. The presence of Barred

Owls in highly modified suburban environments suggests that the species is more adaptable with respect to tolerance of human activity than reported in previously published studies.

Roe, A. S. 2004. SPATIAL AND TEMPORAL ANALYSES OF ENVIRONMENTAL CONTAMINANTS AND TROPHIC STATUS OF BALD EAGLES IN THE GREAT LAKES REGION. Ph.D. Diss., Clemson Univ., Clemson, S.C.

An evaluation was conducted of spatial and temporal contaminants and trophic status of nestling Bald Eagles used in contaminant monitoring programs in Michigan and Ohio. The Michigan Department of Environmental Quality (MDEQ) implemented a monitoring program in 1999 using the Bald Eagle to monitor trends of contaminants. The monitoring program allowed for contaminant assessment at five geographic scales. After completion of the first five-year monitoring cycle, this study concluded that the monitoring program achieved its objective and detected significant decreases in total PCB and p,p'-DDE concentrations in plasma of nestling Bald Eagles between 1987 - 1992 and 1999 - 2002. The five-year sampling method also achieved the sample size objectives needed for precision, mean power, and mean trend analyses at all five geographic scales. Stable isotopic analysis of nestling feathers in Michigan from 1999 - 2001 showed that nitrogen isotopes can be used to differentiate between known bird and fish consuming nestling eagles. Knowledge of the current prey base utilized by species within the Michigan aquatic food web is important for implementing management decisions and regulations that concern wildlife and human health. The MDEQ Bald Eagle contaminant monitoring program is, therefore, an appropriate means of detecting trends in contaminants in Michigan.

The Ohio Environmental Protection Agency and Ohio Department of Natural Resources implemented a nestling Bald Eagle biosentinel program in Ohio in response to research needs expressed by the Lake Erie Lakewide Area Management Plan committee and the Lake Erie Quality Index committee related to exposure to persistent toxic substances to the population of Bald Eagles nesting along the Ohio portion of Lake Erie. Plasma concentrations of total PCBs, p,p'-DDE, α-chlordane, and dieldrin from Lake Erie region nestlings were greater than concentrations from Inland Ohio region nestlings. No overall significant differences in plasma contaminant concentrations over the time period of 1994 to 1997 were detected. This study matched the Lake Erie Commission priorities of protecting Lake Erie's natural resources, restoring degraded elements of the Lake Erie ecosystem, and in supporting monitoring for the Lake Erie Quality Index. These data can be used to complete the development of the Bald Eagle as a biosentinel species for Lake Erie.

This dissertation research has shown that nestling Bald Eagles can be used to monitor the spatial and temporal trends of environmental contaminants in the Great Lakes region. Bald Eagles have been shown to be an appropriate indicator of Great Lakes environmental quality. Therefore, use of nestling Bald Eagles in contaminant monitoring studies is an effective approach to monitor contaminant concentrations.

WINGSPAN CONTRIBUTIONS

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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 the editor: Leonard Young, 1640 Oriole Lane NW, Olympia, WA 98502-4342, USA (phone/fax: 1-360-943-7394, e-mail: rrfwingspan@comcast.net). Deadline for the next issue is February 7, 2005.

HAWK MIGRATION PARTNERSHIP RECEIVES GRANT FOR RAPTOR MONITORING PILOT PROJECT

A partnership of three of North America's leading hawk migration research organizations has received an $86,000 challenge grant from the National Fish and Wildlife Foundation, to begin a 3-year pilot project to establish a continent-wide program to track population trends of migratory raptors. The project, known as the Raptor Population Index (RPI), unites the Hawk Migration Association of North America (HMANA), Hawk Mountain Sanctuary Association (HMSA), and HawkWatch International (HWI) in the effort to create this important conservation tool.

At least 20 of the 32 raptor species that regularly occur in North America are migratory. During migrations, they regularly gather along coastlines and mountain ridges where geography and local weather conditions interact to bring them together. The predictability of these migratory gatherings provides much larger sample sizes than other monitoring methods and is the key to the RPI project. David Hussell, an Emeritus Scientist at the Ontario Ministry of Natural Resources is a member of the Scientific Advisory Committee selected by the partnership to oversee the project; his trend analysis work will provide the project's scientific backbone. The ultimate goal of the project is that wildlife managers and environmental policy makers have up-to-the minute population information so they can make informed decisions about research priorities, resource management, and environmental protection on a continent-wide scale.

The challenge grant must be matched at a ratio of 2:1 with non-federal dollars; the partnership is currently seeking matching funds from foundations, corporations, and individuals. Further information about hawk migration and conservation can be found at the partner organizations' web sites: HMANA: **http://www.hmana.org**, HMS: **http://www.hawkmountain.org**, and HWI: **http://www.hawkwatch.org**.

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