Conservation Opportunity Area Tool Results

Project Name: test 3
Project Date: 29 January 2020
Project Area: 791.33 acres (102 planning units)
Project Coordinates: 40.760221 / -78.013019 (centroid)

Counties: Centre County
Physiographic Provinces: Ridge and Valley
Ecoregions: Central Appalachian Forest
Major Drainage Basin (HUC8): Upper Juniata
Watershed (HUC12): Beaver Branch, Halfmoon Creek
Protected Land: State Game Land 176, Farmland Preservation Easement
Note: At least one of the 10-acre planning units overlaps the above protected conservation land. Refer to the maps for more details.

PGC Region: Northcentral
PFBC Region: Northcentral

Species of Greatest Conservation Need

Species of Greatest Conservation Need are at-risk, threatened, or endangered species as well as common species of conservation concern for which Pennsylvania has stewardship responsibility.
Number of SGCN: 10
Number of Sensitive Species: 0 (0 PFBC; 0 PGC; 0 Invertebrates)

Sensitive species count included in total number of SGCN. Sensitive species may or may not be displayed in the table, subject to permissions. All projects should be entered into the Pennsylvania Conservation Explorer Environmental Review Tool to avoid and minimize sensitive species conflicts.

Results are organized by:

- Prioritization Category (e.g., Contribute to the conservation of globally or regionally important species), then within each category by:
  - Priority Score with highest priority SGCN (i.e., score 1, 2, or 3; 1 = highest) for each category noted first, followed by additional SGCN found in the Area of Interest that are not as high of a priority (i.e., score 4, 5, or 6; 6 = lowest). For more information about SGCN and prioritization categories, see the 2015 Pennsylvania Wildlife Action Plan, Chapter 1.

Contribute to the conservation of globally or regionally important species.

Focused attention on these species will contribute to range-wide conservation of the species.

No high priority SGCN are located in the Area of Interest for this category.

Prevent common species from becoming at-risk.

Proactive measures to enhance these populations could prevent further decline toward critical imperilment.

SGCN Name	SGCN Season	Priority Score	Occurrence[a]	Habitat Macrogroup(s)	Specific Habitat Requirements
Bird					
Broad-winged Hawk *(Buteo platypterus)*	Migration	5	Known	Central Oak-Pine	Continuous deciduous or mixed deciduous forests with openings and water source nearby
Sora *(Porzana carolina)*	Breeding	1	Likely	Emergent Marsh	Large shallow-intermediate depth emergent wetlands with a mosaic of open water, dense emergent vegetation, and mudflats
Wood Thrush *(Hylocichla mustelina)*	Breeding	1	Likely	Northern Hardwood & Conifer	Second-growth deciduous forest and forest-edge habitats; often with available fruit
Gray Catbird *(Dumetella carolinensis)*	Breeding	4	Likely	Urban/Suburban Built	Dense, shrubby vegetation, including thickets, hedgerows, woodland edges, and regenerating clearcuts
Black-throated Green Warbler *(Setophaga virens)*	Breeding	1	Likely	Northern Hardwood & Conifer	Large tracks of coniferous, deciduous, and mixed forests >984 feet (>300 meters) elevation
Scarlet Tanager *(Piranga olivacea)*	Breeding	1	Likely	Northern Hardwood & Conifer	A wide variety of mature deciduous and mixed-deciduous forest types
Eastern Meadowlark *(Sturnella magna)*	Breeding	1	Likely	Agricultural	Prairies, pastures, hayfields, and fallow lands

SGCN Name	SGCN Season	Priority Score	Occurrence[a]	Habitat Macrogroup(s)	Specific Habitat Requirements
American Kestrel *(Falco sparverius)*	Breeding	1	Likely	Agricultural	Uses variety of grassland habitats with short herbaceous vegetation and sparse woody vegetation preferred; use meadows, agricultural fields, pastures, large lawn areas. Requires nest tree with cavity or nest box on tree, barn, or pole. Prime habitat includes > 61 acres (> 25 hectares) of contiguous grassland. Areas used consistently include greater than 65 percent open habitat in 2.5 acres (1 hectare) around nest site and distances from woodland > 1148 feet (>350 meters) (Smallwood and Bird 2002)
Field Sparrow *(Spizella pusilla)*	Breeding	1	Likely	Agricultural	Mixture of grasses and shrub
Grasshopper Sparrow *(Ammodramus savannarum)*	Breeding	1	Likely	Agricultural	Indicator for large-scale grasslands; grassland obligate species

Maintain rare native species.

Conservation actions benefiting these species will increase the likelihood of sustaining them in Pennsylvania.

No high priority SGCN are located in the Area of Interest for this category.

Reduce knowledge gaps to better assess conservation status of species.

More information on the distribution of these species is needed to evaluate their securement in the state.

No high priority SGCN are located in the Area of Interest for this category.

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[a] Occurrence values are defined as follows: **Known** - The species has been documented within the area of interest; **Likely** - The species has not been documented within the area of interest, but species distribution models or other data sources indicate strong potential for its occurrence.

Habitat may also be present for the following SGCN, though surveys are needed to confirm their presence or absence: Ruffed Grouse *(Bonasa umbellus)*, Virginia Rail *(Rallus limicola)*, Eastern Whip-poor-will *(Antrostomus vociferus)*, Red-headed Woodpecker *(Melanerpes erythrocephalus)*, Willow Flycatcher *(Empidonax traillii)*, Brown Creeper *(Certhia americana)*, Cerulean Warbler *(Setophaga cerulea)*, Louisiana Waterthrush *(Parkesia motacilla)*, Yellow-breasted Chat *(Icteria virens)*, Long Dash *(Polites mystic)*, Dion Skipper *(Euphyes dion)*, Black Dash *(Euphyes conspicua)*, West Virginia White *(Pieris virginiensis)*, Baltimore Checkerspot *(Euphydryas phaeton)*, Golden-winged Warbler *(Vermivora chrysoptera)*, Purple Martin *(Progne subis)*, Vesper Sparrow *(Pooecetes gramineus)*, Savannah Sparrow *(Passerculus sandwichensis)*, Bronze Copper *(Lycaena hyllus)*, Harris' Checkerspot *(Chlosyne harrisii)*.

Habitats

Habitats intersecting planning units within your area of interest are noted in the table below. Terrestrial and wetland habitats (i.e., ecological systems) are grouped by similarities (i.e., macrogroup). More information about habitats is available in the 2015 Pennsylvania Wildlife Action Plan, Chapter 2 and Appendices.

Terrestrial and Wetland Habitat[c]	Area(ac)
Water	
Open water	1.33
Central Hardwood Swamp	
Central Interior Highlands and Appalachian Sinkhole and Depression Pond	1.33
Urban/Suburban Built	
Developed	17.89
Central Oak-Pine	
Dry Oak-Pine Forest, Central Apps and Southern Piedmont	27.58
Northeastern Interior Dry-Mesic Oak Forest	472.91
Northern Hardwood & Conifer	
Appalachian (Hemlock)-Northern Hardwood Forest	73.7
Glade, Barren and Savanna	
Central Appalachian Alkaline Glade and Woodland	168.86
Agricultural	
Agriculture	116.38

[c] Note that due to data source and scale, not all features (eg. streams, wetlands, etc) observed on the ground will be documented in tables.

Stream and River Habitat	Length(mi)

Habitats Map

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Conservation Actions

Specific actions have been identified for Species of Greatest Conservation Need (SGCN) within your area of interest. Results are organized by standardized conservation action categories. Multiple SGCN may be associated with a common specific action.

Action Impact Score: Priority actions are highlighted by an Action Impact Score which is calculated as a function of SGCN priority, occurrence, and specific action priority for each species. For example, a top priority action for a high priority species that is known to occur within the area of interest is calculated to have a 'high' action impact score. Additional information regarding conservation actions for SGCN can be found in the Wildlife Action Plan species accounts (Appendix 1.4 - birds, mammals, amphibians, reptiles, fishes, federal or state listed mussels). It is possible that an action for one species may have unintended consequences for another. Contact a wildlife professional before planning your project.

Important: These results DO NOT satisfy or supplant regulatory review requirements and are NOT for Pennsylvania Natural Diversity Inventory (PNDI) project screening, protocols, and procedures. All projects should be entered into the Pennsylvania Conservation Explorer Environmental Review Tool to avoid and minimize sensitive species conflicts. (Conservation Opportunity Area Tool Terms and Conditions)

Action Impact Score: **High**

Recommended Conservation Actions	SGCN Benefiting
Fire management	
· Create or maintain grassland habitat, particularly warm season grasses.[24]	Eastern Meadowlark
· Maintain or create habitat mosaics, including shrubs, with fire.[24]	Field Sparrow
· Conserve grassland habitat using best management practices (e.g., controlled burns) to prevent conversion to non-grassland habitat.[24]	Grasshopper Sparrow
Land use planning	
· Cluster development, utilities, and associated infrastructure to reduce impacts to species.[54], [57]	Wood Thrush
Vegetation management	
· Create or maintain grassland habitat, particularly warm season grasses.[24]	Grasshopper Sparrow, Field Sparrow
Wildlife damage management	
· Manage deer for healthy and sustainable forest habitat.[50], [51]	Black-throated Green Warbler
Technical assistance	
· Promote forestry practices that provide adequate nesting substrate and regenerate conifers.	Black-throated Green Warbler
Conservation area designation	
· On public land, designate remaining large forest blocks as High Conservation Value Forests.	Black-throated Green Warbler
Invasive species control	
· Educate private property owners and the public about what they can reduce disturbance to the species.[12]	Wood Thrush
· Manage deer for healthy and sustainable forest habitat.[50], [51]	Wood Thrush
· Remove non-native or invasive vegetation.[6], [9], [10], [17]	Wood Thrush

Action Impact Score: **Medium**

Recommended Conservation Actions	SGCN Benefiting
Private lands agreements	
· Create or maintain grassland habitat, particularly warm season grasses.[24]	American Kestrel
· Proactive land conservation to prevent conversion to habitat that does not meet the species' habitat requirements.[11]	Sora
Vegetation management	
· Create or maintain grassland habitat, particularly warm season grasses.[24]	Eastern Meadowlark, Grasshopper Sparrow
Invasive species control	
· Remove non-native or invasive vegetation.[6], [9], [10], [17]	Sora
Water management	
· Conserve wetlands and manage water levels to provide optimal conditions for Species of Greatest Conservation Need.[44]	Sora
Incentives	
· Support and expand economic incentives to encourage establishment and maintenance of grassland habitats (e.g., hayfield, pastureland).[44]	American Kestrel
Grazing/farm management	
· Develop and encourage best management practices for reduced pesticide and herbicide use on farmland.	American Kestrel
Conservation area designation	
· Identify and conserve unprotected large >247 acres (>100 hectares) forest blocks.[11]	Scarlet Tanager
Species and habitat management planning	
· Manage deer for healthy and sustainable forest habitat.[50], [51]	Scarlet Tanager
Wildlife disease management	
· Exclude European Starlings from nest boxes.[60]	American Kestrel
· Reduce West Nile Virus exposure by limiting mosquito breeding locations (e.g., stagnant water).	American Kestrel
Create new habitat or natural processes	
· Identify areas of unnaturally acidified soils and restore using terrestrial lime application.[29]	Wood Thrush
Partner/stakeholder engagement	
· Cluster development, utilities, and associated infrastructure to reduce impacts to species.[54], [57]	American Kestrel

Action Impact Score: **Low**

Recommended Conservation Actions	SGCN Benefiting
Land use planning	
· Cluster development, utilities, and associated infrastructure to reduce impacts to species.[54], [57]	Black-throated Green Warbler, Field Sparrow, Eastern Meadowlark, Grasshopper Sparrow

Action Impact Score: **Low**

Recommended Conservation Actions	SGCN Benefiting
Species and habitat management planning	
· Protect and enhance resilient landscapes.[11], [43]	Black-throated Green Warbler
Fire management	
· Create or maintain grassland habitat, particularly warm season grasses.[24]	Field Sparrow
Private lands agreements	
· Conserve, large, contiguous forest blocks throughout migration corridor.[52], [54], [11], [57]	Broad-winged Hawk
Conservation area designation	
· Identify regularly used large forest blocks within the migration corridor; designate these areas as important migratory stopover sites; use sustainable forestry practices; and limit development and human disturbance in these areas.[52], [54], [57]	Broad-winged Hawk
· Limit high-volume roadways within migration corridor.	Broad-winged Hawk
Technical assistance	
· Encourage utility companies to create shrubby edges along edges of rights-of-way.[8], [33]	Gray Catbird
Vegetation management	
· Create patches of forest openings and young forest habitat (i.e., multiple age stands) through best management practices (e.g., controlled burns or timber harvest).[24], [43]	Gray Catbird

[6] Invasive Species (Plants), Source: *USDA-Forest Service*, https://www.fs.fed.us/wildflowers/invasives/index.shtml
[7] Invasive Species (Aquatic), Source: *PA Fish and Boat Commission*, https://www.fishandboat.com/Resource/AquaticInvasiveSpecies/Pages/default.aspx
[8] Managing Utility Corridors for Wildlife Habitat, Source: *Cornell University, The Nature Conservancy, National Science Foundation*, http://content.yardmap.org/learn/managing-utility-corridors-wildlife/
[9] iMapInvasives (Resources), Source: *iMapInvasives*, https://www.imapinvasives.org/
[10] Invasive Species Identification Guides, Source: *iMapInvasives*, https://www.imapinvasives.org/identification-guides
[11] Conservation 101, Source: *PA Land Trust Association*, https://conserveland.org/conservation-101/
[12] Private Landowner Assistance Program, Source: *PA Game Commission*, https://www.pgc.pa.gov/InformationResources/GetInvolved/LandownerPrograms/Pages/PrivateLandownerAssistanceProgram.aspx
[15] Conservation Reserve Enhancement Program, Source: *USDA-Farm Service Agency*, https://www.fsa.usda.gov/programs-and-services/conservation-programs/conservation-reserve-enhancement/index
[17] Invasive Species, Source: *USDA-Natural Resources Conservation Service*, https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/invasive/
[24] Controlled Burning, Source: *PA Game Commission*, https://www.pgc.pa.gov/Wildlife/HabitatManagement/pages/default.aspx
[27] Mowing and Wildlife, Source: *PA Game Commission*, https://www.pgc.pa.gov/Wildlife/HabitatManagement/Pages/MowingandWildlife.aspx
[29] Passive Treatment Methods for Acid Water in Pennsylvania, Source: *PSU-Extension*, https://extension.psu.edu/passive-treatment-methods-for-acid-water-in-pennsylvania
[33] Manage utility rights-of-way for effective wildlife habitat, Source: *USDA-Agricultural Wildlife Conservation Center*, https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/16/nrcs143_009934.pdf
[34] Invasive Species (Aquatic), Source: *PSU-Sea Grant*, https://seagrant.psu.edu/topics/invasive-species/aquatic-invasive-species
[35] Invasive and Unwelcome Species, Source: *Western Pennsylvania Conservancy*, https://waterlandlife.org/wildlife-pnhp/invasive-and-unwelcomed-species/

[40] Healthy Forests Reserve Program, Source: *USDA-Natural Resources Conservation Service*, https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/easements/forests/
[43] Forest Stewardship: Best Management Practices for Pennsylvania Forests, Source: *PSU-Extension*, https://extension.psu.edu/forest-stewardship-best-management-practices-for-pennsylvania-forests
[44] Agricultural Conservation Easement Program, Source: *USDA-Natural Resources Conservation Service*, https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/easements/acep/
[50] Forest Habitats and Deer Deterrent Fencing, Source: *PA Game Commission*, https://www.pgc.pa.gov/Wildlife/WildlifeSpecies/White-tailedDeer/Pages/ForestHabitatsDeerFencing.aspx
[51] An Evaluation of Deer Management Options, Source: *Northeast Deer Technical Committee*, https://www.pgc.pa.gov/Wildlife/WildlifeSpecies/White-tailedDeer/Documents/deermgmtoptions.pdf
[52] eBird, Source: *Cornell Lab of Ornithology*, https://ebird.org/map
[54] APA Policy Guide on Smart Growth, Source: *American Planning Association*, https://www.planning.org/policy/guides/adopted/smartgrowth.htm
[57] Essential Smart Growth Fixes for Rural Planning, Zoning, and Development Codes, Source: *U.S. EPA*, https://www.epa.gov/sites/production/files/documents/essential_smart_growth_fixes_rural_0.pdf
[60] Woodcrafting for Wildlife Plans, Source: *PA Game Commission*, https://www.pgc.pa.gov/InformationResources/GetInvolved/Pages/WildlifeHomePlans.aspx

Research and Survey Needs

Research and survey needs have been identified for the Species of Greatest Conservation Need (SGCN) within your area of interest. NOTE: Not all research and survey needs may be applicable to your project. Consult the Game Commission or Fish & Boat Commission prior to initiating a research or survey project. Additional information regarding research and survey needs for SGCN can be found in the Wildlife Action Plan species accounts (Appendix 1.4 - birds, mammals, amphibians, reptiles, fishes, federal or state listed mussels).

SGCN	Research Needs	Survey Needs
Broad-winged Hawk - Migration	• Define nesting and wintering range of Pennsylvania migrants. Identify key stopover sites and their characteristics to inform conservation planning. • Evaluate Pennsylvania migrant population trends and improve our knowledge of migration corridors in the ridge and valley region, Appalachians, and near Lake Erie. • How far from migration routes do migrant broad-winged hawks travel to find stopover sites?	• Conduct 1-2 year counts of birds using key ridges in the Appalachian chain, besides Blue Mountain, and along Lake Erie shoreline or other potential concentration areas in spring and fall season. • Additional banding station on western Appalachians or Allegheny Front region to monitor migrants using those areas for health and to provide additional information on nesting and wintering population extent. Request banders in eastern and western ridges collect and report weight, sex/age ratios, fat levels on migrants to provide index to migrant health annually. • Partner with other conservation groups and state or federal agencies to implement trail or road surveys for Broadwings on the wintering grounds in South America. • Encourage consistent migration counts at hawk count sites immediately south of Pennsylvania and during spring in Pennsylvania. Partner with HMANA to identify sites, possibly provide small grants to sustain operation and get each site's historical hourly data entered and part of the current long-term migration monitoring program particularly for PA spring migration sites (e.g. RPI).

SGCN	Research Needs	Survey Needs
American Kestrel - Breeding	• Assess rates and causes of male and female survivorship in grassland and row crop habitat. • Assess the impacts of modern-day farming pesticides, herbicides, and rodenticides on prey diversity and abundance in kestrel nesting areas and the level of exposure in current kestrel populations. • Evaluate nest success in current nest box programs in relation to habitat cover in different areas of state.	• Survey city environments (Philadelphia and Pittsburgh) for evidence and abundance of urban kestrel populations. • Encourage or continue winter raptor surveys within winter range for Pennsylvania nesting birds to assess winter range by sex and to provide additional monitoring tool for Pennsylvania population. • Monitor use of agricultural pesticides and herbicides and rodenticides across the state and their potential impacts.
Sora - Breeding	• Best Management Practices for maintaining mosaic of emergent vegetation and open water, including response to wetland management. • Determine relationships between habitat factors (both site- and landscape-level) and breeding site occupancy and demographic rates. • Retrospective analysis of changes in overall percentages and amount of interspersion of emergent vegetation and open water to inform selection of target values for these parameters through habitat management activities.	• Statewide surveys of wetlands using the Pennsylvania Game Commission Marsh Bird Survey protocol. • Use PA eBird as an efficient way to gather information on sora distribution, breeding locales, migratory stopover sites, and timing of migration. • Improve methods to track hunter participation and harvest during the migratory period (e.g., human dimensions surveys, in collaboration with USFWS Harvest Information Program.)
Wood Thrush - Breeding	• use Breeding Bird Atlas and LiDAR data to conduct analyses that improve our understanding of the relationship between forest structure and forest interior bird breeding densities. • Long-term studies of seasonal fecundity to identify source/sink populations throughout the state and investigate effects of forest age on nest success, adult survival, and return rates. • Investigate links between breeding demographics and non-breeding activities/migratory connectivity. • Long-term point count surveys and territory mapping of forest interior birds should be established to identify population change at a range of sites.	• Conduct off-road point count surveys and spot-mapping for forest interior birds to determine habitat requirements and association with current forest management practices. • Surveys to assess response of forest species to silviculture treatments and other management.

SGCN	Research Needs	Survey Needs
Gray Catbird - Breeding	• What is Gray Catbird response to silviculture / young forest management in Pennsylvania? • What is Gray Catbird response to scrub barrens management in Pennsylvania?	• Conduct post-treatment surveys of silvicultural treatments to determine reaction of young forest and shrub species. • MAPS program for selected locations.
Black-throated Green Warbler - Breeding	• What are effects of energy and residential development on area-sensitive forest birds in the large forest blocks of the state?	• Conduct off-road point count surveys and spot-mapping for forest interior birds to determine habitat requirements and association with current forest management practices. • Establish off-road point counts for boreal conifer forest guild species, similar to Mountain Birdwatch project.
Scarlet Tanager - Breeding	• Determine key features of high quality breeding habitat (i.e., source habitat) for the Scarlet Tanager in Pennsylvania, particularly within fragmented landscapes. • Determine how forest management practices (e.g. timber harvest), natural forest maturation, and effects of deer over-browsing affect breeding habitat quality for tanagers. • Post-nesting dispersal and migration pattern to the wintering ground little known but may be consequential.	• No survey needs at this time.
Field Sparrow - Breeding	• Evaluate population response to habitat management prescriptions used to create, maintain or enhance breeding habitat of early succession species? • What are the effects of right-of-way management and pipelines on populations? • What are the effects of controlled burns (fire) on populations?	• Annual monitoring through USGS Breeding Bird Survey. • Continued monitoring through USGS Breeding Bird Survey and Breeding Bird Atlas efforts.
Grasshopper Sparrow - Breeding	• What are the effects of controlled burns (fire) on populations? • How can reclaimed strip mine grasslands be managed to improve the density and productivity of high priority grassland sparrows? • Effects of grassland restoration on populations.	• Annual monitoring through USGS Breeding Bird Survey. • Continued monitoring through USGS Breeding Bird Survey and Breeding Bird Atlas efforts.

SGCN	Research Needs	Survey Needs
Eastern Meadowlark - Breeding	• Effects of grassland restoration on populations, needed habitat block size limitations. • What are the effects of controlled burns (fire) on populations? • Effects of pasture management on populations.	• Annual monitoring through USGS Breeding Bird Survey. • Continued monitoring through USGS Breeding Bird Survey and Breeding Bird Atlas efforts.

Want more information or have questions?

Additional information about the Species of Greatest Conservation Need and Conservation Actions in this report is available by contacting:

- Birds, Mammals, Terrestrial Invertebrates: Pennsylvania Game Commission Regional Wildlife Diversity Biologist

Northwest Regional Office *Butler, Clarion, Crawford, Erie, Forest, Jefferson, Lawrence, Mercer, Venango, Warren counties* Stacy Wolbert stwolbert@pa.gov; 814-432-3187	**Northcentral Regional Office** *Cameron, Centre, Clearfield, Clinton, Elk, Lycoming, McKean, Potter, Tioga, Union counties* Mario Giazzon mgiazzon@pa.gov; 570-398-4744	**Northeast Regional Office** *Bradford, Carbon, Columbia, Lackawanna, Luzerne, Monroe, Montour, Northumberland, Pike, Sullivan, Susquehanna, Wayne, Wyoming counties* Rich Fritsky rfritsky@pa.gov; 570-675-1143
Southwest Regional Office *Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, Westmoreland counties* Tammy Colt tcolt@pa.gov; 724-238-9523	**Southcentral Regional Office** *Adams, Bedford, Blair, Cumberland, Franklin, Fulton, Huntingdon, Juniata, Mifflin, Perry, Snyder, York counties* Clay Lutz cllutz@pa.gov; 814-643-1831	**Southeast Regional Office** *Berks, Bucks, Chester, Dauphin, Delaware, Lancaster, Lebanon, Lehigh, Montgomery, Northampton, Philadelphia, Schuylkill counties* Dan Mummert dmummert@pa.gov; 610-926-3136

- Fish, Reptiles and Amphibians, Freshwater Mussels, Terrestrial Invertebrates: Pennsylvania Fish and Boat Commission Conservation Coordinator; RA-FBSWAP@pa.gov

- Federally Threatened or Endangered Species: U.S. Fish and Wildlife Service State College Field Office; 814.234.4090

For other inquires about this tool or the Pennsylvania Wildlife Action Plan, contact:

Game Commission
Wildlife Diversity Conservation
Planning Coordinator
PGCSWAP@pa.gov

Fish and Boat Commission
Conservation Coordinator
RA-FBSWAP@pa.gov

Thank you for your interest in the Pennsylvania Wildlife Action Plan! If you would like to receive an email notification when a section of the Plan has been updated, please provide your contact information through this form: Registration Form