

Wild Resource Conservation Program

Grant Application Manual

Grant Round: Aug. 3 – Sept. 25, 2020, 4:00 pm



Commonwealth of Pennsylvania
Tom Wolf, Governor

Department of Conservation and Natural Resources
Cindy Adams Dunn, Secretary

Commonwealth of Pennsylvania
Dept. of Conservation and Natural Resources
Wild Resource Conservation Program
P.O. Box 8552, Harrisburg, PA 17105-8552

WILD RESOURCE CONSERVATION PROGRAM
Grant Application Instructions

Mission Statement: Our mission, in partnership with agencies, organizations and concerned citizens, is to maintain, manage, enhance and restore Pennsylvania's native wild flora and fauna and their habitats.

The Wild Resources Conservation Act was created in 1982 to, among other things, aid in the conservation of the Commonwealth's flora and non-game fauna. It set up the ability for citizens to support the management of wild resources by creating a contribution opportunity through a tax check-off and license plate program, furthering management and conservation. Each year, these funds support the survey, research, management and conservation of wild resources through the Department of Conservation and Natural Resources' (DCNR's) Wild Resource Conservation Program (WRCP).

WRCP is charged with administering grants through funding from the Wild Resource Conservation Fund (WRCF) and a portion of the Environmental Stewardship Fund (ESF). WRCF funds include money from the Pennsylvania state income tax check-off, voluntary donations, purchase of WRCF specialty license plates, wild plant management permits, and ginseng commercial license fees. ESF funds are generated from fees collected from landfill tipping fees—a fee when garbage is deposited in landfills.

Eligible Applicants

Eligibility of applicants is dependent on the funding source. WRCP funding sources include both WRCF and ESF, with most the funds available through this solicitation from ESF. Therefore, applicants are strongly advised to seek a sponsoring organization that is eligible for ESF funding. The following applicant eligibility applies:

- Counties, municipalities, educational institutions, and tax-exempt 501(3) (c) organizations registered with the Bureau of Charitable Organizations are eligible to receive grants from ESF for projects intended to protect and conserve biological diversity.
- Conservation Districts and municipal authorities are also eligible for some types of projects funded by ESF.
- Individuals, state government agencies and for-profit businesses, in addition to the categories above, are eligible for WRCF funds but not ESF funds.

Note that the full legal name of the sponsoring organization must be used on the application form and for 501(3) (c) organizations must be the same name as is registered with the Bureau of Charitable Organizations and with the Internal Revenue Service.

2020 Targeted Grant Priorities

WRCP is soliciting grant applications for priorities in the following categories: species surveys, conservation and management. Detailed priorities within each of these categories are outlined below.

It is recommended that projects/grant applications address one of the priorities listed below. However, applications may be accepted that address priorities outlined in the Pennsylvania State Wildlife Action Plan and/or address the needs of plant species or plant communities of concern within the Commonwealth. The applicant should contact the WRCP Agency Coordinator to discuss the project, how it may fit into flora or fauna priorities and potential for funding. Please refer to the "Application Submission Information" section below for further information.

Surveys

Devil Crayfish Assessment:

The Devil Crayfish was collected from Pennsylvania for the first time in over 100 years in the fall of 2017. Surveys within its former range resulted in the discovery of a single population in southeastern Pennsylvania. The Devil Crayfish is potentially one of the state's rarest species and may warrant state listing. However, additional surveys are needed to determine with certainty its rarity in Pennsylvania. This project would provide the data necessary to definitively determine if the Devil Crayfish is threatened or endangered in Pennsylvania.

Rare Cave Aquatic Invertebrates in Need of Assessment

Numerous rare cave invertebrates are in dire need of assessment attention. Pennsylvania is home to a diversity of rare invertebrate cave fauna that due to their potential global and state rarity, are in dire need of assessment. Species like Franz's Cave Isopod, (*Caecidotea franzi*), Price's Cave Isopod (*Caecidotea pricei*) and cave amphipods such as the Pennsylvania Cave Amphipod (*Crangonyx dearolfi*), Allegheny Cave Amphipod (*Stygobromus allegheniensis*), Stellmack's Cave Amphipod (*Stygobromus stellmacki*), and others are globally rare, some potentially endemic to the Commonwealth. This is a highly understudied group that is in need of status assessment. This work requires demonstrated expertise in spelunking and an affinity to aquatic invertebrate taxonomic identification. Outcomes of this project would include inventorying and assessing one or more of these unique creatures, which would be a good start to informing the future conservation and management of these species.

Assessing Fire Management Impacts of Rare Herpetological Species in Pennsylvania Barren Communities

Several barren plant communities in southern Pennsylvania are currently being managed with controlled/prescribed fire. These communities are also occupied by rare herpetofauna, Species of Greatest Conservation Need (SGCN), such as the critically imperiled (S1) Northern Rough Greensnake and Eastern Smooth Earthsnake, and other SGCN reptile species occurring in Barren habitats: Woodland Box Turtle, Spotted Turtle, Northern Copperhead, Eastern Ribbonsnake, Queensnake, and Eastern Wormsnake, etc. yet, little is known how fire management activities will affect the SGCN reptiles at these sites. This project would focus on determining population densities of SGCN reptile species, as well as use radio telemetry to track select species to help locate sensitive habitats (overwintering, gestation/birthing areas) and habitat use before, during and after fire management. Outcomes of this study could greatly inform timing and future management at these important barren herpetological communities.

Bryophyte Checklist

Field inventory, literature searches and herbarium specimens have led Pennsylvania to develop a bryophyte checklist. This project would formalize the state checklist of bryophytes to include state ranks with rank calculator assessments for selected bryophyte species of concern.

Plant Conservation Genetic Studies

Conservation genetic studies is a tool for use in plant conservation which can show how a plant population is structured. In turn we can get a picture of how genetically diverse a plant species is portioned in the state, providing guidance for conservation and restoration efforts of existing plant populations. Priority species for conservation are species that have a completed PA recovery plan (*Paxistima canbyi*, *Aconitum reclinatum*, *Malaxis bayardii*, *Polemonium vanbruntiae*, *Carex bicknellii*, *Euphorbia purpurea*, *Pycnanthemum torreyi*, and *Trollius laxus*), and additionally *Lupinus perennis* and *Panax quinquefolius* (American ginseng). This project would analyze populations in PA to see how genetically diverse the populations are and to provide recommendations for conservation actions to

DCNR. This project could also include searching for available markers for the species selected.

Plant Community Studies: Barrens

This project will evaluate ecological threats to native plant species and habitat quality of "barrens" communities and identification of conservation recommendations to address these threats. These may include barrens associated with shale barrens, serpentine barrens, acidic barrens associated with sandstone ridge tops, and grasslands and woodlands on thin soils over limestone. Currently there are over 100 types of plant communities identified by PNHP in Pennsylvania. This project will enhance the knowledge of these communities by assessing and inventorying the rare plant communities in Pennsylvania. Location, species information and management recommendations will be submitted to be recorded in the PNHP database.

Conservation & Management

Effects of Wildlife Diseases or Contaminants on PA's Birds and Mammals:

This year, bird and mammal projects will focus on critical conservation issues that have recently elevated in importance: the effects of wildlife diseases and contaminants on Pennsylvania wildlife. Proposed studies can range from evaluating and monitoring the distribution of disease/contaminant exposure to testing or evaluating treatment responses. These may include widespread diseases like Trichomoniasis or West Nile Virus or those with a narrower scope, like viruses of bats. Environmental contaminants such as lead, neonicotinoids, or rodenticides could also be the focus. Proposals should address a better understanding of real-world exposure rates and potential risk to native populations of Pennsylvania's birds and mammals, particularly Species of Greatest Conservation Need. The projects should define the conservation benefits or management implications of anticipated outcomes.

Odonates of Pennsylvania – Digitizing a Legacy Slide Collection:

Clark Shiffer, former aquatic biologist and endangered species coordinator for the Pennsylvania Fish and Boat Commission was a renowned collector and skilled photographer of dragonflies (Odonates- dragonflies and damselflies). He maintained statewide odonata data from museums and other researchers. In a previous WRCP grant (#04021), the Pennsylvania Natural Heritage Program digitized over 13,000 records from these paper logbooks into an Access database called the Pennsylvania Odonate Database. Mr. Shiffer's high quality 35 mm dragonfly photographs were recently donated to the Pennsylvania Natural Heritage Program. This project would digitize an estimated 3,000 slides that were selected by Mr. Shiffer as the most important out of his collection because of the quality of the photographs, the documentation for a particular locale, or because of a unique species behavior or characteristic that was captured. This project would also digitize many voucher photographs that are recorded and georeferenced in the Pennsylvania Odonate Database. Once digitized, the images can be posted online where they can be shared widely for research and educational purposes.

Assessment of Chesapeake Logperch Movements

The Chesapeake Logperch is suspected to be a highly mobile fish species, but their movements are poorly documented. It is suspected that this is a "big river" species; however, we do not know if they move to the Susquehanna River to forage and live and then migrate up smaller streams to spawn. In 2019, approximately 1,200 tagged fish were reintroduced to stream habitats within its' native range in Pennsylvania. Within two weeks, only a few specimens were recaptured at the release sites. In order to successfully manage and protect this species, it is important to understand movements within streams and between streams and the Susquehanna River, in addition to the timing of those movements. Technological advances in Passive Implant Transponder (PIT) tag technology have allowed for tags that

are approximately about the size of a grain of rice (8 x 1 mm) that can be used in small fishes. These tags are serialized with specific identifiers that can distinguish individual fish. Tag-reader arrays can be installed in a stream channel to capture movement information associated with that location and information associated with individual fish. If a fish is sensed, information such as sex, size, location of capture, date of capture, etc. can be assessed. These data would help guide ongoing recovery efforts associated with reintroduction operations.

Plant Conservation: Development of Recovery and Implementation Plans

Development of Recovery Plans are an important step in planning and implementing plant conservation strategies. We are interested in two projects, developing recovery plans and implementing recovery plans.

Many G1-G3 species are in need of a recovery plan. These species include:

Symphotrichum depauperatum, *Isotria medioloides*, *Carex roanensis*, *Chenopodium foggii*, *Heuchera alba*, *Arabis patens*, *Carex polymorpha*, *Cystopteris laurentiana*, *Gaylussacia brachycera*, *Gymnocarpium appalachianum*, *Sida hermaphrodita*, *Trifolium virginicum*, *Vitis rupestris*

This project entails developing a recovery plan for 1 or more of the above species.

Existing recovery plans provide recommendations covering many various actions that may include the response of T&E species to habitat restoration, conservation genetic studies, or plant propagation. We are interested in following through with these recommendations. This project would pick a species with a completed recovery plan and work to implement recommendations.

Recovery plans written to date include *Paxistima canbyi*, *Aconitum reclinatum*, *Malaxis bayardii*, *Polemonium vanbruntiae*, *Carex bicknellii*, *Euphorbia purpurea*, *Pycnanthemum torreyi*, and *Trollius laxus*.

Measurable Results & Selection Criteria

WRCP grants contribute to valuable wild resource surveys, research and conservation management. It is important that the application shows a clear indication of wild resources benefits, when they are expected and how the benefit will be measured or applied. Accomplishments directly beneficial to wild resources will be given a higher rating.

Project selection will be based on a combination of technical evaluation and programmatic relevance. Evaluation will be by a combination of agency staff and external technical reviewers. Applicants are advised to read the criteria carefully and design the project and write the application in a way that is responsive to both criteria and priorities in the next section. The reviewers will use the following criteria in judging the merits of proposals:

- Importance of the conservation issue being addressed and relevance to WRCP priorities
- Importance of the knowledge to be gained and potential to improve or advance current conservation practices
- Statewide significance and/or potential for statewide application
- Technical soundness of the approach and potential for project success
- Innovativeness/creativity of approach
- Qualifications of the organization, principal investigator, technical staff, and sub-contractors
- Use of appropriate protocols and producing useful data

- Cost effectiveness, value of expected results compared to project cost
- Extent of matching funds, including in-kind services

Budget

To maximize the conservation impact of WRCP grant dollars and the number of grants provided, applicants must prepare accurate budgets that honestly reflect the level of effort necessary to complete the proposed work.

Overestimated budgets reduce the chances that other worthy projects will be funded. Additionally, successful applicants that leave grant money unspent at the end of the grant agreement jeopardize their chances for receiving future grants as well as WRCP's ability to secure adequate funding for future grant rounds.

Matching funds

WRCP grants require a 25% match (i.e. WRCP will fund no more than 75% of a project's total cost). Cash match and non-cash match will count equally toward the matching requirement. Cash match must be a source of funds other than ESF or WRCF. Non-cash match is the performance, at no cost to the grantee, of a portion of the approved scope of work.

The performance of this work must be documented and be in lieu of work otherwise charged to the grant. The two types of non-cash match are: (i) Donated service [professional service] (claimed at the firm's or individual's normal billing rate times the number of hours worked) and (ii) Volunteer service [non-specialized labor] (claimed at the normal hourly labor rate for the type of work performed times the number of hours worked).

Grant Size and Project Duration

While grant size varies, the average award size is \$30,000, and the term of the grant is 18 months. Grantees can apply for no-cost extension; the maximum grant agreement period is five years, including extensions.

Fiscal Guidance & Eligible and Ineligible Costs

The general principle for allowable costs under Commonwealth grants is that the costs are reasonable and are directly attributable to the project being performed. For a listing of eligible and ineligible costs, as well as a description of budget categories, please refer to the *Fiscal Guidance document* on the WRCP web site.

PNDI Review, Collection Permits & Research Approvals

Copies of all necessary clearances, permits, approvals and PA Natural Diversity Inventory (PNDI) reviews must be provided prior to the issuance of a final grant agreement. For more information on PNDI, which

permits may be required for work on state lands or to collect specimens, consult the following:

- PA Conservation Explorer: for access to Conservation Planning & PNDI Environmental Review info <https://conservationexplorer.dcnr.pa.gov/>
- PA Department of Conservation and Natural Resources
 - State Forest Lands:
<http://www.dcnr.state.pa.us/forestry/business/research/index.htm>
 - State Park Lands: contact the manager for the park(s) you will be working in
 - Wild Plant Management Permit:
<http://www.gis.dcnr.state.pa.us/PNDI/2016%20DCNR%20Wild%20Plant%20Management%20Permit%20Renewal%20Form.pdf>
- PA Game Commission
 - Bird and Mammal surveys: Bureau of Wildlife Protection, Special Permit Enforcement Division, 717-783- 8164
 - State Game Lands: Bureau of Wildlife Habitat Management, Habitat Planning and Development Division 717-787-9613
- PA Fish and Boat Commission
 - Survey and Collection: <http://fishandboat.com/enviro.htm>

APPLICATION SUBMISSION INFORMATION

Application Submission Information

WRCP's director or the appropriate agency coordinator (see information below) should be contacted prior to submitting a grant application. They can give valuable advice about the program's priorities, how to improve your project design and application content, and the probability of success for your application.

WRCP Director
Rebecca Bowen
Department of
Conservation and Natural
Resources
(717) 772-0258
rebbowen@pa.gov

Native wild plants
Chris Firestone
DCNR-Bureau of
Forestry
(570) 724-8149
cfirestone@pa.gov

**Non-game birds and
mammals**
Dan Brauning
PA Game Commission
717-787-5529
dbrauning@pa.gov

**Non-game fish, amphibians,
reptiles and aquatic fauna**
Chris Urban
PA Fish & Boat Commission
(814) 359-5113
curban@pa.gov

Grant Application Submission Instructions Deadline: Friday Sept. 25, 2020, 4:00 pm

All applications must be submitted electronically through DCNR's electronic grant application system, DCNR Grants, which standardizes the application process and provides an environmentally friendly way to submit a grant application through a secure internet connection. To access the online application, go to <https://www.grants.dcnr.state.pa.us/>. The Department also has a Grants Customer Service Center that can provide help on the DCNR Grants system and direct callers with technical grant questions to the appropriate area for help. You can reach the customer service center by phone at 1-800-326-7734, by e-mail at DCNR-grants@pa.gov, or by clicking on the Get Help link in DCNR Grants.

The deadline for submitting your applications will be 4:00 pm, Friday Sept. 25, 2020. Note that a Commonwealth SAP number is required on the application. It can take up to two weeks to get an SAP number, so plan accordingly. The Commonwealth of Pennsylvania's Central Vendor Management Unit can be reached at 1-877-435-7363 for help with obtaining or verifying an SAP number.

We strongly encourage you to start your application early. After creating your electronic application in DCNR Grants, click on the Download Forms link to see all the requirements for the application package.

Selection Process and Post-Selection Actions

Selection Process

Applications will be evaluated by external technical experts prior to evaluation by the agency coordinators and WRCP staff. The WRCP Board of Directors will recommend allocation of funds based on these evaluations at its Annual Meeting in the fall, and final selection will be made by the Secretary of DCNR shortly thereafter. Funded applicants will be notified after that time.

Data Submission

All grantees are required to submit grant results in a final report. Grantees doing research on rare or endangered species will also be expected to follow protocols acceptable to the PA Natural Heritage Program and submit data using a standard data submission format.

Specimen Collections

Specimens collected during any project supported by WRCP must be deposited in an institution that will curate the material in perpetuity per the archival standards for that group of organisms and make them available for study by scientists, conservationists, and other individuals with a legitimate interest. Preference must be given to (i) institutions within Pennsylvania, (ii) the nearest appropriate institution for the taxa involved or (iii) an institution that has an established collection of material from Pennsylvania. The grantee should include in the budget any curatorial fees to be charged to the grant.

Records

For certifying final project costs and for auditing purposes, grantees must retain records for three years from date of final payment or three years from the date of an audit, whichever is later, including: detailed and auditable payroll, personnel fringe benefits, and organization operating cost records for costs charged to the grant and for match (such as time and attendance records for volunteer services), grant agreement documents, invoices and cancelled checks for all property, services, and materials purchased as part of the project.