

# 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 the University of California at Davis' School of Veterinary Medicine.

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

As part of this mission, the OWCN supports research necessary for improving oiled wildlife spill response and the understanding of the short- and long-term effects of oil on wildlife. The OWCN is currently seeking research and technology development proposals from wildlife professionals interested in furthering OWCN goals for the 2010 – 2011 funding period.

## **NOTE: DIFFERENT DEADLINES FOR SMALL GRANT AND PRE-PROPOSALS**

**Deadline for Receipt of Pre-Proposals is 5:00 pm (PST) 3 May 2010  
and Small Grant Proposals is 5:00 pm (PST) 26 July 2010**

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Oiled Wildlife Care Network  
Wildlife Health Center  
University of California  
One Shields Ave.  
Davis, CA 95616  
(020C)

## 2010-2011 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 full research projects (> \$10,000/year for up to three years, with yearly re-application)
- Small grant proposals for lower-cost and/or pilot research projects (up to \$10,000 for one year of funding)

### **Goals of the OWCN's Research & Technology Development Program**

#### 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

#### 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

#### 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)

#### 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/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.

Pre-Proposal Review: Complete pre-proposals 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 the ability of investigators to perform work/distribute findings. Proposals that support graduate students are encouraged. Pre-proposals that are successful will be invited to submit a full application. Full proposals will undergo rigorous scientific review, including an 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.

Small Grant Proposal Review: Complete proposals 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 will be scored on scientific merit/quality and the ability of investigators to perform work/distribute findings. Proposals are then discussed and ranked during the OWCN's SAC meeting, and recommendations are given to the OWCN Advisory Board, which has final approval of projects.

## Pre-Proposals and Small Grant Proposal Applications

Proposals must use at least 3/4" margins and 12-point single-spaced type. Sections 3-7 of proposals must not exceed two pages. **Proposals not abiding by this limit will not be reviewed.** 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 only 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 (including statistical methods) which clearly addresses listed objectives. Include names of collaborators, and attach letters of support.
- 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):** If you are proposing the first year of a multi-year study, your pre-proposal should describe the first year of work. If this is a second/third year of previously-funded work, you should indicate that as well.
- 7) **ESTIMATED BUDGET:** Provide a succinct (1 paragraph) project budget, outlined according to the following categories: personnel; equipment; supplies; travel; other expenses. Acceptable costs include salaries (PIs, staff & students; though a detriment if already supported), office expenses, equipment, animal care costs, lab fees and research-related travel. Final budgets from selected pre-proposals should not deviate substantially from this. For multi-year projects, the total funding amount that will be requested in subsequent years should also be noted. **Note:** Indirect costs are not allowable costs on OWCN grants.
- 8) **APPENDICES:** Literature cited & letters of collaboration.

### Review and Application Schedule

<u>Small Grant Proposals</u>		<u>Full Proposals</u>	
08 Mar 2010:	RFP distributed	08 Mar 2010:	RFP distributed
26 Jul 2010:	Small Grant Proposals due	03 May 2010:	Pre-proposals due
24 Sep 2010:	Grants selected	24 May 2010:	Requests for Full Proposals distributed
01 Oct 10 - 31 Sep 11:	Funding period	26 Jul 2010:	Full Proposals due
31 Dec 2011:	Final project report due	24 Sep 2010:	Grants selected
		01 Oct 10 - 31 Sep 11:	Funding period
		31 Dec 2011:	Final project report due

Proposals may be submitted either:

- 1) Electronically: E-mail single document containing proposal and signed letters, if any, (scanned images OK) in Microsoft Word or Adobe .pdf format to Lavonne Hull at [lw hull@ucdavis.edu](mailto:lw hull@ucdavis.edu)
- 2) By Post: Mail one electronic copy (on CD) of the proposal plus one hard-copy of each signed letter, if any, to: Wildlife Health Center, University of California, One Shields Avenue, Davis, California 95616, Attn: Lavonne Hull

**All proposals must arrive at the Wildlife Health Center by post or e-mail no later than 5:00 pm (PST) on 3 May 2010 (Pre-Proposals) or 26 July 2010 (Small Grant Proposals) (Note: this is not a postmark deadline)**

For additional information on the OWCN's grants program (including more detailed application instructions from previous years), please visit [www.owcn.org](http://www.owcn.org)

# OWCN-Funded Projects

New Studies from 2003- Present

For a listing of all funded projects since 1996 and project abstracts, please visit [www.owcn.org](http://www.owcn.org)

## 2009-2010

**Curt Clumpner:** *The evaluation of the use of a mixing sprayer for cleaning oiled birds*

**Curt Clumpner:** *Comparison of methyl oleate and methyl soyate as pre-treating agents in cleaning oiled birds*

**Lynn Miller:** *Does fibrinogen act as a predictor of outcome for birds impacted by crude oil*

**Sharon Parker:** *Pharmacokinetics of injectable meloxicam dosed orally and determination of pH of the proventriculi*

**Mark Pokras:** *WebAtlas of the anatomy and pathology of aquatic birds*

**John Takekawa:** *Health parameters, distribution and behavior of grebes and scoters in California waters*

**Lisa Tell:** *Identification of inflammatory markers of oil exposure in mallard ducks*

**Rory Wilson:** *Development of minimal impact tags for tracking rehabilitated oiled seabirds*

## 2008-2009

**Scott Benson:** *Assessment of nutritional condition in free-ranging Pacific leatherback sea turtles*

**James Harvey:** *Quantifying health parameters of Northern fulmars to improve Procellariid rehabilitation*

**Kirk Klasing:** *Investigation into the dietary needs of faunivorous seabirds undergoing rehabilitative care*

**Lauren Palmer:** *Is subclinical *Toxoplasma gondii* in Northern elephant seals a risk for rehabilitation?*

**Lisa Tell:** *Bioavailability and multi-dose pharmacokinetics of itraconazole in Western grebes*

**Tim Tinker:** *Pilot project investigating potential effects of natural seep oil on sea otter health and survival*

**Ron Tjeerdema:** *Effects of crude oil and dispersed oil on spawning topmelt*

## 2007-2008

**Jennifer Arnold:** *Sub-lethal impacts of oil exposure: examining corticosterone stress response for oil exposed birds*

**Frances Gulland:** *Transcriptional profiling of whole blood and serum protein analysis for biomarker development to assess exposure and disease states in California sea lions*

**John Incardona:** *Long-term cardiovascular impacts of embryonic oil exposure*

**Kirk Klasing:** *Evaluation of the relationship between seabird innate immunity, captivity and aspergillosis*

**Christine Kreuder-Johnson:** *Serological screening for cardiomyopathy in southern sea otters*

## 2006-2007

**Barbara Byrne:** *Pathogenesis of *Streptococcus infantarius* subspecies coli valvular endocarditis in sea otters*

**Donald Croll:** *At-sea mortality patterns of Monterey seabirds*

**Joseph Gaydos:** *Reducing transport stress and developing a surgical technique for implanting satellite transmitters in Western grebes*

**J. Gregory Massey:** *The ecology of aspergillosis in seabirds: Bridging the gap between environment and disease via molecular genotyping*

**Lisa Tell:** *Pharmacokinetic parameters of voriconazole in adult mallard ducks*

**Heather Nevill:** *Effects of crystalloid and colloid therapy on indirect blood pressure in California brown pelicans*

## 2005-2006

**Andrea Fascetti:** *Determination of plasma amino acid concentrations in wild and captive sea otters*

**K.A. Mayer:** *Long-term survival, behavior and reproductive success of stranded southern sea otter pups reared for release with a surrogate mother*

**Jonna A.K. Mazet:** *Health assessment of free-ranging Pacific leatherback sea turtles in Monterey*

**Woutrina Miller:** *Effect of rehabilitation on pelagic bird fecal microbial communities and shedding of *Salmonella* spp.*

**Ronald Tjeerdema:** *Acute and chronic effects of crude and dispersed oil on the pre-smolt stage of Chinook salmon*

**Michael Ziccardi:** *The ecology of aspergillosis in seabirds: Evaluation and validation of available diagnostic tests*

## 2004-2005

**Mark Colwell:** *Assessing patterns of shorebird roost site fidelity with radio-marked dunlins*

**Mark Colwell:** *Spatial Ecology of a marked population of the Western snowy plover*

**Verena Gill:** *Prevalence of infectious disease as a cause of mortality in northern sea otters*

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

**Shawn Johnson:** *Evaluation of an automated hemoglobinometer in seabirds*

**James Lovvorn:** *Developing captive husbandry for Cassin's auklets and measuring their costs of foraging*

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

## 2003-2004

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

**Eric Gershwin:** *Polycyclic aromatic hydrocarbon (PAH)-induced immune alterations in the harbor seal*

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

**Frances Gulland:** *The effect of rehabilitation on antibiotic resistance of gastrointestinal bacteria in elephant seals*

**John Incardona:** *Mechanisms of petroleum hydrocarbon toxicity in fish early life history states*

**Melissa Miller:** *Determining optimal antimicrobial regimens for otters using susceptibility/ in vivo pharmacokinetic profiles*

**Ronald Tjeerdema:** *Acute and chronic effects of crude oil and dispersed oil on Chinook salmon smolts*