

REQUEST FOR PROPOSALS FOR FIELD RESEARCH:

EARTHWATCH MARINE MULTITROPHIC ECOLOGY YOUTH RESEARCH PROGRAM

Oceans cover 71 percent of the earth's surface area and produce some of humanity's most important resources. They play an integral role in regulating many of the earth's systems, such as climate, and provide food for billions of people and other vital ecosystem services. Yet ocean ecosystems are among the most vulnerable to global change. Historical and ongoing shifts to marine food webs have resulted in loss of biodiversity, extinction, and economic loss. Restoring resiliency to marine ecosystems requires multitrophic, data-rich research that examines marine megafaunal impacts on whole food webs.

Effectively addressing global change and sustainability issues in the marine environment and beyond also necessitates a multi-generation approach that incorporated STEM practices and Next Generation Science Standards. Authentically engaging youth in research may also fulfill many of the broader impacts targets associated with other sources of funding. In order to mentor and encourage the next generation of environmental scientists and leaders, Earthwatch is inviting proposals for marine multitrophic ecology projects based in North America, Central America, Europe, and the Caribbean that actively engage youth in conducting field research.

We are seeking research proposals from scientists for projects that will engage with young volunteers in order to address global change in ocean ecosystems by:

- Conducting novel multitrophic marine research utilizing principles of chemistry, biology, ecology and engineering;
- Assessing and/or addressing human-wildlife conflict between humans and marine animals;
- Mitigating the impacts of unsustainable resource extraction (both biotic and abiotic) in a manner that maintains native biodiversity and productivity;
- Directly informing management plans and environmental policies; and
- Relating the research to multi-generational solutions that are actionable by youth volunteers.

All proposed projects must study high-trophic level megafauna that potentially function as keystone species (e.g., Cheloniodea, Elasmobranchii, Sirenia and Cetacea) and have an overarching research theme directly related to global change. All must enable participation of young citizen scientists (15-18 years old). Projects must have the flexibility to allow participation by community members and adults as needed. All projects must have a research administrator to manage field and data logistics. We strongly welcome proposals for projects that will improve the livelihoods of human communities and help develop scientists in emerging nations.

**PRE-PROPOSALS FOR PROJECTS BEGINNING IN 2018 WILL BE
ACCEPTED THROUGH 11:59 PM (EDT) NOVEMBER 6, 2016.**

Please direct inquiries to: 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 the citizen-science model of this RFP, 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 annually that span 7 to 14 days, each team accommodating up to 20 volunteers;
- Incorporate high-school student participation;
- Field in the summer, or in alignment with spring academic break (i.e. April, March);
- Provide housing for volunteers within a reasonable distance from the research site;
- Be run in English, with all communications and supporting documents in English;
- Give equal emphasis to education and data collection; and

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. Typical annual budgets average between US \$20,000–\$80,000, with approximately half covering project volunteer expenses. Final grants are based on the number of volunteers participating. We provide funding for 3 years, subject to passing an annual performance review. Funding is renewable, upon submitting a research renewal proposal.

ADDITIONAL SUPPORT:

All youth groups will be accompanied by 1-2 adult chaperones provided through Earthwatch. These adults are typically teachers, Earthwatch staff, and trained field techs from other projects. They provide additional support for the team on the ground, and manage youth after hours and during free time. We typically have a 6:1 ratio of youth to chaperones. We are happy to facilitate peer-to-peer sharing by connecting new PIs with PIs who have previously fielded youth teams through Earthwatch.

PRINCIPAL INVESTIGATOR REQUIREMENTS:

All proposals must be submitted by the PI with a PhD, an affiliation with a university, government agency, or NGO, who can pass a background check. We encourage graduate student participation in projects. Scientists must be interested in working with 15-18 year old students. We encourage PIs and support staff with relevant experience to highlight this experience in their proposal. We particularly are interested in helping support developing scientists from emerging 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 based on 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.

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