

REQUEST FOR PROPOSALS FOR FIELD RESEARCH:

EARTHWATCH URBAN RESILIENCY ACTION

Today more than half of the human global population lives in urban areas, with a projected growth of 1.8 percent annually, and many times that average in many developing countries. Sustainability of urban communities and urban ecosystems in a world experiencing rapid change and unprecedented environmental degradation represents one of the biggest challenges we face in the Anthropocene.

The Earthwatch *Urban Resiliency Action RFP* is for research on the relationships among organisms, humans, and their surroundings in an urban environment. Specifically, we are seeking proposals from scientists for research that will take measurable action to address global change in urban ecosystems by:

- Increasing scientific knowledge and public awareness of environmental challenges to urban resilience to global change, while providing locally relevant solutions;
- Increasing partnerships with local people, governmental and non-governmental organizations (NGOs), 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 find solutions that will measurably increase urban resiliency. Because meeting these challenges 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. We strongly welcome proposals for projects that will improve human livelihoods and wellbeing in fulfillment of the UN Sustainable Development Goals, help support scientists in emerging nations, help improve human livelihoods, and help sustain underserved communities and under-represented cultural and ethnic groups.

FOCAL URBAN RESILIENCY ACTION RESEARCH TOPICS:

We invite proposals by qualified scientists on a broad range of urban topics:

- Climate change impacts on biogeochemical processes, habitat, water availability, flooding, maintenance of species diversity, epidemiology, carbon sequestration, and ecological resiliency;
- Anthropogenic impacts on land-use and land-cover change in urban systems in relation to ecosystem function;
- Ecological processes along the urban to wildland gradient;
- Assessing the ecological and economic impacts of exotic/invasive species proliferation;
- Development of tools to monitor interactions between humans and urban ecosystems, including innovative data collection (e.g., apps), mapping, and analysis approaches;
- Integration of ecological research with local K-12 STEM education, citizen science, and Traditional Ecological Knowledge programs;
- Toxins in the air, water, and soil, including plastics;
- Keystone species and biodiversity, particularly studies of food-web relationships driven by apex predators (e.g., coyotes) and other keystone species and these species' effects on ecosystem productivity and biodiversity; and
- Ecological restoration to increase resilience, with a focus on repairing the damage humans have done to urban ecosystems.

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 and find sustainable solutions to global change. Projects we fund produce rigorous, relevant, and impactful science. Incorporating citizen scientists in fieldwork increases the broader impacts of the research we fund, by increasing their science awareness and conservation commitment.

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 approx. 4-10 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 teams > 1 day, provide reputable housing for volunteers within a 45-minute drive from site;
- Field adult, high school and college student, teacher, and corporate groups;
- Be run in English, with all communications by field staff and supporting documents in English;
- Educate volunteers about the project's science and its relevance to global priorities;
- Engage with, provide outreach to, contribute to conservation actions, or otherwise collaborate with local community stakeholders;
- Share project data with stakeholders, and if possible contribute to open-source datasets;
- Partner with collaborators and receive support from at least one other source of funding.

GRANTS: Earthwatch funding is intended to be supplemental to other sources of funding. 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.** 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, who is also expected to be the primary leader in the field. All PIs must have a PhD in the area of proposed research and a university, government agency, or science-focused NGO affiliation. We 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 2021 WILL BE
ACCEPTED THROUGH 11:59 P.M. (EDT) SUNDAY, JUNE 9, 2019**

Please direct inquiries to: research@earthwatch.org