



# Department of Defense Legacy Resource Management Program

Legacy # DoD PARC-23

**Department of Defense Partners in  
Amphibian and Reptile Conservation  
Strategic Plan Implementation  
2023 Annual Report**

Chris Petersen and Rob Lovich  
January 2, 2024



Southwestern Pond Turtle—Jeff Lovich



Alligator Snapping Turtle—J.D. Willson



Western Spadefoot—Tony Iwane

# Department of Defense Partners in Amphibian and Reptile Conservation 2023 Year in Review



## *Introduction*

For the 14th year the Department of Defense (DoD), through its Partners in Amphibian and Reptile Conservation (PARC) network, 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 many projects and deliverables produced. A summary of significant accomplishments for 2023 follows, as well as short biographies of DoD PARC Representatives, who work enthusiastically to assist the DoD natural resource community is included.



Common Watersnake—Paul Block

## *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.***

## Podcasts

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. Episodes 2 and 3 were added to the podcasts series in 2023. Released in May 2023, the focus of Episode 2 was on the Eastern Massasauga population assessment at Camp Grayling. Army National Guard biologists Matt Kleitch and Jonathan Edgerly discuss the purpose, goals, and results of this long-term, large-scale project and the benefits it has to this federally-listed snake species and the military mission. Released in December 2023, the focus of Episode 3 was about the anuran acoustic monitoring project at the West Point Military Academy. Lieutenant Colonel Jason Ridgeway and Dr. Patrick Baker discuss the purpose, methods, and results of this important study. All podcasts are posted on the [DoD PARC YouTube Channel](#). Stay tuned for more episodes in 2024.



Rob Lovich Shows Camp Grayling Personnel a Massasauga



Lieutenant Colonel Jason Ridgeway and Dr. Patrick Baker

## Species Profile Video Series

DoD PARC’s species profile videos are intended 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. Three new videos were developed in 2023 (Eastern Diamond-backed Rattlesnake, Common Gartersnake, and American Alligator) bringing the total to 18 species profiles. All of the videos are posted on the [DoD PARC YouTube Channel](#) and [milTube](#). In total, the videos have collectively had more than 52,000 views.



Eastern Diamond-backed Rattlesnake (Dirk Stevenson); Maritime Gartersnake (J.D. Willson); American Alligator (Bosh)

## Bioacoustic Recorders

To help DoD natural resource managers document frog and toad species presence on their installations, bioacoustics loggers (sometimes called “frog loggers”) were loaned to six military sites in 2023 (Camp Blanding, Fort Knox, Navy Tactical Towed Array Calibration Facility-Bugg Springs, Hurlburt Field, Canaveral Air Station, and Fort Carson). Over 1500 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). All loggers have been loaned out for deployment in 2024. However, please contact the DoD PARC National Representatives to reserve yours for 2025.



## Western Pond Turtle Surveys

In 2023, a cooperative agreement was awarded to the Smithsonian Institute (and sub-cooperator University of Illinois) to expand the current knowledge of the distribution and population sizes of Western Pond Turtles (*Actinemys pallida/marmorata*) on military sites throughout its range. Both pond turtle species are DoD’s mission-sensitive species, and recently the U.S. Fish and Wildlife Service has proposed that both be listed as threatened under the Endangered Species Act. Lead by the University of Illinois, extensive field surveys were conducted in 2023 on 11 military sites in California, resulting in the capture- and marking of dozens of pond turtles. Additional surveys are planned for 2024. Up-to-date knowledge of this species on military installations will allow the Western Pond Turtle Range-wide Conservation Coalition, which DoD and the military services are members of, to make informed recommendations for INRMP improvement while simultaneously promoting mission readiness through supporting Western Pond Turtle conservation and habitat management.



Photos provided by the University of Illinois

## Snake Fungal Disease Survey Results

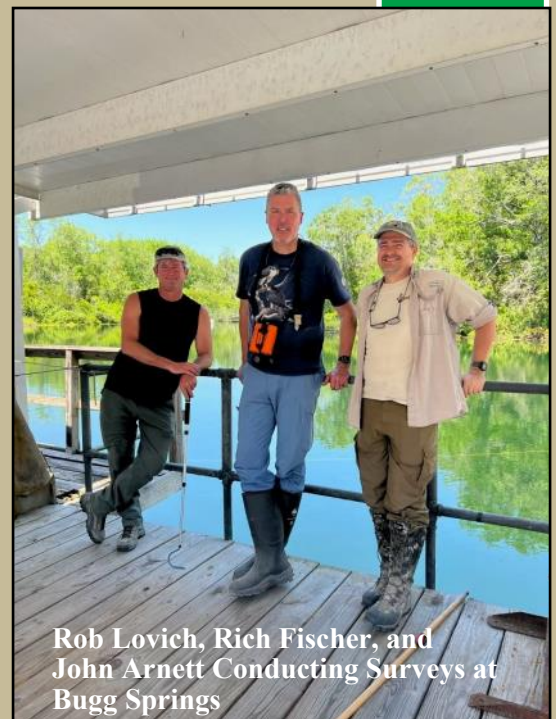


Alexis Ohman captures a North American Racer for SFD swabbing at Naval Air Station Oceana, Virginia

Ophidiomycosis (also referred to as snake fungal disease), an emergent fungal pathogen on the North American landscape, is threatening snake population stability. Since 2018, DoD PARC, the University of Illinois, and dozens of military natural resource managers have sampled for this pathogen on more than 70 installations across the U.S. and Puerto Rico. The 2021-2022 sampling effort was highly successful with military natural resource managers and other interested parties collecting data from 81 snake species on 48 military installations within 32 states. The [final report](#) of the 2021-2022 sampling effort was distributed to the DoD PARC in August, 2023 and a [webinar](#) was conducted to the DoD Legacy Resource Management Program network during October, 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.

## Bio-inventory Strike Team

DoD PARC and DoD Partners in Flight (DoD PIF) collaborated to conduct surveys for reptile, amphibian, and avian species at Navy Tactical Towed Array Calibration Facility-Bugg Springs and Marine Ocean Terminal Sunny Point in 2023. The primary objective of the surveys was to search for DoD mission-sensitive species that have potential occurrence on the two military sites, but have not been confirmed present. These data will improve the understanding of the distribution of at-risk species on military lands across the range of each species, and if confirmed present, assist military natural resource managers to plan, prioritize, and implement conservation and management actions that provide a benefit to these species. Surveys at more sites and involving additional experts on other species groups within DoD are planned for 2024



Rob Lovich, Rich Fischer, and John Arnett Conducting Surveys at Bugg Springs

# Department of Defense Photo Share Site

The Department of Defense Natural Resources Photo Share Site was released in August 2023. The purpose of the site is for sharing photos of plants and animals found on DoD lands. The site also has photos of the DoD Natural Resources community in action and of the habitats in which we work. The site includes thousands of photos uploaded and ready to be shared or used in reports, posters, presentations, signs, kiosks, pamphlets, brochures, websites, and other publications that have a DoD nexus. The photos are free and have no copyright limitations. The new site is private and only accessible by invitation. To do this, please email either (or both) Paul Block (paul.a.block6.civ@us.navy.mil) and Chris Petersen (christopher.e.petersen4.civ@us.navy.mil).



Florida Pinesnake— Jacob Scott

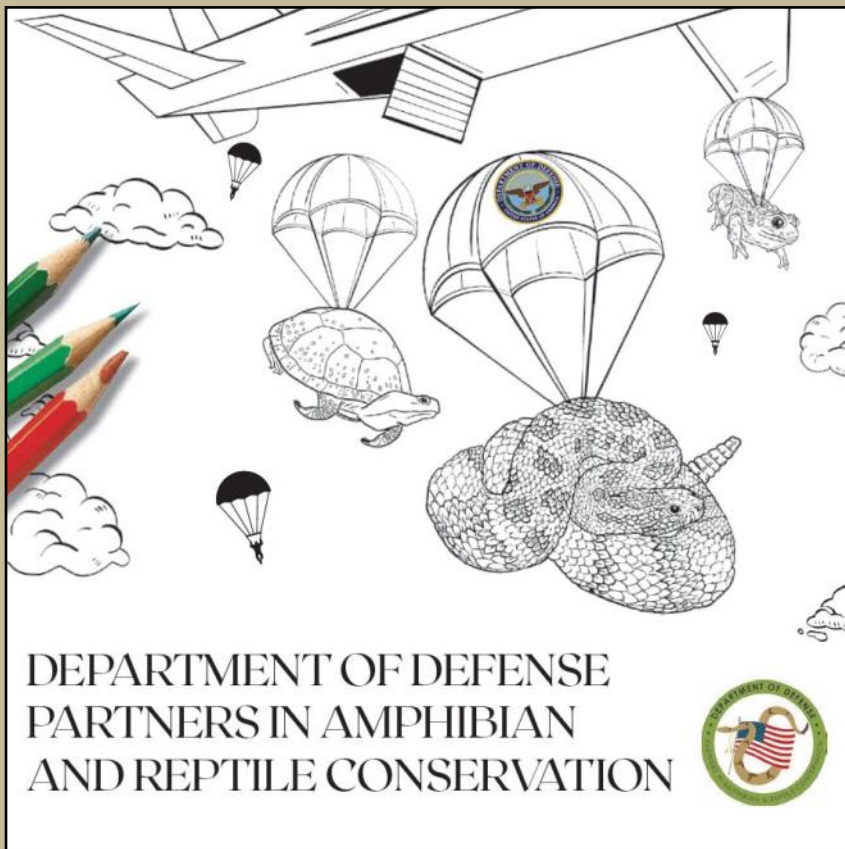


Gopher Tortoise— Paul Block



American Alligator— Don George

## DoD PARC Coloring Book



Completed in May 2023, DoD PARC's coloring book quickly became one of our most popular products to date. The coloring book highlights a variety of common and at-risk amphibian and reptile species confirmed present on DoD lands, and includes illustrations for coloring, range maps, photographs, and information about each species ecology and life history. One thousand copies of the coloring book were printed and distributed to several hundred military personnel. More hard copies will be printed in 2024. A digital version of the coloring book can be downloaded on [DENIX](#).

# NMFWA 2023



DoD PARC leadership conducted an hour-long presentation during the 2023 National Military Fish and Wildlife Association (NMFWA) workshop to approximately 200 participants in Saint Louis, Missouri. The focus of the presentation was to provide an update to recently completed and ongoing DoD PARC research projects, products, and initiatives. In addition, the U.S. Fish and Wildlife National Listing Workplan was reviewed, and a fun and educational game of trivia was played. DoD PARC looks forward to presenting at the 2024 NMFWA workshop in Grand Rapids, Michigan.

## DoD PARC Annual In-person Meeting



DoD PARC Strategic Planning Meeting Participants 2023

DoD PARC's fifth in-person Strategic Planning Meeting was held 30 May to 1 June 2023 at Fort Cavazos, Texas. 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 of the installation to help augment the presence and distribution of herpetofauna on the base. DoD PARC network members documented the presence of 23 species of herpetofauna, including the first capture and photographic voucher of a Green Treefrog (*Hyla cinerea*) on the base. DoD PARC leadership is very thankful to Fort Cavazos personnel (Tim Buchanan, Scott Summers, Virginia Sanders, Kristin Kabat, and the rest of their Environmental staff) for assisting us with the demonstration of field survey techniques of amphibians and reptiles on the installation and for hosting and participating in the Annual Strategic Planning Meeting.



# Using Genomic Resources to Proactively Monitor Imperiled Species on DoD Lands

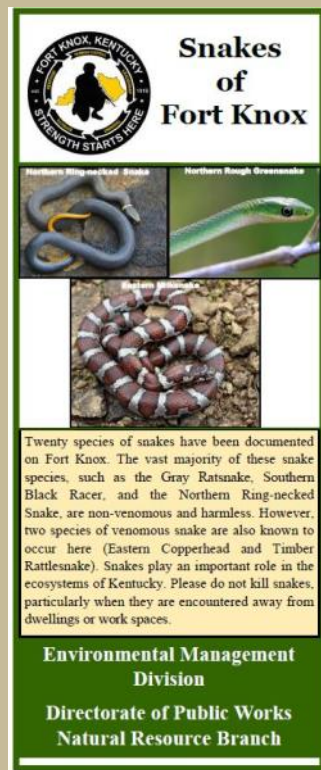


Tangled Bank Biologists Record Data from a Red-bellied Cooter

In support of DoD's objective to prevent the decline of at-risk species on its lands, DoD PARC awarded a cooperative agreement to Tangled Bank Conservation in 2023 to investigate the genomics of nine of DoD's mission-sensitive species on approximately 20 military installations. The goal of this project is to evaluate the current genomic health of populations on and adjacent to DoD sites by estimating recent population trajectories, levels of genetic diversity among populations, effective population sizes, and migration levels among populations. In addition, this project will train installation natural resource managers to collect samples and design future genetic monitoring protocols and programs. DoD PARC leadership is thankful to the many military natural resource managers who are actively participating in this study and look forward to this study continuing in 2024

## Snake Pamphlets

As part of DoD PARC's educational and outreach efforts in 2023, snake pamphlets were developed for the following installations: Fort Knox, Laughlin Air Force Base (AFB), Edwards AFB, Fort Carson, Fort McCoy, Mountain Warfare Training Center Bridgeport, and Joint Base McGuire-Dix-Lakehurst. DoD PARC's pamphlets are an excellent tool for educating military personnel and base residents about the snake species found on the military properties where they work and live.



## Looking Ahead

**Western Pond Turtle Surveys** – DoD PARC, Smithsonian Institute, and the University of Illinois will continue to conduct Western Pond Turtle surveys and population assessments on several military sites in California, Oregon, and Washington in 2024.

**Mission-sensitive Species Genomic Study** – DoD PARC and Tangled Bank Conservation will continue to collect and analyze genetic material collected on military sites in 2024. Focal species will include the Eastern Diamond-backed Rattlesnake, Florida Pinesnake, Blanding's Turtle, Wood Turtle, Alligator Snapping Turtle, Spotted Turtle, Gopher Frog, and Gopher Frog.

**California Conservation Genomics Project (CCGP)** – DoD PARC, and the California Academy of Sciences, along with other partners throughout California, will be collecting specimens of herpetofauna on military bases throughout the state. Specimens will be accessioned in perpetuity for science to fill gaps in collections from military lands, and a subset of species will have their genomes sequenced to compare with a statewide effort that does not presently include sampling from military lands.

**DoD PARC/PIF Bio-inventory Strike Team** – DoD PARC and PARC PIF will continue their collaboration 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 2024, representatives from both networks will jointly conduct field surveys on three military sites where these species have potential occurrence and a summary report will be developed for each of the surveyed installations.

**Podcasts** – More podcasts are planned for 2024. If your installation is conducting a survey or research on herpetofauna and would like to inform the DoD PARC network about the work, please contact the National Representatives.



Long-tailed Salamander-Noah Charney

## DoD PARC Branding

Looking to purchase a new DoD PARC T-shirt or other items with the DoD PARC logo? DoD PARC now has an account with Threadless (<https://parc.threadless.com/>). Order your new T-shirt or choose from numerous other items with our logo today!



# 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)

**Address:** 750 Pacific Hwy., San Diego, CA 92132

**Contact Information:** 619-705-5673;

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  
**DoD Service:** Navy (Naval Facilities Engineering Systems Command Atlantic)  
**Address:** 6506 Hampton Blvd., Norfolk, VA 23508  
**Contact Information:** 757-322-8499;  
paul.a.block6.civ@us.navy.mil  
**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  
**Job Title:** Natural Resources Specialist  
**DoD Service:** Idaho Army National Guard  
**Address:** 4715 South Byrd Street, Building 518  
Boise, ID 83705-8095  
**Contact Information:** 208-272-5107;  
megan.yrazabal.nfg@army.mil  
**Herpetofauna Expertise:** Great Basin Desert habitat and herpetofauna, inventory and monitoring, education and outreach, disease monitoring.



**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)  
**Address:** 6090 West Range Rd., Pineville, LA 71360  
**Contact Information:** 318-290-6306; john.g.himes3.nfg@mail.mil  
**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  
**DoD PARC Position:** DoD PARC Representative  
**Job Title:** Conservation Law Enforcement Officer  
**DoD Service:** Marine Corps  
**Address:** Camp Pendleton, CA 92055  
**Contact Information:** 760-468-9886;  
Melissa.vogt@usmc.mil  
**Herpetofauna Expertise:** Rattlesnake safety and first aid, education and outreach, environmental law and policy.



**Name:** Dave McNaughton  
**DoD PARC Position:** DoD PARC Representative  
**Job Title:** Natural Resource Specialist  
**DoD Service:** Navy (Naval Facilities Engineering Systems Command Southwest)  
**Address:** 750 Pacific Hwy., San Diego, CA 92132  
**Contact Information:** 619-705-5569;  
david.k.mcnaughton2.civ@us.navy.mil  
**Herpetofauna Expertise:** field ecology, inventory and monitoring, radio telemetry, disease monitoring, turtles, fire ecology.



**Name:** Ian Trefry  
**DoD PARC Position:** DoD PARC Representative  
**Job Title:** Natural Resource Manager  
**DoD Service:** Navy (Naval Facilities Engineering Systems Command Public Works Department Maine)  
**Address:** Portsmouth Naval Shipyard, Bldg 59, Third Floor, Portsmouth, NH 03804  
**Contact Information:** 207-438-4362;  
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.



**Name:** Chris Frauenhofer  
**DoD PARC Position:** DoD PARC Representative  
**Job Title:** Wildlife Biologist  
**DoD Service:** Utah Army National Guard  
**Address:** 17800 Camp Williams Dr. Bluffdale, UT 84065  
**Contact Information:** 716-479-8839;  
cfrauenhofer@utah.gov  
**Herpetofauna Expertise:** inventory and monitoring, telemetry, rattlesnakes, wetland/riparian habitat and herpetofauna, great basin & mojave desert habitat and herpetofauna.



**Name:** Seth Berry  
**DoD PARC Position:** DoD PARC Representative  
**Job Title:** Natural Resources Specialist  
**DoD Service:** Navy (Naval Support Facility Indian Head )  
**Address:** 3972 Ward Rd., Suite 101, Indian Head, MD 20640  
**Contact Information:** 301-744-2273;  
seth.m.berry.civ@us.navy.mil  
**Herpetofauna Expertise:** wildlife photography, field surveys and monitoring, development of educational outreach materials, habitat management/creation.

