

## NGRREC Collects Data through GREON for GLTG Virtual Observatory

June 25 2015 9:15 AM



 $\label{eq:expand} \textbf{EAST ALTON} - \textbf{Looking to expand beyond traditional monitoring activities, the} \\ \textbf{National Great Rivers Research and Education (NGRREC^{SM}) Center has launched the} \\ \textbf{Great Rivers Ecological Observation Network (GREON^{SM})}.$ 

The GREON<sup>SM</sup> program seeks to establish a network of real-time water quality monitoring platforms on great rivers around the world. NGRREC<sup>SM</sup>partnered with YSI Inc. to design and launch monitoring buoys capable of real-time, continuous collection of water quality and phytoplankton data.

NGRREC's first YSI PISCES (Pontoon for In-situ Characterization of Environmental Systems) buoy launched in May 2013 on the Upper Mississippi River System, and two additional buoys were launched in the fall of 2014 near the Mississippi River at Cape Girardeau, Missouri, and near Stoddard, Wisconsin.

This spring, buoys have also been stationed in the Mississippi River at the Clark Bridge and in a backwater channel near Alton, Illinois, in the main channel at Cape Girardeau, Missouri, and in Lake Decatur on the upper Sangamon River in Illinois. This summer, buoys were deployed in Carlyle Lake on the Kaskaskia River in Illinois, in the main channel of the Mississippi and a backwater channel near La Crosse, Wisconsin. A similar sampling device will be deployed in the lower Sangamon River.

Eventually, the program aims to expand the deployment platforms across the globe on other international great river systems. Data collected by GREON<sup>SM</sup>, is be transmitted and housed in the companion initiative, the Great Lakes to Gulf (GLTG<sup>SM</sup>) Virtual Observatory.

The GLTG Virtual Observatory initiative was conceived to expedite the data-to-knowledge-to-policy connections, from GREON  $^{SM}$  and other environmental monitoring efforts throughout the watershed.

The GLTG<sup>SM</sup> effort will facilitate ready access to water resource information from the Mississippi River and its tributaries. The web portal, <a href="http://gltg.ncsa.illinois.edu">http://gltg.ncsa.illinois.edu</a>, aims to include historical and current information about water quality in the rivers, characteristics of aquatic and terrestrial ecosystems in the rivers and floodplains, and interactions between humans and various components of the watershed.

GLTG<sup>SM</sup> will ultimately help prioritize data gathering and reliable knowledge needed to optimize large-scale conservation programs; facilitate collaborations and data sharing; and enable automated data extraction interfaces with highly visual decision support tools. The early phases of the initiative are being funded by the Walton Family Foundation and the State of Illinois.

The National Great Rivers Research and Education Center is a partnership of Lewis and Clark Community College and the University of Illinois at Urbana-Champaign.

NGRREC<sup>SM</sup> aspires to be a leader in scholarly research, education and outreach related to the interconnectedness of big rivers, their floodplains and watersheds, and the people who use them. For more information, visit <a href="www.ngrrec.org">www.ngrrec.org</a>.