

by John T. McCloskey

# Aiding Wildlife on Military Lands



**Bald eagle**  
USFWS photo

With development eliminating many of the large open spaces and contiguous forests in Virginia, the landscape is becoming increasingly fragmented. As a result, many of the military bases in Virginia have become safe havens for wildlife, including threatened and endangered species. Military installations in Virginia number approximately 30 and cover more than 200,000 acres (81,000 hectares).

One of the largest military installations in Virginia is the Marine Corps Combat Development Command at Quantico, located just south of Washington, D.C., on the Potomac River in Prince William and Stafford counties. The Quantico facility, which encompasses approximately 60,000 acres (24,000 ha), is larger than most of the county, state, or national parks in the area, and is a home for large populations of white-tailed deer (*Odocoileus virginianus*) and wild turkey (*Meleagris gallopavo*). Quantico also provides habitat for such federally-listed threatened or endangered species such as the bald eagle (*Haliaeetus leucocephalus*), dwarf wedge mussel (*Alasmidonta heterodon*), and small whorled pogonia (*Isotria medeoloides*), an orchid.

Most of Virginia's large military installations are located in the Chesapeake Bay watershed and provide many miles of undisturbed coastal marsh and shoreline habitat for threatened and endangered shorebirds. Tidal creeks on their lands also provide critical spawning habitat for anadromous fish, such as the striped bass (*Morone saxatilis*) and American shad (*Alosa sapidissima*). Anadromous fish live in the ocean as adults, but swim

into freshwater rivers and streams to reproduce. The relatively undisturbed marshes found on many military installations play a critical role in the continued survival of these species.

Military installations provide valuable upland habitat as well. For example, Fort Pickett, an Army installation encompassing approximately 45,000 acres (18,200 ha) in south-central Virginia, contains the largest known population of the endangered Michaux's sumac (*Rhus michauxii*), a small deciduous shrub. The population is in a 10,000-acre (4,050-ha) artillery training area that is subject to frequent and intense fires. The success of this species at Fort Pickett seems to be related to the fire-maintained habitat at the base. Radford Army Ammunition Plant, located in western Virginia, hosts the regal fritillary butterfly (*Speyeria idalia*). Once widespread, this Virginia population is one of only a few populations remaining in the eastern United States.

Land on military installations is not always pristine. Military training and testing activities on many facilities has contaminated lands with dangerous pollutants, which can cause adverse effects to wildlife and plant species

inhabiting these areas, including threatened and endangered species. Due to contamination, many of these military installations have become "Superfund" sites. The Superfund program, overseen by the Environmental Protection Agency (EPA), provides funding for clean-up of polluted sites. Biologists with the Fish and Wildlife Service's (FWS) Environmental Contaminants Program serve an important role by providing technical assistance to the EPA on the cleanup of Superfund and hazardous waste sites in ways that are compatible with the conservation of wildlife habitats. This work is carried out through the Biological Technical Assistance Group or BTAG. In addition to the FWS, other members of BTAG include biologists from the EPA and the U.S. Department of Commerce's National Oceanic and Atmospheric Administration. Through BTAG, our biologists currently provide technical assistance to the EPA on 20 military installations in Virginia, covering about 150,000 acres (60,700 ha).

In one example, our biologists provided recommendations that minimized adverse impacts to fish and wildlife, while improving habitat quality, on a 92-acre (37-ha) industrial waste landfill being cleaned up at the Naval Weapons Station in Yorktown, Virginia. Recommendations for improving habitat quality included the establishment of native grassland species on the landfill cap. This type of vegetative cover will not only control erosion on the soil cap but also provide valuable habitat for grassland birds and other declining wildlife species. Restoration projects at this site also included the construction of two small wetlands.

Our biologists also work through BTAG on the cleanup of excess property that is transferred by the military to the FWS. One recent transfer involved the former Woodbridge Army Research Facility, located approximately 7 miles (11 kilometers) south of Washington, D.C. in northern Virginia, which became Occoquan Bay National Wildlife Refuge

(NWR). The property and nearby areas are used extensively by bald eagles. The Navy also transferred 285 acres (115 ha) of land occupied by the former Naval Radio Transmitting Facility, located in Suffolk, Virginia, to the FWS for expansion of the Nansemond NWR. Prior to property transfer, our biologists worked very closely with the EPA and



**Striped bass**

Photo by Don Pfitzer/USFWS

the military to ensure that these properties were clean enough to serve as wildlife habitat. With successful rehabilitation, these former military installations can provide valuable coastal fish and wildlife habitat well into the future.

Our biologists provide a valuable and often overlooked role in the protection of threatened and endangered species on Superfund and other hazardous waste sites. Involvement in BTAG provides the opportunity to work with the military to ensure that restoration and habitat enhancement projects provide long-term benefits for wildlife. Without BTAG, the FWS would have fewer opportunities to protect and enhance habitat for wildlife, including threatened and endangered species, on polluted sites.

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