

# DMP Talking Points for Media

## About the Project

- The Dragonfly Mercury Project (DMP) is a nationwide citizen science project. Volunteers, from middle school students to retirees collect samples of dragonfly larvae from mainly NPS waters across the U.S. Scientists use the data to determine areas at risk from mercury contamination.
- The DMP is a partnership between the National Park Service, the United States Geological Survey (USGS), the University of Maine, and other entities. The project began in national parks in 2011, and it's grown from 4 participating parks to more than 90 in 2017. Forty-two states have participating national parks.
- Citizen scientists are vital to understanding the extent of mercury contamination in park waters as well as other science topics. The success of this project hinges on the participation of citizen scientists.
- This research helps the NPS understand the risks posed by mercury to park resources including air, water, lands, wildlife, and park visitors.
- The project also provides nationwide baseline data that can be used to assess long-term changes in mercury status.
- DMP engages citizens in hands-on participatory science, develops personal connections to national parks, and fulfills the NPS education mission.

## About Mercury

- Mercury is harmful to human and wildlife health. Mercury can impair brain and nervous system functions, causing symptoms such as lack of coordination, muscle weakness, and diminished memory and attention. Possible deleterious effects on wildlife include foraging inefficiencies and reduced reproductive success.
- Mercury can travel thousands of miles by the wind, dust, rain, and snow, and it can settle in seemingly pristine areas of parks. Once mercury reaches parks, it can enter the food web and build up in top predators.
- Mercury levels in dragonfly larvae are an indicator of water quality and the health of local fauna.

## About Dragonflies

- Dragonfly larvae are an excellent indicator of mercury levels:
  - They can live up to 9 years underwater, accumulating mercury as they age.
  - They are often higher in the food chain than other aquatic macroinvertebrates.
  - They are easier to collect than fish.
  - They can be sampled from areas that don't have fish.

- Fun Fact: The predecessors of dragonflies have been around since the age of the dinosaurs (300 million years), and some fossilized dragonflies had wingspans over 2 feet!