



# Great Lakes Science Center Research Vessels

***T***he mission of the USGS Great Lakes Science Center is to advance scientific knowledge and provide information for restoring, enhancing, managing and protecting the living resources and their habitats in the Great Lakes basin ecosystem.



The Great Lakes Science Center (GLSC) is headquartered in Ann Arbor, Michigan, and has biological stations and research vessels located throughout the Great Lakes basin. The GLSC is



unique among research facilities in that it maintains a biological research vessel on each of the Great Lakes.

### **R/V Sturgeon**

The R/V *Sturgeon* was commissioned in August, 2004. The *Sturgeon* is designed to operate with a crew of three: a captain, mate and engineer. With berthing for ten people, the vessel is capable of comfortably supporting a crew of three and a scientific staff of seven for up to a 15-day mission. Its primary mission is to support fisheries related science in Lake Michigan using state-of-the-art electronic technology and traditional sampling gear such as bottom and midwater trawls and gillnets. The *Sturgeon* is designed to

function as an offshore work platform during the ice-free season in the Great Lakes.

Specifications:

*Length:* 101 ft.  
*Beam:* 24 ft. 9 in.  
*Draft:* 10 ft. 2 in.  
*Cruising speed:* 10.4 kt. (12 mph)

### **R/V Kiyi**

The R/V *Kiyi* is the Great Lakes Science Center's largest research vessel at 107 feet long and it is based on the largest of the Great Lakes, Lake Superior. It was commissioned in April, 2000. It conducts fish stock assessment, fisheries research and habitat monitoring in cooperation with state, federal, tribal and university partners through the Lake Superior Technical Committee of the Great Lakes Fishery Commission. The *Kiyi* uses trawls and gillnets to annually



**R/V Kiyi**

sample preyfish populations and to track progress in the sustainability of the lake trout population. The *Kiyi* is also used to collect fish and environmental samples for a wide spectrum of studies, including the Great Lakes Contaminant Monitoring Program in cooperation with the U.S. Environmental Protection Agency.

Specifications:

*Length:* 107 ft.  
*Beam:* 27 ft.  
*Draft:* 10 ft.  
*Cruising speed:* 10 kt. (11.5 mph)

### **R/V Grayling**

The R/V *Grayling* is the Great Lakes Science Center's third largest ship, and is currently operating on both lakes Huron and Michigan. Docked at the Cheboygan Vessel Base in northeast lower Michigan, the *Grayling* is used primarily to carry out annual prey fish assessments. These assessments have occurred annually since the 1970's. They represent an exceptionally long data series that is being used to provide current information on the prey fish base to fisheries managers and to facilitate understanding of long term population trends in the fish community. Data on prey fish populations are especially important in evaluating management strategies such as predator stocking and harvest quotas. Built in 1977, the *Grayling* is large enough to comfortably accommodate



### **R/V Grayling**

eight people, including three crew members and five scientific personnel. It has a full galley and two heads with showers, and can be at sea for around 17 days.

#### Specifications:

*Length:* 75 feet  
*Beam:* 22 feet  
*Draft:* 9.8 feet  
*Cruising speed:* 9.1 kt. (10.5 mph)

### **R/V Muskie II**

Based in Sandusky, Ohio, the original R/V *Musky II* was used in Lake Erie primarily to assess annual recruitment of major prey and predator fish in western Lake Erie as well as lake trout restoration research in the eastern basin. The work will continue in the new *Muskie II*, which was built in Cleveland, Ohio in 2011. It will participate in studies designed to determine the impacts of environment changes and invasive species on the Lake Erie ecosystem. Built at Cleveland, Ohio, the *Muskie II* can be at sea for seven days while sleeping four: two crewmembers and two scientific personnel.



### **New R/V Muskie II**

#### Specifications:

*Length:* 70 ft.  
*Draft:* <6 ft.  
*Range:* 600 nm @ 12 kt.  
*Cruising speed:* 15 kt.

### **R/V Kaho**

The old R/V *Kaho* was the workhorse of the fisheries research fleet in Lake Ontario for almost three decades. The vessel was built in 1961, and was assigned to the Lake Ontario Biological Station in 1977. The new R/V *Kaho* was built in 2011 at Cleveland, Ohio and will continue the work participating in long-term population studies of important prey fish and in long-term studies aimed at evaluating the performance of stocked lake trout used in the bi-national restoration program. Current information on prey fish populations is used by resource agencies to manage stocked predator populations, and population models built from the long-term data are used to anticipate future changes in the prey fish community.

In addition to lake trout restoration research, the new *Kaho* will participate in tightly focused short-term studies designed to determine the effect of invasive species on the Lake Ontario



### **New R/V Kaho**

ecosystem. Such studies include documenting changes in the food web and in fish distribution associated with establishment of invasive species. Studies conducted aboard the *Kaho* document the spread of zebra and quagga mussels across the lake bottom and the concurrent decline of the burrowing amphipod, *Diporeia*, an important food for many fishes. The *Kaho* is also used to collect fish and environmental samples for a wide spectrum of studies, including the Great Lakes Fish Contaminants Monitoring Program in cooperation with U.S. Environmental Protection Agency. The R/V *Kaho* has two crew members, and has sleeping accommodations for six crew and scientific personnel. There are two washrooms, one with a shower, and a full galley including an electric range, microwave, refrigerator and eating area. The *Kaho* has the ability to be at sea for 10 days.

#### Specifications:

*Length:* 70 ft.  
*Beam:* 18 ft.  
*Draft:* <6 ft.  
*Cruising speed:* 15 kt.