Galápagos life fund

SECOND CALL FOR PROPOSALS

RESEARCH INITIATIVES

Assessment of marine-coastal wildlife diseases and associated risks in the Galapagos Marine Reserve

Criteria

Small, medium and large proposals

Available Amount: $900K

Assessment of marine-coastal wildlife diseases and associated risks in the Galapagos Marine Reserve

The Galapagos Marine Reserve (GMR) hosts one of the most important marine biodiversities on the planet and is currently facing increasing exposure to health and ecological risks arising from climate change, pollution, the intensification of human activities, and the high risk of the introduction of new species. In recent years, cases of anomalous diseases and mortality events have been documented in species such as sea lions, sea turtles, seabirds, and other marine fauna, highlighting the need for a systematic health assessment program for the marine–coastal wildlife of the archipelago.

Despite these records, there is currently no comprehensive environmental health baseline, nor are there integrated protocols that allow for the early identification, diagnosis, and mitigation of biological or environmental threats. This gap limits the capacity for institutional response to outbreaks or health impacts that could compromise endemic species and critical ecosystems.

Therefore, it is considered essential to establish a research line focused on the assessment of marine–coastal wildlife diseases and their associated risks, integrating the One Health approach and promoting the generation of scientific information to support adaptive management, biosecurity, and conservation. This effort seeks to strengthen the local technical capacities of competent institutions for disease detection and management, contribute to the implementation of the Management Plan for the Protected Areas of Galapagos, and support the National Climate Change Adaptation Plan of Ecuador (MAATE, 2023–2027), as well as enhance the ecological and health resilience of the archipelago.

Scope:

Priority will be given to research aimed at identifying and assessing emerging or re-emerging diseases affecting the marine–coastal fauna of the archipelago, including associated risks and potential impacts, with particular emphasis on threatened species or those with reduced populations. Research may include analyses of the interaction between environmental factors, such as temperature, salinity, pollution, and ocean acidification, and the emergence or spread of pathogens, incorporating molecular, histological, and health–ecological risk assessment tools.

Priority will also be given to studies that evaluate the main transmission pathways and potential associated vectors, including biological and abiotic vectors, as well as anthropogenic interactions.

In addition, proposals are encouraged to include the development of early detection protocols, as well as outbreak response and management strategies, in coordination with the Galapagos National Park Directorate (GNPD), the Galapagos Biosecurity Agency (ABG), and other competent institutions. These actions should be integrated into THE INTER-INSTITUTIONAL STRATEGY OF THE GALAPAGOS WILDLIFE HEALTH SYSTEM – "ONE HEALTH", enabling the establishment of an alert system for potential epidemic events or mass mortality incidents.

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.

REQUIREMENTS AND CONDITIONS:

1. Presentation of a realistic project structure, including clearly defined phases, a timeline, and mechanisms for delivering results, as an integral part of the proposal.
2. Proposals must include a review of available literature or previous research conducted in Galapagos related to the research question and target species, with a detailed explanation of how the proposed study complements, expands, or initiates data collection and analysis (this section may be submitted as an annex 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. Research proposals must apply non-invasive or minimally invasive methods, prioritizing observation, non-lethal sampling, or natural necropsies. Measures must also be taken to minimize the risk of pathogen dispersal during specimen handling and transport.
5. Proposals must demonstrate strict compliance with biosafety regulations, animal welfare standards, and protocols for the handling of biological samples.

Specific Evaluation Criteria

30% Scientific Criteria

- Clarity of the research questions and formulation of hypotheses linked to health-ecological risks.
- Focus on coastal marine species with a high level of threat.
- A well-defined and justified methodology, including the use of robust diagnostic approaches, to adequately address the research questions and inform management decisions.
- Incorporation of epidemiological and ecological components to identify vectors and transmission routes, as well as to assess the effects of environmental and climatic factors on outbreak occurrence or pathogen persistence

35% Technical and Logistical Capacity

- Demonstrated experience of the scientific–technical team in health biology, disease ecology, wildlife health, or related fields.
- Diagnostic and analytical laboratory capacity, including access to appropriate tools with known specificity and sensitivity, or established partnerships with accredited diagnostic centers.
  Logistical capacity and/or coordination with relevant institutions to carry out the research,
- including aspects such as access to study sites and maintenance of the cold chain for biological samples.
  Data management capacity, whereby the proposing institution ensures that the information
- collected is properly stored, standardized, and available for future comparative analyses.

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.

30%

Application to management and decision-making

- A detailed explanation of how the research will contribute to informing management decisions and strengthening the response capacity of the GNPD and ABG.
- Linkage between the expected results and adaptive management strategies and institutional contingency plans.
- Clear identification of the proposal's positive impact on the conservation of the archipelago's biodiversity and marine ecosystems.

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. An updated diagnosis of pathogens and vectors associated with focal species.
2. Identification of transmission routes and risk factors linked to climate change.
3. Development of institutional rapid response protocols for marine health outbreaks.
4. Recommendations to strengthen marine-coastal biosecurity programs and wildlife health management.
5. Generation of scientific inputs that contribute to adaptive management decision-making within the GMR.
6. Dissemination and return of results to the local community and relavant sectors, including fishers, guides, and tour operators, as part of awareness-raising on this issue.