

DoD Partners in Amphibian and Reptile Conservation 2017 Annual Report



Green Salamander (picture by Todd Pierson)



Teamwork, enthusiasm and passion are the foundation of the Department of Defense (DoD) herpetofauna conservation network, colloquially known as DoD Partners in Amphibian and Reptile Conservation (DoD PARC) group. These characteristics are embraced by our Representatives, participants and partners; are illustrated in the many products and services we produce; and truly symbolize our network as a whole. Every day, DoD PARC's work supports military readiness through effective herpetofauna conservation and management. We thank all who have and who continue to contribute to our collective success.

Eight years ago we got our start with a few individuals who had a vision of conserving native amphibians and reptiles in ways that provide effective support at the Departmental, Military Service, and installation levels. In 2017, our membership grew to over 300, each contributing collectively towards our network's mission by fulfilling the actions and working towards the goals identified in [*The Strategic Plan for Amphibian and Reptile Conservation and Management on Department of Defense Lands.*](#)

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2017 was another extremely productive year for our network, and we are very proud of our many accomplishments. A summary of our most significant accomplishments for the year follows, as well as short biographies of our Representatives who work passionately to assist you. For copies of the products below, please contact Chris Petersen (chris.petersen@navy.mil) or visit the DoD Natural Resources website at: <http://www.dodnaturalresources.net/DoD-PARC.html>.

[Amphibian and Reptile Biodiversity on United States Department of Defense Installations-Final Report](#)

This year we completed a four-year study of herpetofauna species across 415 military (Army, Navy, Air Force, Marine Corps) installations/detachments. The report, entitled *Amphibian and Reptile Biodiversity on United States Department of Defense Installations*, represents the first time all such data were combined and comprehensively analyzed. Results indicate that DoD lands are home to 63% of all native herpetofauna species in the continental U.S. DoD is the first agency to produce a comprehensive report of its herpetofauna.

[DoD Herpetofauna Conservation Status Summary](#)

Distributed in October 2017, this document contains a DoD-specific list 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 on military installations. This list is intended to serve as an informational tool that DoD resource managers and military leadership can use to help plan, prioritize, and budget for relevant conservation and management actions in ways that best meet installation needs.



Carolina Pygmy Rattlesnake (picture by Dane Conley)

Herpetofauna Training Modules

In partnership with the Navy, we developed seven online educational training modules about amphibians and reptiles. These modules provide military natural resources personnel a general understanding of herpetofauna 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. 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/>.

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 the quality of data collection. Download the template at: <http://www.dodnaturalresources.net/PARC-Resources.html>.

Educational Outreach

Educating military and civilian personnel about the herpetofauna on the military bases where they work and live is vital to successful species conservation. This year, we developed over 20 fact sheets on a variety of at-risk and common amphibian and reptile species confirmed on military lands. We will continue to create more fact sheets in 2018 as we work towards reaching our goal of developing a fact sheet for each of the 50 most common amphibian and reptile species confirmed present on military lands. Fact Sheets are distributed twice monthly through our listerv and are posted on the DoD Natural Resources Portal: <http://www.dodnaturalresources.net/PARC-Resources.html>.



Wood Turtle (picture by Paul Block)



Pine Woods Treefrog (picture by Chris Petersen)

HerpMapper

We are pleased to announce that DoD has become a HerpMapper partner. HerpMapper is a cooperative project, designed to gather and share information about reptile and amphibian observations across the planet. As a result of this new partnership, records entered into HerpMapper that occur within the property boundaries of military installations can be seen in real time by those with access. We will use HerpMapper records as a tool to keep our herpetofauna species lists up to date. To date, approximately 2,700 records have already been collected on military lands!

We encourage you to sign up online (<https://www.herpmapper.org>) and download this very mobile mapper to your smartphone (<http://www.herpmapper.org/mobile/mapper>). We are looking forward to seeing the very interesting herpetofauna biodiversity records you add to HerpMapper.



Speckled Caiman (picture by Kayla Severino)



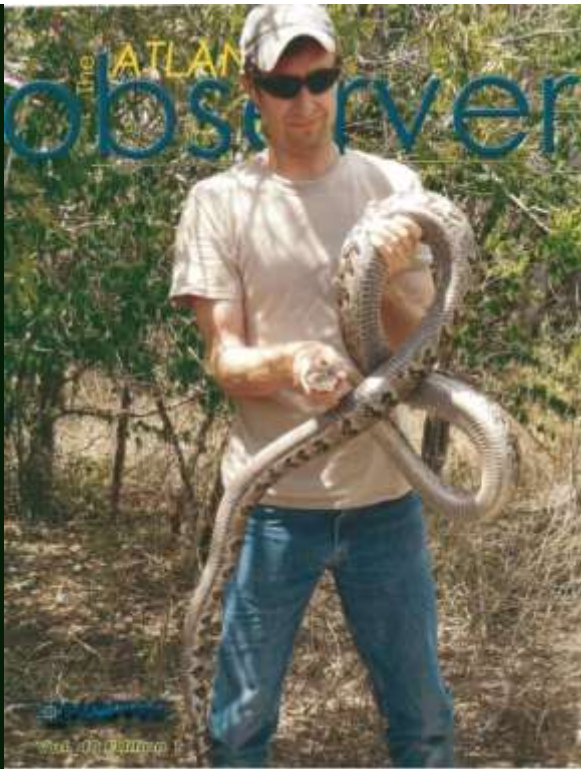
Reef Gecko (picture by Kevin Enge)

Webinars

We have hosted 29 webinars since 2013! In 2017, as part of the DoD Natural Resources Webinar Series, we conducted webinars on:

- Overcoming Challenges to the Recovery of Declining Amphibian Populations in the United States, presented by Dr. Susan Walls, USGS (11 July 2017)
- Herpetofauna Biodiversity on Army Installations, presented by Rob Lovich, DoD PARC National Technical Representative (27 June 2017)
- Understanding Occupancy Patterns in a Low-Density Population of Gopher Tortoises (*Gopherus polyphemus*), presented by Steve Goodman, Virginia Tech Department of Fish and Wildlife Conservation (22 March 2017)
- History and Successes of the U.S. Geological Survey (USGS) Amphibian Research and Monitoring Initiative, presented by Robert Fisher, Western Ecological Research Center, USGS (10 February 2017)

All of the recorded webinars can be viewed at: <http://www.dodnaturalresources.net/Webinar-Series.html>



Publications

DoD PARC National Representative Chris Petersen and the accomplishments of our group were featured **in two articles this year, one in the Navy's [Atlantic Observer](#) and one in the Wildlife Society's [The Wildlife Professional](#). These articles serve to increase the awareness of our group's mission, vision and products to a broad audience of wildlife professionals.**

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

This photo website serves as a platform to share pictures of herpetofauna and their habitats for use in presentations, Integrated Natural Resources Management Plans (INRMPS), posters, pamphlets, fact sheets, etc. Group members have added more than 1,800 pictures to the website – more than half of all amphibian and reptile species found in the U.S. Our goal is to get pictures of all the amphibians and reptiles confirmed present on military lands. So, keep taking and submitting photos!

DoD Legacy Program Support

We reviewed and provided technical expertise on herpetofauna-related proposals to the DoD Legacy Resource Management Program. Our technical inputs provide information that is used to help the program prioritize project funding so DoD can get the largest return on its investments.

DoD Natural Resources Program Support

This year we participated in the bimonthly DoD Natural Resources Conservation Committee meetings, providing regular updates about our herpetofauna activities. We also contributed four articles to the DoD **Natural Resources Program's newsletter, Natural Selections. These opportunities increase** communication and partnerships among the DoD community; promote awareness, involvement, and coordination both within DoD and among national, regional, and local experts; and helps DoD achieve mission and stewardship goals.

Looking Ahead

We have three major projects planned for 2018. The first is to conduct a Snake Fungal Disease (SFD) survey on DoD lands using a citizen science approach. We will provide natural resource managers with techniques, training, and supplies required to conduct sampling on their installations. We will then analyze the field-collected samples that are submitted, and summarize the results. The outcome of this investigation will provide critical scientific information about this emergent disease and what it means for snake population viability.

The second planned project is to update the herpetofauna species lists for Outside the Continental U.S. (OCONUS) military installations so that senior DoD leadership and installation biologists have current and accurate species information. When done, we will publish a peer reviewed, comprehensive list of confirmed and potential herpetofauna on military sites around the world. And, again, DoD will be the first and only agency to do this!

Last, in 2018 we intend to produce a salamander chytrid fungus vulnerability assessment report. The fungus *Batrachochytrium salamandrivorans*, also known as Bsal or salamander chytrid fungus, has caused die-offs of salamanders throughout Europe. Although it has not yet been documented in the U.S., experts believe Bsal poses a serious threat to native salamanders, and represents one of the most significant potential disease threats to U.S. wildlife since the discovery of white-nose syndrome in bats. We will conduct a desktop analysis using the DoD herpetofauna inventory data and the USGS injurious wildlife species list to determine which military installations (based on salamander biodiversity) are most vulnerable to salamander population declines if Bsal was introduced into the US. The results can be used to help installations target monitoring resources to the most at risk areas.

Thank you again for all your hard work this year. We look forward to your continued support in 2018!



Cuban Treefrog (picture by Kristin Bakkegard)

Short Biographies of DoD PARC Representatives



Name: Chris Petersen
DoD PARC Position: National Representative
Job Title: Senior Natural Resources Specialist
DoD Service: Navy (Naval Facilities Engineering Command Atlantic)
Address: 6506 Hampton Blvd. Norfolk Virginia 23508
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chris.petersen@navy.mil
Herpetofauna Expertise: radio telemetry; pitviper ecology; development of scopes of work and government cost estimates for herpetofauna surveys; field surveys and monitoring; development of educational outreach materials; acoustic loggers.



Name: Rob Lovich
DoD PARC Position: National Technical Representative
Job Title: Senior Natural Resources Specialist
DoD Service: Navy (Naval Facilities Engineering Command Southwest)
Address: 1220 Pacific Highway, San Diego, CA 92132
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Herpetofauna Expertise: Inventory and monitoring design; natural history, evolution, and molecular systematics of herpetofauna; pathogen/disease monitoring.



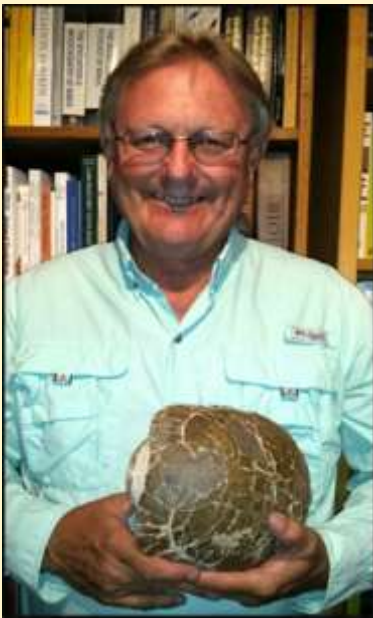
Name: Valerie Arkell
DoD PARC Position: DoD PARC Representative
Job Title: Natural Resources Specialist
DoD Service: Oregon Army National Guard
Address: 1776 Militia Way SE, Salem, OR 97309
Contact Information: 503-584-3198; valerie.j.arkell.nfg@mail.mil
Herpetofauna Expertise: National Military Fish and Wildlife Association herpetology working group co-chair; herpetofauna surveys; snake educational outreach.



Name: Seth Berry
DoD PARC Position: DoD PARC Representative
Job Title: Natural Resources Specialist
DoD Service: Navy (NAVFAC Washington PWD NSA South Potomac)
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Herpetofauna Expertise: wildlife photography; field surveys and monitoring; development of educational outreach materials; habitat management/creation.



Name: Paul Block
DoD PARC Position: DoD PARC Representative
Job Title: Senior Natural Resources Specialist
DoD Service: Navy (Naval Facilities Engineering Command Atlantic)
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Herpetofauna Expertise: wildlife photograph; field surveys and monitoring; scope of work and government cost estimate development for herpetofauna surveys; and development of educational outreach materials.



Name: Jim Castle
DoD PARC Position: DoD PARC Representative
Job Title: Wildlife Biologist
DoD Service: U.S. Army Corps of Engineers, Walla Walla District
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James.H.Castle@usace.army.mil
Herpetofauna Expertise: modelling and research design of herpetofauna surveys; scope of work and government cost estimate development for herpetofauna surveys; field surveys and monitoring; education and outreach; northwest herpetofauna systematics and technical reviews.



Name: John Himes
DoD PARC Position: DoD PARC Representative
Job Title: Integrated Training Area Management Coordinator
DoD Service: Louisiana National Guard (Camp Beauregard, Camp Minden, Camp Villere)
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Herpetofauna Expertise: life history and ecology; field surveys and monitoring; radio telemetry; education and outreach; habitat restoration and management; taxonomy; permitting and other regulations; study design development and editorial reviews.



Name: Janet Johnson
DoD PARC Position: DoD PARC Representative
Job Title: Conservation Program Manager
DoD Service: Arizona Army National Guard
Address: 5636 E McDowell Rd, Phoenix AZ 85008
Contact Information: janet.johnson30.nfg@mail.mil; 602-267-2915 (office)
Herpetofauna Expertise: Desert Tortoise and Sonoran desert field ecology and management; inventory and monitoring; radio telemetry; habitat.



Name: Dave McNaughton
DoD PARC Position: DoD PARC Representative
Job Title: Assistant Wildlife Program Manager
DoD Service: Pennsylvania National Guard (Fort Indiantown Gap NGTC, PA)
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Herpetofauna Expertise: field ecology; inventory and monitoring; radio telemetry; disease monitoring; habitat; turtles; fire.



Name: Mike Ravesi
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DoD Service: Michigan National Guard
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Herpetofauna expertise: spatial ecology; habitat management; disease monitoring; thermal ecology; Massasauga rattlesnake ecology.



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Job Title: Natural Resources Manager
DoD Service: Marine Corps
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Julie.m.robbins@usmc.mil
Herpetofauna Expertise: habitat management of southern pine ecosystems; development of educational outreach materials.



Name: Ian Trefry
DoD PARC Position: DoD PARC Representative
Job Title: Natural Resource Manager
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ian.trefry@navy.mil
Herpetofauna Expertise: scope of work and government cost estimate development for herpetofauna surveys; field surveys and monitoring; education and outreach; northeast herpetofauna ecology.



Western Ribbon Snake (picture by J.D. Wilson)