



Inventory of Frog Diversity and Monitoring for Habitat conservation in Nangarhar Province.

The Rufford Foundation

By

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Why frog need saving

- ❑ They play an importance role in the food chain.
- ❑ They are an indicator species.
- ❑ They keep insect populations at bay.
- ❑ Frog are importance in research.
- ❑ Frogs are natures pharmacy.
- ❑ Frogs are the most efficient bio-indicator.

Toads vs. frogs

Frogs and toads are both amphibians and they are similar in many ways, but they are also different in a few ways. To be completely accurate, toads are actually a classification of frog. That is to say that, technically, toads are a kind of frog.

FROG

- ❖ Frogs spend most of their lives in or near water.
- ❖ Frogs also usually have moist slimy skin.
- ❖ Frogs eggs are found in a mass.
- ❖ Most frogs have long legs and smooth skins covered in mucus.
- ❖ Frogs lay their eggs in a cluster that resembles a bunch of grapes.
- ❖ Frogs have thin skin that allows chemicals and minerals to easily pass into their body.
- ❖ Frog have tiny teeth on both upper and lower jaws.

TOAD

- ❖ Toads get out on land a little more and find their way into gardens and yards.
- ❖ Toads have dry bumpy skin, that is usually the best way to tell them apart.
- ❖ Toads generally lay their eggs in log strand.
- ❖ Toads generally have shorter legs and rougher, thicker skins.
- ❖ Toads generally have no teeth.

Toads Vs. Frogs

FROGS & TOADS

Thin, wet, smooth skin that has more colour

Lays eggs in clusters



Slim body type

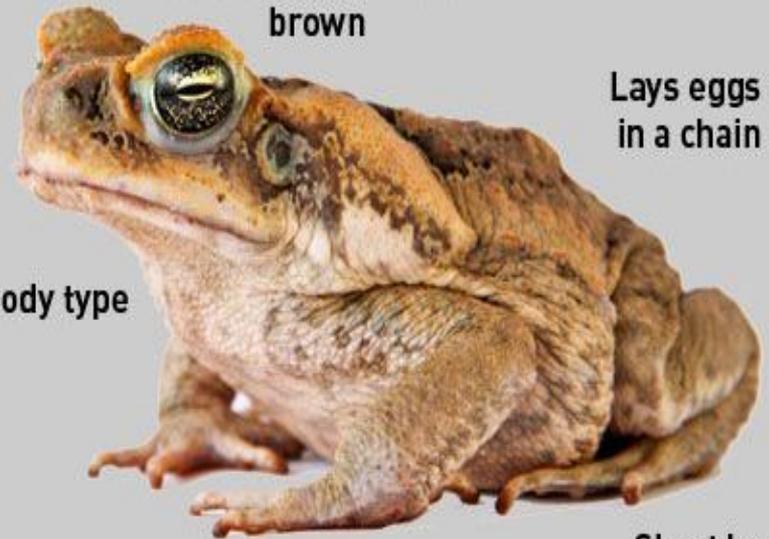
Very long legs

Prefers to jump

Lives in the water

Thick, dry skin with bumps and usually brown

Lays eggs in a chain



Stout body type

Prefers to walk or use small hops

Lives on land

Short legs

Toads Vs. Frogs

> Frog or Toad?

Classify the following species as a frog or toad (tick the correct box)

1



Frog Toad

2



Frog Toad

3



Frog Toad

4



Frog Toad

5



Frog Toad

6



Frog Toad

7



Frog Toad

8



Frog Toad

Present Scenario in Afghanistan

- ❑ Amphibians are among the most threatened species in the world and are subjected to a substantial number of studies that have underscored their ecological and anthropocentric importance.
- ❑ Globally, approximately one-third of all amphibian species are threatened with extinction, and almost half are experiencing precipitous population declines.
- ❑ Afghanistan is a landlocked country located in Asia. The country has a mountainous terrain with most parts being dry. Some frogs and toads thrive in the aquatic environments offered by the rivers, reservoirs, lakes, and marsh wetlands in the country. These amphibians are mainly found in relatively stable populations hence most have been listed as least concern.
- ❑ The composition and distribution of the amphibian of Afghanistan remain poorly documented and in recent decades little new data have become available due to a series of wars and the resulting unstable conditions.

Present Scenario in Afghanistan

- ❑ AmphibiaWeb lists eight species of amphibians found in Afghanistan. Four are toads, three are frogs and one is a salamander. Two species (*Bufo latastii*, *Bufo oblongus*) are considered to be uncertain for Afghanistan.
- ❑ The most common and abundant amphibian is the green toad (*Bufo viridis*), which is found all over the country. The three species of frogs belong to the Dicroglossidae and *Ranidae* family. They frequently inhabit irrigation streams, although in far smaller numbers than toads.

Amphibian Species of Afghanistan

Hynobiidae family	Asiatic Salamanders	
<i>Afghanodon mustersi</i>	Paghman Mountain Salamander	<i>Previously called Batrachuperus mustersi</i>
Bufo	True Toads	
<i>Bufo stomaticus</i>	Indus Valley Toad	Previously called <i>Bufo andersonii</i>
<i>Bufo viridis</i>	European Green Toad	
Dicroglossidae family	True frogs	
<i>Chrysopaa sternosignata</i>	Baluch Mountain Frog, Malir, Paa Frog, Murray's Frog, Karez Frog	Previously called <i>Rana sternosignata</i>
<i>Euphlyctis cyanophlyctis</i>	Skipping Frog, Skittering Frog among others	Previously called <i>Rana cyanophlyctis</i>
<i>Hoplobatrachus tigerinus</i>	Indian bull frog	Previously called <i>Rana tigerina</i>
Ranidae family	True Frogs	
<i>Pelophylax terentievi</i>	Marsh Frog, Lake Frog, Laughing Frog, Terentjev's frog	Previously called <i>Rana terentievi</i> and <i>Rana ridibunda</i>
Uncertain species	True toads	
<i>Bufo latastii</i>	Ladakh Toad	Unable to verify published record
<i>Bufo oblongus</i>	Eastern Persian toads	Unable to verify published record

General appearance



Euphlyctis cyanophlyctus



Pelophylax terentievi



Hoplobatrachus tigerinus



Chrysopaa sternosignata

General appearance



Bufo latastii



Bufo viridis



Bufotes oblongus



Bufo stomaticus

Threat to frog diversity

- ❖ At the Afghanistan, global warming, urbanization, forest destruction and soil erosion are causing widespread degradation of frog habitat.
- ❖ Waste produced due to human activity is buried in soil, dumped in near by water-body or burned into air harm to the frog diversity.
- ❖ Rise in temperature is considered to be injurious for the amphibians.
- ❖ Habitat destruction.
- ❖ Invasive species.
- ❖ Road mortality.
- ❖ Pollution- plastic: pesticides, minerals from mining can cause problems for frogs. Aluminium, cadmium, copper, iron, and zinc can all kill frogs.

Threat to frog diversity

- ❖ Uses of pesticides.
- ❖ Infectious disease chytridiomycosis, which is spread by human activity.
- ❖ Warming climate is that Chytrid fungus might become easier to spread.
- ❖ As the human population spirals out of control, these threats will continue to grow, unless immediate action is taken.
- ❖ Climate change.
- ❖ Droughts.



Ways to help frog diversity

- Look, listen, and learn: educate yourself and your family about amphibians.
- Create amphibian friendly environments by providing clean water, hiding places, and insects to eat.
- Don't pollute. Do your part to keep garbage, chemicals, and non-native plants and animals out of the natural environment.
- Be a responsible pet owner.
- Conserve water at home, school, and work.
- Reduce the use of fossil fuels, such as oil, coal and natural gas.

Ways to help frog diversity

- Outreach programs are performed with adults at Universities, Schools, Mosques, Aquariums, Zoos, Wildlife centers, on Television and the Radio.
- Educate people about the services amphibians can provide to both Humans and the Environment.
- Be an amphibian champion.
- engage public school children in the classroom at an early age.
- Environmental-conservation efforts can directly restore the overall equilibrium of aquatic as well as terrestrial ecosystem.

Amphibian Photos



Amphibian Photos



Amphibian Photos



