

Chesapeake Bay and Endangered Species Fund

Wildlife Conservation Annual Report FY22



Photo by Stephen Badger, DNR-OCM
Artificial Nesting Island for Rare Colonial Waterbirds

Submitted by:

Maryland Department of Natural Resources
Wildlife and Heritage Service
Annapolis, Maryland 21401

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Chesapeake Bay and Endangered Species Fund

The Maryland General Assembly created the Chesapeake Bay and Endangered Species Fund whereby Maryland taxpayers can donate funds to help restore the Chesapeake Bay and save Maryland's endangered species and nongame wildlife. Taxpayers can make this contribution when submitting their annual income tax return. They can either donate a portion of their tax return to the Chesapeake Bay and Endangered Species Fund or add their donation to the amount of taxes owed the state.

Of the proceeds donated to this fund, 50% are distributed to the Chesapeake Bay Trust (CBT) for bay education and restoration grants and 50% are distributed to the Maryland Department of Natural Resources (DNR) to conserve nongame wildlife, threatened and endangered species and their habitats. The funds are available to promote the conservation, propagation and habitat protection of nongame, threatened and endangered species. Authorized activities may include monitoring, surveying, habitat protection, habitat restoration, public education, and urban wildlife programs.

Wildlife and Heritage Service

The DNR Wildlife and Heritage Service is responsible for the conservation and management of Maryland's wildlife resources, including nongame, threatened and endangered species and their habitats.

The service is organized into programs that address game animals, Wildlife Management Areas (i.e., public lands for hunting and other wildlife-oriented recreation and protection), technical assistance to private landowners, and public outreach. In addition, the program responsible for the conservation of nongame, threatened and endangered species is called the Natural Heritage Program.

Natural Heritage Program

The Natural Heritage Program oversees the conservation of the state's nongame wildlife resources, including birds, mammals, reptiles, amphibians and invertebrates. It is the lead program for threatened and endangered species conservation in Maryland, including both plants and animals. Decisions on the listing of species as endangered or threatened are determined by the program and officially listed through the state's regulatory process. This program also works on species of greatest conservation need, including declining wildlife and rare native plants, as well as rare or unique natural communities.

Within the Natural Heritage Program are three functional programs, namely the Science Program, Habitat Conservation Program, and Conservation Technology Program.

The Science Program is responsible for species status assessments, threatened and endangered species listing, inventory and monitoring species of concern, applied research, development of the natural community classification for Maryland, and restoration of rare or unique ecosystems and natural communities. The state zoologist, botanist, wildlife ecologist, invertebrate zoologist, and restoration and community ecologist perform the primary functions of this program.

The Habitat Conservation Program conforms to the department's four regions (Eastern, Central, Southern and Western), with a regional ecologist in each. The staff of this program works closely with public land managers to conserve biodiversity on public properties across Maryland. They also work with private landowners, local planning and zoning agencies and conservation organizations to influence plant and wildlife conservation on private lands.

The Conservation Technology Program serves as the central data and information management service. A centralized database houses more than 40 years of data on the state's rare, threatened, and endangered species. This database is part of the NatureServe network, an international association of over 80 programs across all 50 states, Canada, and Latin America. Location and population information for these species are mapped and stored in a standardized geographic information system (GIS). Various mapping products are produced for internal and external users. Generalized location information, called the Sensitive Species Project Review Areas (SSPRA) data layer, is available to the public for planning and environmental review purposes in the Maryland iMap online interactive mapping and GIS data portal. The program's environmental review process annually reviews more than 2,000 projects for potential impacts to threatened and endangered species, and other species and habitats of concern.

Use of the Fund

The Natural Heritage Program receives the majority of the Chesapeake Bay and Endangered Species Funds allocated to DNR for nongame, threatened, and endangered species.

In FY22, the amount spent by the Natural Heritage Program was \$1,153,040. Most of these tax checkoff funds were used to match federal funds from the U.S. Fish and Wildlife Service for endangered species and wildlife diversity conservation. The majority of the projects listed below are funded primarily with these federal funds and matched with tax checkoff dollars, with the exception that most of the plant projects are funded with state money only. However, some federal funds are available only for federally-listed threatened or endangered species, including plants.

The Office of the Secretary also received a portion of Chesapeake Bay and Endangered Species Funds to support the various administrative functions of the department. These administrative functions include personnel, legal, accounting, communications, and computer support. The same portion of all special funds allocated to the department go toward this support.

FY22 Expenditures of the Chesapeake Bay and Endangered Species Fund

Wildlife and Heritage Service

Object 01: Salaries and Wages	\$1,020,675.00
Object 02: Technical and Special Fees	\$0.00
Object 03: Communications	\$14,722.00
Object 04: Travel	\$891.00
Object 06: Fuel and Utilities	\$3,925.00
Object 07: Motor Vehicle Operations and Maintenance	\$58,296.00
Object 08: Contractual Services	\$37,565.00
Object 09: Supplies and Materials	\$7,090.00
Object 10: Equipment Replacement	\$5,809.00
Object 11: Equipment Additional	\$99.00
Object 12: Grants, Subsidies & Contributions	\$0.00
Object 13: Fixed Charges	\$3,968.00

Wildlife Conservation Projects Funded by the Chesapeake Bay and Endangered Species Fund – FY22

The following projects were conducted by the Natural Heritage Program from July 2021 through June 2022. These projects were funded in part by the Chesapeake Bay and Endangered Species Fund. For wildlife-related projects, these tax checkoff funds were used to match federal funds. For plant-related projects, the Chesapeake Bay and Endangered Species Fund supported the project entirely or in part, since some federal funds are only available for federally-listed threatened or endangered plant species.

Wildlife Projects

- Assess response to Puritan tiger beetle habitat restoration
- Assess the status of rare, threatened and endangered animals
- Assist with the coordination and implementation of the third Maryland-DC Breeding Bird Atlas
- Bog turtle population and habitat monitoring
- Wood turtle population monitoring
- Conduct bat acoustic and mist net surveys
- Conserve diamond-backed terrapin populations
- Coordinate activities of the Maryland Bird Conservation Partnership
- Deploy and monitor an artificial nesting island for rare colonial waterbirds (cover image)
- Erect barriers to reduce turtle mortality on roadways
- Freshwater mussel monitoring
- Hellbender monitoring and habitat enhancements
- Integrated Monarch Monitoring Program research project
- Monitor Allegheny woodrat populations

- Monitor and conserve colonial waterbird populations
- Monitor wintering golden eagles
- Monitor hibernacula for wintering bats using acoustic detectors
- Monitor Puritan and northeastern beach tiger beetles
- Participate in regional bird conservation efforts
- Improve pollinator habitats
- Provide assistance to the Important Bird Area Program
- Provide technical assistance for bog turtles
- Provide technical guidance to private landowners interested in rare species habitat
- Provide technical assistance for land management for rare butterflies
- Targeted inventory and monitoring for rare animal species

Plant Projects

- Assess the status of rare, threatened and endangered plants
- Assist with the implementation of Maryland Plant Atlas
- Assist with population genetics study of lupine
- Assist with global status survey of Virginia fanpetals on the Potomac River
- Assist with a regional workshop on the genus *Desmodium*
- Delmarva bay ecosystem restoration on the Eastern Shore
- Establish deer exclosures to protect rare plants
- Grass-of-Parnassus habitat restoration in Southern Maryland
- Management of invasive species at Soldiers Delight Natural Environment Area
- Monitor seabeach amaranth reintroduction on Assateague Island
- Monitor sensitive joint-vetch populations
- Monitor results of prescribed fire management of state lands
- Natural community classification and inventory
- Plukenet's flatsedge reintroduction and habitat restoration
- Rare plant herbarium collection management
- Rare plant inventory and population monitoring
- Restore and manage sandplain gerardia habitat
- Restore habitat for pale false foxglove in Eastern Maryland
- Swamp-pink population monitoring

General Biodiversity Projects

- Assist with assessment of lands for state acquisition or easements
- Biodiversity assessment of state lands
- Conduct environmental reviews for impacts to species at risk
- Educate the public about nongame wildlife, threatened and endangered species, and natural communities
- Manage the rare, threatened, and endangered species database
- Participate in regional conservation planning
- Participate in Northeast Regional Conservation Needs projects
- Provide teachers with wildlife education trunks and other materials
- Teach Master Naturalist classes
- Technical assistance for land use planning and management
- Update the Sensitive Species Project Review Areas (SSPRA) map

Promotional Efforts

By law, no more than 5% of the donations collected in a given year may be used to promote the tax checkoff. The department provides up to 5% of the annual allocation of the Chesapeake Bay and Endangered Species Fund to CBT to develop and fund the promotional campaign each year. In FY21, the amount provided to CBT was \$16,226.39. This amount is included in the reported department expenditures in object 08 (contractual services).