Webinar Administrative Logistics

Welcome to the **ORCC Webinar**

The webinar will start shortly

To submit **Questions**, use the **Q&A function** at the bottom of your Zoom screen.

Organismal Response to Climate Change
ORCC Webinar

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ORCC Webinar Outline

1. Program Overview

a. Purpose and goals

b. Examples of programmatic fit

2. Deadlines & Types of Proposals

3. Review Criteria

a. NSF merit review criteria

b. Solicitation-specific criteria

4. Questions

Program Overview

Purpose

To expand understanding and improve predictions of life on a warming planet

Goals - To support:

1) **Mechanistic studies of organismal response to climate change** as a foundation that, when integrated with research at other levels of organization, leads to a deeper understanding and better predictions of the integrity, resilience, and adaptation of biological systems to climate change.

2) **Collaborative teams that use cross-disciplinary approaches** to understand adaptive and maladaptive organismal responses to future and novel environmental conditions.

Program Overview

What would more competitive proposals look like? Proposals that:

- Develop **cause and effect** frameworks that employ experimental, theoretical, and/or computational approaches.
- Explain how the findings are **generalizable** to other systems
- Include a **plan or a predictive framework** for how the research outcomes may be used to address societal concerns generated by climate change, such as conservation, biodiversity, resource management, food security, disease and pest outbreaks, or maintenance of ecosystem services.
- Where appropriate, studies that leverage publicly available data generated by continental-scale environmental monitoring platforms such as, but not limited to, the National Ecological Observatory Network (NEON) and the Ocean Observatories Initiative (OOI)

Program Overview

Examples of areas that the ORCC solicitation emphasizes?

- Developing the next generation of species distribution models
- Mechanistic understanding of plastic responses to climate change
- Functional genomics of organismal response to climate change
- Improving predictive power in natural, complex environments
- Role of interactions in organismal response to climate change

These are only examples. Investigator-inspired topics may be appropriate.

Program Overview

Climate-related proposals that do not address the following may be more appropriate for one of the core solicitations in IOS and DEB

1. An **overarching question** addressed through integrative, hypothesis-driven research on the mechanisms underlying organismal responses to climate change and improving predictions of life on a changing planet
2. Mechanistic insights at the organismal level that can be integrated with eco-evolutionary approaches to produce **synergistic** research outcomes and that will lead to novel, unexpected, or major advances in understanding of biological responses to climate change.
3. **Broader Impacts** that describe a **plan or a predictive framework** for how the research outcomes can be used to address societal challenges in dealing with climate change.

Unsure if your proposal is a good fit for ORCC?

Send a brief synopsis (~1 page) to one of the program officers on the solicitation

Deadlines and Types of Proposals

Proposal submission deadlines

- **March 1, 2022**
- **November 15, 2022**
- **Third Tuesday in November, Annually Thereafter**

Types of proposals

- **Research proposals** focused on the goals of the solicitation.
  - NSF – US-Israel Binational Science Foundation (BSF) collaborative proposals will be accepted
- **Research Coordination Network (RCN)** proposals to build collaborative networks of scientists in diverse disciplines to coordinate, expand, and synthesize research.
- **Workshop and Conference proposals** bringing together diverse scientists bridging experimental, physiological, ecological, computational, and '-omic' expertise to address research bottlenecks.

Awards

Types of Awards: Continuing Grant or Standard Grant

Estimated Number of Awards: 6-10, depending on the availability of funds.

Anticipated Funding Amount: $10,000,000

Estimated program budget, number of awards, and average award size/duration are subject to the availability of funds.

Review Criteria

Intellectual Merit – Potential to advance knowledge

Broader Impacts – Potential to benefit society and contribute to the achievement of specific societal outcomes

Elements considered in the review for both criteria:

- To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
- Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
- How well qualified is the individual, team, or organization to conduct the proposed activities?
- Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

Solicitation Specific Review Criteria

1. **An overarching question** on the mechanisms of response of organisms to climate change that will improve predictions of life on a changing planet?
2. **Integration** of organismal level approaches with eco-evolutionary approaches to produce **synergistic** outcomes that lead to novel, unexpected, or major advances in understanding of biological responses to climate change.
3. **Broader impacts** that describe a **plan or a predictive framework** for how the research outcomes can be used to address societal challenges in dealing with climate change

Focus on mechanisms
Integrated, synergistic outcomes
Addressing societal challenges

Questions?

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ORCC Program page:

https://beta.nsf.gov/funding/opportunities/organismal-response-climate-change-orcc

ORCC Solicitation:

https://www.nsf.gov/publications/pub_summ.jsp?WT.z_pims_id=505963&ods_key=nsf22513