

The Mystery of the Vanishing Amphibians

Fossil records suggest that frogs and toads, the oldest of today's amphibians, existed as long as 150 million years ago; such longevity testifies to their adaptability. Within the last decade or two, however, hundreds of the world's estimated 5,100 amphibian species have been vanishing or declining, even in protected wildlife reserves and parks.

Scientists have not identified any single reason for this decline. For some species diebacks may be caused by prolonged draught which dries up breeding pools so that few if any tadpoles survive. Dehydration can also weaken amphibians making them more susceptible to fatal viruses, bacteria, fungi, or protozoa.

In other cases the culprit may be pollution. Because amphibians live part of their lives in water and part on land, they are exposed to water, soil and air pollutants. Their insect diet guarantees them abundant food, but in farming areas it also exposes them to pesticides.

Their skin may be also highly sensitive to increases in ultraviolet radiation caused by possible reductions in stratospheric ozone. A recent study also found that eggs from a variety of frogs and toads were killed when exposed to higher than normal levels of ultraviolet radiation.

Scientists are concerned about amphibians decline for two reasons. First, the world's environmental health is deteriorating rapidly. Second, amphibians, which outnumber birds and eat more insects than do birds, play important roles in the world's ecosystems. In some habitats their extinction could also result in the extinction of other species such as the reptiles, birds, and other amphibians that feed on them. As indicator species, amphibians are sending an important message.

Adopted from *Living in the Environment*, 19th Edition by
G. Taylor, Miller Jr, p. 120.

Vocabulary

To testify: to prove

Tadpoles: small creatures in water that develop into frogs

Culprit: someone who is guilty.

Guided commentary (20 points)

1. In the text, what makes amphibians live long?
2. Referring to the text, show how amphibians living environment is unsafe.
3. Basing on the text, point out the different causes of the decline in the amphibians population.
4. Relying on the text, why are amphibians important in the world's ecosystem?
5. In your opinion, what measures should be taken to protect endangered species in your country?