

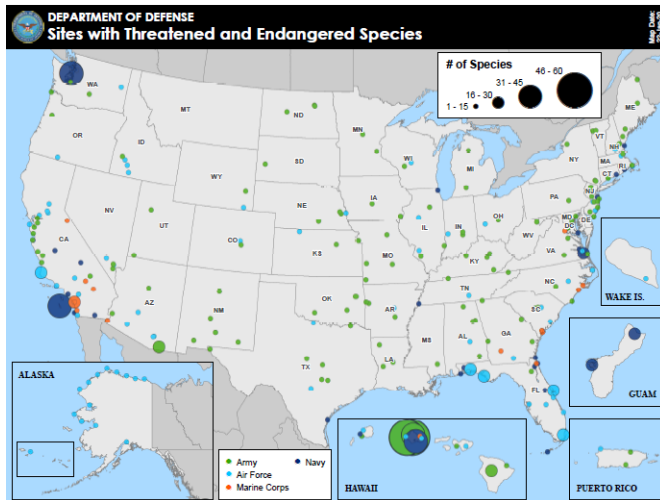
Threatened, Endangered, and At-Risk Species on DoD Lands

Background

The Department of Defense's (DoD) natural resources management actions support both military testing, training, and operational activities, as well as threatened, endangered, and at-risk species. DoD, as a result of limited access to its lands due to security and safety issues, has the highest density of species listed as threatened and endangered (T&E) under the Endangered Species Act (ESA) of any federal land management agency. Some of the finest remaining examples of rare wildlife habitats are found on military installations because DoD property is protected from extensive development and habitat loss.



Longleaf pine (LLP) forests (*Pinus palustris*) in the southeastern U.S. have decreased by more than 95%. DoD manages a significant portion of the remaining habitat. Well-managed LLP forests provide high quality habitat for a variety of species including the federally threatened gopher tortoise and the federally endangered RCW. DoD management, including prescribed burns, replanting, and training modifications, has significantly helped RCW populations recover, while allowing field training to continue. Photo (LLP): DoD; (RCW): USFWS



Importance to DoD

DoD manages its significant inventory of natural resources, including threatened, endangered, and at-risk species, in compliance with all relevant laws (e.g., Sikes Act, ESA), to support the military mission and a healthy environment. Our Military Service personnel need to train in the ecosystems in which they may fight, so it's important that DoD has continued access to a wide variety of diverse natural environments. T&E species can impact DoD's access to its installations, lands, and ranges. DoD's success in managing its T&E species has led to improvements in both T&E species status and DoD mission sustainability.

DoD is responsible for managing nearly 500 T&E species and over 550 species at-risk of needing listing protections on its installations. Of those, 60 listed species and 74 at-risk species exist only on DoD lands.

- Fort Benning faced major restrictions due to red-cockaded woodpeckers (RCW) nesting on active training ranges in the late 1990s. Eight Army installations, four Air Force installations, and one Marine Corps installation all made commitments to recovery goals for the RCW to sustain the species while maintaining crucial training activities on base. Due in large part to the military's

- active management including prescribed burning, removing unhealthy long-leaf pine trees, and installing artificial nest cavities that serve as ready-for-occupancy homes for the woodpeckers, the RCW has rebounded from 1,470 clusters to nearly 7,800 clusters across 11 states from southern Virginia to eastern Texas. This led to the U.S. Fish and Wildlife Service (USFWS) proposing to change the RCW's ESA status from endangered to threatened in September 2020.

- The island night lizard is native only to the Channel Islands off the coast of Southern California where the Navy conducts patrol aircraft, training, and other activities. The lizard was listed as threatened under the ESA in 1977 due to severe habitat loss caused by ranching, grazing, and the introduction of non-native



Island night lizard (*Xantusia riversiana*). Photo: USFWS

- goats, pigs, and rabbits. These non-native herbivores stripped the islands of much of their vegetation and caused significant erosion. The Navy worked with the National Park Service to remove the non-native species, and in 2014, USFWS removed the island night lizard from the ESA list. This allowed vital training activities to continue without impediments.
- Just before the endangered Hawaiian stilt nesting season each year, Marines at Marine Corps Base Hawaii drive Amphibious Assault Vehicles through nearly 200 acres of mud flats to break up non-native pickleweed and destroy invasive mangrove roots to create a habitat that is suitable for the stilt to use for breeding. This activity provides essential training to Marines and supports the



Hawaiian stilt population on base, which increased from 60 birds in 1982 to nearly 150 individuals in 2017, representing approximately 10 percent of the bird's total population in Hawaii.



Hawaiian Silt (*Himantopus mexicanus knudseni*) on the Big Island, HI. Photo: Tim Burr

- When USFWS listed the black-capped vireo as endangered in 1987, only 350 birds were known to exist including signif-

icant populations on Fort Hood and Fort Sill. Due in large part to the Army's management and conservation efforts, there are now 5,200 known birds and an estimated 14,000 across the breeding range. USFWS recently delisted the vireo, and at Fort Hood alone, the Army's efforts have led to USFWS eliminating prior restrictions on 23,000 acres of training area



Color bands mark an individual male Black-capped Vireo (*Vireo atricapilla*) to help identify its territory. Photo: Gil Eckrich

habitat. DoD also supports the development of proactive, science-based conservation management strategies and tools that help species more easily combat threats such as invasive species, alternative energy siting, and a changing climate.

DoD's Work to Protect Species

DoD manages about 25 million acres with 342 installations with significant natural resources, which require an active management plan under the Sikes Act called an Integrated Natural Resources Management Plan (INRMP). INRMPs serve as the blueprint for installations to manage their natural resources and ecosystems, T&E species, and their habitats. INRMPs ensure that natural resource management supports and



DoD is a cooperating agency in the Gopher Tortoise Candidate Conservation Agreement, through which the military works with federal and private partners to enhance the habitat of this declining species to preclude the need to list it under the federal ESA.

Photo: Jennifer Busam

Top Ten Installations with Greatest Number of T&E Species (Fiscal Year 2019)		
Service	Installation	# Species
Army	Schofield Barracks Military Reservation, HI	58
Army	Makua Military Reservation, HI	46
Navy	Joint Base Pearl Harbor-Hickam, HI	41
Army	Kawailoa Training Area, HI	33
Navy	Joint Base Marianas, Guam	32
Army	Pohakuloa Training Area, HI	26
USAF	Homestead Air Reserve Base, FL	25
USAF	Vandenberg Air Force Base, CA	23
USAF	Cape Canaveral Air Force Station, FL	21
USMC	Marine Corps Base Camp Pendleton, CA	18

enhances mission requirements, sustains military readiness, and helps DoD installations avoid critical habitat designations that might impair the DoD mission, by providing conservation benefits to the species.

Mission enhancement is the primary goal of every DoD natural resources program action or activity. By working with partners to sustain and restore threatened, endangered, and at-risk species populations and habitats, DoD can help delist species and prevent future species listings under the ESA and continue carrying out its mission-essential activities in a sustainable way. Installation personnel manage threatened, endangered, and at-risk species through consultations with USFWS and National Oceanic and Atmospheric Administration Fisheries, and by implementing their INRMPs. Specific management actions included in installation INRMPs vary by species and landscape, but can include captive breeding programs, habitat enhancement, prescribed burning, and noise effect studies. DoD funds cost-sharing agreements with state and local governments, private landowners, and conservation organizations to promote compatible land uses and preserve habitats near or ecologically related to military installations and ranges.



Flat tailed horned lizard, San Clemente Island fox, and Southern hognose snake. DoD natural resources efforts have prevented these species from being listed under the ESA.

Photos: USFWS

Contact Information:

Ryan Orndorff
 Program Director
 DoD Natural Resources
 ryan.b.orndorff.civ@mail.mil
www.denix.osd.mil/nr/
<https://twitter.com/dodnatres>