

REQUEST FOR PRE-PROPOSALS FOR FIELD RESEARCH:

Traditional Ecological Knowledge

Indigenous people have tenure rights to a quarter of the world's land surface, and actively steward lands that harbor some of the planet's greatest hotspots of biological diversity. Research partnerships with Indigenous scientists and community members and non-Indigenous scientists and community/citizen scientists have the potential to yield substantial educational, environmental, and cultural benefits. Colonialism, in which non-Indigenous people take Indigenous lands and develop and exploit them for financial gain, has resulted in vast ecological degradation worldwide, and colonial attitudes persist to this day. Traditional Ecological Knowledge (TEK) refers to the collective wisdom and knowledge held by Indigenous and local peoples through living close to and stewarding the land over millennia. De-colonizing science by incorporating the cumulative body of knowledge and beliefs that is TEK into science-based action to restore lands and the flora and fauna they contain is essential to healing the damage done ecologically and socially. Earthwatch seeks to develop a network of research projects that are built on the collaboration among Indigenous scientists and leaders, non-Indigenous scientists, and members of the public as community/citizen scientists as an integrated Braided Knowledge System. This is an extension of interdisciplinarity to be inclusive of various pathways to ecological knowledge and understanding to better address the complex environmental issues we are facing today.

The *Earthwatch Traditional Ecological Knowledge RFP* invites pre-proposals for research from Indigenous researchers and non-Indigenous collaborators for projects that will incorporate TEK, "Western" scientific process, and participatory or community-based science into this single Braided Knowledge System. With this model, we seek to support projects that take measurable action to address global change in agricultural, coastal, wetland, grassland and forest ecosystems by:

- Increasing this Braided Knowledge System and public awareness of environmental challenges, while providing locally relevant solutions and actions;
- Increasing partnerships among local peoples, Indigenous communities, non-governmental organizations (NGOs), government agencies, and corporations at local and international levels; and
- Informing management plans and environmental policies.

All pre-proposals must have an overarching research theme directly related to taking action to address degradation and loss of biodiversity and be based on integrating hypothesis-driven science and traditional knowledge and wisdom with quantifiable goals. Because meeting these challenges requires a whole-ecosystem approach and innovation, we are specifically interested in interdisciplinary, solution-based projects. We strongly welcome pre-proposals aligned with the UN Sustainable Development Goals and the new Global Biodiversity Framework that will improve human livelihoods and support Indigenous scientists. We seek projects in South America, Europe, Africa, Asia, and North America, including the United States.

Focal *Traditional Ecological Knowledge* Action Research Topics:

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

- Restoring native species of plants and animals that are of high cultural value, such as bison, salmon, herring, shellfish, loons, important plants, and apex predators;
- Native seed programs and invasive species control;
- Food-web relationships driven by pollinators, apex predators, and herbivores, and their effects on ecosystem productivity, resiliency, and biodiversity;
- Determining how climate-change impacts on agriculture, coastal areas, and forestry systems effect water availability and quality, nutrient flow, maintenance of species diversity, and carbon sequestration;
- Climate-smart agriculture (food security and climate change);
- Soil conservation and health, soil carbon restoration, and soil erosion control;
- Human-wildlife coexistence, including noninvasive pest control and reduction of wildlife damage to crops and forests; and
- Ecological restoration, with a focus on repairing the damage humans have done to ecosystems through colonialism.

*Please see our statement on the use of the terms "citizen" science and scientist [here](#):

HARNESSING THE POWER OF CITIZEN SCIENCE* TO TAKE ACTION TO ADDRESS GLOBAL CHANGE:

Since 1971, Earthwatch has funded scientists working with citizen-scientist* participants to increase our understanding of ecosystems and find sustainable solutions to global change. Projects we fund produce rigorous, relevant, and impactful science. Incorporating public volunteer participants in fieldwork increases the broader impacts of the research we fund by increasing their scientific awareness, understanding, and commitment to a conservation-minded and sustainable lifestyle.

GRANTS: Earthwatch funding is intended to be supplemental to other sources of funding. Annual grants cover project field expenses including basic research 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. Depending on the number of teams and team size, annual budgets typically range between US \$20,000–\$80,000, with most of the funding covering participant and staff expenses while in the field. Final grants are provided on a per-capita basis based on the number of recruited participants.

Research projects are tenable for three years, subject to annual performance review, and may be eligible for renewal beyond that period. Earthwatch currently supports projects for an average of 10 years.

PRINCIPAL INVESTIGATOR (PI) REQUIREMENTS: All pre-proposals must be submitted by the PI, who is also expected to hold full scientific oversight over the field research. The lead PI, or at least one member of the research team, must have a Ph.D. in the area of the proposed research and an affiliation with a university, government or tribal agency, or science-focused NGO. Earthwatch encourages members of groups historically underrepresented in STEM, scientists local to the nation where the research takes place, and early career scientists, to apply.

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. If you are invited to submit a full research proposal, you will be asked for further details on research methods and impacts, detailed project logistics, staffing, project budget, and safety and risk management. 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/research-funding/apply-for-funding.

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The Earthwatch Institute U.S. office humbly occupies the traditional and continued territory of the Massachusetts, Wampanoag, and Nipmuc tribal Nations.

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 will receive priority support);
- Incorporate field-based research and data collection, with participants sufficiently trained while in the field;
- Have data gathered primarily by citizen-scientist* participants recruited by Earthwatch;
- Field a minimum of four (4) research teams per year (the average project fields 6–8 teams per year), with 4–15 participants per team as needed for data collection;
- Field research teams are typically 7–9 days in length, with some projects hosting 10–14 day teams;
- Provide reputable housing for participants within a 45-minute drive from site;
- Field adult, high school and college student, teacher, and/or corporate groups;
- Be run in English, with all communications by field staff and supporting documents in English;
- Educate participants about the project’s science and its relevance to global priorities;
- Prioritize locally run vendors, partners and businesses in preparing field logistics (including food), with a focus on those that adhere to sustainable business practices;
- Collaborate with local community stakeholders through engagement, outreach and contributions to conservation actions;
- Share project data with stakeholders, and contribute to open-source datasets as possible;
- Partner with collaborators and receive support from at least one other source of funding.