



ASSOCIATION of
FISH & WILDLIFE
AGENCIES

AMPHIBIAN & REPTILE CONSERVATION COMMITTEE

Chair: David Golden (NJ)

Vice-Chair: Becky Gwynn (VA)

March 12, 2025

1:15 pm – 3:15 pm

90th North American Wildlife and Natural Resources Conference

Louisville, KY

Room: See Whova App

Agenda

- 1:15 pm Call to Order / Introductions / Agenda Review
David Golden, New Jersey Department of Environmental Protection
- 1:25 pm Partners in Amphibian and Reptile Conservation (PARC) Updates
Brad Jost, BLM
- **PARC's Mission:**
 - *Forge proactive partnerships to conserve amphibians, reptiles, and their habitats.*
 - *Emphasis on public-private partnerships.*
 - **FASC (Federal Agency Steering Committee) Update:**
 - *Advisory role to PARC.*
 - *Monthly coordination meetings focused on HERP conservation and state of HERPs.*
 - **National Task Teams Updates:**
 - **Disease Task Team:**
 - *Development of disease resources for managers.*
 - *Management of the Herp Disease Alert System (HDAS).*
 - *Creation of fact sheets, guidelines, and webinars (e.g., Snake pentastomes, ranavirus).*
 - *Resources available on PARC's YouTube channel and website.*
 - **North American BSAL Task Force:**
 - *Focus on preparing, detecting, and responding to Bsal.*
 - *Website updates and resource improvements underway.*
 - **Amphibian Week and Wild Turtle Week:**
 - *Amphibian Week: First full week in May.*
 - *Wild Turtle Week: Scheduled for June 9-13, 2025*
 - *Availability of media toolkits on PARC's website for promotion.*

*QA: Amphibian week – AZA’s technical advisory week, give update from PARC at that advisory meeting
AZA amphibian herp tag, Dustin from NC Zoo is point person, AZA is tied into the amphibian week
planning, so they are engaged, but doing a presentation is a good idea*

1:40 CCITT / ARC Update
JJ Apodaca , Executive Director, Amphibian and Reptile Conservancy

- **Role of ARC:**
 - Fiscal sponsor of PARC, funding national conservation efforts.
 - Annual expenditure: \$100,000 to \$150,000 for PARC operations.
- **Conservation Focus:**
 - Developing nationwide conservation strategies for amphibians and reptiles.
 - Emphasis on both strategic planning and on-the-ground conservation.
- **Conservation Goals and Approaches:**
 - Identification of PARC priority conservation areas nationwide.
 - Building and sustaining on-the-ground conservation projects.
- **2020 vs. Present Programs:**
 - Expansion from one program in Francis Marion National Forest to multiple states from Virginia to California.
 - Full-time staffed programs including headstarting, habitat restoration, and policy work.
- **Public and Private Land Partnerships:**
 - Extensive collaboration with federal agencies (e.g., NRCS, US Fish and Wildlife Service).
 - Example Projects:
 - **Bog Turtles:** Restoration and reintroduction across multiple states with partnerships.
 - **Flatwood Salamanders:** First reintroduction on private lands under Section 10 of the ESA.
 - **Houston Toad Recovery:** Habitat restoration and potential reintroduction with a \$5 million RCPP grant.
- **Farm Bill Policy Integration:**
 - Leveraging NRCS and Farm Bill dollars for private land restoration.
- **Tribal Working Group:**
 - Collaboration with Native American Fish and Wildlife Society.
 - Two-year ongoing training programs and workshops with tribal partners.
- **Innovative Recovery Programs:**
 - Red Hill Salamander monitoring using AI and aerial imagery for illegal harvesting detection.
- **Gopher Frog Reintroduction:**
 - 700 gopher frogs released as headstarts in fully restored wetlands.
 - Collection and metamorphosis of eggs before release.
- **Flatwood Salamanders Reintroduction Agreement:**
 - Upcoming release of 1,700 Flatwood Salamanders.
 - Collaboration with Fish and Wildlife Service to streamline agreements.
 - Reduction of reintroduction paperwork from 1-2 years to 1-2 months.
- **Future Partnerships:**
 - Acquisition of 14,000 acres along the Wolf River for dusky gopher frog restoration and other species.
 - Potential funding through NFWF and Longleaf Fund.

- **Virginia's Replacement Costs for Reptiles:**
 - Establishment of replacement costs to support prosecution of illegal trade.
 - Replacement costs grounded in conservation and recovery expenses rather than market value.

1:55

Hellbenders and Hurricanes

Brad Howard, Wildlife Management Division Chief, North Carolina Wildlife Resource Commission

- **Impact of Hurricane Helene:**
 - Described as a "thousand-year event" with severe landscape changes.
 - Over 33 inches of rain, 55+ mph winds, and extensive flooding.
 - Economic losses exceeding \$53 billion.
- **Effects on Hellbender Habitat:**
 - Significant sediment deposition and river channel alterations.
 - Shifting bed loads and displacement of large rock substrates.
 - Destruction of riparian zones and changes in water quality.
 - Reports of up to 100 dead hellbenders in small areas.
- **Recovery Efforts:**
 - Priority for 2025: Triage, habitat assessment, water chemistry testing, and population surveys.
 - Utilization of eDNA samples for targeted snorkel surveys.
 - Continued breeding and monitoring surveys.
 - Collaboration with large network of partners in North Carolina and the southern Appalachians.
- **Educational Outreach:**
 - Rocky, the certified educator mascot, to promote hellbender awareness.
- **Positive Outcomes:**
 - Presence of fish species post-flood
 - With the number of dead hellbenders we saw, our previous population estimates were probably lower than the actual number of hellbenders in the study sites.
- **Other River Watershed Impacts:**
 - Severe damage to hellbender populations in the New River watershed in VA
 - Destruction of habitat structures like nest boxes.
 - Pisgah River did alright, there were initial worries due to the extensive flooding, but it seems okay.
- **Challenges in Habitat Restoration:**
 - Removal of debris, heavy machinery presence, and ongoing infrastructure rebuilding.
 - Monitoring and translocation efforts for surviving hellbenders.
 - Pending listing by the U.S. Fish and Wildlife Service could complicate some of this restoration work.

2:10

Socioeconomic Epidemiology of Disease Risk in Wildlife Trade Networks

Dr. Matt Gray, University of Tennessee

- *Global wildlife trade is a \$300 billion annually industry.*
- *Approximately 2 billion specimens traded each year, with one-third being live animals.*
- *Over 1,000 species involved.*
- *High-income countries, primarily the United States, European Union, and UK, drive demand.*

Disease Concerns in Trade Networks

- **Pathogens:**
 - *Common pathogens include chytrid fungi (Bd) Bsal, and rhinovirus.*
 - *These pathogens have led to the decline of over 500 species globally and 100 species in the US.*
- **Transmission Pathways:**
 - *Disease movement is influenced by government regulations, industry biosecurity practices, and consumer demand for healthy animals.*
 - *Spillover of pathogens from captive to wild populations is a major conservation concern.*
- **US Regulations:**
 - *No federal programs regulate or support clean and healthy wildlife trade.*
 - *USDA APHIS oversees animal health certificates for aquaculture, agriculture, and companion animals but not wildlife.*
 - *Wildlife regulation falls under the Fish and Wildlife Service, which lacks authority over amphibian pathogens.*
- **Conservation Impact:**
 - *Pathogens like Bd and Bsal are significant threats to amphibian and reptile populations.*

Healthy Trade Institute (HTI) Initiatives

- **Overview:**
 - *The Healthy Trade Institute (HTI) is a newly established 501(c)(3) organization aimed at promoting healthy trade practices in the wildlife trade.*
 - *Opened a year ago with a vision to empower businesses through science-driven and health-focused initiatives.*
- **Programs:**
 - **Healthy Trade Certification Program:**
 - *Requires businesses to undergo online training, implement biosecurity measures (quarantining, testing), and respond to positive pathogen cases.*
 - *HTI provides consultation on biosecurity practices and testing protocols.*
 - *Demonstrated profitability through reduced losses and consumer willingness to pay 80% more for pathogen-free animals.*
 - **Nationwide Herp Adoption Program:**
 - *Launched in 2024 for amphibians, expanding to reptiles in 2025.*
 - *Collaborates with the University of Tennessee to test and rehome surrendered animals to HTI member businesses.*
 - *Targets common species like bearded dragons and ball pythons, with plans to expand testing for additional species and pathogens.*

Funding and Partnerships

- **HTI Funding:**
 - *Operates through fundraising with partial cost-sharing from the University of Tennessee.*
- **Partnership Opportunities:**

- *Seeking collaborations with state natural resource agencies and other organizations for marketing, awareness, and official endorsements.*
- *Encourages states to require businesses to join HTI or contribute financially to support operations.*

2:30 Kentucky's Amphibian and Reptile Conservation Update
Courtney Hayes, Kentucky Department of Fish and Wildlife Resources

- **State Herpetologist Efforts:**
 - *Ongoing surveys in Mammoth Cave National Park since 2002, focusing on species like the six-line racerunner and northern pine snakes.*
 - *Declines observed in grassland reptiles due to inconsistent habitat management practices.*
- **Crawfish Frog Surveys:**
 - *Regular breeding pond surveys in western Kentucky.*
 - *Challenges due to habitat destruction and limited survey opportunities.*
- **Reptile and Amphibian Inventory:**
 - *Collaborative development of a comprehensive "Reptiles and Amphibians of Kentucky" book.*
 - *Intensive field mapping and volunteer-driven salamander blitzes to document species presence.*
- **Hellbender Conservation:**
 - *Active trapping, tagging, and genetic sampling to manage and reintroduce populations.*
 - *Partnership with Purdue University for head-start programs to increase survival rates from eggs to sub-adulthood.*
 - *Efforts to maintain genetic diversity and prevent interbreeding between distinct populations.*

2:50 Funding the State PARC Coordinator Position Discussion
David Golden, New Jersey Department of Environmental Protection

No stable funding for a state PARC coordinator over the years. Must work together to figure out how to get stable funding.

- *One concept is to have each state pitch in to fund this. As an example, if each state puts in \$2k there's \$100k of funding that could support the salary for a State PARC Coordinator.*
- *There is a new mechanism within the USFWS to allow for this called Collaborative Conservation Initiative (CCI).*
- *JJ: we tried this previously and had \$70k committed, but AFWA said no.*
 - *DG: **Collaborative Conservation Initiative (CCI)** is a mechanism for states to tell USFWS to hold back certain percentages of their federal money to be held back for a CCI project. Then there is an identified "CCI entity" who is getting that money to be used for the project (e.g. state PARC Coordinator). CCI was just approved in January 2025 and while you could have done that before, it would have required 50 agreements (one from each state). Now it is one agreement*

between USFWS and CCI entity. This would not be a direct ask from AFWA to increase dues. So a much different approach than previously discussed.

3:05 Federal, State, Tribal & Partner Roundtable

3:15 Wrap up and Adjourn