

REQUEST FOR PRE-PROPOSALS FOR FIELD RESEARCH: ***MARINE CONSERVATION ACTION***

Oceans produce some of humanity's most important resources. They play an integral role in regulating many of the earth's systems, such as the climate, and provide food for billions of people and other ecosystem services. Yet marine ecosystems are among the most vulnerable to global change. Centuries of human exploitation and pollution have deeply degraded marine resources. 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 the year 2050, and 50 percent by 2200, attributed to climate change and other anthropogenic factors. In response, Earthwatch Institute seeks to fund marine projects that involve citizen scientists in doing science that takes direct, measurable action to conserve marine ecosystems and protect the life they contain from extinction and further degradation.

The Earthwatch Marine Conservation Action RFP invites pre-proposals for research that takes 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 in small number have correspondingly large positive impacts on whole food webs. We define marine ecosystems as oceans, seas, and coastal areas, including estuaries. 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 Action* 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 that will improve human livelihoods and support scientists in emerging nations. We seek projects in South America, Europe, Africa, Asia, and North America.

FOCAL MARINE CONSERVATION ACTION 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;
- 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;
- Conserving threatened habitats, e.g., coral reefs, salt marshes, coastal wetlands, mangroves;
- Marine macro- and micro-plastic effects of ingestion and their reduction; and
- Human-wildlife coexistence.

HARNESSING THE POWER OF CITIZEN SCIENCE TO TAKE ACTION TO ADDRESS GLOBAL CHANGE: Since 1971, Earthwatch has funded scientists working with citizen-scientist volunteers to increase our understanding of ecosystems and find sustainable solutions to global change. Projects we fund produce rigorous, relevant, and impactful science. Incorporating citizen scientists in fieldwork increases the broader impacts of the research we fund, by increasing their science awareness and conservation commitment.

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 may receive priority support);
- Incorporate field-based research;
- Have data gathered primarily by citizen-scientist participants recruited by Earthwatch;
- Field approx. 4-10 teams per year, with 4-15 volunteers per team as needed for data collection;
- Have short (1-3 day) and/or long (7-14 day) duration teams (projects that enable both short and long duration teams will receive priority support);
- For teams > 1 day, provide reputable housing for volunteers within a 45-minute drive from site;
- Field adult, high school and college student, teacher, and corporate groups;
- Be run in English, with all communications by field staff and supporting documents in English;
- Educate volunteers about the project's science and its relevance to global priorities;
- Engage with, provide outreach to, contribute to conservation actions, or otherwise collaborate with local community stakeholders;
- Share project data with stakeholders, and if possible contribute to open-source datasets;
- Partner with collaborators and receive support from at least one other source of funding.

GRANTS: Earthwatch funding is intended to be supplemental to other sources of funding. Annual grants cover project field expenses including: 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.** Annual budgets for projects with long-duration teams range between US \$20,000–\$80,000, with most of that covering volunteer and staff expenses while in the field. Final grants are provided on a per-capita basis based on the number of participants. Research projects are tenable for three years, subject to annual performance review, and may be eligible for renewal beyond that period.

PRINCIPAL INVESTIGATOR (PI) REQUIREMENTS: All pre-proposals must be submitted by the PI, who is also expected to be the primary leader in the field. All PIs must have a PhD in the area of proposed research and a university, government agency, or science-focused NGO affiliation. We encourage graduate student participation on projects and are particularly interested in helping support early-career scientists and scientists local to the research nation.

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. Due to safety concerns, we are unable to support projects in the following areas: Earthwatch No Go List. To submit a pre-proposal, visit <http://earthwatch.org/research-funding/apply-for-funding>.

**PRE-PROPOSALS FOR PROJECTS STARTING IN 2021 WILL BE
ACCEPTED THROUGH 11:59 P.M. (EDT) SUNDAY, JUNE 9, 2019**

Please direct inquiries to: research@earthwatch.org