

MESSAGE FROM THE PRESIDENT

For much of the last half-year, I've been engaged in difficult discussions aimed at resolving litigation concerning forest practices and Northern Spotted Owls. I'm pleased that earlier this summer a settlement agreement was reached that ended this litigation and outlined a new way to move forward for Washington State's non-federal forest lands. That future is just beginning to unfold, but my mind is already leaping ahead, cataloguing issues that will have to be resolved, flagging obstacles that will have to be overcome, and pondering approaches that may get us where we have committed to go. But perhaps most significantly, in the context of moving ahead, I'm reflecting upon conservation behavior: the thought patterns, behaviors, and tendencies with which we process information and interact with one another to build our collective future.

Procrastinate? Stall? Don't do it. Life is short. Things won't fix themselves if you leave them alone. Present day problems become more difficult to solve with the passage of time, for everyone. An ounce of action today is worth a pound of triage tomorrow.

Respect? Absolutely essential. I've come to view fellow participants in difficult discussions, those with different values and perspectives than my own, as my partners, the people who are crucial to achieving the future I am working for. I can't get there without them. Their problems are my problems, and their views are just as important as my own.

Laws and regulations? Great. We need good ones, faithfully implemented. But, they can only take us so far. No law or regulation can compel someone to proactively undertake a course of action to change the world for the better. Laws and regulations can prevent the negative, but seldom can ensure the positive. Look for ways to motivate people to do what's needed.

Cool, calm, and collected? Yep. Passion is fine, we need the energy. But, I've never seen a debate improved by expressions of frustration or anger, or by currents of animosity that some people just won't let go.

Compromise? Not if you can help it. By definition, compromise means giving up part of something important to you, accepting a diminished outcome. Do it, and you won't feel good, and the solution won't last. Collaborate. Develop outcomes that satisfy all parties' needs as fully as possible. This requires thinking in new ways and exploring new approaches to achieving the end. It's hard work, but extremely rewarding.

Dare to dream, then work hard. The most difficult parts of solving a problem are describing the solution then forming a rock-solid commitment to getting there. Congratulations! Now, it's time to roll up your sleeves, to exert daily discipline to get the job done. As Mark Stalmaster told me a long time ago, "the study isn't done until the results are published." Or, as Gordon Ramsay would say, "don't stop!"



It is with a renewed awareness of the absolute necessity of an energized, positive, collaborative spirit, that I am heading to our annual meeting in Missoula. Kate Davis and her local committee have crafted an outstanding agenda for us. I hope to see you there.

Best regards -- Lenny



RAPTOR RESEARCH FOUNDATION, INCOFFICERS

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For more information about the Raptor Research Foundation, Inc. (founded in 1966), please visit the RRF website at: <http://www.raptorresearchfoundation.org/>.

Persons interested in birds of prey are invited to join the Raptor Research Foundation (RRF). *Wingspan* is emailed twice each year to all members of RRF and is available on the RRF website. Members also receive *The Journal of Raptor Research* (ISSN 0892-1016), which is published quarterly. For membership and subscription information, please contact: Ornithological Societies of North America, 5400 Bosque Boulevard, Suite 680, Waco, TX 76710, USA; 1-254-399-9636 (phone); 1-254-776-3767 (fax); business@osnabirds.org (email); <http://www.osnabirds.org> (web).

Get Involved with RRF!!

If you are interested in becoming more involved with the Raptor Research Foundation, please contact an Officer, Board of Directors member, or Committee chair. There are many opportunities with varying levels of time commitments. Elections for Directors and Officers occur every year; throw your name in the hat. Participate on a committee; the RRF committees are always looking for additional members! See the RRF website for committee chairs.

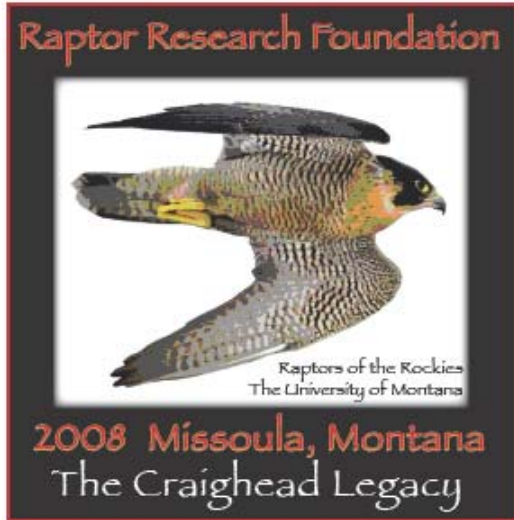
Conference Committee Chairperson Needed: 2009-2013

Dan Varland has served as Conference Committee Chair since 2003 and is stepping down after the 2008 annual meeting in Missoula. If you are interested in the position contact Dan Varland (email: daniel.varland@rayonier.com; phone: 360-538-4582). The main responsibilities include working with the RRF Board and President to: 1) locate organizations willing and able to host the annual meeting; 2) secure a financial agreement between the host organization(s) and RRF; and 3) work with the local committee to ensure a successful meeting according to RRF annual conference guidelines.

Editor's Note – Thanks to the following contributors for this issue of the *Wingspan*: Kate Davis, Cheryl Dykstra, Carole Griffiths, Gene Jacobs, Karla Kinstler, Jeff Lincer, Angela Matz, Tim Mullett, Kerrie Munro, Darcy Ogada, Ruth Tingay, Dan Varland, Lenny Young.

Wingspan welcomes contributions from RRF members and others interested in raptor biology and management. Contributions may be submitted by mail (Petra Bohall Wood, Wingspan, PO Box 6125, West Virginia University, Morgantown, WV 26506 USA) or email (rrfwingspan@mail.wvu.edu). Email is preferred and for long contributions, please send as an MS Word attachment.

Deadline for the next issue is **15 February 2009**.



RAPTOR RESEARCH FOUNDATION

2008 ANNUAL CONFERENCE

Missoula, Montana 24-28 September

The Legacy Lives On –

A Tribute to John and Frank Craighead

Our annual meeting is generating quite a bit of interest, so join us in Missoula in September. The theme “The Legacy Lives On: A Tribute to John and Frank Craighead” recognizes our local leaders in pioneering field research, cutting edge technology and communication to conserve raptors around the globe.

The **special speaker** is Brian Woodbridge, whose discovery of thousands of poisoned Swainson’s hawks on their wintering grounds in Argentina led to banning a toxic pesticide and protection of the hawks. In 1994, he was the first to track the epic 8000-mile migration of Swainson’s hawks using satellite transmitters. He joins us from Yreka, California.

University of Montana professors Ken Dial and Erick Greene, known for lively presentations and groundbreaking work in bird flight evolution and bird communication respectively, are **keynote** and **plenary** speakers. Saturday, Sept. 27, is a daylong symposium on the new book *Raptor Research and Management Techniques*, with most of the twenty-five chapter authors presenting.

The Monte Dolack Gallery will present avian art in their first-ever **Birds And Art Show**. Pieces in a wide array of mediums will be on display and for sale, with twenty-one invited local and nationally-known artists participating. An extensive collection of back issues of *The Journal* will be for sale. Check your collection prior to the conference and purchase missing issues at nominal cost from Kent Carnie, curator emeritus of the Archives of Falconry.

To help defray meeting costs, please consider donating an item for the **Silent Auction**. Items can be brought to the conference or mailed to: RRF Conference Silent Auction, c/o Kim Thomas, 8055 Parkwood Drive, Missoula, MT 59808. Please include your name and address. Possible auction items include raptor photographs, artwork, books, t-shirts, gift items or any other bird or raptor related item.

September is an extraordinary time of year in Montana with the brisk nights, turning leaves, and bugling elk, so join us for the 2008 Conference. And make your **room reservations** soon, as there is a home Grizzly football game on Saturday, which puts rooms in the area at a premium.

For information on the conference and sponsorship, contact Kate Davis, Raptors of the Rockies at raptors@montana.com. Also visit the conference websites: <http://www.umt.edu/ce/cps/raptor/> or <http://raptorresearchfoundation.org/> (Photo by Kate Davis)



UPCOMING RRF MEETINGS

2009 RRF ANNUAL CONFERENCE SCOTLAND 29 September to 4 October



The 2009 annual conference will be held in Pitlochry, Scotland, 29 Sept - 4 October inclusive, hosted by the Scottish Raptor Study Groups. Delegates from 26 different countries have registered to date. Please visit the conference website for full details:

<http://www.rrfconferencescotland2009.org>

A new on-line mailing list/information board has been set up for registered delegates. The conference organisers will post news and updates on this site, and delegates can use the list to find room-mates, travel mates etc. Please note, only delegates who have paid their registration fees are eligible to join. If you are a registered delegate, please visit the group's homepage to subscribe to the list: <http://groups.yahoo.com/group/RRFScotland2009>

News from the JOURNAL OF RAPTOR RESEARCH

Submitted by Cheryl Dykstra, Editor-in-chief, *Journal of Raptor Research*

The editorial staff of the *Journal of Raptor Research* is pleased to announce the availability of online access to all *Journal of Raptor Research* articles.

Issues of *Journal of Raptor Research* from Volumes 1 - 39 (1967 - 2005) are now available free of charge on the SORA website (Searchable Ornithological Research Archive, <http://elibrary.unm.edu/sora/>). SORA is an open-access electronic journal archive for the major North American ornithological journals.

Issues of *Journal of Raptor Research* from Volume 40 - 42 are available online through BioOne.2 (www.Bioone.org) for everyone with institutional access to BioOne. In addition, all members of the Raptor Research Foundation now have free, full-text access to the *Journal of Raptor Research* (2006--current issue) through BioOne. A link and directions for access are provided on the Raptor Research Foundation website for your convenience.

Special thanks to the Board of Directors of the Raptor Research Foundation for their support, to members who donated issues, and to Carl Marti for website expertise.

News from the RRF Awards and Grants Committee

2008 Brown Grant Recipient

Submitted by Jeff Lincer

This year's **Leslie Brown Memorial Grant** goes to **Mwangi Githiru**. Mwangi is a 33-year-old Kenyan. He recently completed a Marie-Curie postdoctoral research fellowship (University of Antwerp, Belgium) studying detailed aspects of the genetics and demography of several forest birds in the fragmented Taita Hills Forests, SE Kenya. He is a part-time conservation biology lecturer in various universities, and also lectures on the Tropical Biology Association courses. He works closely with The Peregrine Fund, Kenya, performing various data analyses tasks. Since 1996, he has been a Research Associate with the Ornithology Department of the National Museums of Kenya. With this support from the Leslie Brown Memorial Fund, Mwangi will coordinate the collation, analysis, and publication of long-term raptor road count data from East Africa.



There is growing evidence indicating raptor declines in Africa, which is a likely pointer to wider ecological malaise given their crucial place in the food webs as well as their indicator properties. An ongoing study, also funded by a Leslie Brown Memorial Grant, seeks to assess the overall conservation status of raptors in sub-Saharan Africa, and produce a Regional Red-Data List. Almost entirely, this initiative has relied on expert opinion, highlighting the paucity of quantitative evidence. The need to buttress some of these expert views with quantitative data is very clear. This project endeavors to start filling this gap this for East Africa.

A decent amount of census data exists for many regions in Africa but is unanalysed and unpublished, which deters the use of this crucial information for conservation. Long-term road count data are available for East Africa (especially Kenya), from both raptor experts and enthusiasts. However, the data are scattered, in most cases occurring in (old) notebooks and hard data sheets. With a focus on such datasets, this project hopes to:

- i. Assemble data from various raptor enthusiasts and experts across East Africa
- ii. Analyze these data to establish population trends over a more than 20-year period and incorporate insights into the Regional Red-Data List
- iii. Establish potential causes of the trends found, differences between protected and unprotected areas where possible, and predict future patterns
- iv. Recommend conservation actions based on trends and possible causal factors.

Besides publications, the key expected outcome is generation of knowledge that can be directly applied in raptor conservation through priority setting, planning monitoring schemes and evaluation of possible causal factors.

2008 Amadon and Tully Grant Recipients

Submitted by Carole Griffiths

The **Dean Amadon Grant** for 2008 went to **Ralph Buij** for his project "Evaluating the impact of land-use on resident and migratory raptors in West African savannas." Dr. Buij is coordinator of Centre d'Etude de l' Environnement et du Developpement au Cameroun.

Recent studies show that a large proportion of raptors of the West African Sudan-Sahel region have significantly decreased in numbers during the past two decades (Thiollay 2006, 2007). Considering the importance of the West Central African region to resident and migratory raptors, the situation is alarming and suggests a general collapse of the region's biodiversity. Woodcutting, overgrazing, and agricultural intensification were mentioned as likely reasons for the decrease of West African raptors (Thiollay 2007), although no specific cause has been identified to date. We aim to identify the determinants of seasonal raptor abundance and diversity in northern Cameroon and western Chad using coarse-scale habitat correlates of raptor abundance. This study will contribute not only to knowledge on raptor response to land use change, but also to the conservation of a vulnerable group of birds, by identifying crucial habitat features necessary to maintain raptor communities in the face of expanding human populations and cultivation in West Africa.

The **Steven R. Tully Memorial Grant** for 2008 went to Mark Jasper for his project "Determining the effects of parasitic disease on the onset of migration of Red-tailed hawks (*Buteo jamaicensis*) using stable isotope analysis." Mr. Jasper is an M.S. candidate at San Francisco State University, School of Science and Engineering.

Stable-isotope analysis of feathers has been used to estimate breeding origins of migratory birds but has yet to be combined with blood parasite screening to determine the impact of parasitic disease on migration timing. His project will 1) Determine natal origins of hatch-year Red-tailed hawks migrating through Central California using stable isotope analysis to more accurately delineate separate hawk populations in Western North America. 2) Determine blood parasite prevalence using PCR and compare those results to natal origins of study hawks in order to determine geographic blood parasite prevalence in Western Red-tailed Hawk populations 3) Compare capture dates of hawks with similar natal origins to parasite prevalence in order to determine the correlation between parasite infection and the onset of migrating.

Application instructions and deadlines for RRF grants and awards are available on the RRF website.

Raptor News

The letter below, drafted by Rich Glinski and revised by Lenny Young, contains comments from the Raptor Research Foundation for U.S. Fish and Wildlife Service's (USFWS) consideration as USFWS works to complete its Status Review for the Bald Eagle (*Haliaeetus leucocephalus*) in the Sonoran Desert Area of Central Arizona and Northwestern Mexico.

Date: 10 August 2008.

Subject: Raptor Research Foundation Comments on Bald Eagle Status Review

Dear Mr. Spangle:

This letter contains comments from the Raptor Research Foundation (RRF) for U.S. Fish and Wildlife Service's (USFWS) consideration as USFWS works to complete its Status Review for the Bald Eagle (*Haliaeetus leucocephalus*) in the Sonoran Desert Area of Central Arizona and Northwestern Mexico (73 FR 29096). Throughout this letter, we refer to this population of Bald Eagles as "Southwest population."

In a letter dated August 11, 2006, RRF responded to USFWS's request for comments on the proposed delisting of the Bald Eagle. In this response (Attachment 1), RRF noted that the Southwest population appears to be less viable than populations in other parts of the country and may not warrant delisting at this time. In its July 9, 2007 Final Rule Removing the Bald Eagle in the Lower 48 States from the List of Endangered and Threatened Wildlife (72 FR 37346), USFWS concluded that the Southwest population meets only 1 of 2 required criteria that USFWS applies to determine whether a population represents a Distinct Population Segment (DPS). USFWS concluded that the Southwest population is discrete, but not "significant in relation to the remainder of the taxon." Therefore, USFWS did not make a separate delisting decision for the Southwest population.

RRF disagrees with USFWS's conclusion that the Southwest population is not a DPS, particularly with respect to 2 of the 4 criteria that USFWS applies to determine significance (61 FR 4722): "Persistence of the discrete population segment in an ecological setting unusual or unique for the taxon" and "Evidence that the discrete population segment differs markedly from other populations of the species in its genetic characteristics." RRF reiterates its previous concerns regarding threats to the Southwest population. These points are outlined, below.

I. Distinct Population Segment

A. Persistence ... in an Ecological Setting Unusual or Unique for the Taxon

RRF believes that the Southwest population does exist in an ecological setting that is unusual and unique among Bald Eagle populations. RRF does not believe this criterion can be dismissed by the explanation that Bald Eagles in the Southwest population "essentially use the same ecological niche as those in other parts of the lower 48 States population"; RRF does not believe this is an appropriate interpretation of this criterion. Almost by definition, individuals of the same raptor species occupy the same ecological niche in different ecosystems.

Further, USFWS based its conclusion that the Southwest population is not unusual or unique on a point-by-point comparison of life history characteristics to those of Bald Eagles in other populations. RRF believes that the appropriate comparison is the sum total of these characteristics. In other words, the Southwest population is unusual and unique when its complete ecology is compared to that of other Bald Eagle populations.

Demonstrating that each separate life history characteristic is encountered somewhere else in the species' range is not an appropriate logical structure for this analysis.

USFWS concludes that even if differences existed between the Southwest population and populations in other parts of the species' range, "there is no evidence that these particular eagles have adapted in response to these conditions in any way that benefits the taxon as a whole because similar adaptations are found in other settings." Again, RRF feels that this is not the best logical perspective from which to derive a decision. The Southwest population is unusual and unique due to the sum total of ecological characteristics that allow it to persist year-round in a hot, arid environment that is different from environments that support other breeding populations of Bald Eagles.

RRF urges USFWS to reconsider its conclusion that the Southwest population persists in an ecological setting that is neither unusual nor unique, with these perspectives in mind.

B. Evidence that the DPS Differs Markedly ... in its Genetic Characteristics

Analyses needed to determine whether the Southwest population differs markedly from other Bald Eagle populations in its genetic characteristics have not been carried out. However, morphological and behavioral differences suggest that genetic differences may exist. Differences in size of birds and eggs are documented, as are behavioral differences like timing of nesting and post-fledging movement patterns of young (Hunt et al. 1992). In this most detailed study of Arizona's Bald Eagle population, Hunt et al. (1992) posed the notion that movement patterns of young suggest "genetic control of a migratory adaptation." Also, Hunt et al. (1992) found in Arizona eggs unique microstructure features of eggshells that could impact "water loss from Bald Eagle eggs from an arid climate such as Arizona."

Analysis of nuclear and mitochondrial DNA from Bald Eagle tissue samples similar to the assessment performed by Proudfoot et al. (2006) for Ferruginous Pygmy-owls would reveal either evidence of distinct eagle groups, or lack of such distinction. For the Ferruginous Pygmy-owl, genetics data demonstrated the importance of the Sonora, Mexico - Arizona population of this raptor, and focused management attention onto this population. With knowledge of the genetic limits of this distinct owl population, the recovery team can now identify and prioritize protection for requisite habitats, and know the significance of population parameters like recruitment and mortality rates.

RRF urges USFWS to carry out the analyses needed to determine whether the Southwest population differs markedly from other populations of Bald Eagles in its genetic characteristics.

II. Threats

RRF remains concerned with threats to the Southwest population. As stated in our August 11, 2006 letter,

We continue to be concerned about the viability of the Southwest population of Bald Eagles based on the low number of breeding pairs, relatively low productivity, relatively high adult mortality, and threats of habitat alteration and human disturbance.

We are not aware of any data showing a clear, long-term increase in the Southwest Bald Eagle population (Arizona, New Mexico, and Mexico). The delisting proposal notes that there were 46 occupied breeding territories in Arizona and New Mexico in 2003, and that Arizona's 41 pairs produced an estimated 0.75 young/pair in 2004. This is a relatively small population for such a large geographic area, and productivity is lower than in any other part of the eagle's range. Coupled with relatively low productivity, adult mortality is relatively high: 12-16% of the breeding population per year (Arizona Game and Fish Department 1999). In most eagle populations, natural mortality of adults is usually less than 10% (McCullough 1986, Wood 1992,

Bowman et al. 1995). Since 1983, the Arizona Nest Watch Program has been involved in the rescue of more than 50 nestlings and eggs. If the nest watch program is discontinued, productivity likely will fall below that needed to maintain a stable or increasing population.

Compounding conservation difficulties posed by low numbers, lower productivity, and higher adult mortality, the Southwest population is faced with a variety of threats related to rapidly increasing human populations. For example, in 1996 and 1997, almost 14,000 human activities and nearly 4,000 gunshots were recorded within 1 km of 13 different nests in Arizona (Arizona Game and Fish Department 1999). The most productive eagle breeding areas in the Southwest population are in the Salt and Verde drainages in or adjacent to Maricopa County. The human population in this area is projected to double to 6 million people within the next 30 years (Arizona Game and Fish Department 1999). Significant threats to Arizona Bald Eagles include human developments, recreational disturbance, fishing-line entanglement, and habitat modification due to grazing and flood control (Arizona Game and Fish Department 1999). In summary, we do not believe that the Southwest Bald Eagle population is secure, and we question whether even current numbers can be sustained without active management and habitat protection.

USFWS's revised definitions and management guidelines only partially alleviate threats to the Southwest population, where actions that jeopardize Bald Eagle environs are not only small-scale actions that threaten individual eagles and nest trees (the primary focus of the guidelines), but also large-scale planning and development endeavors. Especially important are water resource management plans: many Bald Eagles in the Southwest population depend on the Verde and Salt rivers, watersheds that planners anticipate will sustain the areas of greatest human population expansion in Arizona. Further, USFWS's management guidelines are advisory in nature. RRF urges USFWS to consider protecting the Southwest population as Threatened or Endangered. The Endangered Species Act provides the best opportunity for Bald Eagle habitat needs to be addressed early in project development. Planners are familiar with this process, and legally mandated consideration of Bald Eagle issues at the onset of planning discussions offers the greatest likelihood that projects will be implemented in a manner that does not jeopardize the Southwest population.

In summary, RRF believes that the Southwest population warrants designation as a DPS based on its persistence in an ecological setting that is unique and unusual among Bald Eagle populations, and possibly genetic differences as well. Analyses needed to determine whether there are genetic differences between the Southwest population and other Bald Eagle populations should be promptly carried out. RRF urges USFWS to consider protecting the Southwest population as Threatened or Endangered under the Endangered Species Act, based on the population's small size and its vulnerability to population-level threats that are not completely mitigated by other laws and USFWS's Bald Eagle management guidelines.

Thank you for your consideration of RRF's comments. Please do not hesitate to contact me if there is any way in which RRF can assist USFWS in completing its status determination, or with other matters involving the Southwest population.

Sincerely,
Leonard Young, President
Raptor Research Foundation, Inc.

Literature Cited

- Arizona Game and Fish Department. 1999. Conservation assessment and strategy for the Bald Eagle in Arizona -- draft. Arizona Game and Fish Department, Phoenix, AZ U.S.A. 70 pp.
- Hunt W.G., D.E. Driscoll, E.W. Bianchi and R.E. Jackman. 1992. Ecology of Bald Eagles in Arizona. Rept. to U.S. Bureau of Reclamation, Contract6-CS-30-04470. BioSystems Analysis, Inc., Santa Cruz, CA.).

Proudfoot, G.A., R.L. Honeycutt, R. Douglas Slack, and M.F. Ingraldi. 2006. Variation in DNA microsatellites of the ferruginous pygmy-owl (*Glaucidium brasilianum*). *Conservation Genetics* (2006) 7:945-956.

Judge grants extension of bald-eagle protection

by **Kate Nolan** - Aug. 30, 2008 12:00 AM
The Arizona Republic

Arizona bald eagles won another round Friday toward maintaining their Endangered Species Act protection. In U.S. District Court in Phoenix, Judge Mary Murguia granted a motion filed by Indian tribes and the Center for Biological Diversity to extend bald-eagle protection through Oct. 12, 2009. The motion is related to a lawsuit seeking to have Arizona eagles protected separately as a distinct population.

The U.S. Fish and Wildlife Service in July 2007 ended the endangered-status protection for all bald eagles in the contiguous states. Murguia's order gives tribes more time to confirm the number of eagles that existed in Arizona before development. The tribes believe findings will show there were more eagles in Arizona historically than acknowledged by Fish and Wildlife.

Tribal leaders have embraced the ruling. "That was a very fair decision," said John Lewis, director of the Inter Tribal Council of Arizona and a member of the Colorado River Indian Tribes. "The tribes have demonstrated there was a need for adequate consultation that didn't take place, and also a need for . . . putting out the tribal perspective on the issue."

The action follows Murguia's March decision calling for a new assessment of the eagles, which number fewer than 50 breeding pairs. At that time, she ordered Fish and Wildlife to maintain the birds' endangered-status protection and perform a status review with input from the tribes. Her Dec. 5 deadline for a decision on the endangered-status question has now been postponed until October.

Conservation groups and biologists, including the Arizona Game and Fish Department, which manages the state bald-eagle program, have already submitted scientific documents to Fish and Wildlife. In an effort led by the Salt River Pima-Maricopa Indian Community, the tribes are preparing to submit historical, biological and cultural information rarely shared with non-Indians. Gov. Janet Napolitano supported the motion to extend the court deadline, as did U.S. Fish and Wildlife. "We are in support of as much tribal coordination as we can do," said Arizona field supervisor Steve Spangle.

<http://www.azcentral.com/arizonarepublic/local/articles/2008/08/30/20080830eagle0830.html>

To learn more about what RRF is doing for raptor conservation and for RRF members, check out the minutes from the RRF business meetings. Minutes from the annual business meeting held at the annual conference, as well as minutes from quarterly email agendas, are posted on the RRF website.

ANNOUNCEMENTS and BRIEF NEWS ITEMS

Announcements

The **World Owl Hall of Fame** is seeking nominations of both owls and humans who have made tremendous strides toward making this world a better place for owls. Nominees may be living or deceased and may reside anywhere in the world. Self-nominations are accepted. *Nominations must be received by 1 November 2008* and will be reviewed by a panel of five judges from four countries with expertise in owl conservation, education, rehabilitation, and research. Winners will be individually notified by December to allow time for travel arrangements to be made, and will be made public in mid January. Awards will be presented at the International Festival of Owls in Houston, Minnesota, USA on Saturday, 7 March 2009. For more information about the World Owl Hall of Fame and to download nomination forms visit www.festivalofowls.com or contact the Houston Nature Center at 507-896-HOOT (4668) or nature@acegroup.cc.

The new **International Centre for Birds of Prey** is based at Eardisland in Herefordshire. It is planned to be an all encompassing raptor centre. ICBP will undertake education, captive breeding, research, and rehabilitation. The new Centre will open to the public in 2008. See the website www.ICBP.org to learn more about the Centre and its history.

Websites of Raptor Organizations

Australasian Raptor Association -- <http://www.ausraptor.org.au/>
Asian Raptor Research and Conservation Network -- <http://www5b.biglobe.ne.jp/~raptor/>
World Working Group on Birds of Prey -- <http://www.raptors-international.de/>
Neotropical Raptor Network -- <http://www.neotropicalraptors.org/index.i.html>

Workshops

RAPTOR WORKSHOP: Accredited through University of Wisconsin - Stevens Point
A 5-day workshop entitled "Introduction to Raptor Field Techniques" will be held in Stevens Point, WI by Eugene Jacobs of the Linwood Springs Research Station and Loren Ayers of the Wis. Dept. of Natural Resources. It is scheduled to begin on Monday evening October 6 and continue through Friday October 10, 2008. Receive first hand experience working with: live raptors, capturing, handling, banding techniques, broadcast call surveys, tree climbing and rappelling, telemetry equipment and more. Cost is \$425 and space is limited, so register early. For more information and a registration form visit <http://www.RaptorResearch.com>

For Sale

RRF Publications, Pins, and Decals –Hard copies of The Journal of Raptor Research (Vol. 1-30), most Raptor Research Reports, and RRF pins and decals may be purchased directly from RRF (Angela Matz, 101 12th Ave., Room 110, Fairbanks, AK 99701, USA; email: angela_matz@fws.gov). See http://raptorresearchfoundation.org/back_issues_jrr.htm for details and prices. Orders for 4 or more issues receive a 30% discount. Hard copies of The Journal of Raptor Research (Vol. 31+) may be purchased from Ornithological Societies of North America (5400 Bosque Blvd, Suite 680, Waco, TX 76710, USA; phone: 1-254-399-9636; email: business@osnabirds.org; web: <http://www.osnabirds.org>). Some older issues are not available in hardcopy; but all issues from Vol. 1-39 are available on SORA (<http://elibrary.unm.edu/sora/jrr/>) for free download.

Raptor Books and Publications

A Life of Ospreys by Roy Dennis

- Personal stories from the man most closely associated with the osprey in Scotland
- An accurate account of the species
- Complemented with stunning photos and informative visual material
- Brings the story of the osprey bang up-to-date with satellite radio studies of migration to Africa and back
- ISBN 978-1904445-26-5
- c.224pp liberally illustrated,
- full colour throughout; 240 x 170mm softback
- available from www.whittlespublishing.com



RECENT THESES ON RAPTORS

Mullet, T.C. 2008. Evaluation of two GIS habitat models and initial characterization of nesting and breeding-season roosting microhabitat for Mexican spotted owls in the Guadalupe Mountains. M.S. Thesis, Sul Ross State University, Alpine, TX, USA. 140pp.

The Mexican spotted owl (*Stix occidentalis lucida*) is a federally threatened species inhabiting mixed conifer forests and canyon systems throughout the southwestern United States and Mexico. This subspecies has been found in steep-walled canyons and, less frequently, in mixed-conifer forests of the Guadalupe Mountains of West Texas and Southeast New Mexico. Prior to this study, no quantitative study of spotted owl habitat in this region had been conducted. The purpose of this study was to characterize and quantify the breeding-season habitat of Mexican spotted owls at two spatial scales

based on their occupancy in the Guadalupe Mountains. I determined the distribution of high-quality habitat at a landscape scale by assessing the predictive ability of two existing GIS-based habitat models initially designed from data outside this region. I quantified 21 microhabitat features surrounding known nest and roost sites to characterize the site-specific conditions within canyon habitats. I found Mexican spotted owls utilizing steep, narrow canyons with strong vegetative components. The overlapping, high-quality habitat predicted by both models had the strongest association to known nest and roost sites and higher occupancy estimates compared to the high-quality habitat predicted by either model alone, making it the most efficient description of Mexican spotted owl breeding-season habitat at a landscape-scale. Canopy-cover, saplings, and rocky debris were significant microhabitat characteristics of nest and roost sites within this region. Canyon morphology, species composition, and ground cover vegetation at nest and roost sites were homogenous compared to random canyon sites. This study was the first attempt to quantify and describe the breeding-season habitat of Mexican spotted owls using the predictions of GIS-based habitat models and quantitative sampling methods in the Guadalupe Mountains. This study reaffirms the utility of GIS-based habitat models as an effective means for predicting Mexican spotted owl breeding-season habitat and the importance of steep, cool canyons for nesting and roosting sites in the Guadalupe Mountains.

Ogada, D.L. 2007. The ecology and conservation of Mackinder's eagle owl (*Bubo capensis mackinderi*) in central Kenya in relation to agricultural land-use and cultural attitudes. Ph.D. dissertation, Rhodes University, Grahamstown, South Africa, p 82.

The loss of habitat to agriculture is a worldwide problem for biodiversity conservation. One species that has seemingly been able to adapt to the conversion of forests to farmlands is Mackinder's eagle owl (*Bubo capensis mackinderi*), which inhabits highland areas, but little is known of its ecology, especially outside of protected areas. This study examined the impact of agricultural practices and farmer's attitudes on the foraging and population ecology of the Mackinder's eagle owl in central Kenya. Owl territories were monitored monthly from June 2004- October 2006 for signs of occupancy, breeding activity, mortality and to collect data on food resources. Nest site characteristics were measured for all known nests. Because previous studies showed an affinity for rodents, small mammals were trapped monthly using mark-recapture methodology. In each territory, the type and amount of farm crops were measured each month and farmers were interviewed about their knowledge and beliefs about owls. Mackinder's eagle owls in central Kenya lived at extremely high density 0.87 owl pairs/km². This density was high compared to other populations of Mackinder's eagle owl and to Eurasian eagle owl (*Bubo bubo*) populations in Europe. Breeding success was 48% over three years and this compared well with other species of eagle owl inhabiting human-disturbed areas. All nests and roosts were located in river valleys, and all successful nest sites were located on cliffs or other inaccessible rocky terrain. Nest sites were located adjacent to farms, which provided for both open hunting and an abundance of prey. Breeding activity was concentrated after the rainy seasons and this was likely linked to prey availability after the rains. Agricultural activities generally had a positive effect on rodent populations. Small mammal trapping results revealed that rodents were over 14 times more abundant in farms than in adjacent grassland habitat. This population of Mackinder's eagle owl had a very catholic diet and consumed mostly mammalian prey species including hares, giant rats, root rats, grooved-tooth rats and small rodents. Small rodents accounted for almost half of the owls' diet and when their numbers increased, owls responded by consuming more of them, indicating the importance of farming activities to this population of owls. Other populations of eagle owl inhabiting human-disturbed areas had diet widths positively related to levels of habitat disturbance. This result

supported optimal foraging theory that more productive environments have predators with more specialized diets, while patchy environments have generalist predators. The ecology of this population of Mackinder's eagle owls was heavily influenced by human agricultural activities, which generally had a positive effect on their population. Farming activities changed rapidly both within and between seasons as plots were small and neighbouring farmers planted various crops at different times of the year and this was enhanced by irrigation in some areas. Year-round availability of forage within farms had a positive effect on owl prey species, some of which increased relative to the type and amount of crops found in farms. However, 57% of owl injuries and mortalities that occurred were related either directly or indirectly to human activities. Cultural prejudices against owls remain the biggest threat to this population's long-term persistence. Farmer education was shown to play a significant role in overcoming negative beliefs about owls. Because Mackinder's eagle owls are highly adaptable to anthropomorphic landscape changes, largely due to their adaptability as food generalists, they are one of the few top predators remaining in this highly disturbed agricultural system. However, populations within agricultural areas remain especially vulnerable to negative human attitudes towards owls due to their close association with human activities.

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