

REQUEST FOR PRE-PROPOSALS FOR FIELD RESEARCH: Marine Conservation

Oceans produce some of humanity's most important resources. They play an integral role in regulating many of the earth's systems (e.g., the climate), provide food for billions of people, and provide many other ecosystem services vital to humankind. Yet marine ecosystems are among the most vulnerable to global change. Centuries of exploitation and pollution have deeply degraded the marine environment, in open ocean, nearshore, and within coastal ecosystems around the planet. Climate change is exacerbating these impacts. Additionally, we are currently in the Sixth Extinction, with 35 percent of the world's species predicted to become extinct by the year 2050, and 50 percent by 2200, attributed to climate change, shifts in land use, and other anthropogenic factors. In response, Earthwatch Institute seeks to fund marine projects that involve citizen-scientist* participants in assisting with research that takes direct, measurable action to conserve marine ecosystems and protect the life they contain from extinction and further degradation.

The *Earthwatch Marine Conservation RFP* invites pre-proposals for research that take direct action to conserve biodiversity in marine ecosystems, focusing on keystone species. We define marine ecology as relationships among aquatic organisms and their interactions with the abiotic environment. We define keystone species as primarily apex predators that, while small in number, have correspondingly large positive impacts on whole food webs. We define marine ecosystems as oceans, seas, and coastal areas, including estuaries and mangrove forests. Marine ecology includes climate-change impacts on ocean acidification, marine carbon sequestration, sea-level rise, and food-web impacts of human use of marine natural resources.

The *Earthwatch Marine Conservation RFP* invites pre-proposals from scientists for research that will take measurable action to address global change in marine ecosystems by:

- Increasing scientific knowledge and public awareness of environmental challenges to marine ecosystems, while providing locally relevant solutions;
- Increasing partnerships with local people, communities, governmental and non-governmental organizations (NGOs), and corporations at local and international levels; and
- Informing management plans and environmental policies.

All pre-proposals must be hypothesis-driven, have quantifiable goals, measurable direct impacts, and an overarching research theme directly related to taking action to address marine degradation and loss of biodiversity. Because meeting these challenges requires a whole-ecosystem approach, we are specifically interested in contributions that incorporate keystone species to address biodiversity loss. We strongly welcome pre-proposals aligned with the UN Sustainable Development Goals and the Kunming-Montreal Global Biodiversity Framework that will improve human livelihoods and support scientists in emerging nations. We seek projects in South America, Europe, Africa, Asia, and North America, including the United States.

Focal *Marine Conservation* Research Topics:

We invite pre-proposals for field-based research by qualified scientists on the following topics:

- Food-web relationships driven by apex predators and other keystone species and their effects on biodiversity and ecosystem productivity;
- Sea turtle ecology and conservation, including foraging research and enhancing sea turtle nesting success through habitat restoration and direct conservation intervention. Prioritizing projects in the West Indies and Caribbean, particularly Puerto Rico or the U.S. Virgin Islands;
- Conserving and/or restoring threatened ecosystems, prioritizing coral reefs, mangroves, salt marshes, coastal wetlands, and prime sea turtle nesting beaches;
- Climate change impacts on marine ecology, particularly sea-level rise, ocean acidification, marine biodiversity, species adaptation, and marine carbon sequestration;
- Ecological restoration, to repair damaged marine ecosystems and improve their management;
- Urban marine ecology, particularly increasing resiliency to climate responses;
- Marine macro and micro plastic impacts and reduction; and
- Marine research that promotes human-wildlife coexistence.

*Please see our statement on the use of the terms "citizen" science and scientist [here](#):

HARNESSING THE POWER OF CITIZEN SCIENCE* TO TAKE ACTION TO ADDRESS GLOBAL CHANGE:

Since 1971, Earthwatch has funded scientists working with citizen-scientist* participants to increase our understanding of ecosystems and find sustainable solutions to global change. Projects we fund produce rigorous, relevant, and impactful science. Incorporating public volunteer participants in fieldwork increases the broader impacts of the research we fund by increasing their scientific awareness, understanding, and commitment to a conservation-minded and sustainable lifestyle.

GRANTS: Earthwatch funding is intended to be supplemental to other sources of funding. Annual grants cover project field expenses including basic research equipment, research permits, scientist transportation to the field, support staff, and food and housing while in the field. Grants do not cover scientist salaries, student tuition, overhead, or capital equipment. Depending on the number of teams and team size, annual budgets typically range between US \$20,000–\$80,000, with most of the funding covering participant and staff expenses while in the field. Final grants are provided on a per-capita basis based on the number of recruited participants.

Research projects are tenable for three years, subject to annual performance review, and may be eligible for renewal beyond that period. Earthwatch currently supports projects for an average of 10 years.

PRINCIPAL INVESTIGATOR (PI) REQUIREMENTS: All pre-proposals must be submitted by the PI, who is also expected to hold full scientific oversight over the field research. The lead PI, or at least one member of the research team, must have a Ph.D. in the area of the proposed research and an affiliation with a university, government or tribal agency, or science-focused NGO. Earthwatch encourages members of groups historically underrepresented in STEM, scientists local to the nation where the research takes place, and early career scientists, to apply.

SUBMITTING A PRE-PROPOSAL: All pre-proposals and supporting documents must be in English. Earthwatch will select pre-proposals for development into full research proposals. Criteria for selection are: quality and relevance of the project proposed, PI qualifications, and goodness of fit for citizen science. If you are invited to submit a full research proposal, you will be asked for further details on research methods and impacts, detailed project logistics, staffing, project budget, and safety and risk management. Due to safety concerns, we are unable to support projects in the following areas: **Earthwatch No Go List**.

To submit a pre-proposal, visit earthwatch.org/research-funding/apply-for-funding.

*Please see our statement on the use of the terms “citizen” science and scientist [here](#):

The Earthwatch Institute U.S. office humbly occupies the traditional and continued territory of the Massachusetts, Wampanoag, and Nipmuc tribal Nations.

To fit our citizen-science model, all proposed projects must:

- Have quantifiable goals and measurable impacts of action taken on the project;
- Have a 3-year or longer duration (longer-term research will receive priority support);
- Incorporate field-based research and data collection, with participants sufficiently trained while in the field;
- Have data gathered primarily by citizen-scientist* participants recruited by Earthwatch;
- Field a minimum of four (4) research teams per year (the average project fields 6–8 teams per year), with 4–15 participants per team as needed for data collection;
- Field research teams are typically 7–9 days in length, with some projects hosting 10–14 day teams;
- Provide reputable housing for participants within a 45-minute drive from site;
- Field adult, high school and college student, teacher, and/or corporate groups;
- Be run in English, with all communications by field staff and supporting documents in English;
- Educate participants about the project’s science and its relevance to global priorities;
- Prioritize locally run vendors, partners and businesses in preparing field logistics (including food), with a focus on those that adhere to sustainable business practices;
- Collaborate with local community stakeholders through engagement, outreach and contributions to conservation actions;
- Share project data with stakeholders, and contribute to open-source datasets as possible;
- Partner with collaborators and receive support from at least one other source of funding.