

MESSAGE FROM THE PRESIDENT

Bylaws. Just mentioning that word is probably enough to ensure that some of you will stop reading from this point and turn to another page. I wouldn't blame you. I think you'd have to be leading a pretty dull life if you found bylaws interesting. It doesn't reflect well on me then, when I tell you that over the last three years of my presidency I've had more than just a passing acquaintance with the RRF bylaws.

The thing is, as tedious and boring as they are, our bylaws are also incredibly important as they provide the framework for effective governance. They're the internal rules of our Foundation and serve several important functions. Not only do they fulfil the legal requirements of a non-profit organisation by defining the purpose of RRF and describing how the Foundation operates, they also provide guidance for the Board's decision-making and ensure that our standards are consistent. They also protect us all, both individually and collectively, from the grip of any tyrant seeking despotic rule. This last scenario is unlikely, I know, but my personal view of the proposed Society for Ornithology is not too far from this description.

The origin of our current bylaws rests with the founders of RRF. I think they showed a great deal of foresight when they wrote these rules, over forty years ago, and that only a few minor tweaks have been needed over the years is evidence of that. However, although these bylaws have served us well, the Board has agreed that it's time to revisit the paperwork and consider some modernisation. Mike Kochert has recently carried out a painstaking review of our current bylaws and in the coming weeks the Board will be considering his suggestions. Once that part of the process has finished, you as members will be asked to vote on whether to accept or reject any proposed changes. Watch this space.

Modernisation is a recurring theme in other areas of our work:

Thanks to JRR Editor, Cheryl Dykstra, a new system of electronic submission of papers via the PeerTrack website was rolled out in June. This system makes the peer review and publication process quicker and smoother for authors, reviewers and editors. You can also register your interest as a potential reviewer. See the RRF website for details:

<http://www.raptorresearchfoundation.org/publications/journal-of-raptor-research/submission-guidelines>

RRF Scientific Programme Chair, James Dwyer, is currently exploring a novel idea to increase awareness of, and access to, abstracts published in JRR. It's early days and there are a few technical issues that need addressing but if he can make it work, RRF will be well and truly embracing the digital era. I don't want to steal his thunder so I'll leave it to James to report, hopefully in the next edition.



Finally, planning is well underway for RRF's first ever annual conference in Argentina next year, thanks to the work of Miguel Saggese and his colleagues on the Local Organising Committee. Watch the RRF website for details and early registration:

<http://www.raptorresearchfoundation.org/conferences/current-conference>



Best, Ruth

RAPTOR RESEARCH FOUNDATION, INC

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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).

Editor's Note – Thanks to the following contributors for this issue of the *Wingspan*: Kate Davis, Julio Gallardo, Greg George, Matt Giovanni, Laurie Goodrich, Scott Graham, José Hernán Sarasola, Gene Jacobs, Lloyd Kiff, Joan Morrison, Roberto Muriel, Jemima Parry-Jones, Ruth Tingay, Rick Watson, Susan Whaley, Maria Wheeler.

Wingspan welcomes contributions from RRF members and others interested in raptor biology and management. Please submit contributions via email to Petra Bohall Wood, *Wingspan* Editor, at rrfwingspan@mail.wvu.edu. For long contributions, please send as an MS Word attachment. If you are submitting photos, please include them within the Word doc with a caption and photo credit. Contribution deadline for the next issue is **15 February 2013**.

All issues of *Wingspan* and content guidelines are available at:

<http://www.raptorresearchfoundation.org/publications/wingspan-newsletter/online-newsletters-pdfs>

**RAPTOR RESEARCH FOUNDATION
2013 ANNUAL CONFERENCE**



Includes
Raptor Research Foundation Annual Conference 2013
III Neotropical Raptor Conference
VII International Conference on Birds of Prey and Owls

Bariloche, Argentina, October 21-24 2013

For the first time, a joint meeting between the Raptor Research Foundation, the Neotropical Raptors Network (The Peregrine Fund) and the World Working Group on Birds of Prey and Owls will take place in South America. A perfect mixture of wild nature and cultural heritage awaits you, so mark your calendars now and we ensure that you will experience all the wonders the city of San Carlos de Bariloche, Patagonia and Argentina has to offer.

This international meeting will be held **21-24 October 2013** in the heart of Nahuel Huapi National Park, Bariloche City, Rio Negro province, Argentina. The conference is hosted by the Universidad Nacional del Comahue – INIBIOMA/CONICET, Bariloche, Argentina. Pre (workshops) and post (field trips) conferences activities are also offered.

The conference venue is the Hotel Panamericano Bariloche, a five star hotel in downtown Bariloche. The local organizing committee chairs are Drs. Miguel D. Saggese, (College of Veterinary Medicine- Western University of Health Sciences, California, USA), Valeria Ojeda and Sergio A. Lambertucci (Laboratorio Ecotono, Universidad Nacional del Comahue – INIBIOMA/CONICET, Bariloche, Rio Negro, Argentina).

The website for the conference with all the information about the venue, abstract submission and registration will be available in early September. For additional information about the conference contact us at barilocheraptors2013@gmail.com or Conference Committee Chair Kate Davis at raptors@montana.com

We look forward to seeing you in Bariloche!



News from the RRF

RRF Grants Update

Submitted by Greg George

The RRF has completed a review of the system used to identify award and grant recipients and distribute the awards to those individuals. As a result, changes have been made to make the system more efficient. Under the new requirements the deadline for award and grant applications will be the same due date as the abstract submission due date for the RRF annual conference, typically in June or July, each year. Distribution of awards will occur directly after the annual conference, typically in September or October, each year. For more information please visit the RRF website at www.raptorresearchfoundation.org.

RRF Conservation Committee Report

Submitted by Joan Morrison and Rick Watson

The purpose of the RRF Conservation Committee is to prepare and disseminate written communications on contemporary issues of conservation concern involving birds of prey that usefully lend the RRF's scientific expertise and credibility to resolution of conservation issues. In 2011, RRF prepared and disseminated a letter and position statement regarding bills S838 and HR1558 that would exempt lead ammunition from EPA ruling. In good measure due to the objections of scientists, these rules were abandoned. However, in March 2012, the NRA (National Rifle Association) and NSSF (National Shooting Sports Foundation) re-introduced these same bills as one part of an omnibus bill that includes 4 separate parts. RRF again submitted our letter and position statement on this issue to the person who heads the committee this year, Mary Bono Mack. The full text of the letter and comments can be found online at: http://www.raptorresearchfoundation.org/wp-content/uploads/2010/12/2011_lead_poisoning.pdf.

In February 2012, the RRF prepared and submitted to the US Fish and Wildlife Service a comment on the Draft Environmental Assessment (DEA) to permit take as provided under the Bald and Golden Eagle Protection Act for the West Butte Wind Project (WBWP) in Oregon. The comments referred to the risk assessment model and how it should be better quantified through research, and recommended the strongest research option of the three permit options offered by the Service. The full text of the letter and comments can be found online at: http://raptorresearchfoundation.org/wp-content/uploads/2012/02/2012_DEA_West_Butte.pdf

RRF members and others are urged to bring forth, for the Conservation Committee's consideration, issues related to conservation of birds of prey that may be appropriate for RRF to comment on. However, CC's policy is to comment only on the science behind an issue and only after careful review and approval by the Board. Requests for RRF to sign in support of another groups' letter falls outside the CC's and RRF's policy guidelines. Members may comment, as individuals, on an issue but in

doing so should not imply that their personal statements reflect those of RRF. If there are any questions related to RRF or CC policy, or to raptor-related issues that may be appropriate for RRF's input, please contact Rick Watson (RWatson@Peregrinefund.org) or Joan Morrison (joan.morrison@trincoll.edu).

RRF Election Results

Submitted by Laurie Goodrich

The RRF Nominations Committee is pleased to report on the results of the 2012 election for RRF Board and officer positions. At the close of 2012 the three-year term of five elected RRF Board members will end: Gary Santolo, North America # 2, Clint Boal, Director at Large #2, Torgeir Nygard, Director At Large #5, Marc Ruddock, Director At-Large Outside North America, and Ted Swem, RRF Vice-President. Of these, Torgeir Nygard and Ted Swem decided to re-stand. RRF also needed to identify a candidate for President-Elect, as the current President, Ruth Tingay, will end her term as RRF President at the close of the annual meeting in 2013.

The Nominations Committee solicited nominations from the membership, board and officers during spring 2012. A ballot was prepared in May including two candidates for Director At Large Outside North America, Oliver Krone and Jemima Parry-Jones; two candidates for North America #2, Gerald Niemi and Brian Washburn; and, three candidates for two positions as Directors At-Large #2 and #5, Jim Bednarz, Christopher Briggs, and Torgeir Nygard. Ted Swem ran unopposed for the two-year term as Vice-President beginning at the close of the annual meeting in 2013. Clint Boal ran unopposed for President-Elect and will assume the role as RRF President at the close of the 2013 annual meeting as well.

The Votes were cast by 157 RRF members from 24 countries and elections were close. After the ballot count by Secretary Greg George, the following people were elected as incoming RRF Board members for January 2013: Jemima Parry-Jones, Director At-Large Outside North America, Gerald Niemi, North America Director #2, Torgeir Nygard and Jim Bednarz as Directors At-Large #2 and #5. Ted Swem was elected as Vice-President and Clint Boal as President-Elect.

RRF thanks each of the non-renewing Directors for their dedicated service to the organization! RRF also thanks all the candidates for their interest and enthusiasm for RRF and welcomes incoming Directors. If any member is interested in serving on the board, the election for 2014 board will begin early next year. RRF welcomes all candidates who have an interest in serving the organization. This is your organization – help us keep it alive and well!

If you are interested in getting involved, contact Laurie Goodrich, RRF Nominations Chair, goodrich@hawkmtn.org.

Raptor News

American Kestrel Partnership

Submitted by Matt Giovanni

The Peregrine Fund officially launched the American Kestrel Partnership and new website in April 2012 (<http://kestrel.peregrinefund.org/>). The Partnership is growing rapidly, with >200 partners that registered >600 nestboxes and generated >1300 nest observations across the Western Hemisphere during the 2012 nesting season. We awarded high-grade field optics via the Leupold Optics and Eagle Optics Grad Student Gear Grants to students studying American Kestrels, including Elizabeth Wommack (Ph.D. student, UC Berkeley), Allie Anderson (M.Sc. student, Boise State U), Terra Gleeson (M.Sc. student, Boise State U), and Taylor Joray (B.Sc. student, Illinois College). The next round of Gear Grants are now available for online application (<http://kestrel.peregrinefund.org/grants-small>) and will be awarded in January 2013. A huge thanks to Leupold and Eagle Optics for their support, and congrats to the grantees!

We are currently seeking professional scientists and graduate students from the Western Hemisphere and with ongoing kestrel research programs (or interest in kestrel research programs) to serve on the Partnership's Research Development Committee. The committee will generally be responsible for collaboratively 1) identifying knowledge gaps and associated research goals, 2) identifying prospective funding sources and developing grant proposals, 3) coordinating research sampling and data management, 4) modeling and publishing data and results, and 5) adaptively refining research goals based on knowledge produced. Research topics of interest include but are not limited to nesting parameters (e.g., phenology, occupancy, survival, and productivity), toxicology, genetics, and fledging and adult demographics. Contingent on funding availability, The Peregrine Fund expects to support and host annual or biennial meetings lasting 1-3 days at our international headquarters in Boise, ID. Committee members with less resources may be eligible for travel support. Please contact Matt Giovanni (mgiovanni@peregrinefund.org) if you are interested in serving on the American Kestrel Partnership's Research Development Committee.

Ten Years of the Center for the Study and Conservation of Birds of Prey in Argentina (Cecara): Working for the Conservation of Neotropical Raptors

Submitted by José Hernán Sarasola, Miguel Ángel Santillan & María Soledad Liébana

The Center for the Study and Conservation of Birds of Prey in Argentina (CECARA) was created on October 3, 2001 at the Facultad de Ciencias Exactas y Naturales of the Universidad Nacional de La Pampa, Argentina. Its creation was promoted by researchers from Argentina and the United States, particularly Dr. Marc Bechard from Boise State University, as a means to fill the need for field research on the problem of raptor conservation in Argentina. The main objectives were to develop a sound scientific knowledge base for the great diversity of raptors and their habitats in Argentina; to

train scientists capable of carrying out and expanding research programs; and to disseminate results to the general public, institutions and wildlife managers.

During the austral summer of 1996, a few years before CECARA was established, the Pampas region of Argentina became infamous in regard to the conservation of raptors in the Neotropics when the mass poisoning of Swainson's Hawks (*Buteo swainsoni*) with organophosphate insecticides occurred. Approximately 20,000 hawks were poisoned in agricultural areas in the central part of the country. The study and conservation of this hawk in its non-breeding habitat was the first order of business for CECARA researchers, and their work generated valuable information on several aspects of the ecology of the species that were previously unknown. Over more than ten years, the working group has grown, and is currently a reference research center for people interested in our area of research, and a space for training of undergraduate and graduate students from Argentina and other countries in birds of prey ecology and conservation.

Among other projects, this team composed by teachers from the Universidad Nacional de La Pampa and researchers and fellows from the National Council of Scientific and Technical Research of Argentina (CONICET), is engaged in studying and promoting the conservation of the Solitary Crowned Eagle (*Harpyhaliaetus coronatus*) in semiarid environments in central Argentina including the analysis of the ecological limitations for the species related with breeding, food availability and habitat selection. This project also focuses on identifying the main threats and causes of mortality for this endangered species, assessing the impact of human persecution and other anthropogenic factors upon eagle populations.



CENTRO PARA EL ESTUDIO Y CONSERVACION DE LAS AVES RAPACES EN ARGENTINA



The conservation of raptors in agroecosystems and anthropogenic environments is also of high priority for the CECARA. Current research interests include studying the effects of agricultural frontier expansion and changes in land use on the ecology of raptor species that occupy these environments, such as Aplomado Falcon (*Falco femoralis*), American Kestrel (*Falco sparverius*), and Chimango Caracara (*Milvago chimango*). The staff of the CECARA have carried out studies on habitat selection, movements, food habits and health status on other species including Ferruginous Pygmy Owl (*Glaucidium brasilianum*), Austral Pygmy Owl (*Glaucidium nanum*), White-tailed Kite (*Elanus leucurus*), Turkey Vulture (*Cathartes aura*), Black Vulture (*Coragyps atratus*), Southern Caracara (*Caracara plancus*), Burrowing Owl (*Athene cunicularia*), and Black-chested Buzzard Eagle (*Geranoaetus melanoleucus*).

The CECARA collaborates with researchers from different universities and research centers both nationally and internationally. CECARA engages in valuable collaboration with students studying natural resource and environmental engineering and biological sciences, and promotes the training of graduate students in the conservation of threatened and endangered wildlife.

For more information visit www.cecara.com.ar or contact to cecara@exactas.unlpam.edu.ar

News from the International Centre for Birds of Prey

Submitted by Jemima Parry-Jones

The weather here in the UK has been dire since April - the wettest months on record from April until July which does not help visitor numbers or the breeding. However our pair of Grey Buzzard Eagles, (*Geranoaetus melanoleucus*) have not only bred a clutch of two young and reared them to fledging, but recycled again while the fledged young were still in their enclosure. And once you see the chicks, there is no doubt that they are buteos and not eagles! The second clutch of young are now back with mum and doing well.



I think we must have the largest collection of Steller's Sea Eagles in the UK now, two more chicks this year bring us up to seven of them! Interestingly this year's chicks have white tails which the others did not. The African Fish Eagles laid one fertile egg but it was in a particularly cold spell so we lost it, however they reared a young Indian Tawny Eagle very nicely which bodes well for the next breeding season. We have a delightful Lesser Kestrel from a friend who is in training, as well as an Ashy-faced Barn Owl, both are coming along nicely and we will soon be training young merlins and an Aplomado Falcon as well.

On the research side we are still working with Swansea University and the most interesting project is the harnesses for attaching satellite telemetry. For years I have been concerned about harnesses, the lack of control about who can place them on with little or no experience, the time taken putting them on and the damage done to the birds in some cases, so it is great to working with people who have the

same concerns and are doing something about it. It is very good to know that our birds may be helping wild ones in the future.

The vulture project in India and Nepal is going well, the birds are now breeding well and the management of the breeding is coming along nicely. We have bred from all three species in all three Centres in India now and have had our first egg in Nepal this year. Scarily though we have found other species dead with the same or similar symptoms so Diclofenac may be affecting other vultures and eagle species as well, which is very depressing, but not that surprising.

We have completely redone our website this year and with a system which means we can alter it, change things and update in minutes as things happen, ourselves which is a joy as we are not reliant on anyone else now (well apart from a great friend who taught me how to do it and reminds me when I forget!).

Our White-tailed Sea-eagle did cause a few problems last week when she started her demonstration at 11.30am on Saturday and finished it at 2.30pm on Tuesday, which meant we had to all the flying indoors on the only dry days we have had for weeks! On the other hand she did look rather good on my chimney!

Finally this year was our 45 anniversary, that makes us the oldest dedicated bird of prey centre worldwide. We had a good party and HRH The Princess Royal joined us for a great day on May 15th. All the birds behaved impeccably and flew brilliantly, the staff behaved impeccably and so did the dogs! *Photos by Linda Wright*



Updates from the Eastern Golden Eagle Working Group (EGEWG)
submitted by Maria Wheeler and Charles Maisonneuve on behalf of the EGEWG

The Eastern Golden Eagle Working Group had its second-ever meeting from July 11th-14th in Ste.-Anne-des-Monts, a small town on the Gaspé Peninsula in Quebec, Canada. In attendance were representatives from academia, industry, and both state/provincial and federal level wildlife agencies. The goal of the meeting was to provide updates on statuses, share information about on-going research, and plan for future group efforts.

At the meeting, updates were given on golden eagle activity in different states and provinces. Junior Tremblay and Charles Maisonneuve of the Quebec Ministère des Ressources naturelles et de la Faune discussed goldens nesting in Quebec. Charlie Todd of Maine Department of Inland Fisheries and Wildlife discussed the history of golden eagles in Maine. Mark Martell of the Minnesota Audubon Society presented telemetry data on birds that had been wintering on the Northern Plains. Kieran

O'Malley of West Virginia Division of Natural Resources gave an update on golden eagle sightings in West Virginia during winter camera trapping. Lastly, Craig Koppie of US Fish and Wildlife, Region 5, presented a summary of golden eagle activity in Maryland over the past two years.

Also discussed at the meeting were various ongoing research efforts focusing on different areas of golden eagle ecology and behavior. Dave Brandes of Lafayette University gave an update on his work with modeling the interaction of terrain and wind to quantify collision risk at wind farms. Adam Duerr of West Virginia University discussed the role of weather in bird migration in eastern North America. Trish Miller of West Virginia University gave updates on two projects: first on scale dependence of flight paths of migratory golden eagles and second on age and seasonality driving spatial use patterns and movements in eastern golden eagles. Mike Lanzone of Cellular Tracking Technologies presented findings on golden eagle winter ecology, discussing such factors as terrain, foraging, home range size, and behavior. Andrew Dennhardt of West Virginia University shared details of his up-and-coming work with estimating population size using modeling from migration counts. Maria Wheeler of Duquesne University updated the group on findings of golden eagle population genetics from both a contemporary and historic perspective—including a twist with international golden eagle specimens. Todd Katzner discussed his camera trapping project, which is fairly widespread across the eastern US and has caught images of a wide variety of species in addition to golden eagles. Finally, Chris Farmer of Tetra Tech presented on the role of conservation in wind energy planning and development.

The group concluded the meeting with exciting field trips to several golden eagle nests—both active and inactive—across the peninsula. It was also agreed to hold the EGEWG's next meeting in West Virginia in winter 2013-2014, peak eagle season there. For more information on golden eagles in eastern North America, several group members will be at NAOC this August or you can check out their website at www.egewg.org!



News from the Peregrine Fund
Submitted by Susan Whaley

Kenya summit addresses decline of vulture species

The first Pan-African Vulture Summit was held April 16-20 in Kenya's Masai Mara National Reserve to address the alarming decline of vulture species, some now listed as endangered, due to poisoning, habitat loss, and trade in body parts for witchcraft.

The Peregrine Fund's Munir Virani, director of The Peregrine Fund's Africa programs, was elected to a key leadership role at the summit. He was named the African Representative of the Vulture Specialist Group of the IUCN Species Survival Commission and will chair the African Steering Committee, which will oversee implementation of the Pan African Vulture Conservation Strategy.

Representatives of the 32 organizations at the summit signed a resolution calling on governments throughout Africa to support vulture conservation by enacting conservation plans, prosecuting those engaged in illegal killing and trade, and reducing threats to vultures through regulation, research, and education.

Aplomado Falcon chicks released for first time at Texas state park

The colorful Aplomado Falcon is regaining a foothold in parts of Texas where they disappeared more than a half-century ago. In July, Peregrine Fund biologists released captive-bred Aplomado Falcons to the wild for the first time at Mustang Island State Park on the Gulf Coast.

The park helps fill in a gap in habitat occupied by restored falcon populations that are now well-established and self-sustaining. Currently, there are about 34 nesting pairs in South Texas, spreading to the north and south of Mustang Island, including the Aransas National Wildlife Refuge Complex and Laguna Atascosa National Wildlife Refuge.

Outpouring of support saves rare Orange-breasted Falcon chicks

Two Orange-breasted Falcon chicks from Belize have recovered from a near-fatal infestation of bot flies and are safe in a Peregrine Fund facility, thanks to the efforts of numerous government agencies, veterinary experts, and conservation groups determined to save a remnant population of the species from extinction.

The chicks were found in a semi-conscious state during routine banding operations in the Maya Mountains. After a



week of hands-on treatment, the chicks began to recover but were unable to survive in the wild. Thanks to many fast-acting individuals and agencies in Belize and the United States, the team was able to take the birds to The Peregrine Fund's facility in Wyoming, where the chicks will become part of the captive breeding program and provide long-term data on the impact of bot-fly infestations on falcons' health.

Ramsar wetlands designation aids Madagascar Fish Eagle

The Ramsar Convention on Wetlands of International Importance and the Madagascar government recently declared the Mandrozo Lake region to have global value in the effort to preserve the Earth's biodiversity. The worldwide recognition is good news for the Madagascar Fish Eagle and other endangered wildlife. The Peregrine Fund has worked in this region for five years and pushed vigorously for the recognition. The organization has completed all the steps necessary for the Malagasy government to declare the larger Tambohorano region, which includes Mandrozo Lake, to be part of the nation's Protected Areas System and is awaiting final approval, now expected in December 2012.



Third wild-hatched California Condor chick visually confirmed in July

A Peregrine Fund biologist provided visual confirmation in July that a wild-hatched California Condor chick is present in a nest cave deep in Grand Canyon National Park. That brings to three the number of wild condor chicks produced by the Arizona-Utah flock this season. The field crew suspected that a chick had hatched but didn't make it official until they had visual confirmation.

The other two chicks were observed and confirmed in May, one in the Grand Canyon and one at Vermilion Cliffs National Monument. In July, there were 77 condors in the wild in Arizona and Utah, including the new chicks. A total of 18 chicks have hatched in the wild since condors were first introduced in Arizona in 1996.

**Successful Restoration of Two Large-Size Raptors in Southern Spain:
The Spanish Imperial Eagle and the Osprey**

Submitted by Roberto Muriel, Miguel Ferrer and Eva Casado

The Spanish imperial eagle (*Aquila adalberti*) and the osprey (*Pandion haliaetus*) constitute clear examples of symbolic raptor species that had drastic population declines during the first half of the 20th century in Spain due to rapid habitat changes, increasing non-natural mortality, and direct persecution. This led to the complete extirpation of the osprey from mainland Spain in 1981 and the reduction of the endemic Iberian Spanish eagle population down to only 40 breeding pairs in the 1970s. Currently, the Spanish imperial eagle is classified as Endangered in the Spanish National Catalogue of Endangered Species with 330 breeding pairs in 2011, and the osprey is listed in the National Red List as Critically Endangered since only around 30 breeding pairs remain in very small populations in Canary Islands and Balearic Islands. Reintroduction programs were initiated for both species.

Between 2002 and 2011, 87 young Spanish imperial eagles translocated from Sierra Morena population (Andalusia) were released using hacking techniques at four locations in the province of Cadiz and in Doñana National Park in Andalusia. In 2006 the first territorial pair was observed near the release sites in Cadiz and the first successful breeding pair was recorded in 2010 with two fledglings. In 2012, the reintroduced population consisted of five occupied territories in Cadiz, two of which raised successfully five fledglings in total. The restored population has enhanced effective inter-population connectivity, since non-released eagles have recruited into the restored nucleus and released individuals have emigrated to nearby existing populations. The reinforcement and management plan carried out in the Doñana population succeeded in increasing its population size and fecundity, balancing sex ratio and increasing population viability.

In 2003, an osprey reintroduction program began in southern Spain in two different locations in the region of Andalusia, the Barbate inland reservoir in the province of Cadiz and Odiel Marshes, a coastal marshland in the province of Huelva, both are wintering and migratory passing areas for the species. From 2003 to 2012, 182 young ospreys translocated from Germany, Scotland and Finland, were hacked in both areas. In 2005 and 2006, a non-reintroduced breeding pair settled in Guadalquivir reservoir near the release location in Cadiz, probably attracted by released young ospreys. They laid eggs both years but they did not hatch. To encourage site fidelity, nestlings from Germany were fostered and were normally reared by the adults. The first successful breeding pair composed of reintroduced ospreys was recorded in Odiel Marshes in 2009, when two young fledged. By 2012, the population had increased to seven breeding pairs in Andalusia producing 10 fledglings: six in Odiel Marshes and four in reservoirs of Cadiz province (Barbate and Guadalquivir reservoirs).

Populations of both species are close to the self-sustaining threshold, the ultimate aim of reintroduction programs and a necessary achievement to qualify them as definitively successful. More detailed information on both projects is available in two published articles: Muriel et al. 2010. First successful breeding of reintroduced ospreys in mainland Spain. *Ardeola* 57:175-180; Muriel et al. 2011. Settlement and successful breeding of reintroduced Spanish imperial eagles in the province of Cadiz, Spain. *Ardeola* 58:323-333.



Left: Young ospreys reintroduced in Odiel Marshes (Andalusia, Spain) on an artificial feeder visited also by magpies. Right: Young Spanish imperial eagles released in the province of Cadiz (Andalusia, Spain) perched on an artificial feeder.

ANNOUNCEMENTS and BRIEF NEWS ITEMS

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.

Announcements

Raptor Workshop: Accredited through University of Wisconsin - Stevens Point

Three 5-day workshops entitled "Introduction to Raptor Field Techniques" will be held in Stevens Point, WI by Eugene Jacobs and Loren Ayers of the Linwood Springs Research Station. Fall Sessions: 17-21 September, and 8-12 October 2012. Receive first-hand experience working with: live raptors, capturing, handling, banding techniques, broadcast call surveys, tree climbing, rappelling, blood sampling and more. Cost is \$435 and space is limited, so register early. For more information and a registration form visit <http://www.RaptorResearch.com>

Raptor Books and Publications

The Peregrine Fund Research Library has a large quantity of duplicate author reprints and photocopies of journal articles on raptors which we would like to give away for the cost of shipping. Our preference would be to donate this collection to a raptor-oriented organization, but all inquiries will be seriously considered. We continue to accept reprint collections and most journals, and all donations are tax deductible. Contact lkiff@peregrinefund.org.

New book by The Peregrine Fund compiles research on Neotropical species -- The results of a decade-long project by The Peregrine Fund to study little-known birds of prey in Central America are now available in the organization's latest book with important new information for raptor experts. "Neotropical Birds of Prey: Biology and Ecology of a Forest Raptor Community" is published by Cornell University Press. It is edited by David F. Whitacre, with a foreword by J. Peter Jenny, president of The Peregrine Fund. The 412-page hard-cover book is illustrated with photographs of rarely seen species like the Ornate Hawk-Eagle, Barred Forest-Falcon, and Mexican Wood Owl. It may be ordered online from Cornell University Press or The Peregrine Fund.

<http://www.cornellpress.cornell.edu/book/?gcoi=80140100662870>

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Raptor Research and Management Techniques -- Copies are still available from many natural history booksellers or order from Hancock House online at www.hancockhouse.com. Look for the reduced price for RRF members.

RECENT THESES ON RAPTORS

Julio C. Gallardo. 2011. Foraging behavior and hunting success of Snail Kite (*Rostrhamus sociabilis major*) in, Catemaco Lake, Veracruz, Mexico. M.Sc Thesis. Institute of Neuroethology , University of Veracruz. Veracruz. Mexico. 64 pp.

Snail kites (*Rostrhamus sociabilis*) feed almost exclusively on *Pomacea* snails and demonstrate two foraging strategies: perch hunting and flight hunting. This study examined hunting behavior of immature and adult snail kites at Catemaco Lake during dry and wet seasons. I made 432 observations

of hunt attempts in the west shore of the lake, during the months of September and December of 2007; and February, April, May and Jun of 2008. Flight hunting was utilized most in both seasons, representing 84% of observations, with 16% being perch hunting ($z = 19.98$, $P = 0.0001$). Immatures used perch hunting proportionately more than adults ($z = 7.61$, $P = 0.0001$). Immatures hunted significantly more during the wet season (58.2%) than the dry season (80.3%) ($z = 2.95$, $P = 0.0036$). This is in contrast to results from previous studies, which showed no differences in use of these hunting behaviors. Mean hunting success was $52.55 \pm 4.70\%$, much less than that reported for this species in other regions ($>80\%$), including species feeding on invertebrates ($>76\%$). Hunting success differed between seasons, with 68% during the wet season and 46.87% in the dry season ($z = 3.89$, $P = 0.0001$). Immatures had 62.8% hunting success and adults 46.26% ($z = 3.46$, $P = 0.0006$). Success from perches was 85.29% as opposed to 46.43% while in flight ($z = 5.90$, $P = 0.0001$). Adult hunting success was significantly greater during the wet season (71.43%) than during the dry season (44.88%) ($z = 1.93$, $P = 0.0267$). Immatures had greater hunting success during the wet season (68.37%) than during the dry season (54.54%) ($z = 1.79$, $P = 0.0371$). Number of individuals and hunting success showed a tendency towards an inverse linear relationship ($t = 3.94$, $P = 0.00095$). Hunting in flight had a maximum duration of 7.98 minutes and a minimum of 7 seconds. Time invested in hunting was significantly different in the wet season (1.34 min) than in the dry season (3.29 min) ($t = -5.5923$, $P = 0.0001$). Adults invested more time than immatures, with a mean of 4.33 minutes and 1.97 minutes, respectively ($t = 5.5554$, $P = 0.0001$). Success tended to be negatively related to time invested in the hunt. These results are in contrast to those reported in other regions. The gregarious nature of this species along with the biology and population fluctuations of its main prey may dictate the behavior of the snail kite. Lake Catemaco is a unique setting, where commercial fishing may be the major competitor for the snail kite, possibly affecting both endemic snail populations and the snail kite itself.

Keywords: *Rostrhamus sociabilis*, *Pomacea patula catemacensis*, foraging behavior, hunting success, Lake Catemaco

diciembre de 2007, febrero, abril y mayo de 2008) y 112 intentos la temporada de lluvias (septiembre de 2007 y junio de 2008

Graham, Scott A. 2012. Diet Composition, Niche and Geographic Characteristics, and Prey Size Preference of Barred Owls (*Strix varia*) in the Pacific Northwest. M.S. thesis, Boise State University, Boise, ID, U.S.A. 170 pp.

This thesis comprises three chapters describing my investigations of dietary composition, niche and geographic characteristics, and prey size preference of Barred Owls (*Strix varia*) following their recent range expansion into the Pacific Northwest. In the first chapter, I examine annual, seasonal, within-breeding season, and local variation in the diet and evaluate reproductive success as a function of dietary composition in western Oregon during 2007–2009. Diets were based on 3,686 prey individuals identified in 1,127 regurgitated pellets collected from 26 owl family areas. Prey identified in pellets included ≥ 85 taxa (33 mammals, 25 birds, 4 reptiles, 4 amphibians, 1 fish, 3 gastropods, 1 diplopod, 1 collembolan, 12 insects, and 1 crustacean). Based on percent of prey numbers in pellets, owl diets comprised 64.8% mammals, 2.9% birds, 1.0% reptiles, 9.8% amphibians, 0.3% fish, 6.6% gastropods, 0.2% diplopods, $< 1\%$ collembolans, and 14.4% insects. Mean mass of prey in pellets was 55.8 g. Diets varied between years and seasons and among within-breeding season periods and owl family

areas, but were generally dominated by coleopteran beetles, mammalian insectivores, and northern flying squirrels (*Glaucomys sabrinus*). Taxonomic richness of the diet provided an indication of the versatility of Barred Owls capable of preying on diverse kinds of prey in their expanding geographic range. Estimated food-niche breadths were generally narrow to moderate, indicating use of comparatively few to a variety of taxa in large numbers. Spatiotemporal variations in diet appeared to reflect this species' adaptation and opportunistic feeding strategies in an area of range expansion. These results will enable ecologists and land managers to better understand the ecological role played by Barred Owls in their new environment, including potential effects such as competition for food with other native fauna of the Pacific Northwest, especially the threatened Northern Spotted Owl (*Strix occidentalis caurina*).

In the second chapter, I compare diet composition among three geographic populations of Barred Owls in the Pacific Northwest, including the central Coast Ranges in Oregon, Olympic National Park in northwest Washington, and eastern Cascades in central Washington during the breeding seasons of 2007–2009, 1997–2009, and 2004–2006, respectively. For this analysis, I examined 1,021 regurgitated pellets from 25 owl family areas in the central Coast Ranges, 48 pellets from 20 areas in Olympic National Park, and 57 pellets from 9 areas in the eastern Cascades. The estimated number and total biomass of prey in pellets was 3,463 prey and 192,951 g in the central Coast Ranges, 187 prey and 11,444 g in Olympic National Park, and 336 prey and 12,871 g in the eastern Cascades. The number of taxa owls used as prey differed among the study areas, with 81 taxa in the central Coast Ranges, 36 in Olympic National Park, and 32 in the eastern Cascades. Diets were similar between the central Coast Ranges and Olympic National Park areas in that diets mainly included forest mammals (64.3% and 71.7% of prey numbers, respectively), with a variety of shrews, coast moles (*Scapanus orarius*), and northern flying squirrels predominating in prey numbers and biomass. Owl diets differed in the eastern Cascades where insects were the most numerous taxa in the diet (47.0% of prey numbers), with beetles predominating by prey number (45.2%) followed by frogs (18.8%) and flying squirrels (12.2%). Flying squirrels were the primary source of biomass across all areas (24.8% in the central Coast Range; 34.0% in Olympic National Park; 41.4% in the eastern Cascades) and occurred in pellets most of the time. Mean mass of individual prey was 55.7 g in the central Coast Ranges, 61.2 g in Olympic National Park, and 38.3 g in the eastern Cascades. Food-niche breadth values indicated that although many prey taxa were taken, the food-niche dimension for each population of Barred Owls was narrow. Factors contributing to differences in diet among geographic locales likely included disparities in prey distributions, differences in the number of pellets collected, and likely temporal and local variation in prey use and prey availability.

In the third chapter, I investigate prey size preference behavior by sympatric, wild Northern Spotted Owls and Barred Owls in Oregon and Washington. I describe a controlled experiment in which I used feeding experiments to test the hypothesis that owls will select a larger prey animal when given a simultaneous choice between a small prey animal (*Mus musculus*) and a larger prey animal (*Rattus norvegicus* or *Rattus rattus*). I performed 30 independent feeding trials with Northern Spotted Owls (11 females, 19 males) and 17 independent trials with Barred Owls (12 females, 4 males, 1 gender unknown) during 1 March–31 August 2008. Northern Spotted Owls preferred the smaller prey in 24 trials and the larger prey in 6 trials. Barred Owls preferred the small prey in 9 trials and the larger prey in 2 trials. Both species exhibited significant preference for the smaller-sized mice. There was no difference in prey size selection between female and male Northern Spotted Owls; both sexes preferred smaller prey. Sample sizes for Barred Owls were too small to test for sexual differences. There was no

interspecific difference in prey size selection between Northern Spotted Owls and Barred Owls. My results for Northern Spotted Owls were not expected because diets of Northern Spotted Owls are typically dominated by medium-sized mammalian prey such as northern flying squirrels and woodrats (*Neotoma cinerea* and *N. fuscipes*). Wild Barred Owls preferentially selected small prey during feeding trials, which is consistent with Barred Owl diet in different regions of North America, including the Pacific Northwest.

NEWS of RRF MEMBERS

RRF member Fabrizio Sergio and his co-authors were awarded the Watson Raptor Science Prize for 2012 for their recent publication: F. Sergio, J. Blas, G. Blanco, A. Tanferna, L. López, J. A. Lemus, and F. Hiraldo. 2011. Raptor nest decorations are a reliable threat against conspecifics. *Science* 331:327-330. This annual prize was established to recognize the most outstanding, peer reviewed scientific publication on raptor ecology, based on research undertaken in Europe.



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