

## REQUEST FOR PROPOSALS FOR FIELD RESEARCH:

# ***EARTHWATCH RESTORATION ECOLOGY PROGRAM***

Many of the earth's ecosystems are experiencing unprecedented and extensive environmental degradation and damage. These changes are occurring rapidly, driven by habitat loss caused by human activities, a human population that currently numbers over 7 billion and will reach 8 billion by 2026, and natural disturbances such as wildfires, floods, or volcanic eruptions. Habitat loss is causing biodiversity to plummet globally, leading to local extirpation of species as well as regional extinctions. This decline in biodiversity is causing a decline in the ecosystem services (clean air and water, fertile soil, sustainable food production) essential for the well-being of all life on Earth. By conserving and restoring threatened habitats and the species they contain we can take action to reverse this trend.

Ecological restoration is the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed. It is widely used to reverse the environmental degradation caused by human activities such as deforestation, pollution, and agriculture techniques that cause soil erosion and reduced water quality. Ecological restoration aims to recover a natural range of variation, bringing a system back to its historic trajectory. To succeed as a practice, it must be grounded by best science and the long-term participation of local people.

We are seeking research proposals from scientists for projects that will restore degraded ecosystems by:

- Increasing scientific knowledge and public awareness of environmental challenges to creating resilient ecosystems in a changing world, 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 ecological restoration requires contributions from many research fields and leveraging the power of data, we are particularly interested in interdisciplinary proposals and those that involve open-source, shared data. Projects must use best practices, which include assessment, restoration, monitoring, and adaptive management. We strongly welcome proposals for project that will improve the livelihoods of human communities and will help develop scientists in emerging nations.

### **FOCAL RESTORATION ECOLOGY PROGRAM RESEARCH TOPICS:**

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

- Biodiversity conservation, including native species reintroductions;
- Restoration of ecosystem productivity;
- Food-web functionality, including top-down and bottom-up forces and community-level interactions, rather than taking a single-species approach;
- Restoration of habitats strongly impacted by climate change (salt marshes, boreal forests, xeric systems, grasslands);
- Novel ecosystems and their functionality;
- Ecological restoration in urban ecosystems;
- Climate change impact mitigation;
- Ecological restoration in agricultural systems; and
- Eradication of non-native species.
- Development of tools to create and monitor resilience in agriculture and forestry systems, including erosion control, soil conservation and soil health, and weed control.

**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](mailto: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](http://earthwatch.org/scientific-research/scientist-opportunities/working-with-earthwatch).

**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](mailto:research@earthwatch.org)**