

# Amphibians

At least 230 species of frogs and salamanders make up the amphibian fauna of the continental United States. Focused research in local areas over the past ten years has indicated dramatic declines in some amphibians, though the exact extent of losses remains unknown. Reports of malformed frogs, toads, and salamanders are increasing. In May 1998, a meeting of international experts concluded that significant amphibian declines have occurred, even in protected areas not subjected to obvious changes in habitat, such as national parks, wildlife refuges, and wilderness areas.

In partnership with other bureaus in the Department of the Interior, the USGS is leading a national program to determine the status of amphibians, and to investigate potential factors causing their declines and malformations. This national research and monitoring plan needs

additional funds to support its three major components: nationwide surveys on DOI lands; studies of factors that may be affecting declining amphibians; and collection and management of data generated by amphibian monitoring and research activities.

The proposed increase for FY 2001 will fund monitoring surveys in the Upper and Lower Mississippi River Basins. Amphibian malformations have been observed in the upper reaches of the Mississippi River, and anecdotal information suggests declines in numerous amphibians in the Lower Mississippi River basin. The proposed increase will support the compilation and analysis of geospatial data to characterize habitat in areas of demonstrated amphibian loss and to develop methods to use spatial analytical techniques to predict potential amphibian loss. It will fund a more

comprehensive evaluation of the range of environmental contaminants that may influence amphibian declines across the Nation.

The initiative will increase research on disease (chytrid fungus), parasite (nematodes), and contaminant effects on amphibians. Preliminary findings indicate that these environmental insults, acting alone or in combination, may be contributing to widespread amphibian declines and/or malformations.

The initiative will increase USGS' data storage, analytical, and reporting capability. USGS will expand and enhance the structure of standardized databases to accommodate status and trend information from other Federal, State, and private amphibian monitoring programs.

DOI bureaus are major partners in the effort. The National Park Service, Fish and Wildlife Service, and Bureau of Land Management received new appropriations in FY 2000 to work with USGS on the amphibian initiative. The USGS will work with other Federal and State entities, non-governmental organizations, and academic institutions to expand survey coverage and data collection beyond DOI lands.

|   | (Dollars in Thousands) |
|---|------------------------|
| National Mapping Program                |                        |
| Geographic Research and Applications    | +\$ 100                |
| Water Resources Investigations          |                        |
| Water Resources Assessment and Research |                        |
| Toxic Substances Hydrology Program      | +\$ 500                |
| Biological Research                     |                        |
| Biological Research and Monitoring      | <u>+\$ 1,400</u>       |
| <b>TOTAL</b>                            | <b>+\$ 2,000</b>       |

As the nation's largest water, earth and biological science and civilian mapping agency, the USGS works in cooperation with more than 2000 organizations across the country to provide reliable, impartial, scientific information to resource managers, planners, and other customers. This information is gathered in every state by USGS scientists to minimize the loss of life and property from natural disasters, contribute to sound economic and physical development of the nation's natural resources, and enhance the quality of life by monitoring water, biological, energy, and mineral resources.