

REQUEST FOR PROPOSALS FOR FIELD RESEARCH:

EARTHWATCH OCEAN ECOSYSTEMS PROGRAM

Oceans cover 71 percent of the earth's surface area and produce some of humanity's most important resources. They play an integral role in regulating many of the earth's systems, such as climate, and provide food for billions of people and other vital ecosystem services. Yet ocean ecosystems are among the most vulnerable to global change. Centuries of human exploitation and pollution have deeply degraded ocean resources. Climate change is exacerbating these impacts. Consequently, our once seemingly limitless marine resources are now at risk. In response, Earthwatch is inviting proposals for marine ecology proposals that address declining ocean health.

The Earthwatch Ocean Ecosystems Program supports research in marine ecology, broadly defined as relationships among aquatic organisms and their interactions with the environments of the oceans. Marine ecology also encompasses the biogeochemistry of ocean ecosystems, such as impacts of climate change on ocean acidification, marine carbon sequestration, and sea level rise. This field includes work that examines the effects of human natural-resources use on ocean food webs.

Specifically, we are seeking research proposals from scientists for projects that will address global change in ocean ecosystems by:

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

All proposed projects must have an overarching research theme directly related to global change and enable participation of citizen scientists and community members. Because addressing these challenges requires contributions from many research fields and leveraging the power of data, we are particularly interested in interdisciplinary proposals and those that incorporate open-source, shared data. We strongly welcome proposals for project that will improve the livelihoods of human communities and will help develop scientists in emerging nations.

FOCAL OCEAN ECOSYSTEM PROGRAM RESEARCH TOPICS:

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

- Climate change impacts on ocean ecology, especially on sea level rise, ocean acidification, marine biodiversity, wildlife, species adaptation, and marine carbon sequestration;
- Keystone species and biodiversity, particularly food web relationships driven by apex predators and other keystone species and their effects on biodiversity and ecosystem productivity;
- Threatened habitats such as coral reefs, saltwater marshes, coastal wetlands, and mangroves;
- Human-wildlife coexistence, including the reduction of conflict between humans and marine animals and sustainable use of marine resources;
- Sustainable aquaculture, including shellfish production;
- Ecological restoration, with a focus on repairing the damage humans have done to marine ecosystems and improving marine ecosystem management; and
- Marine ecology in urban areas.

**PRE-PROPOSALS FOR PROJECTS STARTING IN 2018 WILL BE
ACCEPTED THROUGH 11:59 PM (EDT) JUNE 12, 2016**

Please direct inquiries to: research@earthwatch.org

HARNESSING THE POWER OF CITIZEN SCIENCE TO ADDRESS GLOBAL CHANGE:

For 45 years, in order to find sustainable solutions to global change, Earthwatch has sent scientists into the field assisted by citizen-scientist volunteers. Collectively, our goal is to support projects that produce rigorous, relevant and impactful science. Participation by volunteers increases the broader impacts of the research we support. Citizen scientists return home with a deeper awareness of what is at stake and greater commitment to address conservation challenges.

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

- 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 volunteers recruited by Earthwatch;
- Field 4 to 10 teams per year that span 7 to 14 days, each accommodating 4 to 20 volunteers per team as needed for data collection;
- Provide housing for volunteers within a reasonable distance from the research site;
- Be open to graduate, college, and/or high school student participation;
- Be run in English, with all communications and supporting documents in English;
- Educate each team of Earthwatch volunteers about the project's science and its relevance; and
- Share project data with managers and if possible contribute to open-source datasets to maximize the impacts of the project.

GRANTS:

Annual grants cover project expenses while in the field including: equipment (limited), tools, and supplies; research permits; scientist transport to the field; support staff; food and housing for principal investigators, staff, and Earthwatch volunteers. Grants do not cover scientist salaries, student tuition, overhead, capital equipment, or post-fielding data analysis.

For successful proposals, the principal investigator (PI) will negotiate a budget in partnership with Earthwatch. Typical annual budgets average between US \$20,000–\$80,000, with approximately half of the total budget covering volunteer expenses while on the project. Final grants received are based on the number of volunteers participating. Successful proposals are funded for three years, subject to passing an annual performance review. Funding is potentially renewable beyond that period, upon submission of a research renewal proposal.

PRINCIPAL INVESTIGATOR REQUIREMENTS:

All proposals must be submitted by the PI. All PIs must have a PhD and an affiliation with a university, government agency, or NGO. We strongly encourage graduate student participation in projects as co-PIs as permitted by their universities. We particularly are interested in helping support emerging scientists from developing nations.

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 earthwatch.org/scientific-research/scientist-opportunities/working-with-earthwatch.

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