



Pennsylvania Fish and Boat Commission 2022 State Wildlife Grant Project Priority *To support the Comprehensive Review and Revision of the 2015-2025 Pennsylvania Wildlife Action Plan*

TOPIC

INVERTEBRATE species status assessment and species account development.

PURPOSE

This project will support the congressionally required comprehensive review and revision of the 2015-2025 Pennsylvania Wildlife Action Plan by assessing the status of species in the topic taxonomic group.

BACKGROUND

The Pennsylvania Wildlife Action Plan (PAWAP) is the Commonwealth's blueprint for conserving imperiled species and is congressionally required for receipt of State and Tribal Wildlife Grant funding. Among the eight required elements, state fish and wildlife agencies are obligated to comprehensively review and revise their Wildlife Action Plans (WAPs) no less than every 10 years. Pennsylvania's first WAP was submitted in 2005 and subsequently reviewed and revised in 2015. In anticipation of the next revision (due October 1, 2025), this call-for-projects will identify recipients to perform specific work for this revision process.

OBJECTIVES

The objectives of this proposal are to:

1. conduct species assessments for Pennsylvania invertebrate species (*excluding freshwater mussels and crayfishes*), to determine their status as Species of Greatest Conservation Need (SGCN) in the 2025-2035 Pennsylvania Wildlife Action Plan^a.
2. compile and enter new, or review and update existing, information for invertebrate species in the Pennsylvania Wildlife Action Plan (PAWAP) Database to support SGCN determination and for developing species accounts.

^aFor reference, see invertebrate report: [Appendix 1.1](#). Species selection for this assessment may vary, but should broadly encompass similar taxonomies.

PROJECT OVERVIEW

The successful applicant will:

1. use the NatureServe[®] Conservation Rank Calculator to develop species status assessments (S-Ranks) for a broad group of Pennsylvania invertebrate taxa.
2. use the PAWAP Database for data storage and SGCN determinations.
3. prepare and enter data in the PAWAP Database and conduct quality assurance.
4. work with PFBC staff in preparation of S-rank technical reviews (i.e., PA Biological Survey),
5. work with PFBC staff and other partners to develop or review categorical and specific information for species accounts including, but not limited to: habitat associations, threats

(identified in the rank calculator), conservation actions, research, survey and monitoring needs, references, and other information.

TASKS

The successful applicant will:

1. work with statewide taxonomic experts and PFBC to compile species abundance and distribution data.
2. use the most current version of the [NatureServe® Conservation Rank Calculator](#), including the threats assessment, to determine each species' S-Rank (subnational rank).
3. use the comprehensive Pennsylvania Wildlife Action Plan (PAWAP) Database to:
 - o Review, verify and update (as needed) species data.
 - o Support evaluation and species designations (e.g., SGCN, not SGCN, maintained as SGCN).

Note: Instructions for use of the PAWAP database will be provided to the successful applicant by the PFBC.

4. for species designated as SGCN, in the PAWAP Database,
 - o review and update data, or enter new data (e.g., PA species distribution, categorical and specific habitat needs, categorical and specific threats, categorical and specific conservation actions, research, survey and monitoring needs), and, as available, provide digital images of species and habitats for developing Species Accounts.
5. coordinate with PFBC staff and other agencies or organizations for the most current information for species assessments.
6. develop and submit invoices, interim performance reports (frequency determined by PFBC), and a final comprehensive performance report.

DELIVERABLES

The deliverables for this project will include:

1. data for all assessed invertebrates entered into the PAWAP Database.
2. documented methodologies, invertebrate species assessed, justification for determinations (e.g., SGCN, not SGCN, new SGCN, maintained SGCN) based on the PAWAP Database and SGCN flowchart.
3. completed NatureServe® Conservation Rank Calculator Excel worksheet(s).
4. interim (i.e., semi-annual, annual) performance reports, and semi-annual invoices.
5. a final invoice and a performance report fully describing the methods, analyses, and results.

QUALIFICATIONS

The applicant must:

1. have a minimum seven (7) years of documented experience in invertebrate collection, identification, data compilation and assessment for multiple Pennsylvania invertebrate taxonomic groups;
2. be familiar, and have experience, with the NatureServe® Conservation Rank Calculator for species status assessments;
3. be able to use the web-based PAWAP Database;
 - a. The successful applicant will be provided instructions on use of this system.

4. have an active data-sharing agreement with the PFBC, or be able to acquire one prior to start of the grant;
5. be able to meet with PFBC staff virtually or in-person at mutually acceptable date/times (estimated monthly);
6. as needed, work with a team of invertebrate taxonomic experts;
7. be able to explain their qualifications for successfully completing this work.

PROJECT DURATION

Applicants should anticipate project completion (i.e., all data entry, analyses, reports) by no-later-than September 30, 2024. Any change in this timeline is subject to PFBC approval.

PROJECT TYPE

This project should be considered “planning” with a 75% (Federal): 25% (Non-federal) match rate, though final determination is subject to U.S. Fish and Wildlife Service assessment.

2015 PENNSYLVANIA WILDLIFE ACTION PLAN RELEVANCE

Tasks conducted under this project support implementation of the 2015-2025 Pennsylvania Wildlife Action Plan, including the following goals, objectives and strategies.

Goal 2: Base wildlife conservation decisions on the best available science, with an emphasis on Species of Greatest Conservation Need and their habitats.

Objective 2.1: Identify and resolve data deficiencies that limit implementation of conservation actions.

Strategies:

2.1.1: Compile and analyze existing data for Species of Greatest Conservation Need and data deficient species (e.g., population, distribution, habitat).

Objective 2.8: Support data compilation and entry into statewide, regional and national data repositories.

Strategies:

2.8.1: Apply information systems for recording, analysis, storage, retrieval and reporting for all Species of Greatest Conservation Need, data deficient species, conservation actions and other relevant data for Pennsylvania and the Northeast Region.

Objective 5.1: Maintain an effective Wildlife Action Plan.

Strategies:

5.1.4: Conduct a comprehensive review and revision of Pennsylvania’s Wildlife Action Plan by October 2025.

REFERENCES

PGC-PFBC (Pennsylvania Game Commission and Pennsylvania Fish & Boat Commission). 2015. Pennsylvania Wildlife Action Plan, 2015-2025. C. Haffner and D. Day, editors. Pennsylvania Game Commission and Pennsylvania Fish & Boat Commission, Harrisburg, Pennsylvania.
<https://www.fishandboat.com/Resource/StateWildlifeActionPlan/Pages/default.aspx>