



**Oregon State University**  
**Marine Mammal  
Institute**



## **Whale distribution and entanglement risk assessment in the Northern California Current**

**Name of College/Department/Lab:** College of Agricultural Sciences; Department of Fisheries, Wildlife, and Conservation Sciences; Marine Mammal Institute; Geospatial Ecology of Marine Megafauna Lab (GEMM Lab)

**Location:** Oregon State University (OSU), Hatfield Marine Science Center, Newport, Oregon.

**Close dates:** Applications received by 9 October 2023 will be given full consideration.

**Summary:** The GEMM Lab with the OSU Marine Mammal Institute invites applications for a full-time postdoctoral scholar position (1.0 FTE; 18 months). The position is supported by two grants awarded to Dr. Torres and will provide a competitive stipend and health insurance for one and a half years, subject to satisfactory performance. Start date is 1 March 2024.

The successful applicant will play a key role in research projects investigating large whale distribution and interactions with fishing gear off the coast of Oregon, USA to help inform conservation management efforts. Whale entanglements in fishing gear along the USA west coast have increased over the past ten years, necessitating better knowledge on whale spatial ecology and overlap with fishing activities to enable effective regulatory actions. The postdoc will conduct and lead field work (small-boat surveys including photo and biopsy collection; helicopter and ship-based line transect surveys), curate and process survey data, and conduct analyses of whale spatio-temporal residency and co-occurrence with fishing gear to assess entanglement risk. They will also conduct photo-identification and scarring analysis of humpback whales to model entanglement rates with multi-state capture-recapture models. The postdoc will be expected to develop interactive tools for outreach activities and engagement with stakeholders (state and federal managers, fishermen, public, etc.), including development of an R shiny. Overall, this position will provide an excellent opportunity to acquire field experience and ecological knowledge regarding rorqual whales in the Northern California Current ecosystem, gain statistical and spatial modelling skills, build a research network, lead two first-author publications, and work closely with scientists and stakeholders to mitigate a pressing conservation issue.

Articles exemplifying research areas include:

Whale distribution: <https://doi.org/10.3389/fmars.2022.868566>

Co-occurrence with fishing gear: <https://doi.org/10.1016/j.biocon.2023.109989>

Scarring analysis and entanglement rates: <https://repository.library.noaa.gov/view/noaa/27122>

More details about research projects the postdoc will engage in can be found here:

<https://mmi.oregonstate.edu/gemm-lab/opal-overlap-predictions-about-large-whales-identifying-co-occurrence-between-whales>

<https://mmi.oregonstate.edu/gemm-lab/slate>

**Required Qualifications:** Minimum of a PhD in marine wildlife spatial ecology (or similar field), strong R programming and statistical skills, strong geospatial analysis background in R, experience in photo-identification, strong track record of peer-reviewed publication and broad dissemination of research findings, collaborative approach to science and conservation management.

**Preferred Qualifications:** Field experience conducting marine mammal aerial or ship-based surveys, field experience conducting tissue biopsy sampling and photo-identification, coding experience producing R-shiny platforms, experience in capture-recapture modelling, research experience with large whales.

**Application Process:** Please provide a cover letter, CV, as well as names and contact information for three references by 9 October 2023. Application material or relevant inquiries should be sent electronically to both:

Leigh G. Torres  
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and

Solène Derville  
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