

“Westward Ho the Mussels” -- The Day the Dreissenids Crossed the Great Divide

Zebra and quagga mussels (*Dreissena spp.*) will celebrate the 20th anniversary of their North American invasion in 2008. During those 20 years, the mussels have disrupted ecosystems, and caused billions of dollars of industrial, electric generation and water treatment impacts. Even though the mussels spread throughout lakes and rivers in 23 states and two provinces in just 19 years (not bad for critters without legs, wings or fins!), they remained “Easterners,” never venturing west of the Rockies. This ended in January 2007 when the National Park Service confirmed the first homesteading quaggas in Lake Mead National Recreation Area (NRA) on the Colorado River. In short order, the mussels were found downstream in Lakes Mohave & Havasu, putting the critters in Arizona, California and Nevada.

Lakes Mead and Mohave combined can host more than 7,000 boats on a peak summer weekend, raising the specter of mussels hitchhiking on trailered boats to other western waterbodies. As Yogi Berra might have said, it was “deja vu all over again.”

A Lake Mead Interagency Team was formed to develop a quagga response plan. New York Sea Grant (NYSG), with its extensive zebra mussel experience, was part of the Lake Mead Science



Las Vegas Boat Harbor, site of quagga mussel discovery in Lake Mead on the Colorado River. Photo: Chuck O’Neill, NYSG

Team that met on the shore of Lake Mead to provide science-based management recommendations. The teams developed a pragmatic approach to minimize the mussels’ impacts on lake resources and on stakeholders. The plan was proved doubly useful when the mussels were discovered upstream in Lake Powell NRA in July. NYSG continues to provide support to the Interagency Team.

On a parallel track, California formed an “incident response team” to address the invasion of Lake Havasu - the gateway to that state’s massive interconnected water distribution system. A Science Advisory Panel met at the San Francisco Estuary Institute to provide science-based input on a California quagga mussel eradication/containment plan and to set research priorities. Once again, NYSG was at the table.

NYSG’s recognized expertise with the mussels provided a linkage to 19 years of eastern experience, science and outreach and helped states west of the 100th Meridian to minimize the potential spread and related ecologic and economic impacts of the mussels in the West.



NPS zebra mussel monitoring program volunteer Wen Baldwin searches for quagga mussels on dock floats in the Las Vegas Boat Harbor. Photo: Chuck O’Neill, NYSG

New York Sea Grant is a cooperative program of the State University of New York and Cornell University. Sea Grant Extension administration is located at 112 Rice Hall, Cornell University, Ithaca, NY 14853.

This project summary was written by Charles R. O’Neill, Jr., Sr. Extension Associate, 585-395-2638, cro4@cornell.edu, www.nyseagrant.org.