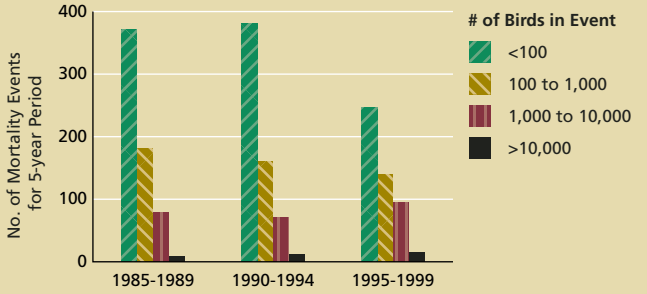
Animal Deaths and Deformities

Animal Mortality, by Size of Event

Data Not Adequate for National Reporting on

- Fish Die-offs
- Mammal Die-offs
- Amphibian Die-offs
- Amphibian Deformities

Partial Indicator Data: Waterfowl Mortality Only



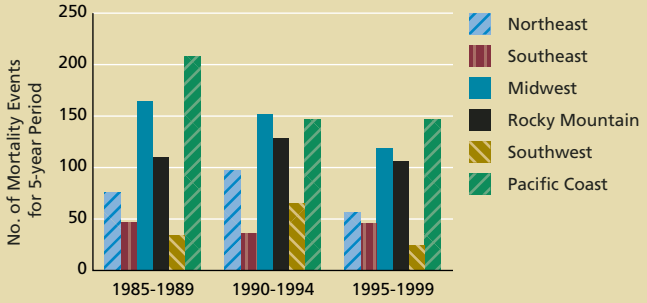
Data Source: U.S. Geological Survey. Coverage: all 50 states; Alaska and Hawaii are included in the Pacific region, and Puerto Rico, and the U.S. Virgin Islands are included in the Southeast region.

Animal Mortality, by Region

Data Not Adequate for National Reporting on

- Fish Die-offs
- Mammal Die-offs
- Amphibian Die-offs
- Amphibian Deformities

Partial Indicator Data: Waterfowl Mortality Only



Data Source: U.S. Geological Survey. Coverage: all 50 states; Alaska and Hawaii are included in the Pacific region, and Puerto Rico, and the U.S. Virgin Islands are included in the Southeast region.

What Is This Indicator, and Why Is It Important? This indicator reports on unusual mortality events for waterfowl, fish, amphibians, and mammals, and on deformity events for amphibians. Only data on waterfowl mortality can be reported at this time.

Die-offs of fish, birds, and other freshwater animals generate considerable public concern. People may perceive a danger to their own health, or they may be concerned about disruptions to the ecosystem, loss of recreational opportunities and tourism income, and fish that cannot be eaten or sold. Die-offs can be caused by disease, too little oxygen or other imbalances in water chemistry, chemical pollution, extreme temperatures, or a combination of factors. Although the exact cause of an event is not always known, many scientists believe that die-offs indicate the presence of serious problems in an ecosystem. For information on mortalities in coastal waters, see p. 77.

Why Can't This Entire Indicator Be Reported at This Time? The U.S. Geological Survey (USGS), which provided the waterfowl data presented here, also gathers mortality information on mammals and amphibians. However, the data for these groups are less complete than for waterfowl. USGS also collects data on amphibian deformities, but there is no widespread monitoring program or systematic surveying for amphibian deformities. There is also no reporting mechanism for fish die-offs.

What Do the Data Show? From 1995 to 1999, about 500 incidents of unusual waterfowl mortality were reported in the United States. In half of these incidents, less than 100 birds died; in about 100 incidents, between 1,000 and 10,000 birds died, and 15 incidents involved more than 10,000 deaths. The total number of die-offs was about 20% lower in 1995–1999 than in 1985–1989 and 1990–1994. In general, there are more die-offs in the Pacific and Midwest and fewer in the Southwest and Southeast.

The technical note for this indicator is on page 252.