2017 ANNUAL REPORT







PARC'S MISSION

Forging proactive partnerships to conserve amphibians, reptiles, and the places they live.

Curecanti National Recreation Area, Gunnison, CO. Priya Nanjappa

WHO IS PARC?

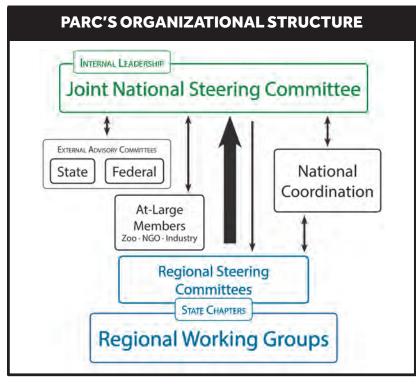
Our partnerships include representatives of government, industry, nongovernmental organizations (NGOs), zoos and aquariums, and academia, as well as private consultants and private citizens.

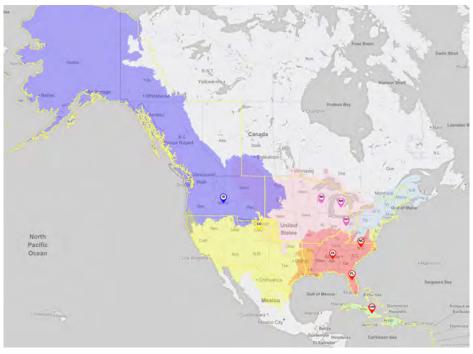
Our membership extends from western Canada throughout the continental United States (US) and into the Caribbean.



Interest in herpetofauna + passion for conservation = PARC This applies to anyone, regardless of expertise or experience!

PARC's organizational structure. Arrows depict the general flow of communication. Scott Hove





PARC's regional and state working groups are our foundation, where on-the-ground issues are translated into actions and products. **Scott Hove**

WHAT'S IN THIS ANNUAL REPORT?

This report celebrates PARC's 18th year, one in which we focused on strategic directions that build on our strong existing partnerships. We continued to work on projects and initiatives that reflect our **5** *Core Values*, which you will see heading the subsequent sections, and framing our accomplishments.

In 2017, we updated the PARC website to reflect our strategic areas of Network growth, and Species and Habitat conservation. **Big thanks to Scott Hove, our website designer.**

Check it out at parcplace.org!

Inclusivity and Collaboration

PARC is a network that is open to people of all backgrounds, skills, and perspectives, thus providing a community of practice, which coordinates and cooperates toward mutual or complementary goals.

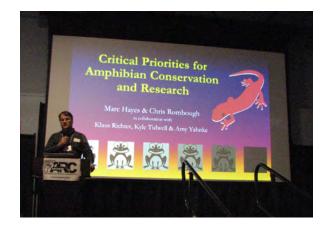
Midwest PARC (MW PARC) – MW PARC had one of its best-attended meetings in Martinsville, Indiana, with over 70 participants from most of the region's states. The meeting started with field trips, followed by an evening poster session. On the second day, there were presentations related to the meeting's theme: the conservation, management and monitoring of fossorial reptiles and amphibians. Additional presentations covered topics such as increasing diversity within conservation fields and using a citizen-science application, *HerpMapper* (herpmapper.org). An engaging keynote address by Steve Spear (The Wilds) capped off the second day. The final day included meetings of working groups and a workshop on Snake Fungal Disease (SFD) led by Matt Allender (University of Illinois Urbana-Champaign).

Northeast PARC (NE PARC) – After 19 years of meetings, it's nice to revisit familiar

locations. This year, NE PARC headed back to the site of its 2007 meeting, Mountain Lake Biological Station in Pembroke, VA. Field trips to observe herpetofauna were led by local herpetologists and were well attended. Some unique highlights of the 2017 meeting included a Conservation Photographyfield trip led by Steven Johnson (Eastern Mennonite University), and a *Batrachochytrium salamandrivorans* (*Bsal*) workshop led by Matt Gray (University of Tennessee-Knoxville's Wildlife Health Center). The planning team is gearing up for the 2018 meeting in Massachusetts and hopes to see you there!

Northwest PARC (NW PARC) – At the 2017 annual meeting of NW PARC, the core values of inclusivity and collaboration were represented by the speakers at the symposium on *Research and Conservation Priorities for Amphibians in the USA and Canada.* In the all-day session, 44 co-authors collaborated on 19 presentations.





Above: Marc Hayes outlining priorities for amphibian conservation and research at the NW PARC meeting. **Betsy Howell**

Bottom left: MW PARC 2017 meeting attendants. Michael Benard

Attendees hailed from 11 US states and 3 Canadian provinces, and represented 11 universities, 4 NGOs, 3 US state departments or agencies, 2 environmental consultants, 1 city department, and independent professionals. There were early-career professionals including graduate students, and late-career and retired luminaries of our time. The diversity of speakers reflected those in attendance; talks were given by US and Canadian citizens, and both men (9) and women (12). Three themes emerged for ongoing work: continuing to understand conservation threats; basic and applied research, including natural history and inventory and monitoring; and connecting people to amphibian conservation.



Southeast PARC (SE PARC) – Attending any conference for the first time can be a nervewracking experience, especially if attending alone. That's why SE PARC initiated a mentorship program at their 2017 annual meeting. They started this program with the hope of making newcomers feel as welcome as possible by having mentors show them around, engage them in conversation, and introduce them to others. This is just one of SE PARC's many initiatives to welcome the next generation of herpetologists and conservation biologists!

Southwest PARC (SW PARC) and Colorado PARC (CO PARC) – This year's joint meeting of SW PARC and CO PARC truly showcased the collaborative and inclusive nature of our organization. The meeting was sponsored by the Denver Zoo and the Colorado Reptile Humane Society, both long-time partners of CO PARC. Representatives from state and federal agencies provided updates on projects from across the Southwest region, and students from Colorado and neighboring states presented their research. The meeting also included a behind-the-scenes tour of Denver Zoo's Tropical Discovery and a field trip to Rocky Flats National Wildlife Refuge, which will open to the public in 2018. Attendees were introduced to the challenges and successes of using social media as a platform for science communication to promote herpetological conservation by the keynote speaker and Auburn University professor, David Steen (livingalongsidewildlife.com).

Caribbean PARC (Carib PARC) - The Carib PARC chapter is one of our proudest examples of inclusivity and collaboration. Their 2nd biannual meeting brought together researchers based or working in countries across the Caribbean, including Haiti, Dominican Republic, Cuba, Puerto Rico, Honduras, US Virgin Islands, and British Virgin Islands. Held in collaboration with the Autonomous University of Santo Domingo, the meeting and symposium brought 70 academics and management practitioners together at the Caribbean Biodiversity Congress, which was attended by an additional 400 Caribbean researchers. Before the symposium, 15 members of Carib PARC

Top Left: NE PARC 2017 meeting attendants. **Lindsay Rohrbaugh** *Bottom Left:* SE PARC 2017 meeting attendants. **Andrew Cantrell** *Bottom Right:* SW PARC 2017 meeting attendants. **Lauren Livo**





Haitian Dwarf Boa *(Tropidophis haetianus)* found during a Carib PARC field trip in Dominican Republic. Nicole Angeli

attended an overnight field trip in the mountains of central Dominican Republic. After an exciting night in the field, the symposium featured 21 talks that ranged across topics of amphibian and reptile ecology, genetics, and conservation. Carib PARC is widening its reach through a collaboration with colleagues in the Lesser Antilles for the 2019 meeting!

Colorado PARC (CO PARC) – CO PARC promotes this core value by holding frequent social events to ensure that members feel involved and engaged between annual meetings. They kicked off 2017 with a social in Denver, where they met at a local restaurant to view *The Venom Interviews* (with permission), a film that documents venomous reptile work and science from a realistic, non-sensationalized perspective. CO PARC wrapped up the year with a fall social in Longmont, with amazing turnout of members, old and new, to share stories from the 2017 field season. CO PARC's socials are a great way to network with other herpetologists while having fun!

Below: CO PARC social in Denver. Joseph Ehrenberger





North Carolina PARC (NC PARC) - What do birds and herps have in common? You might be surprised to learn that these animals face many of the same threats and challenges. NC PARC held its annual meeting in 2017 jointly with NC Partners in Flight at Kanuga Conference Center in the mountains of Henderson County, NC. The joint meeting provided opportunities for learning and networking across taxa and provided a space for the valuable exchanges of ideas and strategies among a diverse group of conservationists. Roughly 80 participants attended the two-day meeting, which included workshops, talks, and a poster session paired with a social, and guided field tours of the surrounding mountains.

AFWA Amphibian & Reptile Conservation Committee (ARCC) – The ARCC serves as the state agencies' voice in PARC; state fish and wildlife agencies have primary management responsibility for amphibians and reptiles. Initially a subcommittee of the AFWA Wildlife Resource Policy Committee, AFWA leadership agreed to promote it to full Committee status in summer of 2017. In doing so, it provides amphibian and reptile conservation issues more prominence in national meetings of these agencies. The Committee recruited 19 members representing 16 states, 1 Canadian province, and 1 federal agency that are new to the ARCC, bringing the total number of members to 39, and creating broader opportunities for interstate and interagency collaboration with PARC. The Committee reviewed and commented on the PARC Strategic Plan, and provided implementation suggestions for ways that PARC can add value to state fish and wildlife agency conservation efforts.

PARC Inclusion, Equity, and Diversity Task Team (IEDTT) – We are thrilled to announce the creation of PARC's newest national task team. the IEDTT! When we recruited the team, there was strong and immediate interest across our membership; this confirmed to us that such a team is desired and needed. The IEDTT is composed of 24 members, representing 19 states and the District of Columbia, who stepped up to implement PARC's core value of inclusivity and collaboration. It is chaired by Neha Savant (Columbia University) and Alex Novarro (University of Maryland). Since its formation in Fall 2017, the IEDTT has hit the ground running with 3 initial projects: (1) collecting and managing data to assess diversity and inclusion at PARC regional meetings; (2) developing a presentation on diversity for regional meetings; and (3) creating an official diversity statement for the PARC national organization. The team also has plans to provide online diversity resources to the PARC network, and to facilitate outreach and training efforts in local communities. If you're interested in joining the task team or contributing to an IEDTT project, email Diversity@parcplace.org!

Top Left: Gophersnake, Pituophis catenifer. Doug Burkett

Inclusion, Equity, and Diversity Task Team Mission:

To recruit, support, and retain members of diverse ethnic, religious, socioeconomic, gender and sexual identities in the PARC network.

Proactive, Responsive and Adaptive Approaches

The PARC model of effective conservation is to anticipate emerging threats when possible, but also to continue to respond to existing needs. In doing so, we develop practical solutions, or build the desired expertise or resources. We aim to adapt our approaches when efficiencies or improvements can be realized. **MW PARC** – This core value is exemplified by MW PARC's Blanding's Turtles and Kirtland's Snakes working groups. The Kirtland's Snake working group is leading projects to increase our understanding of this elusive species' distribution and ecological requirements, to compare survey methods, and to sample for SFD. The Blanding's Turtle working group is developing and implementing a conservation

plan for Blanding's Turtles across their range within the MW PARC region.

NE PARC – Wildlife pathogens and disease emerging at an are alarming rate, but there are some easy steps we can all take to reduce the risk of spreading disease naïve populations. to The Emerging Diseases working group worked diligently over the past year to produce a Ranavirus Decontamination Protocol video, a product aimed at the very heart of PARC's proactive, responsive and

adaptive approach. The video provides a straightforward message to biologists, anglers, and others who work in stream and wetland environments with the information to teach them how to properly clean their gear. The video debuted at NE PARC's annual meeting in Virginia and was finalized in September 2017 for public release. You can check it out on PARC's website (parcplace.org/resources/herpetofaunal-disease-resources)!

NW PARC – NW PARC's 2017 symposium, Research and Conservation Priorities for Amphibians in the USA and Canada, provided a platform for identifying

> accepted methods to prevent the spread of wildlife diseases. Through a network of partners, they reached hundreds of groups, businesses, and individuals, providing them with disinfection protocols and an introduction to OH PARC.

same theme. Together, these sessions will

integrate existing knowledge and frame

emerging topics that need additional

Ohio PARC – OH PARC got off to a great

start this year, reaching out to those

who visit reptile and amphibian habitats but might not be aware of commonly

attention in an adaptive framework.

Department of Defense PARC (**DoD PARC**) – DoD PARC is at the center of Dixie Valley Toad (*Bufo [Anaxyrus] williamsi*) conservation. This newly described species only occurs on Navy lands, and in September, was petitioned for listing under the Endangered Species Act. The Navy is partnering with Bureau of Land

Management (BLM), US Geological Survey (USGS), US Fish and Wildlife Service (USFWS), and Nevada Department of Wildlife to take proactive conservation measures to protect this species.

opportunities to be proactive, responsive, and adaptive. The resulting themes of the symposium are being synthesized into a guiding document for others to consider in their related work. In addition, NW PARC is planning a companion session at their 2018 annual meeting that follows the



Committee Federal Agency Steering (FASC) representatives: US Forest Service (USFS), USFWS, and NPS - The USFS has convened quarterly phone calls for years among biologists across the nation who are interested in herpetofaunal conservation. The calls allow for information exchange and facilitate proactive, responsive and adaptive approaches to species conservation and habitat management. NPS and USFWS were inspired by their value and are scheduling similar teleconferences among biologists and natural resource managers within their agencies. The first NPS call was held in December and the first USFWS call was scheduled for January 2018. These calls provide a proactive platform for sharing information and identifying common challenges that the PARC network may be able to address through responsive and adaptive conservation solutions.

Below: Blanding's Turtle (Emydoidea blandingii). Michael Benard





Above: OH PARC members at the 2017 MW PARC meeting. Matt Cross

FASC representative: BLM – BLM finished its final round of reviews for their national strategic plan for herpetofauna. Topics include BLM's role in and a need for proactive herpetofauna conservation, and their approach to and vision for these efforts. Specific threats to amphibian and reptile

habitats and populations are identified, as well as the benefits of a national strategy and specific recommendations for conservation actions. The FASC looks forward to the release of the final version in 2018!

AFWA ARCC – The fungal pathogen, *Bsal*, has not yet been detected in the US. To proactively evaluate the risk to high priority species, the Committee leadership successfully secured and began to implement grant funding totaling just over \$200,000 from a private foundation toward *Bsal* research. The research funds are part of a larger grant to AFWA and partners to examine wildlife health practices and policies, particularly for nongame species. In 2017, these Bsal research funds helped assess the susceptibility of 9 US native salamander and frog species that are either widely distributed or high conservation priorities for states, with more species to be evaluated in 2018. Research into treatments and probiotic mitigation options was also supported. These findings are furthering Bsal knowledge and inspiring new research. The work will help states prioritize response and mitigation efforts if, or when. Bsal arrives in the US.



PARC's Joint National Steering Committee (JNSC) - When species are determined to be declining, there are often windows of opportunity to invest in proactive conservation to help recover populations and avoid an Endangered Species Act listing. Such an opportunity has presented itself to PARC's JNSC, with Western Pond Turtles (WPT, Actinemys spp.). Our zoo representative, the Association of Zoos & Aquariums (AZA), and partners from its member institutions initially led the charge via their collaborative, strategic conservation initiative SAFE: Saving Animals From Extinction (aza.org/safe). In 2017, SAFE programs collaborated with PARC members on range-wide conservation planning, and also conducted health-related research of the WPT. FASC members and the AFWA ARCC members supported the engagement of the relevant agencies and offices within the WPT

range. Through an initial 2.5-day meeting held in April among key management stakeholders and PARC's National State Agencies Coordinator, the team produced a set of goals and outlined a strong rangewide conservation and management plan. PARC, AZA, state, federal, nongovernmental, and industry partners will continue to develop the plan in 2018.

Top Left: Rough-skinned Newts (*Taricha granulosa*) are among those species being evaluated for *Bsal* susceptibility through private funding secured by AFWA's ARCC. **Paul Block**

Top Right: Florida Red-bellied Cooter, *Pseudemys nelsoni.* **Alexander Novarro**

Bottom right: Puerto Rican Crested Anole, *Anolis (Ctenonotus) cristatellus cristatellus.* **Paul Block**



Scientific Integrity

PARC produces or delivers materials and services that are based on the best available science and expertise, and we update and improve these as new data become available.

Great Basin Collared Lizard, Crotaphytus bicinctores. Tim Torell

CO PARC – CO PARC's services in the field continued through a multi-year project with Colorado's Department of Transportation and USFS Comanche National Grassland in southeastern Colorado. This is the second year collecting and providing data to partners on amphibian and reptile road usage mortality, as well as observations in high-use areas of the grassland.

DoD PARC – DoD PARC wants to equip all Navy personnel with the knowledge and skills to conserve amphibians and reptiles. That's why they developed online training modules about herpetofaunal biology, ecology, survey techniques, management and conservation practices, including a video on venomous snake safety and removal techniques. All training modules are available to both military and civilian personnel at the Navy's Environmental Compliance, Assessment, Training, and Tracking System website (ecatts.com).

FASC Representative: USFS – The USFS funded production of Conservation and

Management of Amphibians and Reptiles of the Southwestern United States, the 5th and final video in a webinar series that promotes the content within PARC's Habitat Management Guidelines. There were more than 120 registrants for the webinar, and we continue to receive rave reviews from attendees! These webinars are available on the PARC website (parcplace.org/ habitat/habitat-management-webinars) and on PARC's YouTube channel.

Gopher tortoise (Gopherus polyphemus). Jessica Homyack



SCIENTIFIC INTEGRITY | Find us at PARCplace.org, on Facebook @PARCherps and on Twitter @PARCorg!

AFWA ARCC - State fish and wildlife agencies were founded on the notion of sustainable use. When a science-based proposal to curtail commercial collection in reptiles in the state of Nevada was being met with opposition, the ARCC assisted in the development of a letter to the Nevada Board of Commissioners, signed by AFWA's President. The letter promoted the North American Model of Wildlife Conservation, and specifically the tenet of "Science is the Proper Tool for Discharge of Wildlife Policy." Reptiles are among the few groups of wildlife for which commercial trade is allowed. and universal application of restrictions is lacking. Where collection is unrestricted or where restrictions can be circumvented,

the monetary incentive, particularly for reptiles, is greater than permit fees or violation fines, and unscrupulous collectors will exploit the resource.

Forest industry representative: Weyerhaeuser – Weyerhaeuser uses collaborative research and conservation to advance understanding of how managed forestlands support populations and provide habitat for amphibians and reptiles. Several such efforts among the National Council for Air and Stream Improvement, USFWS, University of Georgia, Mississippi State University, large private landowners (e.g., Weyerhaeuser Company, Rayonier, Resource Management Service, LLC), and state agencies (e.g, Georgia, Louisiana, South Carolina) are investigating Gopher Tortoise (*Gopherus polyphemus*) ecology on private working forests and understand conservation value of these forests. This work includes response of Gopher Tortoises to habitat management and the shifting mosaic of appropriate habitat conditions on working forests.

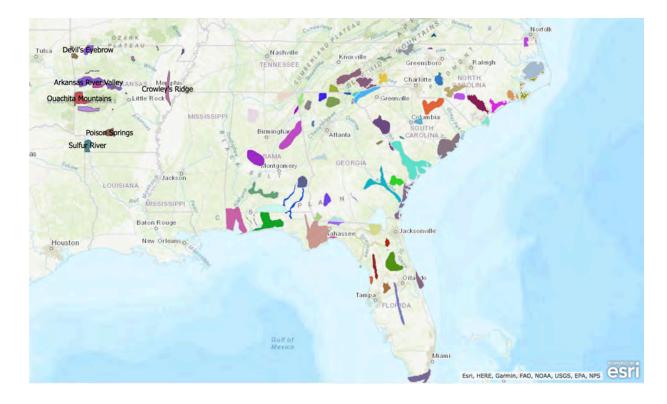
Zoo representative: AZA – This year marked the 19th year of FrogWatch USA, a citizen science program that AZA has hosted since 2009. This nationwide effort asks people to report frogs and toads that are calling in local wetlands during the breeding season. In 2017, nearly 850



wetlands were monitored across the country, and almost 10,800 species observations were recorded. A total of 146 organizations now host local FrogWatch USA chapters, engaging, inspiring, and creating enthusiasm for frogs and toads throughout the country! AZA encourages everybody to help celebrate the program's 20th birthday in 2018 (aza. org/frogwatch).

PARC's JNSC - Priority Amphibian and Reptile Conservation Areas (PARCAs) are geographic areas of particular importance to herpetofaunal conservation, designed to encourage and incentivize voluntary habitat management, restoration, or land acquisition which in turn can benefit several wildlife species and can enhance ecosystem health. PARC's new strategic plan has identified PARCAs as one of the primary areas of focus for the next 3 years. In 2017, the USFWS and USFS generously provided funding to identify PARCAs in several more states, with over half of the continental US to be completed by the end of 2018. Candidate PARCAs were identified in 3 new states (Arkansas, Iowa, and Washington) in 2017.

PARC Disease Task Team (DTT) – Pathogen surveillance in herpetofaunal populations is still a relatively new form of survey. To help create a resource for people who want to conduct such work, the DTT produced a publication outlining standardized approaches to pathogen surveillance in herpetofaunal



communities (Gray et al. 2017). The chairs of the DTT (Matt Gray and Matt Allender) led workshops on the salamander fungal pathogen, *Bsal*, at the annual meetings of SE and NE PARC and on the pathogen that causes snake fungal disease, *Ophidiomyces ophiodiicola*, at MW PARC. The team also launched the Herpetofaunal Disease Alert System (HDAS). Suspected cases of disease outbreaks can be submitted to the HDAS, and the PARC DTT will notify appropriate individuals in natural resource management agencies that have the authority and ability to respond locally. The DTT is composed of 16 herpetofaunal disease experts from the US, Canada and Mexico, and meets monthly to discuss emerging herpetofaunal disease issues. More information about the DTT and HDAS can be found on the PARC website (parcplace.org/ resources/parc-disease-task-team).

Left Page: The Eastern Collared Lizard (*Crotaphytus collaris*) is one of several highly sought after species in the commercial reptile trade; without limits to ensure sustainability, populations can quickly decline. **Doug Burkett**

Above: Map of candidate PARCAs identified in the Southeastern US. **JJ Apodaca**

Biodiversity

Although our focal species are amphibians and reptiles, PARC considers the work we do in the context of maintaining, conserving, or enhancing all levels of biodiversity, from genetic diversity to habitat quality and ecosystem function. This approach benefits and complements multiple species and conservation partners.

Northwestern Salamander (*Ambystoma gracile*) found on the Jim Creek Naval Radio Station, Washington. **Rob Lovich**

Top Right: Eastern Spadefoot (*Scaphiopus holbrookii*) found on Marine Corps Base Camp Lejeune, North Carolina. **Justin Sweitzer**

Bottom right: Common Chuckwalla (*Sauromalus ater*) found on Marine Corps Air Station Yuma, Arizona. **Rob Nixon**



SE PARC – SE PARC's Education and Outreach Task Team has been preparing to launch their *Yard Herping* campaign. This effort goes beyond PARC's membership and the Southeast, with the hope of educating the public on how to construct habitats at home for amphibians and reptiles. The campaign will utilize social media to have an open conversation about amphibians and reptiles and their habitats, learn about the success of home projects, and assist with species identification.

DoD PARC – DoD PARC's herpetofaunal biodiversity study found that DoD lands are home to 63% of all native herpetofaunal species in the continental US! This robust study spanned 415 military (Army, Navy, Air Force, and Marine Corps) installations/ detachments and the data has already been put into action. Results were used to develop a conservation status summary report, parsing out which species are federally listed under the Endangered Species Act, state-listed, ranked as G1/T1-G3/T3 on NatureServe, Under Review by the USFWS for listing, and/ or are petitioned for listing. These documents will help prioritize actions that will address conservation concerns and also meet installation needs. As the first federal agency to produce a comprehensive report detailing the herpetofaunal species found on their properties, DoD is paving the way for largescale amphibian and reptile conservation.

FASC Representative: USFS - The USFS is committed to science-based conservation, supporting Frosted Flatwoods Salamander (Ambystoma cingulatum), Reticulated Flatwoods Salamander (A. bishopi), and Wood Turtle (*Glyptemys insculpta*) conservation. In partnership with the Amphibian & Reptile Conservancy, PARC's non-profit partner, the USFS sponsored eDNA surveys to determine distribution of these salamanders on and near USFS lands in the southeast, and a longterm monitoring project for Wood Turtles on a national forest in Michigan. Such projects contribute to the scientific integrity of management actions on USFS lands.

Forest industry representatives: Weyerhaeuser – Conservation of biodiversity relies increasingly on privately-owned and managed landscapes to expand protected areas. Third-party sustainability certification systems such as the Sustainable Forestry Initiative (sfiprogram.org) provide expectations for forest program participants to manage for biodiversity on their ownerships. Performance measures include retention of important habitat elements, such as snags and down woody debris, and participation in regional conservation planning efforts.

Zoo representative: AZA - This year, 163 members of the AZA community worked on behalf of more than 200 amphibian and reptile species! This work was documented in 3 reports that celebrate the AZA-accredited zoo and aquarium community's 2016 field conservation activities, research, education programs, and green business practices (aza.org/annual-report-on-conservationand-science). The 2016 Annual Report on Conservation and Science details each member's engagement in these areas; 2016 Highlights provides an overview of the AZA community's activities; and 2016 Publications from the AZA Community comprises citations for publications related to these efforts.

PARC's JNSC – Wetland conservation projects support a vast array of plants and animals. Ephemeral wetlands, such as vernal pools or seasonal ponds, are especially important breeding habitat for amphibian species. That's why PARC proudly sponsored a presentation titled *Building Wetlands in Your Forest or Meadow* at the 2017 Wildlife Habitat Council (WHC) Conference. During this breakout session, JJ Apodaca (PARC Sr. Co-chair, Tangled Bank Conservation[™]) explained how to create ephemeral wetlands on private land using best practices for species conservation.



Optimism

PARC communicates challenges and needs for amphibians and reptiles in a positive manner, providing hope and highlighting successes, and looking at all possible opportunities where we can make a difference.

A A A A A A A A A A A A

American Alligator, (Alligator mississippiensis). John David Curlis



Top: Jim Andrews, the recipient of NE PARC's 2017 Award for Excellence in Herptofaunal Conservation. **Lindsay Rohrbaugh**

Bottom: NC PARC at the North Carolina Museum of Natural Sciences' Reptile and Amphibian Day. **Jeff Hall**

PARC's JNSC – The PARC leadership strives to acknowledge and celebrate herpetofaunal our conservation champions. And that's why Greg Lipps (Ohio Biodiversity Conservation Partnership) is the 2017 recipient of the Alison Haskell Award for Excellence in Herpetofaunal Conservation! Greg's nomination was endorsed by 29 leaders in the field of conservation. including employees from federal, state, and local government, zoos, non-governmental organizations, academia, environmental consultants, land trusts, and more! The vast array and strength of partnerships Greg fosters is exemplary and in direct support of PARC's mission to "forge proactive partnerships to conserve amphibians, reptiles, and the places they live." Thank you, Greg, for all that vou do!

NE PARC – Recognizing the efforts of our herpetological heroes, as well as the efforts of students, is very important to NE PARC. The NE PARC community and steering committee were delighted to honor Jim Andrews Middlebury College, Vermont of with the inaugural NE PARC Award Excellence in Herpetofaunal for Conservation. But the awards didn't stop there. Several student researchers also took home awards. David Muñoz from Penn State University took home praises and cash as the student presentation winner. Poster accolades and cash were also presented to August Blackman of Oberlin College in Ohio for best undergraduate poster and to Brandon LaBumbard from University of Massachusetts for best graduate poster. Congratulations to everyone!

NC PARC – The North Carolina Museum of Natural Sciences held its annual Reptile and Amphibian Day in March of 2017. The NC PARC Education and Outreach working group provided a booth with the theme of *Backyard Habitats for Herps*. Through a combination of live native animals and various displays of setups for attracting reptiles and amphibians (e.g. brush piles, small ponds, etc.), visitors left with a greater appreciation for how they could improve their own backyards for native herps. And plenty of excitement and smiles too!

SW PARC – SW PARC established its 1st liaison, Brent Schulze, to the Kansas Herpetological Society (KHS) to begin building a bridge with the prominent state herpetological society. Together, the groups hope to address conservation issues that affect amphibians and reptiles in the Great Plains. KHS has demonstrated excellent leadership in outreach efforts to raise awareness and appreciation of amphibians and reptiles. SW PARC and KHS hope to solidify a network



of partners to address the conservation issues in the Great Plains, and reinforce partnerships that already tie the Southwest together with MW PARC!

NW PARC – At the 2017 annual meeting. NW PARC honored 3 members who have spent their lives working to conserve and protect amphibians and reptiles. Hartwell Welsh, Jr. (USFS) became the second recipient of the Luminary Award, a distinction bestowed on an individual who exemplifies extraordinary leadership in the field of herpetofaunal conservation. NW PARC also inaugurated a second regional award, the Unsung Hero Award, to be given to those individuals who have worked tirelessly over many years for little or no acclaim while still greatly influencing the field of conservation. This year, Char Corkran of Portland, Oregon, and Deb Patla, of Moran, Wyoming, each received the Unsung Hero Award.

AFWA ARCC – The ARCC is committed to leveraging the PARC network toward opportunities for addressing species conservation before they approach the

brink. In particular, the Committee renewed its interest in working with PARC toward development of resources to address issues of illegal trade and trafficking in amphibians and reptiles, as well as development of conservation and recovery plans for petitioned amphibian and reptile species. The ARCC worked with species experts in the PARC network to make states aware of training opportunities for law enforcement personnel in species identification and venomous snake handling. The Committee continues to collaborate with the FASC and JNSC on the development of rangewide species conservation and management strategies.

FASC representative: The Natural Resources Conservation Service (NRCS) NRCS is making a difference by targeting amphibian and reptile conservation at state and national levels. Bog Turtles (Glyptemys muhlenbergii) and Gopher Tortoises have been national target species for the Working Lands for Wildlife (WLFW) strategy. Several WLFW 2.0 proposals were submitted in 2017 at the state level, including one led by the Illinois NRCS State Office, coordinated by PARC, and collaborated on by 14 other partners for Blanding's Turtles (Emydoidea blandingii), another that also targets Blanding's as well as Spotted (Clemmys guttata), and Wood Turtles in the Northeastern US, and a third focusing on Hellbenders (Cryptobranchus alleganiensis), led by the North Carolina NRCS State Office.





Farm Bill programs to support conservation practices that benefit recovery of these at-risk species on private farms, ranches and forests, and that also benefit agricultural operations and conservation goals of private landowners. NRCS and partners provide technical assistance, cost sharing, and incentive payments.

Top Left : Spotted Turtle (Clemmys guttata). Alex Novarro

Top Right: NW PARC steering committee members with 2017 Luminary Award recipient, Hartwell Welsh (USFS), Arcata, CA. **Betsy Howell**

Bottom Right: Greg Lipps receiving the Alison Haskell Award for Excellence in Herpetofaunal Conservation at the 2017 JNSC in-person meeting. Also shown are 2017 PARC JNSC co-chairs, Kristin Stanford (Ohio Sea Grant and The Ohio State University Stone Laboratory, left) and JJ Apodaca (right). Jen Williams

ACKNOWLEDGEMENTS

CREDITS:

Front Cover: The biodiversity on the front cover demonstrates PARC's commitment to the conservation of all herpetofauna, no matter how big or small, as well as our ongoing efforts to promote an inclusive, equitable, and diverse organization.

Left: Great Basin Fence Lizard, *Sceloporus occidentalis longipes.* Jonathan Drescher-Lehman *Top right:* Bog Turtle, *Glyptemys muhlenbergii.* Charlie Eichelberger *Bottom right:* Spring Salamander, *Gyrinophilus porphyriticus.* Alexander Novarro

Back Cover: A Colorado Desert Sidewinder *(Crotalus cerastes laterorepens)* strategically waits for its next meal outside a round-tailed groundsquirrel burrow. Like this snake, PARC has spent the past year strategically planning for the growth and success of our organization. Danny Martin Photography [®].

EDITORS:

PARC Communications Specialist: Alexander Novarro, University of Maryland, College Park, MD

PARC National Coordinators:

Priya Nanjappa, Association of Fish and Wildlife Agencies (AFWA), Washington, DC Jen Williams, National Park Service (NPS), Fort Collins, CO

SUGGESTED CITATION:

Novarro, A.J., P. Nanjappa, and J. Williams (Eds.). 2018. Annual Report: 2017. Partners in Amphibian and Reptile Conservation (PARC), Annual Report No. 8. Hagerstown, MD. 22 pp.

Thank you to Kaitlin Cremmins for graphic design and layout.





