

Position Announcement – Postdoctoral Research Fellow – Marine environmental DNA and Marine Mammals

Summary:

We seek a postdoctoral researcher to leverage marine environmental DNA (eDNA) to better understand the spatial ecology of marine mammals. Specifically, the candidate will process eDNA filters and analyze data from samples collected by the [California Cooperative Oceanic Fisheries Investigations \(CalCOFI\)](#), a long-running marine ecosystem monitoring program. There will also be opportunities for fieldwork and sampling methodology development. The candidate will work closely with collaborators from SIO's Marine Physical Laboratory, the University of Washington, and NOAA Fisheries to coordinate data sharing, leverage diverse fields of expertise, and ensure research integrity. In particular, data will be used to develop a regional model of cetacean habitat occupancy.

This project is funded by the Office of Naval Research as part of the Multidisciplinary University Research Initiatives program. It is also part of the West Coast Ocean Biomolecular Observing Network, a UN Decade of Ocean Science-endorsed project to harmonize eDNA methods and integrate data sources from the Northeast Pacific Ocean to improve our understanding of marine ecosystem dynamics and predicted responses to future perturbations.

The ideal candidate will be highly motivated to push the boundaries of eDNA science for marine conservation and management purposes. In addition, a commitment to FAIR (Findable, Accessible, Interoperable, and Reproducible) data generation and management is critical. We are committed to principles of diversity, equity, and inclusion and encourage scientists from underrepresented groups to apply.

Responsibilities:

The candidate will oversee laboratory 'omics sample processing (assisted by a team of technicians, project scientists and students), including optimization of lab methods and workflows (including metabarcoding and qPCR/ddPCR methods). The candidate will also work closely with our team of outstanding scientists (at Scripps Oceanography, University of Washington and NOAA) to innovate on 'omics tools related to marine mammal eDNA. Finally, the candidate will generate publications that provide guidance on new monitoring methods, statistical tools and novel findings.

Required Qualifications:

molecular biology (ideally eDNA sample processing for metabarcoding and qPCR / digital PCR), bioinformatics (ideally amplicon sequence data processing and analysis), R programming language, ecological statistics, management of large sequence data sets and associated metadata.

Desired skills:

marine mammal biology, phylogenetics, Python

Supervisors: Professor Brice X. Semmens and Dr. Nastassia V. Patin, Scripps Institution of Oceanography, UC San Diego

Location:

The postdoctoral researcher will be based at Scripps Institution of Oceanography (SIO). The primary advisors/mentors will be Professor Brice X. Semmens and Dr. Nastassia V. Patin, Scripps Institution of Oceanography, UC San Diego.

Start and End Dates:

This position is a 100% time appointment, to start as soon as possible. Funding is for one year, with additional years possible contingent on performance.

Salary:

Commensurate with experience, and includes benefits.

To Apply:

Applicants should send a CV, contact information for two references, and a cover letter outlining their interest in the position as well as their relevant skills and experience to Dr. Nastassia Patin (nvpatin@ucsd.edu). Review of applicants will begin immediately until the position is full.

UCSD is an equal opportunity/affirmative action employer:

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or status as a protected veteran.