Greetings!

Another FrogWatch USA monitoring season has ended, and it was a fantastic 18th year of the program! Based on what has been submitted to date, nearly 11,800 species observations were recorded at over 890 wetland sites in 2016 - go online and see where. Think about that accomplishment for a moment - nearly 900 wetland sites across the country were monitored using exactly the same protocol! This amazingly rich snapshot of frog and toad activity across the country is only possible because of the contributions from each and every one of you. Thank you so much for your efforts!

Enter and Explore Data Online

If you have any observations from the February 1-August 31, 2016 season, now is a good time to enter them into FrogWatch-FieldScope, or you may email your datasheets to frogwatch@aza.org.

FrogWatch USA data have been collected since 1998 and this entire dataset is available online. Create maps or graphs to explore the data based on your own location, favorite species, or other interests, and share them with your family, friends, and other FrogWatch USA volunteers. Maps and graphs are a great way to see how your observations contribute to our understanding of frogs and toads.

We have many available resources to help you enter your data and explore it, including a free online course. Your chapter coordinator is also a great resource, so feel free to reach out to them if you have any questions, or email us at frogwatch@aza.org.

A New Home for FieldScope

We are excited to announce that FieldScope is now being hosted by the Biological Sciences Curriculum Study (BSCS). Dr. Daniel Edelson, executive director of BSCS, was the original visionary behind FieldScope, and he and BSCS are excited for the opportunity to help FieldScope become a leading tool in citizen science and learning. We do not anticipate any disruptions in service and are thrilled that Dr. Edelson remains committed to FieldScope. We look forward to working with him and his team to grow and expand FieldScope into the future.
Welcome, New Chapters!

Five new chapters joined our active and growing community in 2016. We welcome them and encourage you to reach out to them if they are in your community.

- ABQ BioPark FrogWatch (NM)
- DC Department of Energy and Environment FrogWatch (DC)
- Elmwood Park Zoo FrogWatch USA (PA)
- FrogWatch Wilton Wildlife Preserve & Park (NY)
- Little Rock Zoo FrogWatch USA (AR)

Click here, or on the map to the right, to see all 141 chapters!

Thank You, Volunteers!

FrogWatch USA has an incredibly dedicated volunteer base. We wanted to recognize the following volunteers for their consistent monitoring for (at least!) the past five years:

<table>
<thead>
<tr>
<th>Adam S. (AR)</th>
<th>Ann E. (MO)</th>
<th>Barbara F. (SC)</th>
<th>Bonnie B. (MD)</th>
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<tbody>
<tr>
<td>Cathy M (IN)</td>
<td>Chris H. (TN)</td>
<td>Dave &amp; Kate L. (VA)</td>
<td>Denis W. (MD)</td>
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<tr>
<td>Ken P. (MD)</td>
<td>Lorri G. (CA)</td>
<td>Marggie F. (IN)</td>
<td>Meo C. (MD)</td>
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<tr>
<td>Pam F. (MD)</td>
<td>Rene I. (MD)</td>
<td>Rob &amp; Donna K. (PA)</td>
<td>Ron D. (MD)</td>
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<tr>
<td>Rusty W. (SC)</td>
<td>Sabrina F. (MD)</td>
<td>Scott N. (IN)</td>
<td>Stephanie M. (VA)</td>
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<tr>
<td>Sue M. (MD)</td>
<td>Susan W. (MA)</td>
<td>Tracy L. (OH)</td>
<td>Yohn S. (VA)</td>
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We would also like to congratulate Karen G. from Indiana for logging 184 visits - the highest number of visits for a single observer this year, as well as the volunteers of the Beardsley-Peabody FrogWatch chapter in Connecticut for logging 494 visits - the most from a single chapter!

What Did Volunteers Hear?

In 2016, 89 unique frog and toad species were reported by FrogWatch USA volunteers. The most frequently reported species were the:

- Spring Peeper
- Green Frog
- Gray Treefrog
- American Bullfrog
- American Toad

Click here, or on the image to the right, to view a larger graph of the most frequently reported species in 2016, generated in FrogWatch-FieldScope.

Do you have any fun images or recordings of these species from your monitoring visits? Share them on our Facebook page!

FrogWatch USA in the Media

FrogWatch USA was featured in an article of the September 2016 issue of Connect, AZA's member magazine. The article, titled "Raising Citizen Scientists", shares stories of students around the country doing citizen science projects, including a group of very excited 3rd and 4th graders participating in their first FrogWatch USA monitoring session. The article concludes that citizen science projects aren't just helping people to learn, do, and become inspired by science, but are also strengthening their empathy for the environment and their willingness to protect it.

AZA's annual Amphibian Conservation: Highlights and Accomplishments Report, details field conservation and research efforts for amphibians by AZA-accredited zoos and aquariums and
certified related facilities. Just last year, 102 member institutions reported spending more than $4.5 million on projects affecting more than 80 amphibian species! These facilities aren't just protecting species in their community, but also species around the world. The AZA community also engages in Species Survival Plans (SSP) programs dedicated to supporting sustainable, healthy, and genetically diverse populations within AZA facilities and include conservation activities in the wild.

FrogWatch USA is also featured in the report, as nearly half of FrogWatch USA's chapters are hosted by AZA member organizations. Learn more about the AZA community's commitment to amphibian conservation on AZA's amphibian conservation webpage.

Wood Frogs: the Frozen Wonders of the Arctic

We all know it's not right to pick favorites. Each and every frog or toad is special in its own way, and each is uniquely adapted to a specific habitat and climate. One incredible example of adaptation is the Wood Frog. This species can be found across the Midwestern and northeastern United States, down through the southern Appalachian mountain region and north into Canada and Alaska - in fact, FrogWatch USA volunteers in Alaska logged four observations of this species on separate occasions in 2016. It is the only North American amphibian found north of the Arctic Circle. As the Arctic winter approaches, Wood Frogs hibernate underneath snow and dead vegetation. Special proteins in their blood cause the blood to freeze, pushing out the water from their cells and organs. Simultaneously, their liver produces more glucose, essentially working as an antifreeze solution, which is drawn into their cells. This solution protects the cells as ice begins to cover the skin, muscles, and organs; even the fluid in the frogs' eyes freezes. During this time, the frog might not appear to be alive but in early spring it thaws, awakens, and begins looking for a mate. When we are feeling cold this winter, let's be glad we can snuggle up under some blankets rather than snow-laden leaves!

Looking for (or Forward to) More Citizen Science?

Although the 2016 FrogWatch USA season is over, citizen science opportunities are still available!

Do you have a pollinator-friendly garden you're putting to bed this fall? If so, join the Million Pollinator Garden Challenge! The Challenge is intended both to create and maintain habitat for bees, butterflies, birds, bats, and other pollinators. Progress toward meeting the Challenge is monitored through a crowd-sourcing/crowd-mapping endeavor of having people register their gardens online. Register your pollinator garden and BEE counted!

Do you work in an educational setting and would you like to integrate citizen science into your curriculum? Consider taking a course through NEON, Inc.'s Citizen Science Academy (CSA). FrogWatch USA is featured in two of their online courses, “Introduction to Citizen Science: Explorations in Educational Settings” and “Using Citizen Science Data in the Classroom”. Visit their website to explore these courses and more.

Looking for other Fall or Winter citizen science programs? Visit SciStarter, an online resource that houses a database of more than 1600 citizen science projects and events searchable by location, topic, and more.

Stay Connected

We hope you had a lovely summer - see you next year!

Sincerely,

John, Arslan & Shelly
The AZA FrogWatch USA Team

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