

Welcome To Santa Barbara Zoo FrogWatch USA



SANTA
BARBARA



ZOO
CONSERVATION
PROGRAMS

FROG
WATCH | USA™

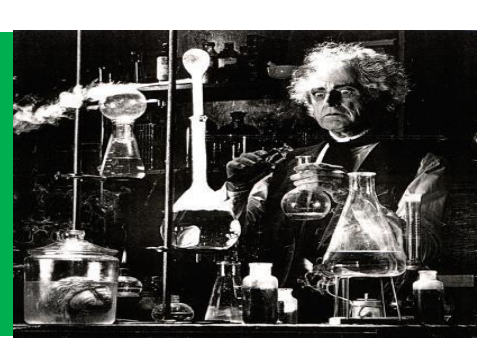
Introducing: FrogWatch USA

COMING UP:

- *What is citizen science?*
- *What is FrogWatch USA?*
- *Why monitor frogs and toads?*
- *How to modify for safe physically distant observations.*

What is Citizen Science?





What is Citizen Science?

- “Public participation in scientific research” (PPSR)
- Collaboration with professional scientists
- Expands opportunities for data collection
- Provides community members access to scientific information
- Appropriate for large-scale, long term projects

What is FrogWatch USA?

- Association of Zoos and Aquariums' citizen science program
 - Monitor frogs and toads by listening to breeding calls
 - Began in 1998 (2020 = 22nd anniversary!)
 - SB Zoo formed a chapter in 2012
- With a simple 5 minute data collection process, thousands of volunteers across the nation, and a collaborative team of scientists and analysts.....

YOU CAN GET REALLY GREAT, USEFUL DATA.....

Why should you participate in FrogWatch?



Ribbeting observations! Toad-ally fun fieldwork! Hoppy times with friends and family!

Benefits for FrogWatch USA participants?

- Learn about and explore the nature of science
- Contribute scientific data and help with amphibian conservation
- Learn more about local wetlands and amphibian diversity
- Spend time outdoors
- **Leap into a love of frogs and toads!**



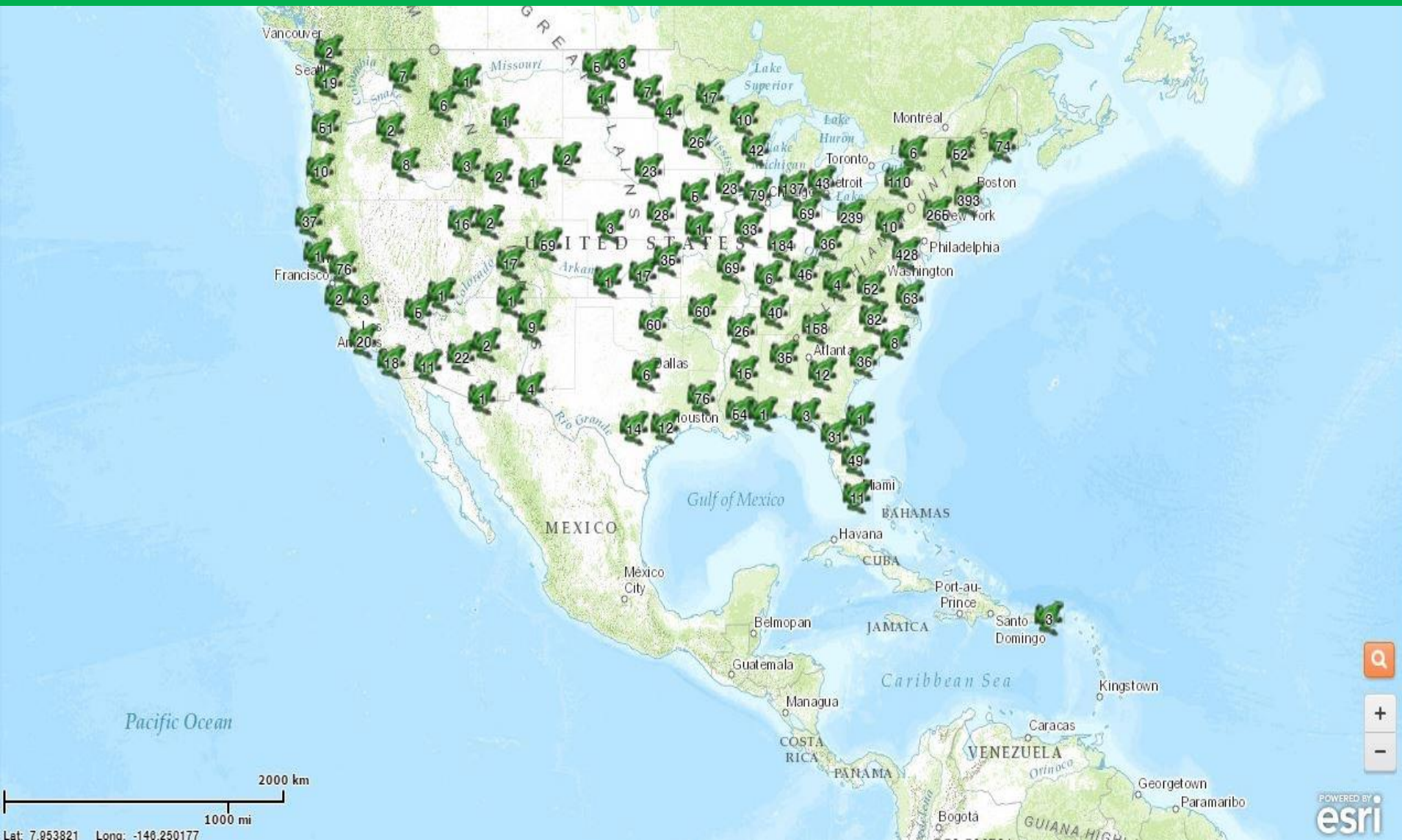
What can FrogWatch Data Tell Us?



What can FrogWatch Data Tell Us?

- Describe local species diversity
- Detect rare and invasive species
- Suggest shifts in species diversity, range, and phenology over time
- Serve as an indicator of wetland health
- Inform the development of land management strategies

FrogWatch USA Wetland Sites



FrogWatch USA Local Wetland Sites

Describe local species diversity

Detect rare and invasive species

Suggest shifts in species diversity, range, and seasonal timing (phenology)

Serve as an indicator of wetland health



Frog Watch at the SB Zoo

- Santa Barbara Zoo chapter began in 2012
 - Host annual trainings at the beginning of breeding season.
 - Teach you the standardized protocols and provide necessary resources
 - Train you on how to recognize the 9 local frog and toad calls
- What you will hear
 - Most common species is the Baja California Chorus Frog
 - Silence... it is very important to note this down!



Volunteering with FrogWatch

COMING UP:

- *FrogWatch protocol*
- *FrogWatch site selection*
- *Your role as a citizen scientist*

FrogWatch Protocol

- Register a site of your choice
- Check the weather
- Grab your gear
- Visit your site at least 30 minutes after sunset
- Following the protocol, record your data for 3 minutes
- Submit your data
- Repeat!



Observations and Physical Distancing

- It is advised to follow all local health and safety orders from your local and state government and health officials. It is recommended to take walks and enjoy nature at a safe distance from others. For more information on current guidelines please visit the resources below.

Resources

- CDC <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>
- Santa Barbara Health <https://publichealthsb.org/social-distancing/>

Site Selection Considerations

- Convenient enough to access weekly
- Quiet
- Safe for data collection in the evening
- Legally accessible



Types of Wetlands on Fieldscope

- Swamp or Woodland Swamp
- Freshwater marsh
- Bog or Fen
- Vernal Pool
- Wet Meadow
- Pond
- Prairie Pothole
- Ditch
- Other!

However, in California you will most likely choose – Freshwater Marsh, Vernal Pool, Wet Meadow, Pond, Ditch, or other....



waynesword.palomar.edu/images/



songsofthewilderness.files.wordpress.com/



www.bcx.news/photos/

Types of Southern California Wetlands

- **Marshes**

- Found along the edges of bigger pools – is the transition zone from aquatic to terrestrial ecosystems
- Frequently covered in water; emergent soft-stemmed vegetation (ie. sedges, rushes, grasses, cattails)

- **Vernal pools**

- Form in depressions in landscape
- Seasonal (temporary in nature)
 - Gets water from snowmelt and spring rains
 - Typically dry out in summer
- Host rare plants and animals that have evolved to cope with this extreme ecosystem

- **Wet Meadow**

- Type of marsh
- Often resemble grasslands or fields
- Are typically drier than other marshes except during periods of seasonal high water



Types of Southern California Wetlands (cont.)

- **Pond/Lake**

- Open body of water that typically does not dry up
- Submergent (completely underwater), emergent plants, and floating plants
- Lakes typically larger and deeper than ponds, but not always (For our purposes--no difference)

- **Ditch**

- Trough-like, channelized appearance
- Typically found along roadsides, railroad tracks, agricultural lands, tire ruts in dirt roads/trails
- Generally man-made

- **Other**

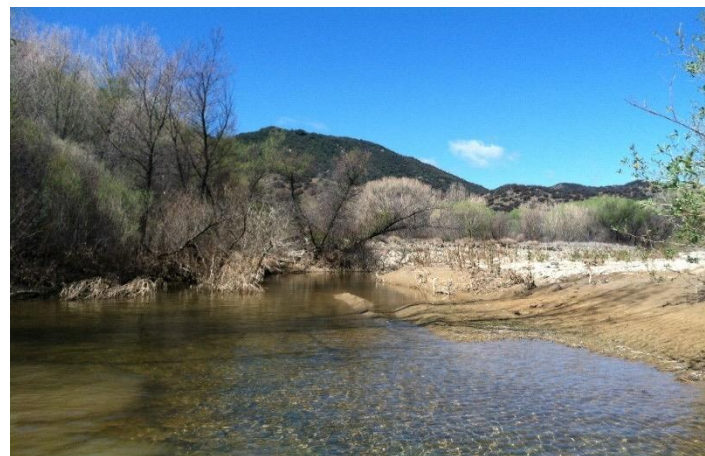
- Rivers, streams, creeks (more flowing water)
 - Backyard ponds, fountains
 - Reservoirs, stock ponds
- ***Note:** for the Other category there is a small box to write in the description



Site Registration

- Collect the following information about your site:

- Type of habitat
 - (wetland type)
- Wetland origin
 - (natural, man-made, etc.)
- Water source
 - (precipitation, groundwater, etc.)
- Water presence
 - (Year round, temporary, etc.)
- Land use
 - (urban, rural, etc.)
- Latitude and longitude



- <http://www.aza.org/current-frogwatch-volunteers/>
- Scroll down to “Monitor Your Wetland Sites”
- Select **site registration form** and **follow these instructions to register your wetland site online**

Site Registration

<http://www.aza.org/current-frogwatch-volunteers/>

New users register on FieldScope:

<http://frogwatch.fieldscope.org/v3/register>

ASSOCIATION
OF ZOOS &
AQUARIUMS

FROG
WATCH USA

Online Data Entry

Enter and explore FrogWatch USA data online! Go to the FrogWatch USA website to access tutorials and get started: www.aza.org/current-frogwatch-volunteers.

Register and Log In: Step 1

Returning Volunteers: You already have an account linked to your email address if you are a returning FrogWatch USA volunteer. Click on the "Login" link at the top right of the screen, type in the email address you used previously, and create a new password by clicking the "Forgot Your Password" link.

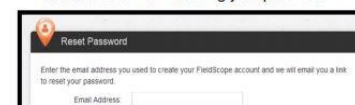
New Volunteers: New volunteers will create an account and register. Click on the "Login" link at the top right of the screen and click the "New to FieldScope? Click Here to Register" link.



Register and Log In: Step 2

Returning Volunteers:
After clicking on the "Forgot Your Password? Click Here to Recover" link, a "Reset Password" dialog box will appear. Enter the email address you previously used and click the "Reset Password" button. Another dialog box will appear and an email confirmation will be sent. Follow the email instructions to finish resetting your password.

New Volunteers:
After clicking on the "Click Here to Register" link, a registration dialog box will appear. Fill out all fields, scroll to review for completion and accuracy, and click the "Register" button. You will see a pop-up and receive an email to activate your account. Follow the instructions to finish registering your account.



New FrogWatch USA User Signup

Email Address:

Password:

First Name:

Last Name:

School/Organization:

Chapter:

* indicates required information

By joining, you agree to our [Terms of Service](#), [Privacy Policy](#), and [Community Rules](#).

FrogWatch Protocol

- Register a site of your choice
- Check the weather
- Grab your gear
- Visit your site at least 30 minutes after sunset
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- Repeat!



Check the Weather

- Air temperature
- Wind speed (Beaufort Wind Scale)
 - 0** – *Calm*: smoke rises vertically
 - 1** – *Light air*: rising smoke drifts; slight movement of air
 - 2** – *Light breeze*: leaves rustle; wind felt on face
 - 3** – *Gentle breeze*: leaves and twigs in constant motion
 - Too windy to monitor:**
 - 4** – *Moderate breeze*: moves small branches, dust, loose paper
 - 5** – *Fresh breeze*: small trees begin swaying
- Current precipitation
- 48-hour weather history



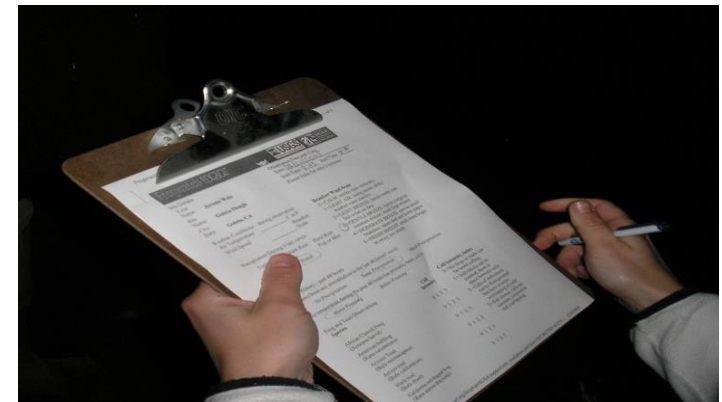
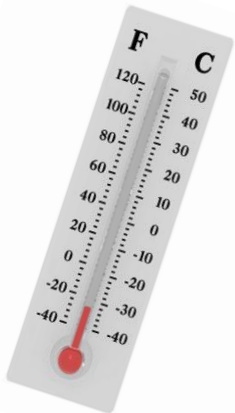
Before you go...

- Practice identifying the calls
- Ensure appropriate weather conditions for monitoring:
 - Above 35 degrees Fahrenheit
 - Not raining too hard, nor too windy
- Plan to monitor at least 30 minutes after sunset



Grab your gear....

- Smart phone! or...
 - Datasheet
 - Clipboard
 - Pencil/pen
 - Thermometer
 - Watch
 - Flashlight or headlamp
- *Optional:* Field guide, tape recorder, camera, rain gear



And Record! (30 min. after sunset)

A monitoring session includes:

- 2 minutes of acclimation
- 3 minutes of listening (be precise!)
- Record species and include the highest call intensity
- If the monitoring session is interrupted by noise, restart it, including the 2 minute acclimation period.

Measuring Calling Intensity

- 0** – No frogs or toads heard calling
- 1** – Individuals can be counted; there is space between calls
- 2** – Calls of individuals can be distinguished, but there is some overlapping of calls
- 3** – Full chorus, calls are constant, continuous, and overlapping

Even if you don't hear any frogs or toads, it's still important to record and submit the data!



Monitoring Season

Comon Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
African Clawed Frog	●	●	●	●	●	●	●	●	●	●	●	
American Bullfrog					●	●	●	●				
Arroyo Toad			●	●	●	●	●					
California Chorus Frog		●	●	●	●	●	●	●	●	●		
California Red-legged Frog	●	●	●	●							●	●
Foothill Yellow-legged Frog				●	●	●	●					
Baja California Chorus Frog	●	●	●	●	●	●	●			●	●	●
Western Spadefoot	●	●	●	●	●							
Western Toad	●	●	●	●	●	●	●					

Don't Forget!

Please send copies of your first 4 field recordings to your Chapter Coordinators!

frogwatch@sbzoo.org

Your Local Frogs and Toads

COMING UP:

- *9 toad-ally cool species found in Santa Barbara County*
- *Natural history information and calls for each species*

Your Local Frogs and Toads

1. *African Clawed Frog*
2. *Bullfrog*
3. *Arroyo Toad*
4. *California Chorus Frog*
5. *California Red-Legged Frog*
6. *Foothill Yellow-Legged Frog*
7. *Baja California Chorus Frog*
8. *Western Spadefoot*
9. *Western Toad*

Resources

- Santa Barbara Zoo Frog Watch chapter page
 - <https://www.sbzoo.org/frogwatch-usa/>
 - Questions? Email frogwatch@sbzoo.org
- AZA Frog Watch USA
 - <https://www.aza.org/frogwatch>
- iNaturalist App – various projects
 - Thomas Fire Plant and Wildlife Recovery Observations
 - RASCals
 - Wildlife of Santa Barbara County, CA
 - Ventura County Biodiversity Watch



Questions???

