



# Species at Risk on Department of Defense Lands: Updated Analysis, Report, and Maps

Project # 10-247

## Background:

In 2001 a project was funded by the Department of Defense (DoD) Legacy Program to engage NatureServe, the U.S. Fish and Wildlife Service (USFWS), and the Military Services to identify Species at Risk (SAR) that are important to DoD installations. NatureServe conducted an analysis and the final product was a January 2004 report containing a methodology for selecting SAR, a nationwide assessment of SAR by military service, and an assessment of SAR by DoD installation.

The dataset used for this initial assessment of SAR in 2002 has changed significantly, with numerous updates to species' status information and over 25,000 additional SAR occurrences. For current analysis, Species at Risk are defined as native U.S. species that are not federally listed under the U.S. Endangered Species Act, but that are either candidates for listing or are ranked by NatureServe as critically imperiled (G1) or imperiled (G2) throughout their range.

## Objective:

In order for the Department of Defense to effectively protect, manage, and monitor at-risk species on its lands, DoD must have up-to-date information on where these species occur on their lands nationwide. Utilizing the most current species location data in NatureServe's databases, NatureServe provided updated lists of Species at Risk by installation and revised maps.

## Summary of Approach:

The approach for these analyses was for NatureServe to conduct a detailed GIS analysis, overlaying the most accurate available military installation boundaries for the U.S. with NatureServe's species locations for identified SAR. Species at Risk are considered to be located on a DoD installation if one or more element occurrence for a species resides completely or partially within the boundaries of an installation or within a 2 km (1.24 mi) buffer.

## Benefit:

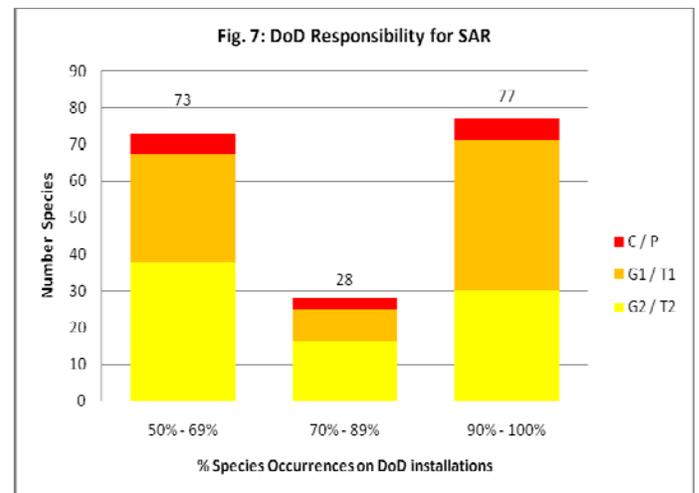
Conservation of Species at Risk can preclude the need for additional species listings, which is beneficial to the military in maintaining its lands for military training and other purposes. It is critical for the U.S. Department of Defense to base its conservation decisions on the most current and accurate scientific

information available.

## Accomplishments:

NatureServe provided two major types of analyses: (1) analyses of species at risk that are highly dependent on DoD lands and management for their survival, and (2) analyses of installations with high numbers or densities of species at risk. These analyses aim to help DoD to direct resources towards high priority species and installations.

A key finding of our updated 2011 assessment is that the total number of species at risk on DoD lands remained similar to the numbers based on the 2002 data (519 SAR were reported in 2011, compared to 523 reported in the 2004), despite an increase of over 25,000 new SAR element occurrences in NatureServe's databases since 2002. On closer inspection, although the total number changed very little, the actual species on the lists changed fairly significantly. The reasons for these changes in species lists are due to several factors, including new element occurrences added to the NatureServe databases, more precise species location information, changes in federal status, changes in taxonomy, and changes in species conservation status assessment ranks.



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