



# Lake Michigan Ecological Research Station

***The USGS Great Lakes Science Center is dedicated to providing scientific information for restoring, enhancing managing and protecting living resources and their habitats in the Great Lakes region. The Center is headquartered in Ann Arbor, Michigan, and has biological stations and research vessels located throughout the Great Lakes Basin.***



The Lake Michigan Ecological Research Station is a field station of the USGS Great Lakes Science Center. Scientists at LMERS focus on issues relevant to public lands, trust species and shared natural resources. Research is often a joint venture with other agencies such as National Park Service, U.S. Environmental Protection Agency, regional universities, and state agencies. The science is represented in program areas including:

## Status & Trends

Long-term studies are conducted describing changes in biological communities and population trends of plants and animals, especially in the Lake Michigan region.



## Aquatic Resources

Studies provide critical information needed to determine the possibility

of restoring Long Lake at Indiana Dunes. LMERS is studying the ecology of lakes throughout the National Parks in the Great Lakes Region. Studies in *E. coli* are occurring at Indiana Dunes beaches, City of Chicago beaches, and Dunes Creek. Further testing with rapid response equipment could possibly pinpoint sources.

## Wildlife

Investigations are conducted on amphibians, reptiles, birds and butterflies. These programs complement and support the efforts of National Park Service projects and state projects.

## Endangered & At Risk Species

Endangered species, such as the Karner blue butterfly, and threatened species are studied to determine factors contributing to their decline. Methods and options for restoring populations and species are developed.

## Invasive (non-native) Species

Factors influencing invasions of habitats by non-native species and their effects on the survival of native plants are studied. A joint study is

being conducted with Indiana Dunes and Sleeping Bear Dunes National Lakeshores.

## Habitats

An extensive study of the effects of experimental burns on oak savanna habitats is being conducted in Miller Woods. This research will analyze the effectiveness of prescribed burns on maintaining this unique habitat.



## Contaminants

Studies are conducted to detect contaminant exposure and its effects on plants and animals. The impacts of contaminants are investigated to provide decision makers with options for mitigation or prevention. Research is being conducted on the Grand Calumet Lagoons and Little Calumet River to ascertain concentrations of contaminants in aquatic species. Midwest northern streams are studied to determine baseline environmental status of those areas.