

REQUEST FOR PROPOSALS FOR FIELD RESEARCH:

EARTHWATCH COLLABORATIVE ECOLOGICAL RESEARCH PROGRAM

The world is dealing with urgent conservation issues, particularly the earth's rising surface temperature and phenomena related to climate change that include drought, storm surges, glacier melt, ocean acidification, and extinction. The global human population currently numbers over 7 billion and will reach 8 billion by 2026. Human activities are causing a biodiversity crisis, with extinction rates up to 1000 times higher than background extinction. All of this is resulting in large-scale, complex ecological problems that necessitate a collaborative, interdisciplinary approach in order for scientists and society to find solutions.

Field stations and marine labs contribute ¬significantly to addressing today's most daunting ¬ecological challenges, from climate change and biodiversity loss, to invasive species and pollinator decline. They provide a base where multiple scientists from a variety of disciplines can convene to collaborate and find innovative solutions to some of our most pressing conservation problems. We are seeking research proposals from scientists for projects that will collaboratively address global change impacts on ecosystems by:

- Increasing scientific knowledge and public awareness of environmental challenges to species and their habitat, 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. We will prioritize projects that contribute to large, open-source datasets, and provide a physical facility where researchers, as well as students and citizen scientist volunteers can be based out of and housed. Additionally, all projects must have a research administrator to manage field and data logistics. We strongly welcome proposals for project that will improve the livelihoods of human communities and will help develop scientists in emerging nations.

FOCAL COLLABORATIVE ECOLOGICAL RESEARCH PROGRAM RESEARCH TOPICS:

We invite proposals for field-based research from collaborative teams of qualified scientists operating out of terrestrial field stations and marine labs worldwide on the following topics:

- Biodiversity conservation, including native species reintroductions;
- Science-based management of non-native or invasive species;
- Human-wildlife coexistence, including the reduction of conflict between humans and wildlife;
- Food-web functionality including keystone species and biodiversity and food-web relationships driven by keystone species;
- Adaptation to and mitigation of climate changeassociated impacts;
- Sustainable natural resources management and extraction;
- Restoration of coral reefs, grasslands, and other ecologically important habitats;
- Establishment of protected areas in marine and terrestrial ecosystems; and
- Innovative use of technology with wide applicability, such as apps usable by citizen scientists.





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.