Galápagos life fund

SECOND CALL FOR PROPOSALS

Criteria

SUSTAINABLE FISHERIES INITIATIVES

TOPIC 2

Reproductive biology and population structure of species of commercial interest in the Galapagos Marine Reserve

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Grant Categories: Small, Medium & Large Grants

$ Available Amount: $500K

The Galapagos Marine Reserve (GMR) hosts a high diversity of marine species, many of them endemic and of significant ecological and commercial value, which play a critical role in the functioning of island ecosystems. However, information on the reproductive biology and population dynamics of several key species remains limited or outdated, constraining science-based fisheries management.

Understanding patterns of sexual maturity, spawning seasons, recruitment rates, and age structure is essential to assess population resilience and to establish appropriate management measures, such as minimum catch sizes, seasonal closures, and buffer zones. In particular, species that support local fisheries, such as rocksnail (*Hexaplex princeps*), octopus, demersal and pelagic species, require updated population data to prevent overexploitation and ensure long-term sustainability.

Research on the reproductive biology and population structure of commercially important species will strengthen the scientific basis for fisheries management and conservation decisions by identifying population variability between islands, connectivity patterns, and potential signs of reproductive stress. The results will contribute to the implementation of the Galapagos Protected Areas Management Plan (2014) and the GMR Fisheries Calendar (2023–2027), promoting responsible and resilient fisheries.

Scope:

This topic promotes research that generates updated knowledge on the reproductive biology, population status, structure, and dynamics of key commercially important species, with the aim of strengthening the scientific basis for fisheries management in the GMR.

Research may include, but is not limited to, studies on size at maturity, reproductive seasons, sex ratios, fecundity, and stock assessments, with particular emphasis on understudied species vulnerable to overexploitation.

It is important to note that specific long-term monitoring and follow-up activities will not be considered under this call, as the current priority is to address information gaps that support management and decision-making in this thematic area.

Priority focus

- Target species of high commercial importance showing signs of overexploitation or threat, limited exclusively to the following four species: whitespotted sand bass (*Paralabrax albomaculatus*), Galapagos grouper (*Mycteroperca olfax*), Galapagos slipper lobster (*Scyllarides astori*), and octopus.
- Spatial scale: intra-island (within a single island) and inter-island (between different islands).

REQUIREMENTS AND CONDITIONS:

1. Proposals must clearly define project phases, include a realistic timeline, and specify mechanisms for delivering results.
2. Proposals must include a review of available literature or previous research conducted in Galapagos related to the research question and target species, clearly explaining how the proposed study complements, expands, or initiates data collection and analysis (this section may be submitted as an attachment to the concept note).
3. If selected, prior to final approval, the proponent must submit the corresponding research permit issued by the Galapagos National Park Directorate.
4. If sample collection is required, proposals must minimize specimen mortality and impacts on local populations, and demonstrate strict compliance with animal welfare standards and current scientific collection regulations.

Specific Evaluation Criteria

30% Scientific Criteria

- Clarity of the research questions and well-formulated hypotheses.
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- Focus on prioritized coastal-marine species of commercial interest.
  Detailed and comprehensive description of the methodology, including all the sampling and analytical tools to be used to address the questions, with appropriate justification.

30% Application to management and decision-making

- Clear explanation of how the research will contribute to informing GNPD fisheries management decisions.
- Explicit linkage between the expected research results and the establishment of management measures, such as seasonal closures, minimum catch sizes, and differentiated
- management zones, among others.
  Clear identification of the proposal's positive contribution to the sustainability of artisanal fisheries and the conservation of the archipelago's marine biodiversity.

35% Technical and Logistical Capacity

- Demonstrated experience of the proposing scientific–technical team in reproductive biology, population dynamics of fishery resources, fisheries management, or related fields.
- Diagnostic and analytical capacity in laboratory facilities, or established partnerships with accredited centers for the required analyses.
- Logistical capacity and/or coordination with relevant institutions to carry out the research, including sample collection and preservation in accordance with GNPD protocols.

5%

Gender and Diversity

- The composition of the project team incorporates principles of gender equality, inclusion, and diversity, ensuring equal opportunities for the participation of women and men in the project.

General Criteria

In addition to the specific evaluation criteria outlined above, all concept notes and proposals submitted to the GLF are evaluated against the general criteria set out in the Fund's Grants Manual.

Expected Results

The expected outcomes of the proposed projects include:

1. Updated biological information on maturity sizes, reproductive seasons, fecundity, sex ratios, and growth rates of focal species.
2. Determination of intra- and inter-island population structure and stocks differentiation through genetic, morphological analysis, tagging, or other appropriate methods.
3. Identification of spatial and temporal reproductive patterns and their relationship with environmental and climatic conditions.
4. Estimation of the reproductive status and recovery potential of species subject to fishing pressure or exploitation.
5. Development of evidence-based recommendations for fisheries management, including minimum catch sizes, seasonal closures, and broodstock protection strategies.
6. Promotion of the dissemination and return of research results to local communities and fishing cooperatives.