

Oiled Wildlife Care Network

In 1990, California legislation directed the Department of Fish and Game, Office of Spill Prevention and Response (OSPR) to establish rescue and rehabilitation stations throughout California for marine species that may be at risk of impact from oil spills. From this directive, the Oiled Wildlife Care Network (OWCN) was formed as a collaborative program between the OSPR and the Wildlife Health Center at University of California at Davis' School of Veterinary Medicine.

The mission of the OWCN is to strive to ensure that wildlife exposed to petroleum products in the environment receive the best achievable treatment by providing access to permanent wildlife rehabilitation facilities and trained personnel that are maintained in a constant state of readiness for oil spill response within California.

As part of this mission, the OWCN also supports research necessary for improving oiled wildlife spill response and the understanding of the short- and long-term effects of oil on wildlife. Therefore, the OWCN is currently seeking research proposals from wildlife professionals interested in furthering OWCN goals for the 2005–2006 funding period.

**Deadline for RECEIPT of Pre-Proposals, Small Grant Proposals
and Post-Release Collaboration Requests is
5:00 PM (PST) April 8, 2005**

**Wildlife Health Center
University of California
One Shields Avenue
Davis, CA 95616
(020C)**

2005-2006 Call for Pre-Proposals and Small Grant Proposals

The OWCN is currently seeking research proposals from wildlife professionals interested in improving oiled wildlife spill response and better understanding of the effects of oil on wildlife. Specifically, we are soliciting:

- Pre-proposals for research projects (> \$10,000/year for up to three years, with annual committee review)
- Short proposals for small research awards (up to \$10,000 for one year of funding)

Goals of the OWCN's Research & Technology Development Program

To Improve Animal Care

- Identify new, and refine current, wildlife rehabilitation techniques
- Develop and validate new oiled wildlife treatments & diagnostics
- Determine and test methods for mitigating the effects of oil on wildlife

To Assess Wildlife Health

- Investigate medical conditions that may affect care during oil spill response
- Compile biomedical health parameters of commonly oiled wildlife species
- Determine the health impacts of oil exposure, including those that persist after release
- Assess the impacts of medical treatments and chemical countermeasures on wildlife

To Determine Wildlife Population Information that Aids in Preventing and Caring for Oiled Wildlife

- Determine the demography & distribution of wildlife species in California
- Understand how populations respond to oil spills (to improve rehabilitation protocols)

To Develop New Technology for Oiled Wildlife Care

- Generate methods to detect & quantify oil exposure in wildlife, and to document their effects
- Assess applicability of radiotelemetry techniques to monitor survival of affected wildlife after oil spills
- Develop hardware to improve oiled wildlife rehabilitation & husbandry

NOTE: Projects with greater than 50% of effort focusing on Natural Resource Damage Assessment (NRDA; i.e., proving or recovering damages from responsible parties, chronic oil spill modeling and/or beach surveys) will not be considered. Research done on species that do *not* live in California must be applicable to those species or ecosystems that do occur in California.

Complete applications will be reviewed by the OWCN's Scientific Advisory Committee and evaluated for relevance to the goals of the OWCN (see box above). If judged relevant, the applications are scored on scientific merit/quality and ability of investigators to perform work/distribute findings. Proposals that support graduate students are encouraged. Successful proposals will then be approved (if requesting \$10,000 or less), and full proposals will be solicited (if requesting greater than \$10,000). Full proposals will undergo rigorous scientific review, including the external review by a **non-collaborating** expert. Final funding recommendations from the Scientific Advisory Committee are given to the OWCN Advisory Board, which has final approval of projects.

- Promising pre-proposals and small grant proposals will be selected by **May 15, 2005**.
- Solicited full proposals are due by **June 24, 2005**.
- Full proposals will be reviewed, and funds for small and full grants will be awarded by **October 1, 2005**.

Pre-Proposals and Small Grant Proposal Applications

Proposals must use at least 3/4" margins and 12-point single-spaced type. Proposals must not exceed two pages, excluding literature cited and CV. Required sections include:

- 1) TITLE of PRE-PROPOSAL (< 100 characters): The title must clearly describe the project.
- 2) APPLICANT(S) INFORMATION: Name, affiliation, mailing address, phone number, and e-mail address for principal investigator; name and affiliation for all co-investigator(s).
- 3) HYPOTHESES AND OBJECTIVES: State the explicit hypotheses and specific aims.
- 4) EXPERIMENTAL PLAN: Describe the experimental design of the project which clearly addresses listed objectives. Include names and affiliations of collaborators.
- 5) SIGNIFICANCE TO OILED WILDLIFE HEALTH: Describe how the project is pertinent to the goals and mission of the OWCN (see box on previous page and **please be specific**).
- 6) PROJECT DURATION (1-3 years): Be aware that your proposal should propose and specifically describe one year of work. If you are proposing the first year of a multi-year study, your pre-proposal should specifically describe the first year of work within the context of the larger study.
- 7) ESTIMATED BUDGET: Provide a succinct project budget for this year, outlined according to the following categories: personnel; equipment; supplies; travel; other expenses; and overhead. For multi-year projects, the total funding amount which will be requested for subsequent years should also be noted, but a detailed budget for subsequent years is not necessary. For those selected pre-proposals, final proposal budget should not deviate substantially from that in the Pre-Proposal.
- 8) LITERATURE CITED

Post-Release Collaboration Requests

The OWCN is also requesting letters of interest from collaborators willing to assist OWCN staff to design and conduct post-release survival studies after oil spills. This program is designed to pre-identify researchers interested and able to collaborate on such research, which therefore speeds the process of initiating projects on an emergency basis.

Individuals interested in being considered for collaboration should submit their request to the OWCN per the deadlines established for the grant program (April 8, 2005). Information required in the application can be found on the OWCN's website (www.owcn.org) or by contacting the OWCN at (530) 752-4167.

Please note: Approval of requests for collaboration in no way represents definite transfer of funds for collaboration, and only after the OWCN Director determines a post-release study is warranted will the investigator(s) be asked to sign a research agreement formalizing the collaborative arrangement.

All proposals must arrive at the Wildlife Health Center no later than 5:00 PM (PST) April 8, 2005 (Note: this is *not* a postmark deadline)

Please submit one electronic copy (in Microsoft Word format) plus 15 hard copies to:
Wildlife Health Center, University of California, One Shields Avenue, Davis, California 95616
Attn: Dr. Michael Ziccardi, OWCN Program Director

For additional information on the OWCN's grants program (including more detailed application instructions), please visit www.owcn.org

OWCN-Funded Projects

New Studies from 2001– Present

For a listing of all funded projects since 1996 and project abstracts, please visit www.owcn.org

2004–2005

Mark Colwell, Humboldt State University: Assessing patterns of shorebird roost site fidelity with radio-marked dunlins (*Calidris alpina nivosus*)

Mark Colwell, Humboldt State University: Spatial Ecology of a marked population of the Western snowy plover (*Charadrius alexandrinus nivosus*)

Verena Gill, US Fish & Wildlife Service: Prevalence of infectious disease as a cause of mortality in northern sea otters (*Enhydra lutris kenyoni*) in Alaska

James Harvey, Moss Landing Marine Laboratories: Wings under waves: Diving behavior and time-activity budgets of provisioning Cassin's auklets nesting in the Channel Islands, California

Shawn Johnson, Alaska SeaLife Center: Evaluation of an automated hemoglobinometer in seabirds

James Lovvorn, University of Wyoming: Developing captive husbandry for Cassin's auklets and measuring their costs of foraging in spill-prone areas

F. Charles Mohr, UC Davis: Petroleum oil-induced adrenal hypertrophy in mink: Effects of stress, gender, and oil composition on adrenal function

2003–2004

Patricia Conrad, UC Davis: Epidemiology and molecular characterization of sea otter *Cryptosporidium* and *Giardia* infections

Eric Gershwin, UC Davis: Polycyclic aromatic hydrocarbon (PAH)-induced immune alterations in the harbor seal, *Phoca vitulina*

James T. Harvey, Moss Landing Marine Laboratories: Body condition and oceanographic determinants of sooty shearwater movements: A model for post-release survival studies in seabirds

Frances Gulland, The Marine Mammal Center: The effect of rehabilitation on antibiotic resistance of gastrointestinal bacteria in elephant seals

John Incardona, NOAA, Northwest Fisheries Science Center: Mechanisms of petroleum hydrocarbon toxicity in fish early life history states

Melissa Miller, UC Davis: Determining optimal antimicrobial regimens for otters using susceptibility and in vivo pharmacokinetic profiles

Ronald Tjeerdema, UC Davis: Acute and chronic effects of crude oil and dispersed oil on Chinook salmon smolts

2002–2003

James T. Harvey, Moss Landing Marine Laboratories: Hematology, plasma chemistry, and movements of the sooty shearwater (*Puffinus griseus*) respond to changes in body condition, food habits, and ocean conditions off California

Laird A. Henkel, HT Harvey and Associates: At-sea distribution of marbled murrelets in San Luis Obispo County, California

Michelle Lander, The Marine Mammal Center: Implantation of subcutaneous radio transmitters in harbor seals (*Phoca vitulina*)

Gary W. Page, Point Reyes Bird Observatory: Factors influencing the distribution of shorebirds on beaches of Monterey Bay, California

2001–2002

Steven Beissinger, UC Berkeley: Post-breeding season movements and distribution of marbled murrelets in central California

Richard N. Brown, Humboldt State University: Prevalence of zoonotic disease agents in seabirds undergoing rehabilitation, and associated risks to rehabilitators, from centers located in northern California and Washington

Mark A. Colwell, Humboldt State University: Analysis of locations, characteristics and dynamics of waterbird roosts at Humboldt Bay

Mark A. Colwell, Humboldt State University: Space use, movements, and habitat use of snowy plovers in Humboldt County

Frances M.D. Gulland, The Marine Mammal Center: Estimating baseline distribution, abundance, and health parameters of Stellar sea lion (*Eumetopias jubatus*) and California sea lion (*Zalophus californianus*) off central California

James T. Harvey, Moss Landing Marine Laboratories: Using aerial surveys to estimate survivorship of Pacific harbor seal (*Phoca vitulina richardsi*) juveniles along central California

Jenifer Hurley, Moss Landing Marine Laboratories: Diagnosis and treatment of gastric disease in stranded pinnipeds

Les Underhill, University of Capetown: Investigating the cause of failed breeding success in penguins following oil exposure and rehabilitation