

MESSAGE FROM THE PRESIDENT

Sometimes writing comes easy, but for several days I've been pondering my final President's message. Certainly, thank you. To everyone who works to make the Raptor Research Foundation what it is: our directors, officers, editors, editorial staff, webmaster, committee chairs, and committee members. To the local committees who gave us wonderful annual conferences at Green Bay, Veracruz, Fogelsville, and Missoula. Special thanks to my fellow officers: Vice-president, Ted Swem; Secretary, Joan Morrison; and Treasurer, Angela Matz. They are terrific colleagues, both in skill and temperament. Cheryl Dykstra has worked wonders with *The Journal of Raptor Research*, improving fiscal accountability, raising the bar for both content and presentation, and entering into agreements that have made journal content widely available through online archival and retrieval systems. No individual has done more for RRF during my term. Petra Bohall Wood has done similar stellar work with *Wingspan*, taking RRF's newsletter electronic, improving timeliness and saving RRF several thousand dollars each year. Congratulations and thank you to Ruth Tingay, for stepping forward to lead RRF into the future. And last but certainly not least, thank you to everyone who writes a check each year as a member, to support the mission that Don Hunter, Byron Harrell, and Paul Springer laid down 43 years ago: "to stimulate the dissemination of information concerning raptorial birds among interested persons worldwide and to promote a better public understanding and appreciation of the value of birds of prey."

Beyond thank you, a few thoughts looking ahead. As this year's annual conference bears witness, RRF can no longer be viewed as a North American organization. Our directors' decision to hold the annual conference off the North American continent every 4th year was more than wise, it was essential. I'm still convinced that RRF needs a plan to guide its future. I'm disappointed that I didn't do more to see that done during my term. It's time to take stock of our past, look hard at what we're doing, keep what works, get rid of what doesn't, and add new things we need to fulfill our mission: clear, conscious choices about where to spend energy, time, and money for maximum effect. It's time to explore new ways of bringing birds of prey to people. Our website is solid, but it's time to add multi-media content and push forward into the social media: Facebook, Flickr, Myspace, Twitter, and YouTube. Natural resource agencies and non-profit organizations have begun to use these forums to get their messages out, with extraordinary results, to connect with young people who communicate differently, place themselves differently in their environment, and integrate the natural world and its inhabitants in different ways than previous generations. I hope to see more of RRF's younger members step up to take on leadership roles in the foundation.

I've enjoyed my term as President. I've learned a lot about myself, perhaps finally where my limits lie. My only regret is that I wasn't able to do more. But, I have many years ahead of me, and I intend to be part of RRF for all of them. I'll be looking forward to seeing you down the road.

Take good care, -- Lenny



RAPTOR RESEARCH FOUNDATION, INCOFFICERS

President: Leonard Young Secretary: Joan Morrison
 Vice-president: Ted Swem Treasurer: Angela Matz

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Eurasian: Fabrizio Sergio	At Large #1: Jim Bednarz
Southern Hemisphere: Miguel Saggese	At Large #2: Clint Boal
At Large Outside North America: Ruth Tingay	At Large #3: Michael W. Collopy
North America #1: Petra Wood	At Large #4: Carol McIntyre
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North America #3: Laurie Goodrich	At Large #6: Mike Kochert

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.

Editor's Note – Thanks to the following contributors for this issue of the *Wingspan*: Donald Heintzelman, Gene Jacobs, Jemima Parry-Jones, Kristen Keyes, Karla Kinstler, Libby Mojica, Wayne Nelson, Miguel Saggese, Judy Scherpelz, Jenna Sutherland, Ruth Tingay, Susan Whaley, Lenny Young.

Check the RRF website for the upcoming Spanish translation of *Wingspan* provided by Miguel Saggese.

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 2010**.

RAPTOR RESEARCH FOUNDATION
2009 ANNUAL CONFERENCE
PITLOCHRY, SCOTLAND
29 Sept – 4 Oct 2009



At the time of writing, the Scotland 2009 organising committee is up to its eyes in last-minute planning and preparations prior to the annual conference circus swinging into town. Hosted by the Scottish Raptor Study Groups (SRSG), this six-day international extravaganza is the place to be from 29 September – 4 October 2009. The venue is the Atholl Palace, a Scottish castle hotel set in magnificent grounds overlooking the town and surrounding hills of Pitlochry, central Scotland.

The scientific programme will run from Wednesday 30 Sept to Saturday 3 October and is already full, with over 120 oral and poster presentations. Professor Ian Newton will open the conference, followed with a plenary lecture by Professor Steve Redpath of Aberdeen University, who will highlight the rich history of raptor research and conservation in Scotland. In addition to general raptor biology and ecology subjects, there are six special symposia that will run concurrently with the general scientific programme, including Migration and Over-wintering, Conservation Management, Persecution, *Haliaeetus*, Scottish Raptors and Reintroductions.

Evening social events include an ice-breaker reception at the Atholl Palace Hotel on the first evening (Tues 29), where delegates can unwind in the bar and lounge area, recovering from their travels in the company of old and new friends. Wednesday night is poster night, with 40+ posters to view and discuss with presenters in the Atholl Suite. On Thursday evening we will be hosting a traditional Scottish party at the nearby Blair Castle (ticket only event), where delegates can try out a selection of Scottish whiskies under the expert tutelage of local whisky connoisseur Charles MacLean, a world authority on Scottish whisky and author of several whisky books. Charles will help delegates to increase their understanding and enjoyment of several whiskies generously provided by two leading Scottish distilleries, Adelphi and Bowmore. Suitably anesthetised, delegates will then have an opportunity to learn some traditional Scottish ceilidh dancing in the castle's Great Ballroom, under the expert guidance of the Bella McNab Dance Band. Flares on the castle walls will light our journey home before midnight.

On Friday evening, local raptor expert and RRF member Roy Dennis will give a one hour's illustrated presentation on Scottish landscapes and wildlife. Roy is well known for his long-term work on Scottish ospreys, as well as many other species, and this evening's presentation will offer delegates a rare insight to the varied habitats and animals of Scotland, maybe even the Loch Ness Monster! Roy will also be available to sign copies his new book, 'A Life of Ospreys'.

Our final evening is the traditional RRF Awards Banquet, which will be held at the Atholl Palace Hotel (ticket only event). Dinner will be followed by the announcement and presentation of the annual RRF research and student awards, and the evening will draw to a close with a special appearance by the Highland tribal drumming band, *Clanadonia*. With their thunderous percussion and tribal rhythms, the 2009 conference will end with a bang!

Eleven fieldtrip options are on offer throughout the week, including half and full-day excursions, all led by experts from the Scottish Raptor Study Groups. These trips will visit some of Scotland's premier wildlife hotspots, including the Isle of Mull, Speyside and the Cairngorm Mountains, as well as opportunities to get an 'inside' view of several raptor projects, including red kites in central Scotland and white-tailed sea eagles in east Scotland. In addition, there are local wildlife & habitat tours, including a visit to a working grouse moor, a visit to the historical battlefields of Highland Perthshire, and several trips to local whisky distilleries. Many fieldtrips are already fully booked, but there are still places available on a few - please visit the conference website to check availability.

Vendors include book-sellers, equipment specialists, artists, photographers, distilleries and conservation organisations and charities.

For logistical reasons, the conference is limited to 300 delegates. To date, delegates from 34 countries have registered, including Austria, Australia, Belgium, Cambodia, Canada, Denmark, Dominican Republic, Egypt, England, Estonia, France, Germany, Greece, Holland, Hong Kong, India, Israel, Italy, Japan, Kenya, Nepal, Northern Ireland, Norway, Philippines, Portugal, Republic of Ireland, Russia, Scotland, South Africa, Spain, Sweden, Taiwan, USA and Wales. **Due to some recent cancellations, at the time of writing (August 2009), we have 6 tickets remaining.** If you would like to register, please follow the on-line instructions on the conference website. The remaining tickets will be allocated on a first come – first served basis, with priority given to RRF and Scottish Raptor Study Group members.

A new on-line mailing list/information board has been set up for registered delegates. The conference organisers have posted 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>

Conference funding is looking healthy, with over £45,000 raised to date from our generous sponsors. Delegate tickets are priced at £125 (approx £20 per day) and include a conference registration pack (name badge, programme, book of abstracts, souvenirs) access to all conference areas, tea/coffee breaks and a free buffet lunch on each day of the scientific programme (Weds to Sat inclusive). Unfortunately we are not able to offer discounted or day-only tickets.

For further information, please visit the conference website: <http://www.rrfconferencescotland2009.org>

We look forward to welcoming you to Scotland 2009.
Ruth Tingay, Chair, Scotland 2009 Organising Committee.



UPCOMING RRF MEETINGS

2010 RRF ANNUAL CONFERENCE 22-26 September 2010

Please join us at the **2010 Raptor Research Foundation Conference** in Fort Collins, Colorado, Sept. 22-26, 2010. The Rocky Mountain Raptor Program, a nonprofit organization that provides raptor rehabilitation and environmental education, will co-host the conference with EDM International, Inc., leaders in avian-related issues. The conference will be highlighted by symposia on Raptor-Human Conflicts, Raptors and Energy Development, Raptor Diseases, Raptor Banding and Research, and Raptors in Education.

The conference will be held at the Fort Collins Marriott Hotel with room rates at \$102/night. Set against the backdrop of 14,000-foot peaks, Fort Collins is the gateway to the Rocky Mountains; a variety of ecosystems from short-grass prairie to high mountain ranges are within an hour's drive, offering several exciting field trip opportunities for attendees. Fort Collins is known for its diverse scientific community and has a national reputation for offering a high quality of life. It offers many amenities for outdoor enthusiasts, including miles of bike/running trails, a bike library for those who wish to explore the area by bicycle, several fitness and climbing centers that offer day passes, fishing on the scenic Poudre River, to name a few. Fort Collins also has a reputation for the number of world-renowned microbreweries, including New Belgium Brewing Company.

For more information contact Judy Scherpelz, 970-484-7756 or judy@rmp.org. Watch for additional information on the Conference at the Rocky Mountain Raptor Program website: www.rmp.org.



Rocky Mountains National Park (photo by Petra Wood)

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.

News from the RRF EURASIAN COMMITTEE

Eurasian Raptor Monitoring Network

As you will be aware from previous issues of Wingspan, since 2006, the RRF Eurasian Committee has been involved in a collaborative effort to instigate an ambitious pan-Eurasian raptor monitoring network. In partnership with key raptor groups in 21 countries, a funding proposal was submitted to the European Science Foundation (ESF) in November 2007. This first bid failed, but the consortium was encouraged by the reviewers' comments, so a revised proposal was submitted in October 2008 (see Wingspan March 2009 for more details on the project's scope).

In June 2009, we were advised that this second bid was successful, and has been recommended for funding by the ESF's Standing Committee. On average, only one in six bids are successful, so the most difficult hurdle has been crossed. However, this recommendation is not yet a guarantee of funding. The decision to fund now rests with the relevant ESF Member Organisations (MOs), which are the government agencies responsible for science funding in each of the Member Countries. We need several MOs to agree funding before the ESF will make the final approval. In the last round (2007 call), 15 out of the 19 recommended proposals were actually funded, suggesting a 75-80% chance of being funded and approved. ESF will inform us about the final decision by November/December 2009. If approved, our project will begin in early 2010. A further update will be posted in the next edition of Wingspan.

We owe a large debt of gratitude to RRF Eurasian Committee members Dr Phil Whitfield (Scotland) and Dr Fabrizio Sergio (Spain), who both spent a considerable amount of time and effort providing expert scientific input into the raptor population monitoring aspects of the funding proposal.

Ruth Tingay
Chair, Eurasian Committee

Raptor News

International Centre for Birds of Prey Finally Home!

As a long standing member of RRF, I am delighted to tell you that having wandered the world with a huge collection of birds of prey for the last four dismal years, we are now home again. The birds are well, the place, which was devastatingly neglected is coming right again and we would like to extend a very warm invitation to any member coming to the conference in Scotland this year.

I personally would like to be able to show some of you the wonderful birds here, let you know about the sort of conservation work that we achieve and share the Centre – 42 years old this year with you. I

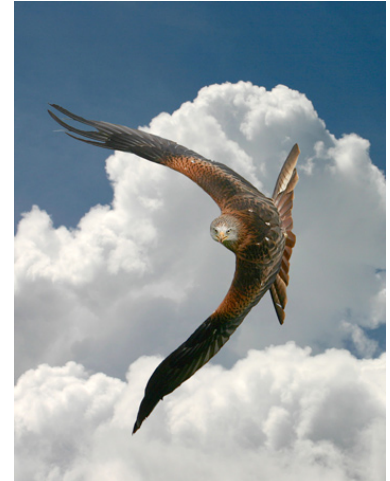
would also like to be able to show you a proper flying demonstration that is educational and the birds enjoy and fly well.

I know some of you may be going on to Spain after the Conference for the Eagle Conservation Alliance meeting, so you may have time to come between the two meetings. Others may be coming before, either way we would love to see you here. This Centre is the longest established Centre of its kind in the world, has led the world in the number of species bred here and is internationally know, and amazingly it is still here! Do come and see for yourself.

As an added incentive, about 1.5 hours drive is a Red Kite feeding station in Wales, 100's of Red Kites come in – 900 pairs in Wales now, it's a sight to see!

Gloucester is the nearest train station, 11 miles away, there are buses to Newent and we can probably pick you up from there. The website is www.icbp.org and all other details are there for you to see. Don't miss the chance as you are in the UK! -- Jemima Parry-Jones

(Photos by Linda Wright)



RAPTOR RESEARCH MENTORS WANTED!

Junior Raptor Research Mentoring Program needs your participation!

The RRF Director for the Southern Hemisphere is currently preparing a Junior Raptor Researcher Mentoring Program, as part of a larger initiative to further develop raptor research and conservation initiatives in Central and South America. The main goal of this program is to create a one on one relationship between a mentor and undergraduate or graduate students interested in either conducting raptor research or advancing raptor conservation.

Experienced Raptor Researchers willing to donate their time towards this effort and teach, guide, and train students from all Central and South America, for the discipline/s in which they are experts, are being sought to make this program a great success. Expertise ranging from trapping, banding, and measuring raptors to conducting sophisticated diet analyses and habitat modeling is greatly needed. Students and junior raptor researchers will undoubtedly benefit from the research experience and expertise you can provide in countries where a limited number of mentors exist.

Mentoring provides an enriching and unique opportunity not only for students but for the mentors as well. A program such as this will therefore help to 1) create personal and professional relationships between the students and their mentors, 2) identify common research interests, and 3) promote much needed collaborative research targeting Neotropical raptors. More importantly, mentors will have a significant role in the scientific and professional success of others. Eventually, mentoring will create more mentors and you can be part of this.

The need for this mentoring program is real. Excellent and experienced avian researchers are numerous in Central and South American Universities as well in other avian research institutions. However, when compared with the volume of work and research that has been gained during the last 35 years in other parts of the world or in other groups of birds, knowledge of Neotropical raptors still is very limited. In fact, for many of these Latin-American countries, raptor research still is in its infancy.

If you are interested in learning more about this program or in becoming a mentor, please contact Dr. Miguel D. Saggese by sending an email to msaggese@westernu.edu or a letter at the following address: 309 E. Second Street, CVM, Western University of Health Sciences, Pomona, California, USA. Thank you very much in advance for your help with this program.

-- Miguel D Saggese DVM, MS, PhD.

Condor research leads to study that shows lead from bullet fragments in venison can be absorbed into bloodstream, cause risk of lead exposure

Research on lead exposure of condors in Arizona revealed that the source was spent ammunition fragments in the remains of hunter-harvested game. That led to new research that shows that people risk exposure to lead by eating venison from game animals that were killed with traditional lead-based rifle bullets and processed under normal procedures, according to a joint study by The Peregrine Fund, Washington State University, and Boise State University. The peer-reviewed study was published in April by the Public Library of Science journal PLoS One and is available at <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0005330>.

Peregrine Fund researchers used x-rays to look for lead bullet fragments in packaged venison from 30 deer shot with traditional lead bullets. Each deer had been taken to a different commercial meat processor. To simulate human consumption of the venison, the researchers then fed samples of the processed meat to test animals and monitored subsequent changes in blood lead concentration. Pigs were used as human surrogates for these experiments because of biological similarities to the human digestive tract. Four pigs were fed venison that had tested positive for bullet fragments, and four received venison without fragments from the same deer. Average blood lead concentrations in pigs that consumed meat with bullet fragments peaked at 2.3 micrograms per deciliter just two days after the meal. That was significantly higher than the pigs that ate fragment-free venison, whose blood lead levels averaged 0.6 micrograms per deciliter.

Lead is mistaken by the human body for calcium and replaces it in nerve tissue, organs, and eventually in bone. During pregnancy, lead stored in bone may be released along with calcium, thereby exposing fetuses. Release of bone lead may again occur late in life, and evidence now suggests that this toxic material may be associated with cognitive difficulties among the elderly.

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 23 November 2009* and will be reviewed by a panel of judges from around the world with expertise in owl conservation, education, rehabilitation, and research. Winners will be individually notified in 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, 6 March 2010. 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 **Raptor Corridor Project** now has a website online at www.raptorcorridor.org. Please check it out and feel free to add a link for it to your website. If your organization has not yet sent me an endorsement letter (see Endorsements list under Documents) please consider doing so. It should be mailed to me at my postal mailing address provided below. If you have any questions, please contact Donald S. Heintzelman, Ornithologist and Author, 6345 Ridge Road, Apt. 2, Zionsville, PA 18092 USA donsh@enter.net

Workshops and Meetings

Raptor Workshop: Accredited through University of Wisconsin - Stevens Point

Two 4-day workshops 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. Session #1 September 1-4, 2009 and session #2 October 12-15, 2009. Receive first hand experience working with: live raptors, capturing, handling, banding techniques, broadcast call surveys, tree climbing and rappelling, blood sampling and more. Cost is \$425 and space is limited, so register early. For more information and a registration form visit <http://www.RaptorResearch.com>

The **Eagle Conservation Alliance** conference will be held 6-10 October 2009 in Ainsa, Aragon, Spain.

A **Raptor Conservation Medicine Course** will be offered by the Eagle Conservation Alliance during 12-13 October 2009 in Oropesa, Toledo, Spain.

For more information please contact aquila.foundation@hotmail.com.



Assistance Requested

Call for Short-eared Owl Feathers -- Kristen Keyes, under the supervision of Dr. Marcel Gahbauer and Dr. David Bird, is investigating Short-eared Owl movement patterns in North America. She is asking for feathers for stable isotope analysis from anyone who may be conducting Short-eared Owl research, or who may experience incidental encounters through banding or road kills. Based on inspection of museum specimens and consultation of several North American and European references, it appears that P1 is the first feather molted, and therefore would have the highest probability of recording the isotopic signature of the summer location. Thus, a small sample of vane tissue (i.e. 1-2 cm²) from the lagging, proximal edge of P1 would be ideal, so as to limit impacts on flight. If a molt limit is obvious, samples from all apparent generations would be valuable, as would photo documentation, as this may allow for the determination of up to three previous summer locations. Samples from juveniles are particularly valuable to verify the Short-eared Owl isotopic signature against existing maps, and while P1 is again preferable, the age of the owl may dictate that a contour feather be collected instead. If you are interested in providing feather samples for this study, please contact Kristen (kristen@migrationresearch.org).

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 forthcoming new book may be of interest to some RRF members. *The Eagle Watchers* is an anthology of field stories written by 29 eagle biologists from all over the world. Each chapter documents the anecdotal field experiences of a field biologist, and has been written for a general, non-scientific audience, although raptor biologists may also enjoy (and empathize!) with some of the experiences described. Contributing authors, selected for their knowledge and experience of a particular eagle species, are as follows:

African Crowned Eagle, Ivory Coast (Dr. Susanne Shultz)
African Fish Eagle, Kenya (Dr. Munir Virani)
Bald Eagle, USA (Teryl Grubb; Dr. Al Harmata)
Bateleur, South Africa (Dr. Rick Watson)
Black and Chestnut Eagle, Peru (Dr Ursula Valdez)
Eastern Imperial Eagle, Kazakhstan (Dr. Todd Katzner)

Golden Eagle, Alaska (Dr. Carol McIntyre)
 Golden Eagle, Scotland (Dr. Jeff Watson)
 Grey-headed Fishing Eagle, Cambodia (Dr. Malcolm Nicoll)
 Harpy Eagle, South America (Janeene Touchton)
 Javan Hawk Eagle, Indonesia (Dr. Vincent Nijman)
 Lesser Spotted Eagle, Europe (Dr. Bernd Meyburg)
 Madagascar Fish Eagle (Dr. Ruth Tingay)
 Madagascar Serpent Eagle (Dr. Sarah Karpanty)
 Martial Eagle, South Africa (Dr. Andrew Jenkins)
 New Guinea Harpy Eagle, PNG (Martin Gilbert; Dr. Mark Watson)
 Philippine Eagle (Dr. Hector Miranda)
 Solitary Eagle, Latin America (Bill Clark)
 Spanish Imperial Eagle, Spain (Dr. Miguel Ferrer)
 Steller's Sea Eagle, Japan (Keisuke Saito)
 Verreaux's Eagle, South Africa (Dr. Rob Davies)
 Wahlberg's Eagle, South Africa (Dr. Rob Simmons)
 Wedge-tailed Eagle, Australia (Dr. Penny Olsen)
 White-bellied Sea Eagle, Tasmania (Jason Wiersma)
 White-tailed Sea Eagle, Scotland (John Love; Justin Grant)
 White-tailed Sea Eagle, Sweden (Dr. Bjorn Helander)

The book includes up-to-date information about each species covered, and previously unpublished photographs of some of these eagles. Edited by Ruth Tingay & Todd Katzner and published by Cornell University Press, the book is due out in late 2009 / early 2010. All contributors (editors, authors & photographers) have donated their work for free, and all profits from the sale of the book will be split evenly between two raptor international conservation organizations (Hawk Mountain Sanctuary Intern Programme & the National Birds of Prey Trust Grant Scheme).



(Photo by Linda Wright)

***Call of the Eagle* by Dave Walker**

This is an account of one man's 30-year involvement with England's rarest bird, the golden eagle. Initially employed by the RSPB as a senior species protection warden at a secret location in Cumbria, the author describes the intricacies of establishing a protection regime by wardens that would operate for the next 26 years and his efforts to protect and study this iconic species. His project is the most detailed and complete study of a pair of golden eagles with, at its heart, the life and times of an eagle he followed from its arrival in 1982 until its death, 22 years later. *Call of the Eagle* amply illustrates the close attachment and passion that drove the author to devote so much of his life to this magnificent raptor, famed as the King of Birds.

Contents: Preface; The call of the eagle; The first success; Dark days of spring; Hope after hard times; The Haweswater pair; Mating and incubation; Lakeland nestlings; First flights; Long days on the hill; Differences of opinion; Noting new behaviour; Mixed fortunes; A difficult year; A Scottish sojourn; Investigating food supply; The end of an era; Epilogue

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available from www.whittlespublishing.com

Proceedings from conference on lead ammunition now available in book, CD -- Research on the effects and risks of lead exposure from spent bullet fragments is now available in a soft-cover book from The Peregrine Fund. "Ingestion of Lead from Spent Ammunition: Implications for Wildlife and Humans" is the proceedings of a conference held in Boise, Idaho, in May 2008 that for the first time brought together professionals in wildlife and human health to share information on the toxic effects of ammunition as a source of lead contamination. The 390-page book is edited by Richard T. Watson, Mark Fuller, Mark Pokras, and Grainger Hunt. It can be purchased for \$25 from The Peregrine Fund at <https://www.createspace.com/3382279>. Books also may be ordered through Amazon.com. It is also available in PDF format on a searchable CD with links to relevant websites for \$15 (includes shipping) from The Peregrine Fund at <http://www.peregrinefund.org/rcProd1.asp?id=304&c1=1&c2=21>. The book's content may be viewed online at http://www.peregrinefund.org/Lead_conference/2008PbConf_Proceedings.htm

TURKEY VULTURES: A PHOTOGRAPHIC GUIDE FOR AGING NESTLINGS.

R. W. Nelson, D. Moore, F. Kunnas, and R. Morse. 2009.

Fish and Wildlife Division, Alberta Species at Risk Report No. 124. Edmonton, AB. 44 pp. Descriptions and 80+ color photos of known-age nestlings, "... are intended to allow users ... to estimate the age of nestling Turkey Vultures, from their own photographs, to within +/- two days, without handling the young birds." Part of an ongoing study at the northern edge of the breeding range. Available as a pdf download at: <http://srd.alberta.ca/fishwildlife/speciesatrisk/projectreports.aspx>



42 day old nestling (photo by R. Wayne Nelson)

RECENT THESES ON RAPTORS

Chen, D. 2009. Polybrominated Diphenyl Ether Flame Retardants in Birds of Prey from U.S. and China. PhD Dissertation. Virginia Institute of Marine Science at the College of William and Mary, Williamsburg, VA, USA. 140 pp.

Polybrominated diphenyl ether (PBDE) flame retardants are widely used as non-reactive additives in textiles, polyurethane foams, plastics, furnishings, and electronic products. As a result of substantial, long-term usages, PBDEs have contaminated humans, wildlife, air, water, soil, and sediment, even in

remote areas. Although the North American and Asian (particularly Chinese) markets have consumed the majority of global PBDE production, knowledge about PBDE contamination is limited in these two regions. Therefore, this research aimed to investigate PBDE contamination in some Chinese and North American areas by examining the birds of prey that have been considered as valuable monitoring species for organochlorine contamination. Particular interests were in the bioaccumulation of BDE-209, a predominant congener in Deca-BDE and the only PBDE formulation still in use worldwide. It is widely believed to have limited bioavailability. The study was primarily performed in three regions: Beijing in North China, New England and the Chesapeake Bay regions in the U.S. To our best knowledge this study is the first to examine PBDE contamination in terrestrial raptors from both North America and Asia. The results revealed (1) dissimilar PBDE congener distribution patterns between aquatic and terrestrial birds of prey, suggesting that individual congeners may be subject to differences in bioaccumulation, biomagnification or metabolism in the aquatic and terrestrial environments; (2) substantial biomagnification of PBDEs (BMF = 41.4) in the Chesapeake Bay fish – osprey egg chain; (3) an influence by diet preference and living habitat on the contamination burdens and congener profiles in the birds; (4) substantial PBDE contamination in the Chinese birds of prey, indicating elevated exposure due to extensive application of PBDEs in the city; (5) record-high BDE-209 concentrations in Chinese kestrels and U.S. peregrine falcon eggs, indicating the substantial accumulation of this congener in the terrestrial birds of prey; (6) significantly higher BDE-209 concentrations in the urban peregrine falcon eggs, indicating a greater abundance of Deca-BDE in the urban environment; (7) a rapid increase in BDE-209 concentrations in the northeastern U.S. peregrine eggs, which may have resulted from the continuing use of Deca-BDE; and (8) a potential breakdown of BDE-209 to less brominated and more bioavailable congeners. A review of studies in birds of prey worldwide clearly indicated a greater abundance of BDE-209 in the North American and Chinese birds compared to European species. This follows well the global market demand pattern of Deca-BDE, in which North America and Asia have historically consumed 44% and 41% of the world's total production, respectively. The above findings of high BDE-209 concentrations, short doubling time, and potential biodegradation in the terrestrial birds of prey, indicate the need to limit unnecessary Deca-BDE release to the environment.

Long, E.C. 2009. Prey Utilization and Energy Demand of a Breeding Peregrine Falcon (*Falco peregrinus*) Population. Master's Thesis. The College of William and Mary, Williamsburg, VA USA.

Peregrine Falcons (*Falco peregrinus*) were extirpated from much of their North American breeding range by the mid 1960's, due largely to pesticide poisoning. An intensive recovery effort has restored much of the population to pre-extirpation numbers, although their geographic distribution is now altered from that of the historic population. In the mid-Atlantic, peregrines breed entirely on man-made structures in the coastal plain rather than on naturally-occurring cliff faces in the mountains. This has created conservation conflicts between peregrines and their avian prey. This study was designed to quantify prey usage in Peregrine Falcons, and to estimate their direct impact on prey species of conservation concern. During the 2004 and 2005 breeding seasons prey remains were collected from nest sites on the Virginia portion of the Delmarva peninsula and identified, and this information was combined with images obtained from cameras placed at nests. Prey quantification results showed that this peregrine population is largely dependent on breeding and migrating waterbirds that utilize the area during the Peregrine Falcon breeding season. While no species that are Threatened or Endangered were found to be used as prey, several species of conservation concern were

found. Of those, four played a major role in the peregrine diet: Willets (*Tringa semipalmatus*), Short-billed Dowitchers (*Limnodromus griseus*), Ruddy Turnstones (*Arenaria interpres*), and Forster's Terns (*Sterna forsteri*). Using estimates of Field Metabolic Rate based on mass for each bird in the population, energy demand for the total population in 2004 and in 2005 was calculated. These estimates were then used to calculate energy demand for each breeding year since the population recovered. Energy demand estimates were then combined with prey population census data and prey utilization data to estimate the direct impact of breeding peregrines in the coastal plain on species of conservation concern. Ruddy Turnstones are estimated to lose 3.4% of the population (N=1140) to predation from breeding peregrines each year, while Short-billed Dowitchers lose 2.4% (N=2640). Forster's Terns breeding in the vicinity of this peregrine population are estimated to lose 5% (N=247) of the population to predation.

Marc A. Driscoll, Renee C. Lezama, Adana N. Mahase. 2008. Development of a health-monitoring protocol for the black vulture (*Coragyps atratus*) using non-invasive samples from a population in Wallerfield, Trinidad. Dissertation in part-fulfilment for the Degree of Doctor of Veterinary Medicine at The University of the West Indies.

In recent years various populations of wildlife, in most parts of the world, have come under scrutiny by conservationists and others as a result of concerns over global declines. Veterinarians have become involved because of the need to know more about the health of wild animals and the possibility that, in some species, infectious and non-infectious diseases might be playing a part. Asian populations of Old World vultures have plummeted over the past decade¹ and there are growing fears that New World vultures might also decline. Various monitoring systems have therefore been devised and implemented to monitor the health status of these and other birds of prey². This project sought to devise a health-monitoring protocol for the Black vulture, *Coragyps atratus*, geared towards taking non-invasive samples to develop a health profile for a specific group of birds³. The population studied was situated in Wallerfield, North Trinidad, and was estimated to comprise 500 birds. Wallerfield was once used as an Allied airbase, commissioned on 28th October 1941, to transport troops from the USA and Europe to the Pacific during the Second World War; it had its moment in history as it was the largest and busiest airbases of its time. At the end of 1945, Wallerfield was almost deserted and by 1949, it was closed and fell into decay. The site was then used as a dumping ground for animal carcasses.

The samples collected in this study were naturally-voided feathers, droppings (faeces and urates) and castings (pellets), all in the area frequented by the vultures. Over a three-week period, ninety (90) samples of each were collected and processed following a carefully formulated protocol.

Analysis of the feathers indicated that the birds in the population were on a consistently moderate to high plane of nutrition (25.5% prevalence of fault bars), had relatively low ectoparasite numbers (13.3%), apparently normal moulting patterns and a low frequency of traumatic injuries. Laboratory analyses of the droppings and castings suggested that the birds had bacterial flora and probable gastrointestinal function that were in keeping with those observed in healthy birds of prey, including vultures, in previous studies. The findings also indicated that the droppings and castings of the black vulture population might present public health risks. Several species of bacteria that could be pathogenic to humans were isolated, including a *Bacillus* sp. (23.8% of droppings, 5.1% of castings) and *Proteus mirabilis* (17.5% of droppings, 5.1% of castings). No *Salmonella* spp. were isolated. The methods used both to collect samples in the field and to process them in the laboratory proved satisfactory and readily reproducible. It was therefore concluded that the protocol devised for this

study is an effective, non-invasive, method of performing health-monitoring of the black vultures at Wallerfield, Trinidad and could be applicable to research on this species elsewhere.

References

1. Bird, D.M. and Bildstein, K.L. (2007). "Raptor: Research and Management Techniques". Hancock House, Canada/USA.
2. Cooper J.E. (2002) "Birds of Prey: Health & Disease". Blackwell, Oxford, UK.
3. Cooper, J.E. (1998). Minimally invasive health monitoring of wildlife. *Animal Welfare* 7, 35-44.

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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.

Memorials to RRF Members

DR MIKE MADDERS

Mike Madders, one of Scotland's foremost ornithologists, has died along with his seven-year old son, Daniel, in a tragic canoeing accident in the northwest Highlands of Scotland. Mike was 52.

Mike was a co-founder and Director of Natural Research Ltd, a registered charity that undertakes wildlife research, and the Managing Director of Natural Research Projects Ltd (NRP) a wholly owned commercial subsidiary of the charity.

Mike was professionally involved with birds of prey and upland bird species all of his working life.

Starting with studies on peregrine falcons in Cumbria, England, he switched to eagles in Scotland during the early 1980s, including helping the successful reintroduction of white-tailed sea eagles. He undertook studies for a variety of governmental and non-governmental organizations, including the Royal Society for the Protection of Birds (RSPB), Scottish Natural Heritage (SNH), the Centre for Ecology and Hydrology (CEH), and the University of Glasgow.

Mike was particularly associated with studies on the foraging ecology and diet of hen harriers and white-tailed sea eagles. His 1997 doctorate from the University of Glasgow was on the effects of commercial forestry on harriers. His research on white-tailed sea eagles involved the complexities of determining the extent to which eagles preyed on lambs.



In recent years he specialised in devising field and analytical techniques to measure the responses of birds to windfarm developments, and designing innovative approaches to mitigating the potential impacts. Many of these techniques have been taken up as standard best practice in Environmental Impact Assessments (EIAs) throughout the world. He wrote over 100 EIAs and was called as an expert witness at numerous Public Local Inquiries, by both developers and SNH. Mike worked in close collaboration with scientists at SNH to establish appropriate field techniques and assessment tools in this field, which are recognised as the industry-standard in the UK and, increasingly, in the rest of the world. In particular, he was instrumental in devising a method of quantifying bird flight activity and estimating the collision risk, and continued to be critical of the method in its refinement. Always enthusiastic about spreading best-practice, he also advised and helped to train staff from statutory nature conservation organisations and NGOs on windfarm issues.

The studies in which Mike was a key researcher have become seminal projects within the wind industry, yielding information crucial for robust EIAs, in particular collision risk assessment. Through Mike's drive on research and training, Natural Research Projects is at the forefront in the development and promotion of best practice and is widely recognised as being the leading UK consultancy on terrestrial wind energy and birds.

Mike was held in great respect as a scientist and for transferring science into practical utility. Passionate and vigorous in emphasising the need for objectivity in windfarm assessment studies he was in great demand as a speaker and made key presentations at conferences and workshops on wind energy, for example those organised by the British Wind Energy Association, British Ornithologists Union and Scottish Renewable Energy Forum. He also presented papers on birds and windfarms at conferences elsewhere in Europe and North America.

Mike lived in a variety of island and mainland locations in Scotland during his professional career and he imparted his experiences through two popular books which are standards for visiting birdwatchers – 'Where to Watch Birds in Scotland' and 'The Birds of Mull'. He is also an author of many peer-reviewed publications in scientific journals. While much of Mike's later work was taken up in leading and building esteem for Natural Research, he still found time to continue his study of hen harrier behaviour in the UK and supervised research on pallid and Montagu's harriers in Kazakhstan and India.

Multi-talented with a razor-sharp mind, witty, tireless and inspirational, Mike's untimely death will bring enormous sadness to the many people whose lives he touched, both professionally and personally. Mike leaves his partner Christine and three children with his former partner Julia.

Press statement issued by Natural Research Ltd, August 24 2009. Photo by Digger Jackson (Natural Research).



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