

NET ENVIRONMENTAL BENEFITS ANALYSIS SPECIES FACT SHEET: FROGS (*Order Anura*)

I. Species Description

There is no scientific distinction between "frogs" and "toads," although most of the species are usually referred to as one or the other. They are found throughout most of the world, except in polar regions, some oceanic islands, and extremely dry deserts. They are found from tropical rainforests to dry mountaintops, from deserts to swamps. Adults may be arboreal, terrestrial, or aquatic. The continental United States is home to at least 90 frog species.



Physical features shared by most frogs include powerful hind legs for hopping and leaping, bulging eyes, and squat bodies. However, because of the large number of species, there are many characteristics that are not shared. There is a wide range in size, and many different types of skin textures, colors, and markings.



Being cold blooded, temperature is critical to frogs. In the winter months, frogs in temperate zones cannot remain active and must enter into a state of extremely reduced activity. In summer months, frogs can avoid the extreme heat by remaining underground in daylight, and being active at night.

Frogs are also susceptible to the loss of body water due to extremely hot or dry conditions. Those in temperate climates maintain moist skin to aid in evaporative cooling. Permeable skin allows the frog

the ability to absorb water simply by jumping into a pond or sitting in a puddle. Frogs in arid regions, on the other hand, have different ways of regulating body water. Their skin is often impermeable to water to prevent rapid evaporation and dehydration. Instead, they may cover their bodies with a thick mucus, or burrow to avoid the heat altogether.

Frogs are carnivorous. They mostly feed on insects, other small arthropods, or worms. Some of the larger species eat vertebrates such as other frogs, and small rodents, snakes, and turtles.

II. Sensitivity to Oil and Other Spills

Frogs are in constant danger from toxic spills from egg to adult. As eggs and larval tadpoles they are particularly exposed to contaminants in the water. Most adult frogs have thin, permeable skin which externally absorbs pollution from the air, water, and soil. They are also likely to ingest spilled chemicals via consumption of contaminated food, soil, or sediment in their habitats. Research suggests that toxic spills in aquatic environments are linked to global outbreaks of frog deformities and population declines.

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III. Sensitivity to Response Methods

Methods Causing Least Adverse Impacts

Boom Deployment

- Control the movement of floating oil to prevent or reduce contamination of species.

Skimming

- Recover floating oil from surface to prevent or reduce contamination of species.

Physical Herding

- Free oil trapped in vegetation or debris to move away from sensitive areas.

Vacuum

- Minimal effects to wildlife if foot and vehicular traffic is controlled and minimal substrate is removed.

Manual Cleaning/Removal

- Oiled debris should be removed to minimize the ingestion of oil.

Methods Causing Some Adverse Impact

In-Situ Burning

- If used, include either wildlife hazing in burn area or capture of oiled wildlife.

Shoreline Cleaning Agents

- Wildlife may contact cleaning agents and/or bioremediation substances used for shoreline treatment.

Sorbents

- Likely disturbance of habitat during deployment and retrieval. Use should be monitored to prevent overuse and generating large volumes of waste.

Methods Causing Probable Adverse Impact

Natural Recovery

- This method may be inappropriate for areas where dense species populations or endangered species use the body of water or shoreline.

Vegetation Removal

- Will destroy habitat for many animals. Cut areas will have reduced plant growth. Trampled areas will recover much more slowly.

Sources

<http://www.nwf.org/frogwatchusa/>

<http://frogweb.nbio.gov/>

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