



Department of Defense Legacy Resource Management Program

Legacy # DoD PARC-22

Department of Defense Partners in Amphibian and Reptile Conservation Strategic Plan Implementation FY 2022 Annual Report

Chris Petersen and Rob Lovich
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Gopher Tortoise—Chuck Bargeron, University of Georgia, Bugwood.org



Eastern Indigo Snake—Roy King



Gopher Frog—Dirk Stevenson

**Department of Defense
Partners in Amphibian and
Reptile Conservation
2022 Year in Review**



Introduction

For the 13th year, DoD PARC continued to support the mission, network members, and the crucial work conducted to manage and conserve amphibians and reptiles on military lands. The DoD PARC network is very grateful to the DoD Legacy Resource Management Program for providing funding to support the DoD PARC network and the many projects and deliverables produced. A summary of significant accomplishments for 2022 follows, as well as short biographies of DoD PARC Representatives, who work enthusiastically to assist the DoD natural resource community.



Eastern Diamond-backed Rattlesnake - Wade Kalinowsky

DoD PARC Mission Statement

In support of military readiness, DoD PARC strives to sustain amphibian and reptile populations and habitats through proactive environmental stewardship, conservation, outreach, and partnerships.

Podcast

In December 2022, DoD PARC started a new podcast series titled “Herpetofaunal Project Highlights and Successes”. The purpose of the podcast series is to highlight amphibian and reptile conservation, management, and research projects being conducted on military lands. The focus of the first episode is on the Gopher Tortoise recovery project at Eglin Air Force Base (AFB). Jeremy Preston (Endangered Species Biologist at Eglin AFB) and Vivian Porter (Texas A&M Natural Resource Institute Project Manager) discuss the purpose, goals, and results of this large-scale project to establish new populations of Gopher Tortoise on Eglin AFB, and the benefits it has to an at-risk species and supporting military readiness. The podcast is posted on the [DoD PARC YouTube Channel](#). Stay tuned for more episodes in 2023.



Southeast Regional Partnership for Planning and Sustainability principals meeting at Eglin Air Force Base



Gopher Tortoise—Chris Evens; University of Illinois

Species Profile Video Series



Common Snapping Turtle—J.D. Willson



Eastern Kingsnake—Chris Petersen



Gophersnake—Andrew Dubois

Species profile videos are DoD PARC’s newest effort to inform and educate military residents and natural resource managers of the exciting amphibian and reptile species that may be encountered in the places they live and work. These videos are approximately three to seven minutes in duration, and contain narration, pictures, and footage of a particular species on a military site. Six videos were developed in 2022 for the following species: Timber Rattlesnake, Spring Peeper, North American Racer, Eastern Kingsnake, Common Snapping Turtle, and Gophersnake. All of the videos are posted on the DoD PARC [YouTube Channel](#) and [milTube](#). In total, the videos have collectively had over 52,500 views.



Spring Peeper—John White



Timber Rattlesnake—Seth Berry



North American Racer—Seth Berry

Bioacoustic Recorders

To help DoD natural resource managers document frog and toad species presence on their installations, bioacoustics loggers (sometimes called “frog loggers”) were loaded to five military sites in 2022 (Wright Patterson Air Force Base (AFB); Altus AFB; Fort Carson; Camp Robinson; and Pembroke Regional Training Center). Over 1000 hours of data were recorded, generally from spring to late summer at these installations. DoD PARC analyzed these data (at no cost) and provided the results to the participating installations for incorporation into their respective Integrated Natural Resources Management Plans (INRMPs). To borrow a frog logger in 2023, please contact the DoD PARC National Representatives. Even more acoustic loggers will be purchased in 2023 for loan in 2024.



Spotted Turtle Surveys

The Spotted Turtle is one of DoD’s mission-sensitive species. Despite their large range, they have declined across the eastern U.S. over the past decade and have been petitioned for federal listing. In cooperation with the Smithsonian Institute, DoD PARC conducted surveys on nine military sites throughout the range of the species (Fort A.P Hill; Fort Belvoir; Fort Stewart; Naval Support Activity Northwest Annex; Marine Corps Base Quantico; Joint Base McGuire-Dix-Lakehurst; Camp Edwards; Camp Curtis; Fort Indiantown Gap) in 2021 to determine their distribution, abundance, and habitat use. The resulting report titled *Building Capacity for Managing At-risk Species to Enable Mission Readiness on Military Installations: Spotted Turtle Status Assessment and Surveys* was finalized in 2022. Expanding the current knowledge of this species on military installations will enable natural resource personnel to improve INRMPs, thereby promoting mission readiness through support of Spotted Turtle conservation and improved habitat management. The methods used in this survey can serve as a replicable model for the additional 30 installations with Spotted Turtle records, as well as the 60 military sites with potential habitat and populations.



Spotted Turtle—Paul Block



Spotted Turtle—Seth Berry



Spotted Turtle—Chris Petersen

2022 Snake Fungal Disease Survey



Alexis Ohman captures a North American Racer for SFD swabbing at Naval Air Station Oceana, Virginia

Ophidiomycosis (formerly referred to as Snake Fungal Disease [SFD]), an emergent fungal pathogen on the North American landscape, is threatening snake population stability. From 2018 -present, DoD PARC, University of Illinois, and dozens of military natural resource managers have sampled for this pathogen on over 50 installations across the US and Puerto Rico. Using the same approach as previous years, a "citizen science" methodology for the 2022 data collection effort was utilized. Military natural resource managers and other interested parties volunteered to collect swabs from snakes on installations and sent them to the cooperator at the University of Illinois for analyses. All of the supplies needed for collecting field data and the analysis of the samples were provided at no cost. To date, a total of 1141 snakes representing 65 species in 31 states were observed and tested for Ophidiomyces. The results of the 2022 sampling effort will be available by spring 2023. This research is helping to inform the DoD natural resource community about the presence, distribution, and prevalence of a potentially deadly pathogen across the DoD landscape.

Network Coordination

DoD PARC assisted other networks within DoD during 2022 to grow and enhance their capacities and abilities to support military readiness. DoD PARC provided support to DoD cultural resource specialists, DoD PIF, and bat/small mammal experts to maximize communication and coordination within and among these networks. Support also included sharing lessons learned and promoting open dialogue and partnering so that all respective networks work together to support common mission goals, resources, and taxa that warrant significant attention.



Eastern Diamond-backed Rattlesnake—Ben Morrison

Best Management Practices Documents

DoD PARC and the U.S. Fish and Wildlife Service jointly developed best management practices (BMPs) for the Florida Pinesnake, Gopher Tortoise, Blanding's Turtle, and Western Spadefoot during 2022. BMPs have now been developed for all 11 amphibian and reptile DoD mission-sensitive species. The management practices described in these documents are intended to serve as guidelines that DoD resource managers can use to plan, prioritize, and implement proactive conservation and management actions. Previously developed BMPs for the Spotted Turtle, Wood Turtle, Western Pond Turtle, Red-bellied Cooter, Gopher Frog, Alligator Snapping Turtle, and Eastern Diamond-backed Rattlesnake can be downloaded from the [DoD PARC website](#).



Florida Pinesnake— Jacob Scott



Gopher Tortoise— Paul Block



Blanding's Turtle—Kurt Buhlmann

Photo Website



Blue Spotted Salamander—Robert Brodman

DoD PARC's [photographic website](#) serves as a platform to share free pictures of herpetofauna and their habitats for use in presentations, natural resource management plans, posters, pamphlets, fact sheets, and more. Network members added several dozen pictures to the website in 2022, bringing the total number of pictures on the website to nearly 3,700. The photographic website was also reorganized to make it more user friendly when searching for pictures. DoD PARC's goal is to feature pictures of every amphibian and reptile species confirmed present on military lands. For access to the website, email Paul Block (paul.a.block6.civ@us.navy.mil).

NMFWA 2022

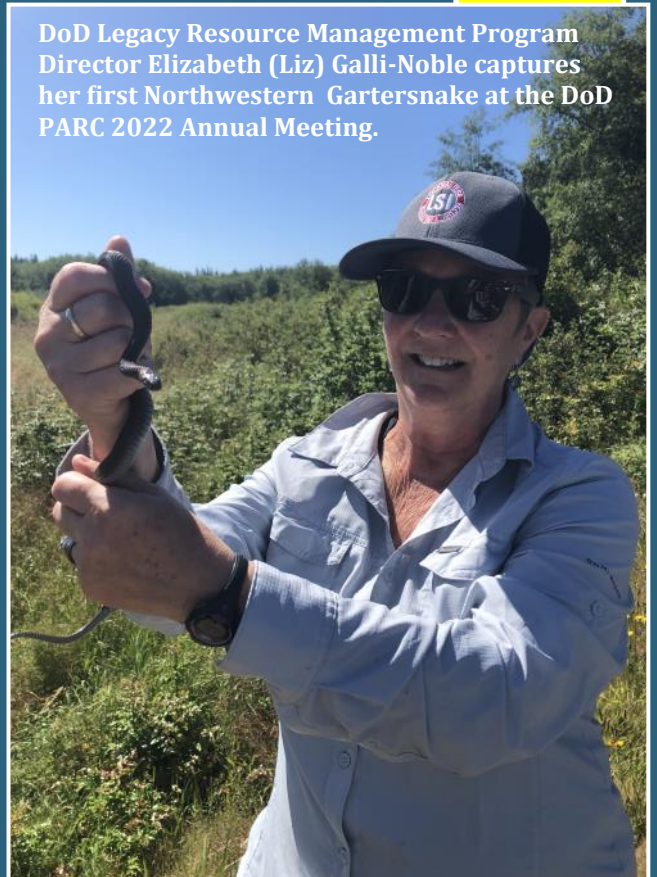


DoD PARC leadership conducted two presentations during the 2022 National Military Fish and Wildlife Association (NMFWA) workshop to approximately 200 participants in Spokane Washington. In the first presentation, an update to recently completed and ongoing research projects, products, and initiatives was provided. The second presentation provided an overview of the DoD PARC Herpetofaunal Database, a DoD-wide comprehensive inventory of amphibians and reptiles on military properties. The two presentations were separated by an amphibian and reptile trivia session. Eighty new DoD PARC network members were added during the NMFWA workshop. DoD PARC looks forward to presenting at the 2023 NMFWA workshop in Saint Louis Missouri.

DoD PARC Annual In-person Meeting

DoD PARC's fourth in-person Strategic Planning Meeting was held July 19-21, 2022 at Naval Air Station (NAS) Whidbey Island, Washington. The purpose of the meeting was to review the DoD PARC Strategic Plan and discuss a wide variety of amphibian and reptile conservation and management topics and DoD PARC initiatives and products specific to supporting military readiness. The group also conducted a herpetofaunal inventory at four of the NAS Whidbey Island parcels (Ault Field, Seaplane Base, Outlying Landing Field Coupeville, and Lake Hancock) and swabbed captured snakes for the 2022 Snake Fungal Disease Survey. DoD PARC network members documented the presence of six species of herpetofauna on the various naval properties. Thanks to NAS Whidbey Island personnel for hosting us. The DoD PARC 2023 annual meeting will be held at Fort Hood, Texas.

DoD Legacy Resource Management Program Director Elizabeth (Liz) Galli-Noble captures her first Northwestern Gartersnake at the DoD PARC 2022 Annual Meeting.



Looking Ahead

DoD PARC Coloring Book – DoD PARC is nearly finished with developing a coloring book for adults and children alike. The coloring book will contain pictures, maps, illustrations for coloring, and fun facts about 12 amphibian and reptiles species on DoD lands. Hardcopies of the coloring book will be available in early 2023.

Species Profile Videos – DoD PARC is planning to develop several more species profile videos in 2023. In fact, the next video on the Eastern Diamond-backed Rattlesnake is ready for release.

Western Pond Turtle Surveys – DoD PARC, Smithsonian Institute, and the University of Illinois are partnering to conduct Western Pond Turtle surveys and population assessments on several military sites in California, Oregon and Washington in 2023. The Western Pond Turtle is a DoD mission-sensitive species. Up-to-date knowledge of Western Pond Turtles will allow military natural resource managers and other stakeholders to make informed decisions regarding management practices and conservation actions to help this declining species.

DoD PIF/PARC Bio-inventory Strike Team – DoD Partners in Flight (PIF) and PARC are teaming up to conduct field surveys for DoD mission-sensitive herpetofaunal and avian species on military sites where they have the potential to be present but have not been properly surveyed to confirm their occurrence. In 2023, representatives from both networks will jointly conduct field surveys on three military sites where these species have potential occurrence. A summary report will be developed for each of the surveyed installations.



Long-tailed Salamander-Noah Charney



Timber Rattlesnake - John Garrison

DoD PARC Leadership & Short Biographies

Ryan Orndorff—DoD PARC Network Manager

Director, Environmental Planning & Conservation

Office of the Deputy Assistant Secretary of Defense (Environment and Energy Resilience)

Office of the Assistant Secretary of Defense (Energy, Installations, and Environment)

Elizabeth (Liz) Galli-Noble—DoD PARC Legacy Program Representative

DoD Legacy Resource Management Program Director

Military Service DoD PARC Representatives

Steve Sekscienski—U.S. Army

Jay Rubinoff—Army National Guard

Jeff Gardner—U.S. Navy

Jacque Rice—U.S. Marine Corps

Paul Jurena—U.S. Air Force



Name: Chris Petersen

DoD PARC Position: National Representative

Job Title: Senior Natural Resources Specialist

DoD Service: Navy (Naval Facilities Engineering Systems Command Atlantic)

Address: 6506 Hampton Blvd., Norfolk, VA 23508;

Contact Information: 757-322-4560

christopher.e.petersen4.civ@us.navy.mil

Herpetofauna Expertise: radio-telemetry, pitviper ecology, development of scopes of work/government cost estimates for herpetofauna surveys, inventory and monitoring, 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 Systems Command Southwest)

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robert.lovich@navy.mil

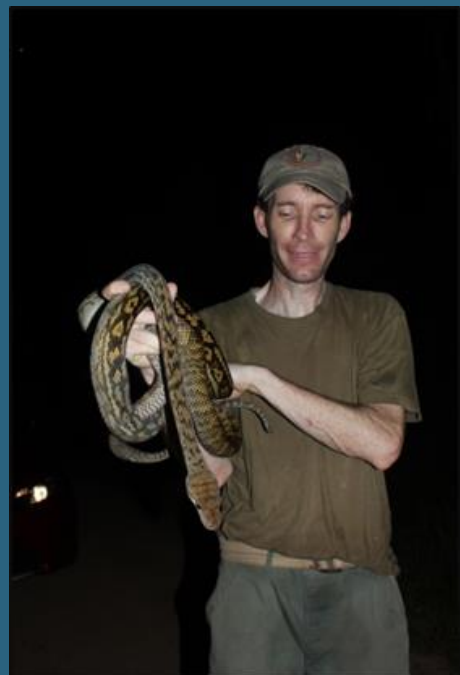
Herpetofauna Expertise: inventory and monitoring design; natural history, evolution, and molecular systematics of herpetofauna; pathogen/disease monitoring.



Name: Paul Block
DoD PARC Position: DoD PARC Representative
Job Title: Senior Natural Resources Specialist
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Herpetofauna Expertise: wildlife photography, field surveys and monitoring, scope of work and government cost estimate development for herpetofauna surveys, development of educational outreach materials.



Name: Megan Yrazabal
DoD PARC Position: DoD PARC Representative
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Herpetofauna Expertise: Great Basin Desert habitat and herpetofauna, inventory and monitoring, education and outreach, disease monitoring.



Name: John Himes
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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: Melissa Vogt
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Herpetofauna Expertise: Rattlesnake safety and first aid, education and outreach, environmental law and policy.



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Herpetofauna Expertise: field ecology, inventory and monitoring, radio telemetry, disease monitoring, turtles, fire ecology.



Name: Ian Trefry
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Herpetofauna Expertise: scope of work and government cost estimate development for herpetofauna surveys, field surveys and monitoring, education and outreach, northeast herpetofauna ecology.



Name: Chris Frauenhofer
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Herpetofauna Expertise: inventory and monitoring, telemetry, rattlesnakes, wetland/riparian habitat and herpetofauna, great basin & mojave desert habitat and herpetofauna.



Name: Seth Berry
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Herpetofauna Expertise: wildlife photography, field surveys and monitoring, development of educational outreach materials, habitat management/creation.