

# Species At-Risk on DoD Lands

## What Species At-Risk Are

Species at-risk (SAR) are plants or animals whose populations have declined to the point where they are at-risk of needing special protections granted by the federal Endangered Species Act (ESA). These species are not yet listed as threatened or endangered under the ESA but, without a change, their populations are likely to continue experiencing significant declines.



The Laysan albatross is a vulnerable species and has a 90 to 100 percent known occurrence on DoD installations.

*Photo: USFWS*

## Threats to Species At-Risk

There are many threats to at-risk species, such as:

- development, which can eliminate or fragment important habitats;
- invasive species, pollution, and other factors that degrade habitats to the point where they can no longer provide essential food and shelter;
- climate change, which can alter species' ranges, destroy sensitive habitats, and help invasives and diseases to flourish;
- disease, which can decimate populations already under strain;
- poaching and over-hunting, which directly deplete populations; and
- wildfire, which directly reduces biodiversity.

Habitat loss is the number one cause for species decline in the lower 48 states (the spread of invasive species is the primary cause in Hawaii).

## Importance to DoD

DoD manages its lands and waters to support both the military mission and a healthy environment. This dual management strategy is important because DoD lands are

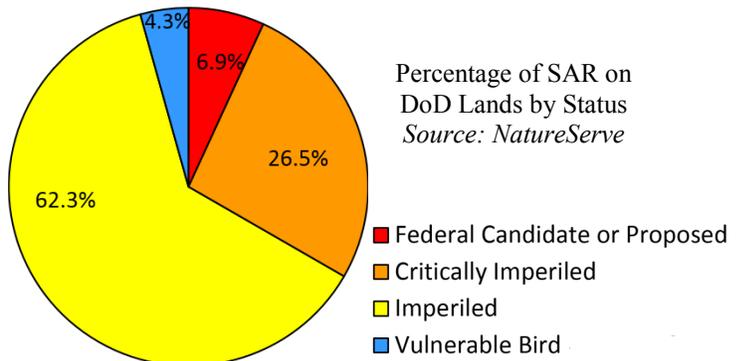
home to more imperiled species than lands managed by the National Park Service or the U.S. Fish and Wildlife Service (USFWS).

USFWS may place species experiencing significant population declines on its candidate list. USFWS studies each candidate species to determine if threats to its survival are significant enough to merit formal listing as threatened or endangered under the ESA. Once USFWS lists a species, it becomes more difficult and more expensive to manage. Therefore, working to avoid species listings is a top DoD priority. Conserving SAR protects biodiversity and allows DoD to continue its high quality training activities in realistic environments. For these reasons, protecting SAR is a win-win scenario.

## Number of Species At-Risk on DoD Lands

According to a study prepared by NatureServe, the number of SAR on DoD installations and civil works properties in the United States increased from 519 in 2011 to 555 in 2014. In their 2014 analysis, NatureServe included birds regarded as vulnerable or with certain International Union for Conservation of Nature and Natural Resources statuses as SAR. The table below provides totals by Military Service. Note that some SAR exist on lands operated by more than one Military Service.

Military Service	Number of SAR	SAR Density (species per 100 mi <sup>2</sup> )
Army	266	1.2
Navy	155	2.4
Air Force	226	1.4
Marine Corps	62	1.3



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## Types of Species At-Risk on DoD Lands

DoD manages approximately 25 million acres of land, air, and water resources. Of the over 550 SAR on those lands:

- 38 are federal candidates;
- 147 are critically imperiled;
- 346 are imperiled;
- 24 are vulnerable
- 316 are vascular plants;
- 160 are invertebrates;
- 75 are vertebrates; and
- 169 have over half of their known occurrence on a single installation.



The Florida bog frog is imperiled and has a 90 to 100 percent known occurrence on DoD installations. Photo: USFWS

## Managing Species At-Risk on DoD Lands

It is a DoD priority to prevent further declines in species already at-risk. There are many resources available to help DoD managers do this, including the DoD Legacy Resource Management Program, which funded the development of *Management Guidelines for Species at Risk on Department of Defense Installations (project 03-154)*. Maintaining healthy and viable populations across ranges and working with partners on cooperative efforts for species conservation enables mission activities to continue and helps the Military Services meet their training requirements. Factors to consider when developing SAR guidelines include:

- range, status, and life history;
- habitat requirements;
- existing and potential threats;
- existing and potential partnerships;
- adaptive management and monitoring techniques;
- research needs;
- information management techniques;
- measuring plan effectiveness techniques;
- timeline for plan implementation; and
- feasibility.

To help prevent species endangerment, DoD installations must allocate significant resources to protect SAR and their habitats. This is especially true in biologically rich areas, such as those in Hawaii, California, Florida, and New Mexico. The [Legacy Resource Management Program](#) has funded several projects, such as the *Coordinated Multi-Species Management Plans for High Priority SAR on or Near DoD Lands in the Southwestern U.S. (project 15-784)*, to protect and manage SAR on DoD lands.

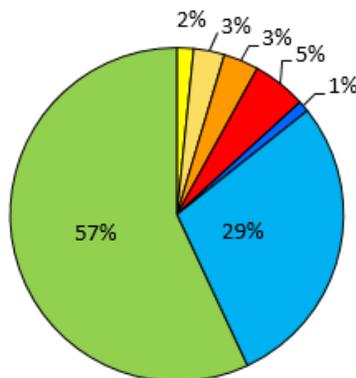
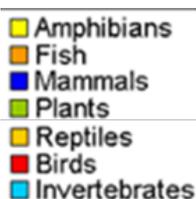
## DoD's Work to Protect Species At-Risk

The DoD Natural Resources (NR) Program provides policy, guidance, and oversight for managing DoD's natural resources. Through the NR Program, DoD works to protect all species on its lands and in its waters, including SAR. Examples of DoD's work to protect SAR include:

- coordinating with USFWS and states;
- implementing SAR management guidelines;
- forming partnerships to implement high priority SAR projects; and
- establishing SAR as a "must fund" priority in [DoD Instruction 4715.03, Natural Resources Conservation Program](#).

By working to sustain populations of SAR, DoD can help prevent additional species listings under the ESA and, in turn, can continue carrying out its mission-essential activities.

SAR by Taxon  
Source: NatureServe



## Contact Information:

Alison A. Dalsimer  
Program Director  
DoD Natural Resources  
[allyn.a.dalsimer.civ@mail.mil](mailto:allyn.a.dalsimer.civ@mail.mil)  
[www.DoDNaturalResources.net](http://www.DoDNaturalResources.net)  
<https://twitter.com/dodnatres>  
[www.DoDLegacy.org](http://www.DoDLegacy.org)  
[www.denix.osd.mil/nr/](http://www.denix.osd.mil/nr/)

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