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Source: BioScience, 57(2) : 112

Published By: American Institute of Biological Sciences

URL: <https://doi.org/10.1641/B570205>

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Declining Amphibian Populations: What Is the Next Step?

MEGAN DEBRANSKI KELHART

Declines in global amphibian populations have been in news headlines around the world since they were acknowledged in 1989 at the First World Congress of Herpetology. Eager to explain the causes, biologists have established ambitious research, monitoring, and inventory programs. But what is being done at the policy level to stem current declines and prevent future losses?

According to biologist Edmund Brodie, a professor at Utah State University, very little is being done. In the *Salt Lake City Tribune* this past summer, Brodie argued that “scientists and environment managers around the world are well aware of the crisis facing amphibians, and it is time to quit talking and get on with the activity of trying to save those species we can still save.”

In the United States, no federal government policy specifically targets amphibian population declines. However, Congress has periodically provided funding for increased monitoring and research. For instance, in fiscal year 2002, Congress appropriated modest funding to agencies in the Department of the Interior for programs to address vulnerability issues, such as the Amphibian Research and Monitoring Initiative undertaken by the US Geological Survey (USGS). The funding helped expand the geographic scope of amphibian monitoring efforts and increased the number of sample sites.

Representative Jack Kingston (R-GA), then vice chairman of the House interior appropriations subcommittee, wrote in an April 2002 feature story that amphibian population declines are “a serious environmental problem that could have far-reaching effects on our own health. Amphibians are disappearing and mutating for reasons unknown and, ultimately, there could be a risk for

human health.... When you have major species disappearing or becoming deformed for unknown reasons, we all need to be concerned about it.”

Kingston’s concern often appears stronger than that of other policy-makers, however. Since fiscal year 2002, the USGS has seen few increases in its funding for amphibian research, leaving conservation of amphibian populations to an often slow Endangered Species Act, which still awaits congressional reauthorization.

Despite the apparent lack of a concerted federal response, several federal agencies and nongovernmental organizations are working to assess amphibian population trends throughout the United States. The USGS has established several amphibian research initiatives, including the North American Amphibian Monitoring Program (NAAMP), the Amphibian Research and Monitoring Initiative, the Taskforce on Amphibian Declines and Deformities, and Frogwatch USA. Linda Weir, NAAMP coordinator at Patuxent Wildlife Research Center in Maryland, says “NAAMP’s purpose is to provide population data and population trend analyses for calling amphibians for use by conservation managers, scientists, and the general public.”

Frogwatch USA, a long-term amphibian study, was developed by the USGS Patuxent Wildlife Research Center and is currently managed by the National Wildlife Federation (NWF) in partnership with the USGS. According to Frogwatch USA associate volunteer coordinator Courtney Herrell, “Frogwatch USA and NWF strive to spread awareness of the issue of amphibian decline. We feel that providing citizens with knowledge of this issue is the first step to combating it.”

But what is the second step? Research scientists have been reporting for decades that amphibian populations are declining, some to extinction. Yet mission-driven federal agencies continue to see their budgets cut, forcing program managers to make tough decisions about the allocation of limited resources.

In a July 2006 press release, leading biologists called for “a new Amphibian Survival Alliance, a \$400-million initiative to help reduce and prevent amphibian declines and extinctions—an ecological crisis of growing proportion that continues to worsen.” “Confronting Amphibian Declines and Extinctions,” a policy forum article published a day later in the journal *Science*, echoed this call to action and encouraged a more structured approach to amphibian population conservation.

There is good reason to protect these species. Amphibians are often outstanding biological indicators of environmental quality. Sensitive to changes in water quality, temperature, pollution, and other phenomena, amphibians frequently alert scientists to changing environmental conditions long before those changes affect humans. The question before policy-makers is not whether environmental conditions are changing—the declines in amphibian populations are but one indicator that they are. The question now is whether there is a will to protect these species and the habitat they require for survival.

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doi:10.1641/B570205
Include this information when citing this material.