

REQUEST FOR PRE-PROPOSALS FOR FIELD RESEARCH: ***RESTORATION ECOLOGY ACTION***

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 7.6 billion and will reach 8 billion by 2025, and natural disturbances such as increasingly severe climatic events and subsequent wildfires, floods, and landslides. 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) critical for the well-being of all life on Earth. By conserving and restoring threatened habitats and their species, scientists and citizen scientists can reverse this trend.

Restoration ecology is the field of ecology that takes direct action to repair degraded ecosystems and create a more sustainable world. It supports ecological restoration, defined as the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed. Ecological restoration typically requires active human intervention and action, and is often framed within an adaptive management context. To succeed, projects must be grounded by best science and long-term participation of local people collaborating with managers. In Indigenous communities, it must incorporate *Traditional Ecological Knowledge* (TEK), defined as a cumulative body of knowledge and beliefs, handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment.

We are seeking pre-proposals from scientists for ecological restoration projects that will:

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

All pre-proposals must be hypothesis-driven, have quantifiable goals, measurable direct impacts, incorporate rigorous ecological restoration standards, have an overarching research theme directly related to global change, and enable participation of citizen scientists and community members (e. g., <http://www.ser.org/default.asp?page=SERStandards>). Projects must use best practices, which include a reference site, assessment, restoration, monitoring, and adaptive management. We strongly welcome pre-proposals aligned with the UN Sustainable Development Goals that will improve human livelihoods and support scientists in emerging nations.

FOCAL RESTORATION ECOLOGY ACTION RESEARCH TOPICS:

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

- Climate-change impact mitigation and resiliency;
- Native plant restoration and eradication of non-native species;
- Restoration of native pollinators and ecosystem engineers;
- Biodiversity conservation, including native species reintroductions;
- Restoration of ecosystem productivity and resiliency;
- Restoration of urban ecosystems;
- Restoration of food-web functionality, including keystone species restoration;
- Restoration of habitats strongly impacted by climate change;
- Restoration of agro-forestry systems; and
- Incorporation of TEK into ecological restoration.

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, find sustainable solutions to global change, and support scientific freedom. Project we fund produce rigorous, relevant, and impactful science. Incorporating participants in fieldwork increases the broader impacts of the research we fund, by giving citizen scientists a deeper awareness of science and greater commitment to conservation.

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 4 to 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 2-day + teams, provide reputable housing for volunteers within a 45-minute drive from site;
- For longer-duration teams, field adult, high school and college student, teacher, and corporate groups;
- 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;
- Share project data with land managers and if possible contribute to open-source datasets.

GRANTS:

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.**

Typical 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. All PIs must have a PhD in the field of the proposed research and an affiliation with a university, government agency, or science-focused NGO. We strongly 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 2020 WILL BE
ACCEPTED THROUGH 11:59 PM (EDT) SUNDAY, JUNE 10, 2018**

Please direct inquiries to: research@earthwatch.org