

Defense and Conservation: Compatible Missions

by L. Peter Boice

The Department of Defense (DoD) manages approximately 29 million acres (12 million hectares) of land throughout the nation. Access limits due to security considerations and the need for safety buffer zones have shielded these lands from development pressures and large-scale habitat losses. About 380 installations have “significant natural resources,” as defined by the Sikes Act, and more than 250 have at least one federally-listed threatened or endangered species. In total, 320 listed species may be found on DoD-managed lands.

Opposite page: The rare Sandhills lily (*Lilium pyrophilum*) grows in fire-maintained habitats on Fort Bragg, North Carolina.

Photo by Elizabeth J. Evans

Below: Marines at the California least tern nesting area, Camp Pendleton.

Management decisions affecting DoD lands are guided by the principle that these lands were set aside to serve military training and testing purposes. The Sikes Act, DoD’s enabling legislation for natural resources management, requires that these lands be managed for “no net loss in the capability . . . to support the military mission.” Within these

guidelines, the DoD has embraced its stewardship responsibilities for the rich variety of natural resources on the lands it manages.

The DoD’s challenge is to balance the need to use its air, land, and water resources for military training with its stewardship responsibility to conserve these resources for future generations. It uses principles of multiple use, sustained yield, and biodiversity conservation to manage its biological resources, and the conservation of endangered and threatened species is a priority.

A Sound Legislative Foundation

In 1997, Congress amended the Sikes Act, providing DoD an opportunity to enhance its management of natural resources. It directed all military installations with significant natural resources to develop and implement Integrated Natural Resources Management Plans (INRMPs) in cooperation with the U.S. Fish and Wildlife Service and the appropriate state wildlife agency. With this requirement came increased funding for many projects relevant to endangered species management, including man-



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James Bradley, a student at Allegheny College in Pennsylvania, inserts a small light into a red-cockaded woodpecker nest on Camp Lejeune.



Hawaii Army National Guard field ecologist Trae Menard cares for a new population of *Scheidea adamantis*, an endangered plant known to grow only at Diamond Head Crater at Fort Ruger.

agement plans, inventories, resource monitoring, and habitat restoration and enhancement.

An INRMP is a comprehensive document that provides for the sustainable use of natural resources and the conservation of listed or sensitive species and ecosystems. Its purpose is to balance the management of ecosystem resources with the specific mission requirements of the installation. INRMPs are also comprehensive sources of biological and geographic information and primary sources of information for preparing environmental assessments and impact statements.

An amendment to the Endangered Species Act contained in the FY 2004 Defense Authorization Act further increased the importance of INRMPs to endangered species management. This amendment precludes a critical habitat designation on military lands under DoD management where an approved and implemented INRMP provides a benefit to the species.

INRMP Strategic Action Plans

In 2005, to provide a road map for future INRMP implementation, DoD endorsed a "Cooperative Plan for Using INRMPs at Active Military Installations and Ranges to Sustain Readiness." The plan identified a set of activities, including:

- a Sikes Act Tripartite Memorandum of Understanding that establishes a cooperative relationship involving the DoD, Service, and the relevant state fish and wildlife agency;
- a template that will provide consistency to all new and revised INRMPs;
- a course, tested in November 2005, to assist all tripartite stakeholders in the cooperative development and implementation of INRMPs; and
- a workshop, held in May 2006, to determine how to integrate INRMPs and State Wildlife Action Plans.

Managing for Species at Risk

A partnership initiated in 2001 among DoD, NatureServe, and the network of State Natural Heritage Programs identi-

fied more than 500 species at risk. This information has been invaluable in identifying and prioritizing potential conservation actions on or near DoD installations; since the conservation of such species can make it unnecessary to list them as endangered or threatened. A follow-up project developed management guidelines for four key species. A second project used a habitat approach to evaluate and map species at risk on six military installations in Georgia and to prepare management guidelines.

Regional Ecosystem Management Initiatives

Cooperative regional partnerships enhance communication, program efficiency, and understanding among the partners. In 1994, the DoD adopted an ecosystem approach to natural resources management. It has established important initiatives for such regions as the Sonoran Desert, Great Basin, Mojave Desert, Gulf Coastal Plain, Colorado Front Range, Fort Huachuca (Arizona) watershed, and Camp Pendleton (California).

Conservation Easements

The habitats on DoD installations are often the last, best hope for imperiled species. Many surrounding lands are experiencing rapid development and other encroachments. It is important that the DoD cooperates on resource management beyond installation borders to reduce potential restrictions on training and to enhance species recovery. For example, the Army has aided landowners in establishing conservation easements near Fort Bragg, North Carolina, to protect habitat for the endangered red-cockaded woodpecker (*Picoides borealis*). These efforts were the origin of the Army Compatible Use Buffer program and similar efforts to secure compatible long-term land uses near military installations.

Researching Military Effects

Some military activities have the potential to affect listed and at risk species in unique ways. The DoD Strategic Environmental Research and



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Development Program (SERDP) has sponsored research on the effects of such activities as military noise, smoke and obscurants, and unexploded ordnance. Almost seven years ago, SERDP also established a long-term ecosystem monitoring program at Fort Benning, Georgia, and it recently initiated a similar effort focusing on estuarine issues at Camp Lejeune, North Carolina.

New Tools for DoD Managers

In addition to the training courses and workshops implemented under the INRMP Strategic Action Plan, DoD is providing its resource managers with a wide range of management tools. The INRMP Handbook, "Resources for INRMP Implementation," was revised in the summer of 2005. An August 2005 study, "Best Practices for INRMP Implementation," identifies management practices and lessons that will improve the effectiveness of INRMPs. A revised handbook, "Conserving Biodiversity on Military Lands," will provide new scientific and

policy information and detailed DoD case studies. An outreach toolkit will describe the importance of biodiversity on DoD lands for military commanders, base residents, and other audiences. We also have developed new training oriented towards the needs of military land managers, and have reviewed and endorsed additional courses developed by other federal resource management agencies. These and other actions make today an exciting time for resource conservation on DoD lands.

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California least tern