

Request for Qualifications: Intertidal Library Field Collections

Novel Biodiversity Collection Events

Applications DUE: July 14, 2025, at 5:00pm PST

Purpose of the RFQ

This RFQ is for novel biodiversity collection events, which aim to capture a wide range of specimens from various geographic locations within California's coastal intertidal habitats, **focusing on locations that have been rarely sampled or not yet sampled**. A separate RFQ has been issued for add-on small biodiversity collection events, which are defined as add-ons to existing efforts in areas where field teams are already engaged in research or monitoring in California's coastal intertidal habitats. Both types of biodiversity collection events will capture specimens from a range of taxonomies (e.g. invertebrates, algae, and vertebrates) across California's diverse open coast intertidal habitats (rocky shores, sandy beaches, and estuaries, excluding the San Francisco Bay). Collected specimens will be preserved in museum collections, and tissue samples from the collected specimens will be taken to generate a unique genetic signature (DNA barcode) for each species collected.

The California Intertidal Biodiversity DNA Barcode Library Project Team seeks to partner with field teams to conduct novel biodiversity collection events from Fall 2025 to Summer 2026. These collection events will focus on capturing as much biodiversity as possible and generating the majority of specimens collected for this project. The RFQ is needed to better understand the landscape of experts available to complete this work and identify geographic locations to conduct these novel biodiversity collection events. To capture as much biodiversity as possible, novel collection events should target unique geographic locations throughout the California coast at distinct locations and collectively attempt to document as much of California's intertidal biodiversity as possible. Interested applicants should provide their approach to organizing and completing the novel collection events as outlined in the Scope of Work below.

GOAL: Select field teams to collect organisms from California's intertidal habitats and prepare specimens for DNA sequencing.

Background

In 2023, Governor Gavin Newsom signed the Budget Act of 2023 (AB 102), which includes a legislative directive to the Ocean Protection Council (OPC) to lead the development of the <u>California Intertidal Biodiversity DNA Barcode Library</u> (hereafter referred to as the Intertidal



Library). This grant is administered by Coastal Quest in partnership with OPC. Through this RFQ, the Project Team aims to achieve the following objective:

• Collect whole samples of species found in California's intertidal zone, making sure each sample is tagged with its exact location (geo-referenced) and photographed, focused particularly on algae, invertebrates, and select vertebrates. Along with these samples, also collect related data, tissue samples, and DNA extracts. All of this information will be stored in public collections that are durable and longlasting, ensuring accessibility for future researchers.

Scope of Project

The Intertidal Library Project Team seeks to execute novel biodiversity collection events in California's intertidal zones, including rocky shore, sandy beach, and estuarine habitats (excluding the San Francisco Bay), to collect intertidal specimens needed to generate reference barcodes for the Intertidal Library. These novel biodiversity collection events aim to collect the majority of taxa found in California's intertidal environments across taxonomies (e.g., algae, invertebrates, and vertebrates). Collected organisms will be vouchered for use in genetic sequencing. Field collections should sample from diverse geographic locations along California's coast that are not typically monitored or have not been sampled before to assess local and statewide variability and fill in data gaps.

The novel biodiversity collection events entail:

- Coordination of field teams that will collect specimens and substrate while also minimizing environmental impacts.
- Presence of taxonomic experts and technicians to identify, take tissue samples, and prepare specimens for long term preservation for as many voucher specimens as possible.
- Successful transport of samples to a natural history museum for long-term storage and processing.
- Methodical data collection and record-keeping using predetermined standards and protocols for the project.

These novel biodiversity collection events will involve field teams gathering specimens during appropriate low tide cycles, sorting the specimens into the lowest taxonomic group possible, and providing on-site taxonomic experts with the sorted specimens for further identification. Finally, the team will prepare samples for long-term storage and may be required to collect a sub-sample of the appropriate tissue needed for downstream sequencing when appropriate.



We expect the selected field team(s) to carry out roughly 6-10 large-scale biodiversity collection events across California, with a primary focus on areas that have not been previously monitored in order to fill existing spatial gaps in intertidal biodiversity data. Selected teams will work with the Project Team to identify final collection event locations and methodology for field collections. Selected field teams will be expected to comply with the following requirements:

- Coordinate all field work with The Project Team and comply with the Intertidal Library project Standards and Protocols, which will be provided to successful applicants before they begin field work. This includes using standard data sheets and integrating them into data management workflows to ensure similar processes across the project's collection efforts.
- Collect metadata to ensure sample traceability and consistency with existing biodiversity data standards, such as the Darwin Core standards.
- Keep detailed records accounting for all voucher specimens gathered from collection efforts for compliance and reporting with the California Department of Fish and Wildlife (CDFW) scientific collection permit and chain of custody.
- Minimize habitat disturbances and avoid disturbing established long-term intertidal monitoring sites during field sampling events to collect voucher specimens.
- Sort voucher specimens by similar morphology to the lowest possible taxonomic group and follow standard protocols to preserve the specimens for further processing.
- Send collected voucher specimens to a predetermined location for further processing.

Applicant Eligibility

Funds can be awarded to:

- Public Agencies (local, state, and federal)
- Public or private universities
- Nonprofit organizations
- For-profit entities
- California Native American Tribes and tribal organizations, including federally recognized tribes and nonprofit organizations applying on behalf of non-federally recognized tribes.
- Fiscally sponsored organizations, groups in the process of incorporating as a 501c3, and other entities that partner with an eligible sponsoring organization



RFQ Application Requirements

Applications will be accepted via Google Forms. You must sign in using a Gmail account or an email that is Gmail-compatible. Supplementary documents are shared through Google Docs. If you have any questions or need assistance, please email us at Intertidal.Library@coastal-quest.org

An example of some of the application questions are provided below:

Qualifications – Use the <u>Google Form</u> to answer these questions.

- 1) Do you have an active California Department of Fish and Wildlife (CDFW) Scientific Collectors Permit (SCP)?
 - Yes or No
- 2) If you answered yes to the above question, please briefly describe the scientific purpose, the species you were collecting, and the locations you are collecting from.
 - Short answer response.
- 3) If you answered yes to the above question, have you maintained compliance with CDFW's scientific collection permits and chain of custody?
 - Short answer response.
- 4) Have you ever collected voucher specimens from the field?
 - Yes or No
- 5) Will any members of your field team be currently enrolled in or recently graduated from an undergraduate science-based program?
 - Yes or No
- 6) Do you have any experience collecting environmental DNA (eDNA) water or soil samples?
 - Yes or No
- 7) Do you plan to partner with any California institutions/organizations or Tribal governments? If so, please list all partners.
 - Short answer response.
- 8) Have you conducted biodiversity field collection efforts at a large scale?
 - Yes or No
- 9) If you answered yes to the above question, please share relevant DOIs or reports from these events below.
 - Short answer response.



- 10) Have you conducted large biodiversity sampling events in California's marine environments?
 - Yes or No
- 11) If selected, would you be ready to begin fieldwork by September 2025?
 - Yes or No
- 12) Novel biodiversity collection events need to conclude by July 2026. Will you be able to execute the collection events within this timeframe?
 - Yes or No
- 13) What is your expected timeframe for completing sample processing after each collection event? (50 words max)
 - Short answer response.
- 14) How do you plan to coordinate the personnel and taxonomic experts needed to complete successful and efficient collection events? (500 words max)
 - Short answer response.
- 15) How would you ensure all the materials and equipment needed to voucher, identify, preserve, and store specimens are available on site? (*300 words max*)
 - Short answer response.

Submission Instructions for Supplemental Spreadsheets

Please answer the following questions using the Google Sheets provided

With the aim of capturing as much biodiversity as possible, what are 6-10 locations do you suggest for completing the collection events? You can access a template for reporting your suggested sites for the collections <u>HERE</u>. For each suggestion, please provide suggested dates for the collections to occur and identify a location for post-collection processing.

Site	Coordinates	California location	Habitat type	Planned Date	Processing location



What is the estimated cost to collect 10,000 specimens at one novel biodiversity collection event, including travel, labor, and materials? Please fill out the table provided for estimated costs to complete one event. You can access a template for completing this budget scenario HERE.

Intertidal Library - Request for Funds

Estimated Project Budget

Please estimate the costs for each line item using a justifiable breakdown of cost under this scenario: What is the estimated cost to collect 10,000 specimens at one novel biodiversity collection event, including travel, labor, and materials?

Line item	Grant Funding Request	Match Funding (optional)	Total Project Budget
Personnel			
Travel and Lodging			
Supplies and			
Materials			
Facilities and			
Equipment			
Subcontractors			
Overhead (X%)			
Total			

Review Process and Timeline

The RFQ is intended to understand the landscape of qualified teams and their approach to completing this request. The application is meant to be a straightforward, high-level overview of information needed to identify who can organize and execute these novel biodiversity collection events in the California intertidal zone. Applications will be accepted through **July 14, 2025**, with decisions made by late July.

The Project Team will review applications and reach out to a select group of qualified applicants for funding consideration and a complete Scope of Work.



Depending on the submissions received, the Project Team may request applicants coordinate field efforts and collaborate in fulfilling the grant's objectives.

FAQs

Why are we doing an RFQ?

We want to understand the landscape of experts and geographic locations where collection events in the California intertidal zone occur.

For the novel biodiversity collection events, we encourage applicants to suggest their approach for accomplishing the goals outlined in the Request for Qualifications under the Scope of Service. These collections involve organizing large teams of experts to collect and process as many specimens as possible from a range of sites.

Can I apply to both types of collection events?

Yes!

Do I need to have a Gmail account to access the application form?

Yes! You must sign in using a Gmail account or an email that is Gmail-compatible. Supplementary documents are shared through Google Docs. If you have any questions or need assistance, please email us at <u>Intertidal.Library@coastal-quest.org</u> - we are here to help!

Once I apply, what happens next?

The Project Team will review applications and reach out to a select group of qualified applicants for funding consideration and a complete Scope of Work.

If you have any questions, please contact us at Intertidal.Library@coastal-quest.org.