

## THE GREAT LAKES WATERFLEA REPORT

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The spiny waterflea (*Bythotrephes cederstroemi*) and fishhook waterflea (*Cercopagis pengoi*) are two species of the family Cercopagidae, which have invaded the Great Lakes from the Ponto-Caspian region. During late summer, these waterfleas form large masses, which look and feel like wet cotton batten. These masses are commonly caught on fishing lines and down-rigger cables and may cause difficulty in retrieving lines.

The *Great Lakes Waterflea Report* is an Internet-based reporting system for information on the distribution and seasonal population dynamics of exotic waterfleas in the Great Lakes. Launched in 2001 by the Sea Grant Extension Program at the Great Lakes Environmental Research Lab (GLERL) of the National Oceanic and Atmospheric Administration, the system provides a forum for the collection and dissemination of current information on the distribution of two waterfleas. The website allows Great Lakes researchers access to information provided by boaters and anglers to help understand how these invaders are likely to impact Great Lakes food webs. At the same time, the system also provides this information to the fishing and boating community for use in planning their activities on the Great Lakes. The system is designed to collect and disseminate information relating to changes in population densities in near real-time; it is not directed at monitoring the initial geographic spread of the invasion.

The spiny waterflea is present in all of the Great Lakes; the fishhook waterflea has not yet been reported in lakes Huron or Superior and invaded Lake Erie's western basin only last summer. Reports on the system do not routinely distinguish between the two exotic species, but rather concentrate on reporting current locations of nuisance-level densities. The two species are quite difficult to differentiate with the naked eye, but the fishhook waterflea has a distinctive hook in its tail detectable with a magnifying glass.

The system does not require the collection of waterflea samples for later positive identification, thus encouraging

greater public participation. Other federal and state agencies are collecting reports on sightings of new infestations of exotic waterfleas (e.g., Ohio Sea Grant/Ohio DNR for Lake Erie) for the purpose of tracking invasion of new geographic locations; such reports do require the collection of species. As provided, information on these additional reporting protocols will be made available on the *Great Lakes Waterflea Report*.

During the summer of 2001, 30 distinct reports representing six geographic regions of the Great Lakes were received by the system. This information was used by GLERL researchers to identify appropriate sampling locations. The gathered information also supported scientific observations concerning the temperature dependence of exotic waterflea 'blooms.' The *Great Lakes Waterflea Report* aims to maximize use of anglers and boaters as a significant resource to aid researchers in understanding the factors leading to nuisance level blooms, as well as to predicting their extent and duration. In addition, timely information is provided to lake users who may wish to avoid bloom areas. Assistance is needed in advertising the *Great Lakes Waterflea Report* to local fishing and boating communities to encourage greater public participation in and use of the system.

The *Great Lakes Waterflea Report* is available online at [www.glerl.noaa.gov/seagrant/cercopagis/cercopagissite.htm](http://www.glerl.noaa.gov/seagrant/cercopagis/cercopagissite.htm). Contact: Dr. Rochelle Sturtevant, Great Lakes Sea Grant Extension at the Great Lakes Environmental Research Lab, 734-741-2287, [rochelle.sturtevant@noaa.gov](mailto:rochelle.sturtevant@noaa.gov).

### Great Lakes Panel Update

The Great Lakes Panel's spring meeting was held May 29-30, 2002, at Stone Laboratory located on Gibraltar Island, Lake Erie. Held in recognition of the 10<sup>th</sup> anniversary of the Panel, the event proved to be a unique opportunity for the Panel to reflect on past progress and future directions. Meeting co-sponsors included the Great Lakes Commission, Ohio Sea

Grant, Stone Lab of The Ohio State University and the Ohio Department of Natural Resources.

Meeting discussions focused on development of the Panel's model rapid response plan, comments regarding the U.S. Coast Guard's proposed standards for living organisms in ship's ballast water discharged in U.S. waters, and the Panel's recommendations for NISA reauthorization. An excursion on the Stone Lab research boat, where the group viewed a variety of native and nonindigenous aquatic organisms, was a meeting highlight. The meeting provided a great opportunity for Panel members to experience Lake Erie and to observe how operation of Stone Lab supports the overall mission of the Great Lakes Panel. Contact: Kathe Glassner-Shwadyer, Great Lakes Commission, 734-971-9135, [shwayder@glc.org](mailto:shwayder@glc.org).

### Washington Watch

The subcommittees on Water Resources and Environment, and Coast Guard and Maritime Transportation held a hearing in May on the status of implementation of the National Invasive Species Act of 1996. Concern was expressed over the Administration's implementation of NISA. Support was voiced by several members for mandatory ballast water exchange; other members expressed support for ballast water treatment technology. Additional information and testimony may be found at [www.house.gov/transportation](http://www.house.gov/transportation). In June the House Subcommittee on Environment, Technology and Standards held a hearing on the research priorities for aquatic nuisance species that identified needs for NISA reauthorization efforts ([www.house.gov/science](http://www.house.gov/science)).

The House Resources Committee has reported out the *Species Protection and Conservation of the Environment Act* (H.R. 3558) or SPACE Act. Representative Rahall (W.Va) introduced the SPACE Act to create partnerships between federal and private landowners to fight the spread of harmful non-native species, both aquatic and terrestrial, by authorizing grants with a

75 percent federal share. It would also fund response programs, technical assistance and program monitoring. The total cost of the bill would be \$98 million. Contact: Joy Mulinex, Senate Great Lakes Task Force, Northeast-Midwest Institute, 202-224-1211, [joy\\_mulinex@levin.senate.gov](mailto:joy_mulinex@levin.senate.gov).

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## Around the Basin:

**ILLINOIS:** Illinois conservation officers are educating boaters and anglers about ANS issues with information provided by Sea Grant. New signs with the slogan "Zebra Mussels Infest These Waters" have been posted at lakes in vulnerable areas. A review of state regulations and statutes concerning ANS is underway. Contact: Pat Charlebois, IL-IN Sea Grant, 847-872-0140, [charlebo@uiuc.edu](mailto:charlebo@uiuc.edu).

**INDIANA:** Indiana will contract development of a state ANS management plan in 2003. Advice is requested from other states with experience in plan development through a contract facilitator. Contact: Gwen White, IN Dept. of Fish and Wildlife, 317-232-4093, [gwhite@dnr.state.in.us](mailto:gwhite@dnr.state.in.us).

**MICHIGAN:** An ANS Action Team was convened by the Office of the Great Lakes to update Michigan's ANS management plan. The team, consisting of the directors from departments of Environmental Quality, Natural Resources, and Agriculture, met in March to begin this process. Participants in the Action Team also include staff from state and federal agencies, The Nature Conservancy, Sea Grant, Michigan State University Extension, and the Great Lakes Commission. The updated plan will be unveiled on Oct. 2, 2002, during Aquatic Nuisance Species Prevention Day in the state capitol rotunda. ANS issues have been added as a focus area for the Michigan Great Lakes Protection Fund this year. Projects funded under this initiative will be announced in the fall. Contact: Emily Finnell, MI DEQ, 517-241-7927, [finnelle@michigan.gov](mailto:finnelle@michigan.gov).

**MINNESOTA:** The Minnesota Invasive Species Advisory Committee recently met to discuss criteria for ranking the threats of invasive species, coordinate surveys and monitoring, and increase cooperation on educational efforts among the many entities working on aquatic and terrestrial invasive species issues in Minnesota. Sea Grant recently produced ANS-specific "WATCH" ID cards for Eurasian ruffe, round goby, Eurasian watermilfoil, and purple loosestrife. The credit card-sized cards were produced for each Great Lakes state, Lake Champlain, Ontario, Quebec, and the U.S. Fish and Wildlife Service. Two additional cards will be developed in the fall; one for both spiny and fishhook waterflea and another for European frog-bit. Contacts: Jay Rendall, Minnesota DNR, 651-297-1464, [jay.rendall@dnr.state.mn.us](mailto:jay.rendall@dnr.state.mn.us); Doug Jensen,

MN Sea Grant, 218-726-8712, [djensen1@d.umn.edu](mailto:djensen1@d.umn.edu).

**NEW YORK:** Lake Erie's eastern basin has experienced a significant outbreak of Type E botulism in fish and birds over the past two years, and it is believed that ANS may be linked to the disease. *Clostridium Botulinum* is a common bacteria, which can form a potent toxin when vegetative growth occurs under anaerobic conditions. Death is often very rapid after organisms ingest the toxin. The stomach contents of many fish and birds that have died from botulism poisoning have contained round goby and sometimes quagga mussels, raising concern over the role of these invasive species in the spread of the disease. In total, tens of thousands of fish and birds have died, including more than 1,500 common loons in New York alone. Human health risks also exist as anglers or hunters may consume affected wildlife. Contact: Bill Culligan, NY DEC, 716-366-0228, [nysdec@netsync.net](mailto:nysdec@netsync.net).

**ONTARIO:** In 2001, reports from the public and ongoing volunteer monitoring programs resulted in confirmation of ANS infestations in several new locations. For the first time, zebra mussels were detected in Dalrymple Lake; spiny water flea in Lake Nipigon, Bella Lake, Kenisis Lake, Wahwashkesh Lake, and Red Pine Lake; round goby in the Napanee River and in the North Channel of Lake Huron; and fishhook water flea in western Lake Erie. Contact: Beth MacKay, OMNR, 705-755-1950, [beth.mackay@mnr.gov.on.ca](mailto:beth.mackay@mnr.gov.on.ca).

**PENNSYLVANIA:** PA DEP has completed its evaluation of the November 2001 drawdown in northwestern Pennsylvania for zebra mussel control. Drawdown conditions and preliminary results were reported in the Winter/Spring 2002 issue of the *ANS Update* (Vol. 8, No. 1). The second drawdown was markedly more successful than the first, resulting in a 99 percent reduction in mean zebra mussel density in the lake. Peak mussel densities were reduced from 745 per square meter to ten per square meter. A reproductively viable zebra mussel population remains, however, and periodic drawdowns will be necessary for continued control. Contact: Jim Grazio, PA DEP, 814-332-6677.

**WISCONSIN:** The DNR's new water craft inspection program is in full swing this summer. The agency now has 11 new staff working at boat launch sites around the state, informing boaters about invasive aquatic species and a recent state law aimed at keeping aquatic invaders out of uninfested waters. Staff provide boaters with watch cards and other information on how they can prevent the spread of zebra mussels, Eurasian watermilfoil and other invasive species. Zebra mussels were confirmed in nine new lakes in 2001, while Eurasian watermilfoil was confirmed in 18 more waterbodies since October 2000. Contact: Ron Martin, WI DNR, 608-266-9270, [martir@dnr.state.wi.us](mailto:martir@dnr.state.wi.us).

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## National ANS Task Force

**T**ask Force efforts are currently focused on strategic plan implementation and structural reorganization, as agreed upon at the last Task Force meeting in February 2002. The Task Force and the ANS regional panels have also been working with the Northeast-Midwest Institute on reauthorization of the National Invasive Species Act of 1996. The fall meeting of the Task Force is scheduled for the week of Nov. 11, in Honolulu, Hawaii. Details about the meeting will soon be posted on the ANS web site ([www.anstaskforce.gov](http://www.anstaskforce.gov)). Contact: Sharon Gross, U.S. Fish and Wildlife Service, 703-358-2308, [sharon\\_gross@fws.gov](mailto:sharon_gross@fws.gov); or Joe Starinchak, U.S. Fish and Wildlife Service, 703-358-2018), [joe\\_starinchak@fws.gov](mailto:joe_starinchak@fws.gov).

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## Upcoming Events:

- *ANS-Hazard Assessment and Critical Control Point Regional Training Workshops*, Portland, Oregon, Aug. 7-8; and Bozeman, Montana, Aug. 28-29, 2002. Additional workshops are planned for Wisconsin, Ohio and Pennsylvania in the fall. Contact your state's Sea Grant office for details. Contact: Doug Jensen, MN Sea Grant, 218-726-8712, [djensen1@d.umn.edu](mailto:djensen1@d.umn.edu); or Mike Klepinger, MI Sea Grant, 517-353-5508, [klep@msu.edu](mailto:klep@msu.edu)
- *Meeting of the National ANS Task Force*, Honolulu, Hawaii, week of Nov. 11, 2002. Exact date to be determined. Contact: Sharon Gross, U.S. Fish and Wildlife Service, 703-358-2308, [sharon\\_gross@fws.gov](mailto:sharon_gross@fws.gov).
- *Aquatic Nuisance Species Prevention Day*, Lansing, Mich., Oct. 2, 2002. Contact: Emily Finnell, MI DEQ, 517-241-7927, [finnelle@michigan.gov](mailto:finnelle@michigan.gov).

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## On the Bookshelf:

- *Stop Ballast Water Invasions* brochure. Contact: Susan White, IL-IN Sea Grant, 217-333-9441, [white2@uiuc.edu](mailto:white2@uiuc.edu).
- *Exotics To Go* compact disc, containing presentations, movie clips and ANS outreach publications. Contact: Doug Jensen, MN Sea Grant, 218-726-8712; [djensen1@d.umn.edu](mailto:djensen1@d.umn.edu); \$2.50 shipping; or Cindy Moore, IL-IN Sea Grant, 800-345-6087, [cjmoore@uiuc.edu](mailto:cjmoore@uiuc.edu); \$5 shipping.