



Eastern Newt—Marty Silver



Mohave Desert Tortoise-Christy Klinger

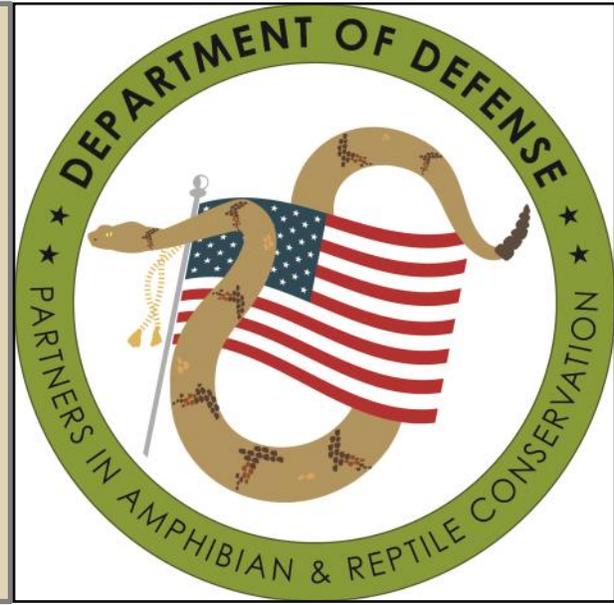


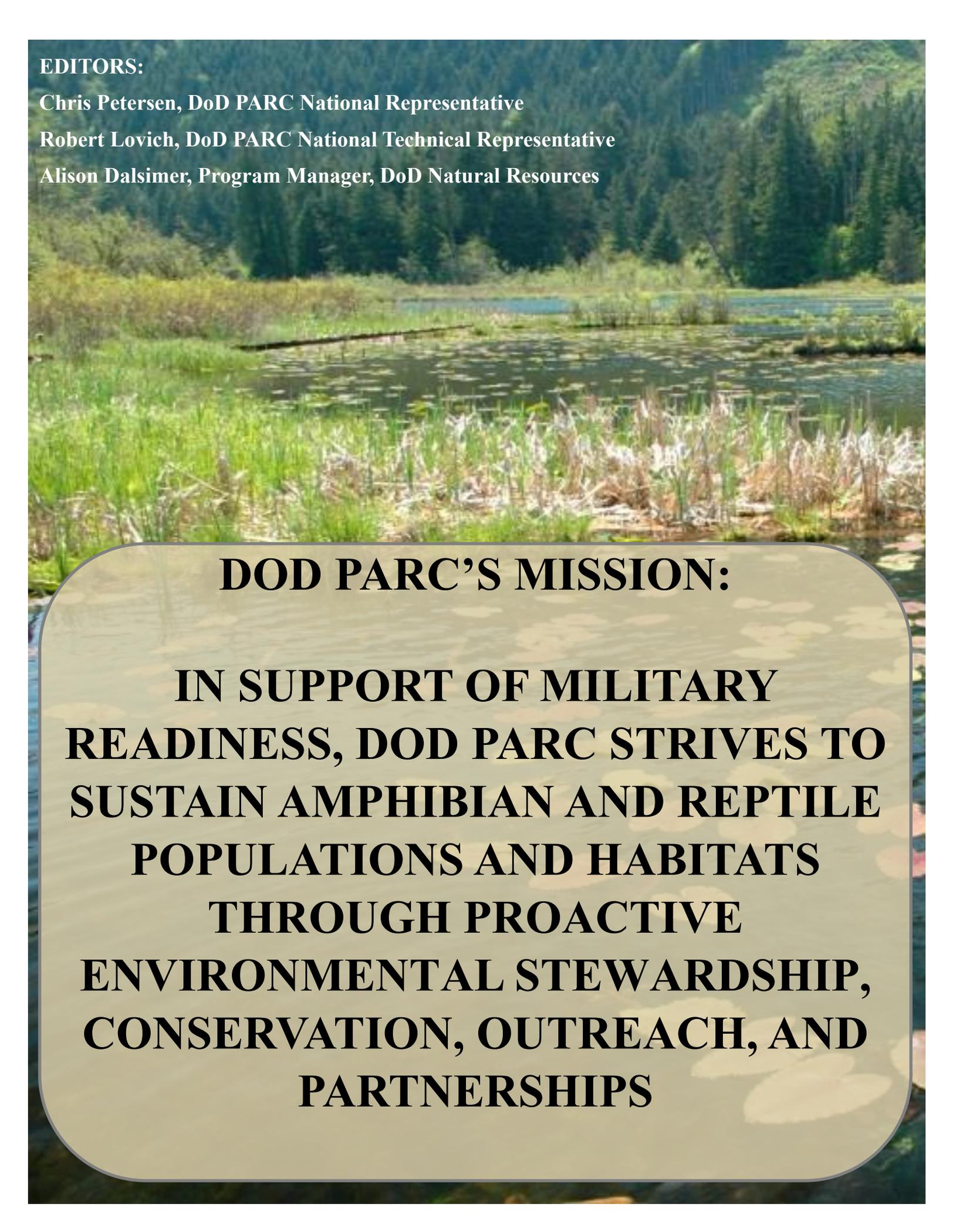
Green Toad-J.D. Willson



Timber Rattlesnake—Seth Berry

# 10-Year Review Department of Defense Partners in Amphibian and Reptile Conservation





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**DOD PARC'S MISSION:**

**IN SUPPORT OF MILITARY  
READINESS, DOD PARC STRIVES TO  
SUSTAIN AMPHIBIAN AND REPTILE  
POPULATIONS AND HABITATS  
THROUGH PROACTIVE  
ENVIRONMENTAL STEWARDSHIP,  
CONSERVATION, OUTREACH, AND  
PARTNERSHIPS**

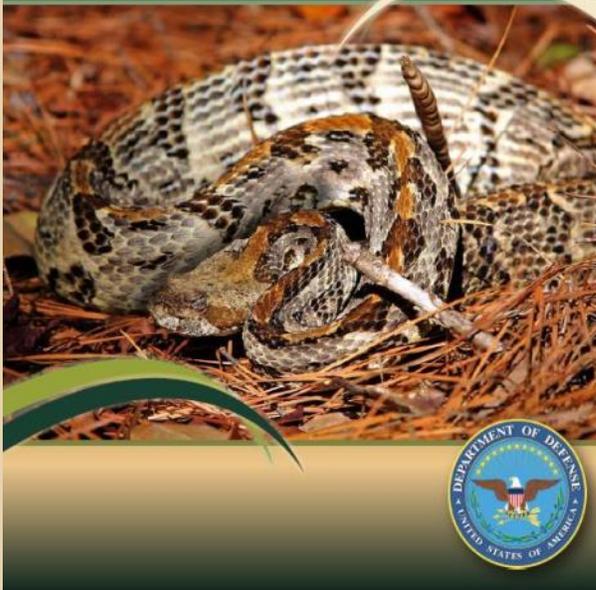
## 10 Years of DoD PARC

It has been 10 years since the Department of Defense (DoD) had the foresight to start a network dedicated to managing and conserving amphibians and reptiles among all Military Services and on all DoD lands. Before that time, there was no single entity to coordinate DoD efforts to meet the challenges facing these species. Unique threats were appearing globally, such as pathogens and a changing climate, that threatened both amphibians and reptiles and could result in more at-risk species along with associated regulatory requirements. To better coordinate among the Military Services on these issues, DoD launched its own Partners in Amphibian and Reptile Conservation initiative (DoD PARC) in 2009. Since that time, the DoD PARC network has become a powerhouse for herpetofaunal conservation and management on DoD lands.

In this document, we take a walk back through time to celebrate and highlight some of our most significant products that support the military mission while at the same time managing and conserving amphibians and reptiles as vital pieces of America's biodiversity. We thank all who have and who continue to contribute to our collective success and who embrace our principles of teamwork, enthusiasm, and passion.

### Strategic Plan for Amphibian and Reptile Conservation and Management on Department of Defense Lands

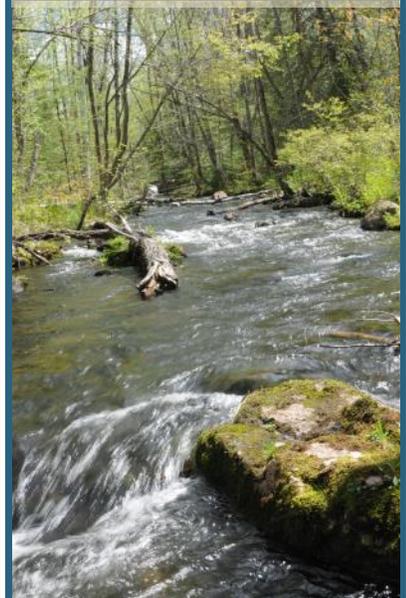
#### STRATEGIC PLAN FOR AMPHIBIAN AND REPTILE CONSERVATION AND MANAGEMENT ON DEPARTMENT OF DEFENSE LANDS



This Plan, which DoD released in 2015, describes strategies and priorities to inform and enhance DoD's natural resources management activities, and is intended to help natural resources managers better address the conservation and protection of amphibians and reptiles and their habitats; help installations comply with the Endangered Species Act and the National Environmental Policy Act; and help Commanders and resource managers achieve mission objectives. The Plan was the first ever to define a DoD-wide strategy for the conservation and management of amphibians and reptiles and, to date, is one of only two strategic plans on herpetofauna developed by any federal agency.



Eastern Box Turtle-J.D. Willson



Woodland Stream-Paul Block



Pacific Chorus Frog-Paul Block



Mojave Black-collared Lizard-Tim Torell



Navy volunteer with rattlesnake-Chris Petersen



Students with salamander-Andy Adams

## Partnerships

DoD PARC recognizes the power of partnerships. Over the last 10 years, we have developed approximately 50 partnerships with federal and state agencies, universities, zoos, and non-governmental organizations that sought to prevent the federal-listing and/or enhance the populations of numerous at-risk herpetofaunal species on and off DoD lands. Together, we are able to harness the unique skills, ideas, and resources that each of these partners provide toward conservation efforts that help amphibians and reptiles. These partnerships helped to assess the status of at-risk species such as the Flat-tailed Horned Lizard, Gopher Tortoise, Gopher Frog, Striped Newt, Southern Hog-nosed Snake, Florida Pine Snake, Spotted Turtle, Wood Turtle, Northern Red-bellied Turtle, Blanding's Turtle, Southwestern Pond Turtle, and Northwestern Pond Turtle.

## Herpetofaunal Inventory

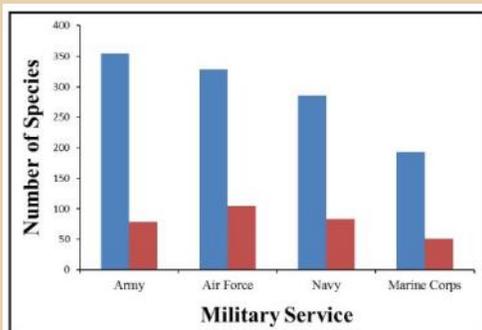


FIGURE 3. Number of confirmed (blue bars) and unconfirmed (red bars) amphibian and reptile species by U.S. military service.

From 2013 to 2016, we created and updated amphibian and reptile species lists for 415 Army, Navy, Air Force, and Marine Corps continental U.S. installations with Integrated Natural Resources Management Plans (INRMPs; see [Department of Defense Legacy Reports](#)). This effort resulted in the most comprehensive inventory and subsequent evaluation of herpetofaunal biodiversity

ever to be completed by any federal agency. In December 2018, the journal “Herpetological Conservation and Biology” published our inventory results in a paper titled, *Amphibians and Reptiles of United States Department of Defense Installations*.

### Facts About Herpetofauna on DoD Properties

- ◆ Amphibian and reptile species confirmed present on DoD properties represent 66% of the total native herpetofaunal species documented in the continental U.S.
- ◆ There are 24 federally listed (threatened or endangered), 55 state-listed, and 70 At-risk species confirmed present on DoD properties.
- ◆ Of the Military Services, Army installations have the greatest number of confirmed amphibian and reptile species.
- ◆ Approximately half of the military sites evaluated in our study had at least one venomous snake species confirmed present.



## 10-Years of DoD PARC



Eastern Hog-nosed Snake-Seth Berry



Southern Two-lined Salamander-Jonathan Mays

### Photographic Website (<https://dodparcphotolibrary.shutterfly.com/>)

Our photographic website serves as a platform to share pictures of herpetofauna and their habitats for use in presentations, INRMPs, posters, pamphlets, fact sheets, and more (see below in Education and Outreach). Group members have added nearly 3,000 pictures to the website – including photos of more than half of all amphibian and reptile species found in the U.S. Our goal is to feature pictures of all the amphibians and reptiles confirmed present on military lands. So, keep taking and submitting photos!

## Education and Outreach

### Snakes of the Kansas Training Range



Range Control:  
785-633-0913  
Environmental  
Program Manager:  
(785) 274-1154

Educating military and civilian personnel about the amphibians and reptiles on their installations is one of DoD PARC's primary objectives. As such, we have developed several online educational training modules and videos about these species on DoD lands. These modules provide military natural resources personnel a general understanding of herpetofaunal biology, ecology, survey techniques, management, and conservation practices. For example, we developed a *Venomous Snake Safety and Removal Techniques* video to train personnel about how to properly and safely remove venomous snakes from military training or housing areas, as well as a video on how to tell the difference between venomous and nonvenomous snakes. All the training modules are available to both military and civilian personnel at the Navy's Environmental Compliance, Assessment, Training and Tracking System (ECATTS) website: <https://environmentaltraining.ecatts.com/>.

If you are in need of educational materials on herpetofauna, DoD PARC has got you covered. Over the last 10 years, DoD PARC has developed 45 amphibian and reptile species fact sheets, five venomous snake posters, and more than 20 trifold pamphlets of the snakes on DoD installations located around the world. All of these products play a significant role in educating installation personnel about these less understood and often feared species. Our outreach products are available at: <https://www.denix.osd.mil/dodparc/parc-resources/>.

## 10-Years of DoD PARC



Arizona Mountain Kingsnake-J.D. Willson



Green Sea Turtle-Paul Block



Gila Monster-Kevin Stohlgren

## Integrated Natural Resources Management Plan Guidelines

Finalized in 2015, DoD PARC developed guidelines for updating and enhancing amphibian and reptile sections of INRMPs. These guidelines support military readiness by ensuring healthy training, testing, and operational environments through the implementation of herpetofauna management and conservation goals as outlined in installation INRMPs. The guidelines also promote greater inclusion of herpetofauna conservation in INRMPs and, ultimately, herpetofauna-specific planning and management on military lands.

## Scope of Work Template

Have you ever thought how great it would be to have templates to follow when developing Performance Work Statements and Scopes of Work? We developed [templates](#) for you to use when contracting for herpetofauna surveys/inventories on military lands. The templates will save installation natural resource managers time by not having to write a scope of work from scratch, will help ensure standardization of contract actions, and will improve data collection quality for inclusion into INRMPs.

## DoD Herpetofauna Conservation Status Summary

Distributed in 2017, the [DoD Herpetofauna Conservation Status Summary](#) document contains a DoD-specific list and pictures of herpetofauna species that are federally-listed, state-listed, NatureServe G1/T1-G3/T3, and/or are currently petitioned or under review for listing by the U.S. Fish and Wildlife Service (USFWS). Species on this list have been confirmed present or have the potential to occur on military installations based on our inventory database. This summary is intended to serve as an informational tool that DoD natural resource managers and military leadership can use to help plan, prioritize, and budget for appropriate conservation and management actions in ways that best meet installation needs.



Coastal Giant Salamander-David Leer



Green Anole-Paul Block

## Publications and Webinars

Since 2013, DoD PARC has hosted 30 webinars on a wide diversity of topics related to the conservation and management of amphibians and reptiles on DoD lands. These webinars educate our network members about the newest research, survey techniques, and regulations regarding amphibians and reptiles. A portion of the recorded webinars can be viewed at: <https://www.denix.osd.mil/dodparc/parc-resources/>

DoD PARC network members have written or been interviewed for over a dozen articles published in a variety of newsletters and publications over the last 10 years including *Natural Selections*, *Currents*, *The Fawn*, *Atlantic Observer*, *The Wildlife Professional*, *Mother Nature Network*, *Public Library of Science*, *EcoHealth* and *Herpetological Conservation and Biology*. These outreach materials help to spread the great work our network members are doing to support mission readiness and conservation.

## Looking Ahead



American Toad-Paul Block

We can only imagine what the next 10 years will look like, but DoD PARC is excited about the prospects. The challenges facing amphibians and reptiles have never been greater, and biodiversity losses are accelerating. But, now we have formidable partnerships, technologies, resources, and communication shared across the Military Services. DoD PARC looks forward to the next 10 years and beyond to support military mission objectives while conserving these vital species for generations to come.



Knight Anole-Chris Petersen



Gray Treefrog-Paul Block



American Alligator-Don George