

Wildlife

Description

The habitat available to wildlife within CEBE consists of patchy woodlands, agricultural areas, and riparian corridors. This habitat benefits species which prefer edge and early successional habitat. Caves in CEBE may provide unique habitats for species that are uncommon, such as the Indiana bat (*Myotis sodalis*) and eastern small-footed myotis (*Myotis leibii*). Wetland areas scattered throughout CEBE provide habitat for waterfowl and other birds. The Shenandoah River, Cedar Creek, and other small waterways provide another type of habitat for species that require aquatic resources.

The Virginia Department of Game and Inland Fisheries assembled an on-line Virginia Fish and Wildlife Information Service (VAFWIS). Appendix 15 shows a list of species known or likely to occur within a 3 mile radius from the approximate center of the park and their threatened and endangered status. Currently, 513 species are listed and 38 of these are either federally endangered, threatened, or species of concern, or state endangered, threatened, or species of concern. According to this database, federal and state listed species include the Indiana bat, which is federally and state endangered. The bald eagle (*Haliaeetus leucocephalus*) is federally and state threatened. Bewick's wren (*Thryomanes bewickii*) is a federal species of concern but is listed as state endangered. The Appalachian grizzled skipper (*Pyrgus Wyandot*) is state threatened and a federal species of concern. The brook floater (*Alasmidonta varicosa*) is state endangered and also a federal species of concern. Species that are state threatened are the peregrine falcon (*Falco peregrinus*), upland sandpiper (*Bartramia longicauda*), wood turtle (*Clemmys insculpta*), and loggerhead shrike (*Lanius ludovicianus*). See Appendix 15 for other species of federal and state special concern. A registered login for VAFWIS can be acquired from Amy Martin (amy.martin@dgif.virginia.gov). There may be additional information available pertaining to species locations within CEBE after a login is obtained. Descriptions of species in the VAFWIS listing can be found using the Biota of Virginia (BOVA) code (Appendix 15) at <http://www.vafwis.org/wis/visitor/speciesBooklet.asp?ln=V&sID=37737&nav=speciesBooklet> .

In addition, a 10 mile radius search was conducted through VAFWIS. While this search extends beyond the park's boundary, highly mobile wildlife could be seen or take refuge in the park. This search revealed a few more species that could utilize park habitats. Species of significance include the Madison cave isopod (*Antrolana lira*), which is federally and state threatened and upland sandpiper (*Bartramia longicauda*), which is state threatened.

Included in Appendix 11 are the results of a threatened, endangered, and species of concern search from the Biotics Data System by the Virginia Division of Natural Heritage. This search includes the approximate area within 2 miles of the park boundary.

The USFWS listing (by county) of federally listed, proposed, candidate and species of concern can be found in Appendix 12. Species are divided into categories: birds, mammals, amphibians, and invertebrates. Those with official federal status include the bald eagle, Indiana bat, Madison cave isopod, and harperella (*Ptilimnium nodosum*). See Appendix 12 for species of concern. USFWS fact sheets for the bald eagle and Indiana bat are included in Appendices 16 and 17, respectively.

With the use of radio telemetry and satellite transmitters, the migratory paths of waterfowl species have been monitored. The northern pintail (*Anas acuta*) is generally a prairie nesting species. During the winter, members of the species have been overwintering along the coasts of Virginia, Maryland, Delaware, and North Carolina (Figure 28). It is possible that the wetland areas in CEBE could be utilized by this species and other waterfowl during migration (VDGIF Pintail Trax 2004). The tundra swan (*Cygnus columbianus*) also overwinters along the coast of Virginia (Figures 29, 30, and 31) and could briefly inhabit CEBE (VDGIF Tundra Swan Trax 2004).

A NatureServe species listing for native fish that can be found in the North Fork Shenandoah watershed (HUC 2070006) is included in Appendix 18. According to VDGIF there are no wild trout streams or stocked trout waters within CEBE (Figure 32), however, the VAFWIS species listing includes rainbow trout (*Oncorhynchus mykiss*), brook trout (*Salvelinus fontinalis*), and brown trout (*Salmo trutta*). The NatureServe North Fork Shenandoah watershed (HUC 2070006) listing also includes brook trout. It is probable that the stream waters in CEBE are not cold enough to support populations of trout and the reason they appear on these listings is due to their existence in colder mountain streams.

Recommendations

It is recommended that updated listings of threatened, endangered, and species of concern are obtained, as new information is continually added to databases. The listings of species obtained from VAFWIS were of species known or likely to occur in the area. It is recommended that inventories be conducted similar to the Inventory and Monitoring Program to confirm the locations and of these species. These studies should focus on reptiles, amphibians, bats, mammals, and birds. Once completed, managers can begin planning for the habitat of species, especially those that are listed under the Endangered Species Act. In order to be included in the Inventory and Monitoring Program, the Mid Atlantic Network needs to be petitioned. In order to determine the density of white-tailed deer, the Distance Program could be used along with spotlight surveys. National Parks within the National Capital Region (Antietam National Battlefield, Monocacy National Battlefield, Catoctin Mountain Park) have been using Distance. Program Distance may be downloaded at <http://www.ruwpa.st-and.ac.uk/distance/>. It is recommended that fish and macroinvertebrate surveys, including mussel surveys, be conducted to identify existing species in CEBE's waters. These surveys can reveal not only species population densities but also water quality.

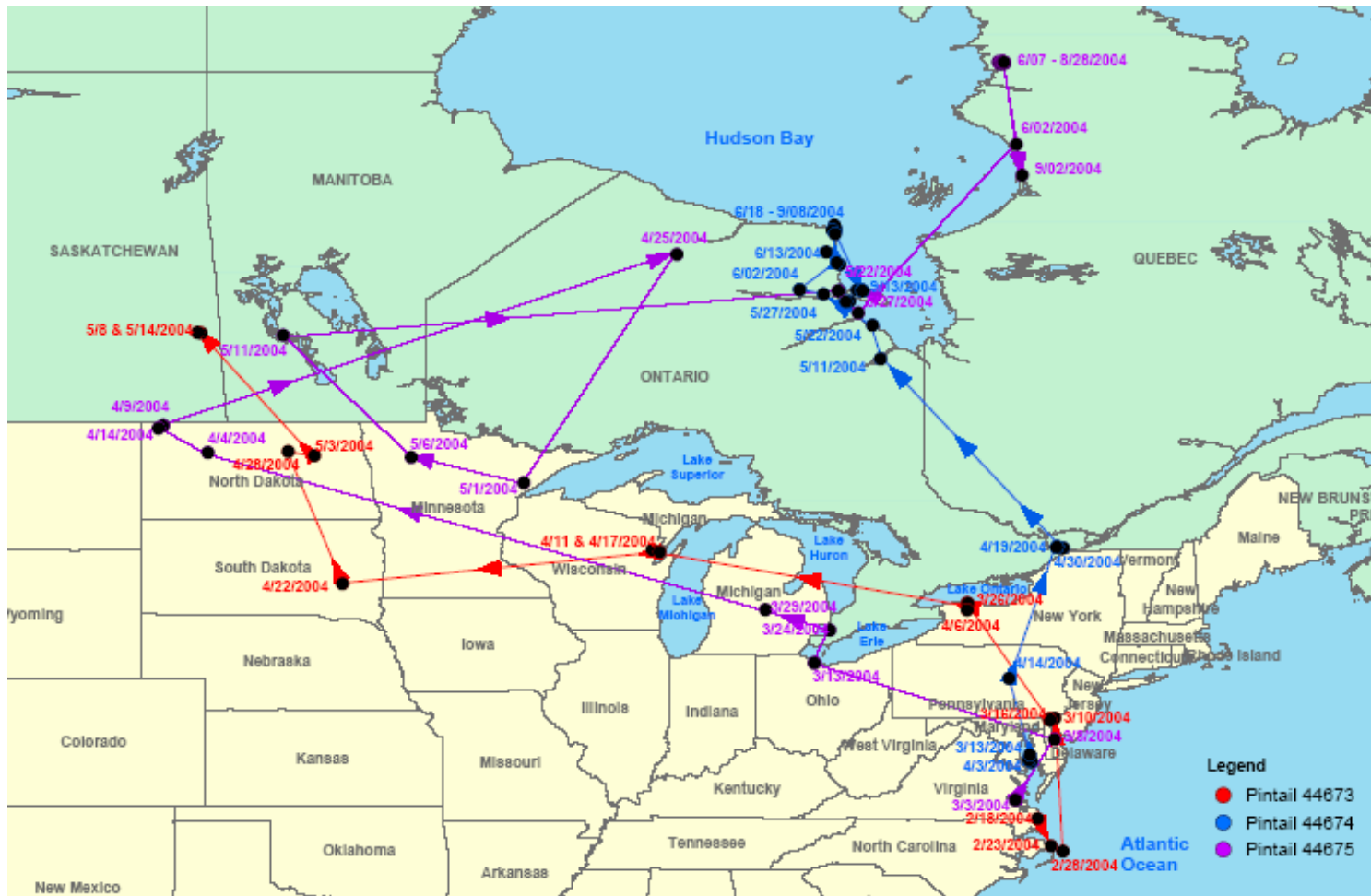


Figure 28. Migratory paths of three northern pintails during 2004, with known radio-telemetry locations. Provided by the Virginia Department of Game and Inland Fisheries <http://www.dgif.state.va.us/wildlife/pintailtrax/all.pdf> 2004.

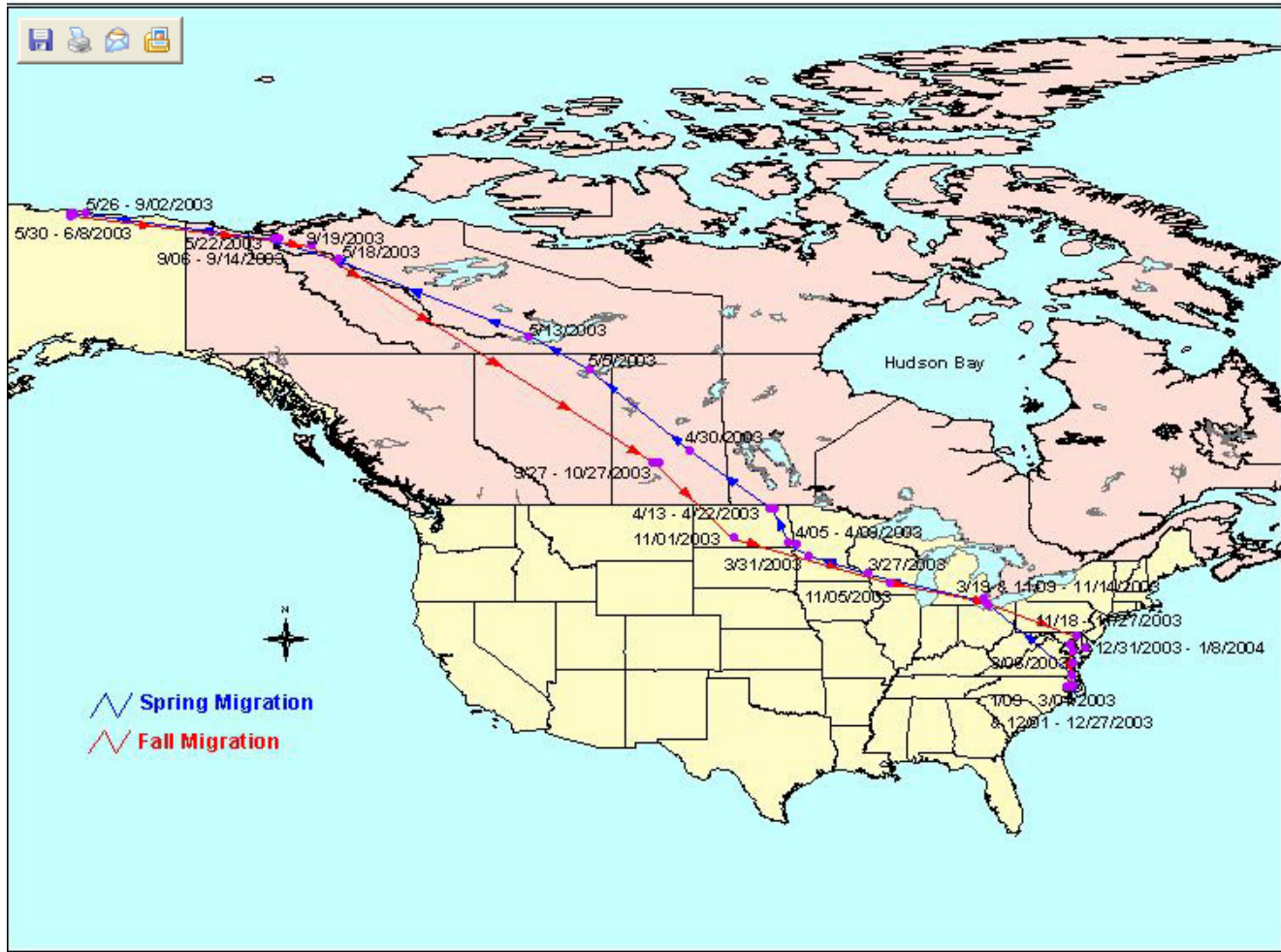


Figure 29. Migratory path for tundra swan number 888 during 2003, with known radio-telemetry locations. Provided by the Virginia Department of Game and Inland Fisheries <http://www.dgif.state.va.us/wildlife/swan/track.html> 2004.



Figure 30. Migratory path for tundra swan number 893 during 2003, with known radio-telemetry locations. Provided by the Virginia Department of Game and Inland Fisheries <http://www.dgif.state.va.us/wildlife/swan/track.html> 2004.

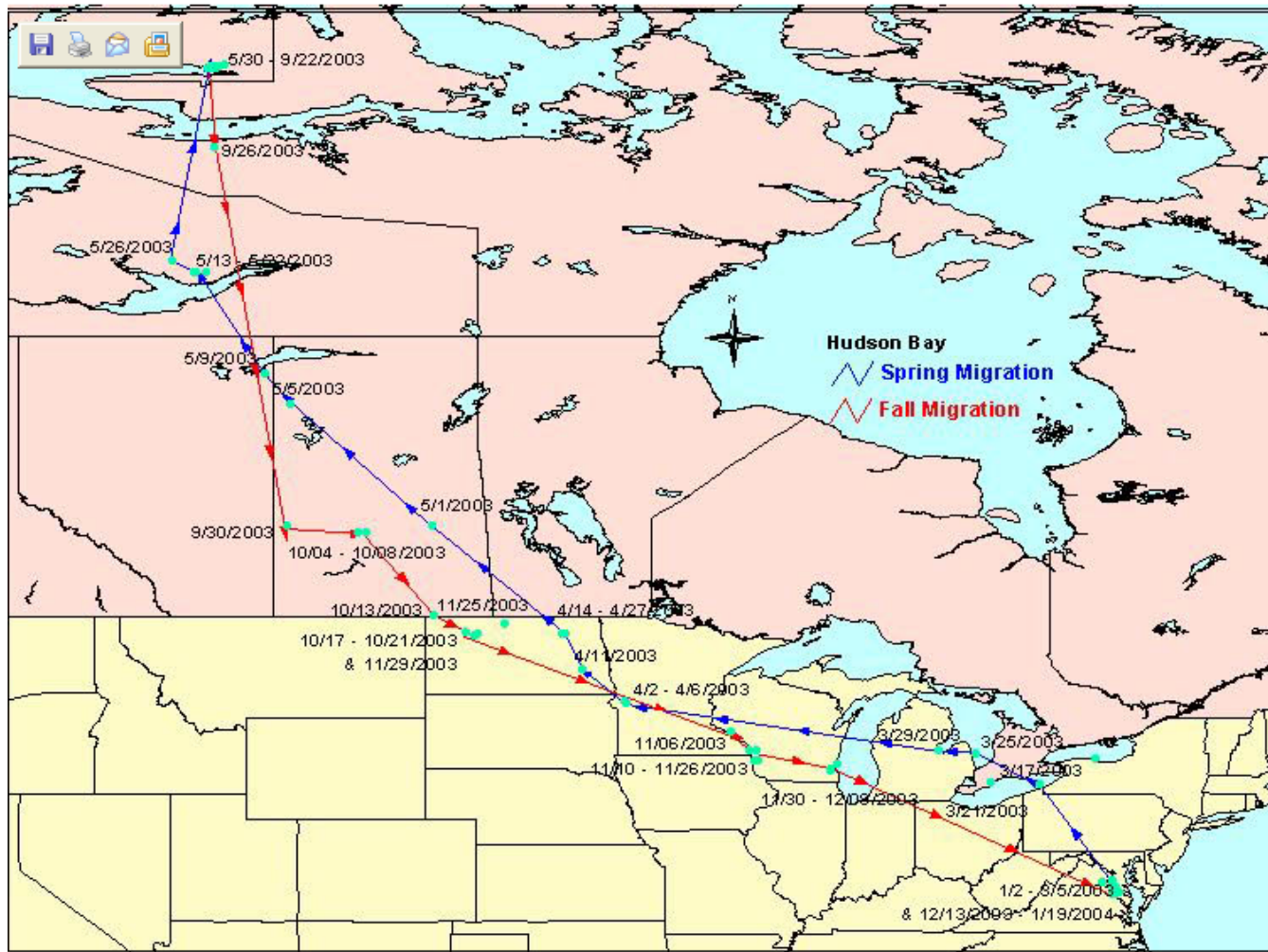


Figure 31. Migratory path for tundra swan number 894 during 2003, with known radio-telemetry locations. Provided by the Virginia Department of Game and Inland Fisheries <http://www.dgif.state.va.us/wildlife/swan/track.html> 2004.

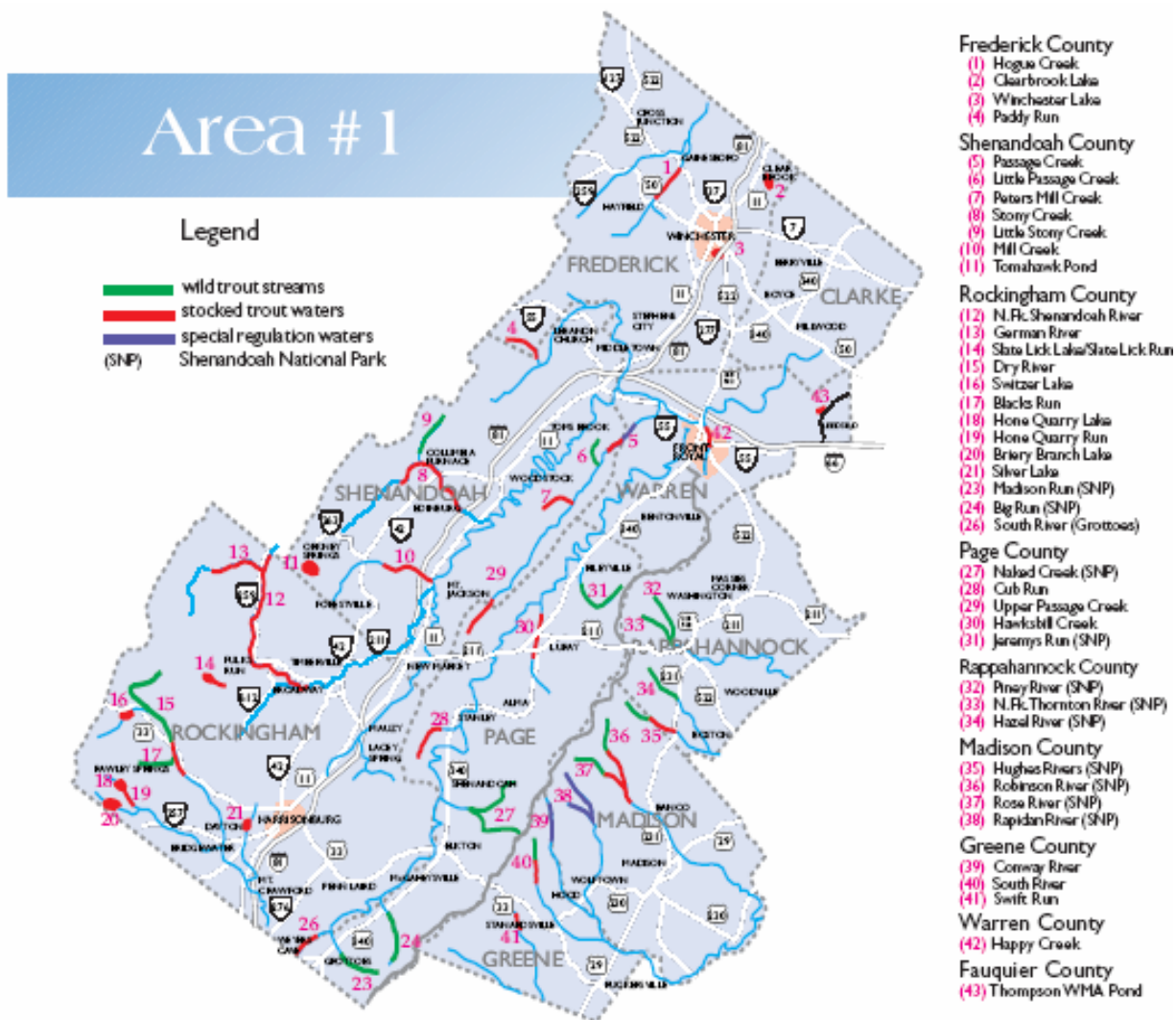


Figure 32. Wild trout streams, stocked trout waters, and special regulation waters in northern Virginia. Provided by the Virginia Department of Game and Inland Fisheries http://www.dgif.virginia.gov/fishing/TroutGuide/area_map_1.pdf 2004.