



NAPPC

North American Pollinator Protection Campaign Call for Research Proposals Related to Imperiled *Bombus* Conservation

Background

The North American Pollinator Protection Campaign (NAPPC) is seeking proposals for research related to improving the recovery and persistence of imperiled *Bombus* species. Proposals should focus on evaluating the effects of stressors on bumble bees, enhancing knowledge of bumble bee biology and ecology, contributing to improved monitoring practices, or utilizing emerging techniques to best conserve imperiled bumble bees.

Imperiled *Bombus* includes species currently defined by the International Union for Conservation of Nature (IUCN) as critically endangered, endangered, near threatened, or vulnerable. Imperiled North American species currently include *B. affinis*, *B. ashtoni/bohemicus*, *B. caliginosus*, *B. crotchii*, *B. fervidus*, *B. franklini*, *B. fraternus*, *B. morrisoni*, *B. occidentalis*, *B. mckayi*, *B. mexicanus*, *B. pensylvanicus*, *B. suckleyi*, *B. terricola*, *B. variabilis*, *B. brachycephalus*, *B. haueri*, *B. medius*, *B. steindachneri*, and *B. diligens*.

Research Needs

We anticipate supporting several proposals, for a maximum of \$10,000 each. Students and post-doctoral researchers are encouraged to apply. Funds must be used within a 1-year period. Targeted projects with a high likelihood of providing tangible results that directly inform actions to improve the recovery, persistence, and conservation of bumble bees are preferred. Proposals providing valuable additions to externally funded projects will be considered, but must be distinct. Recipients of project funds are encouraged to present results at the 2023 NAPPC meeting and to serve on the Imperiled *Bombus* Conservation Task Force in the future.

Priority Areas

The Imperiled *Bombus* Conservation Task Force has identified five priority areas for funding; however, other areas will also be considered. If the subject of your research is not an imperiled bumble bee species, please provide an explanation of how the results of your research could impact imperiled bumble bee conservation or address project area foci.

1. Analysis/modeling of **individual and/or interacting stressors** (e.g., pathogens and disease, pesticides, small populations, competition and disease transmission from managed bees, habitat fragmentation and degradation, and climate change) on imperiled bumble bee species abundance, distribution, and health.
2. Assessment of imperiled bumble bee **colony-level factors**, including habitat requirements, foraging, colony growth, overwintering, and nesting.

3. Assessment of imperiled bumble bee **population-level factors**, including population health, dispersal ecology of reproductive males and gynes, mating biology, population genetics, and pesticide registration to guide recommendations for long-term recovery practices.
4. Contributions to **improve monitoring techniques** to document or increase detection probability, document population health and occupancy, and improve data quality standards of imperiled bumble bee species.
5. Development of novel, **emerging techniques** to improve conservation of imperiled bumble bees, such as nest detection, pathogen sampling, the collection of genetic materials, modeling approaches, and/or use of molecular technologies.

Proposal Requirements

1. Maximum 3 page project proposal (Arial, 12-pt font, single spaced, 0.5 " margins, with page numbers, references and resumes are not included in this page limit). This should include:
 - a. Proposal title and research team with contact information, including email(s), physical mailing address, and telephone number(s).
 - b. Priority area focus/foci.
 - c. Sufficient background with a concise description of the problem(s) being addressed; the rationale and significance behind the proposed project with an explanation of how the research will directly inform actions to improve the recovery, persistence, and conservation of bumble bees; an overview of the methods used to carry out the proposed project; and expected outcomes/project deliverables.
2. Detailed budget and budget justification. The Pollinator Partnership/NAPPC does not pay overhead on funded research grants.
3. Research timeline by month from 2023 to 2024.
4. Curriculum vitae from the Principal Investigator(s).
5. If applicable, please explain whether the proposal is under consideration by other funding organizations or is supplementing a project funded elsewhere.
6. If the PI has previously received funding from NAPPC, please include information about the outcomes of that funding, including publications, presentations, and/or leveraging to obtain additional funding (up to 1/2 additional page).

Submission

Email your proposal packets as a single PDF file to bombus@pollinator.org by 5 PM EST on January 31.

Funding Decisions

The proposals will be evaluated, and funding notifications will be made by March 17.