



STATE OF MICHIGAN



JENNIFER M. GRANHOLM  
GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

LANSING

REBECCA A. HUMPHRIES  
DIRECTOR

SUBMITTED: October 12, 2009  
RESUBMITTED: November 9, 2009

MEMORANDUM TO THE NATURAL RESOURCES COMMISSION

Subject: Establishment of Invasive Species Order  
Prohibited and Restricted Invasive Species List – New Zealand Mud Snail  
Invasive Species Order Amendment No. 1 of 2009

Authority:

The Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, authorizes the Director and the Commission to issue orders to manage wild animals in this state.

Discussion and Background:

Part 413 (Transgenic and Nonnative Organisms) of the Natural Resources Environmental Protection Act, 1994 PA 451, regulates (1) the possession of live specimens of prohibited or restricted species and (2) the introduction of organisms that are prohibited, restricted, genetically-engineered, or non-native. Public Act 52 of 2009 authorizes the Natural Resources Commission (NRC) to amend the list for all organisms other than plants and insects as needed. The Michigan Department of Agriculture has similar authority for plants and insects. This Act directs the NRC to consult with the Department of Agriculture before adding or deleting to the lists of prohibited or restricted species. This process has been initiated with the Department of Agriculture. Another requirement within these Public Acts is the development of an invasive species web page on the Department of Natural Resources web site with a list of prohibited species and a list of restricted species from MCL 324.41313, along with a description and a photograph or drawing of each of these species. Additional requirements include the creation of a permitting process for possession of these species for educational or research purposes, the creation of an invasive species fund, and listing of civil fines for violations. The acts also require the Department to submit an annual report to the Governor and Legislature that includes: additions or deletions to the listing of prohibited or restricted species, the status of listed species in the state, actions to prevent or control invasive species, restoration of habitats damaged by invasive species, and education and outreach efforts to inform citizens about their responsibilities and role in preventing the spread of invasive species.

NATURAL RESOURCES COMMISSION

Keith J. Charters, Chair • Mary Brown • Hurley J. Coleman, Jr. • John Madigan • Timothy L. Nichols • J. R. Richardson • Frank Wheatlake

STEVENS T. MASON BUILDING • P.O. BOX 30028 • LANSING, MICHIGAN 48909-7528  
[www.michigan.gov/dnr](http://www.michigan.gov/dnr) • (517) 373-2329

*Great Lakes, Great Times, Great Outdoors!*

Prohibited and Restricted Invasive Species List – New Zealand Mud Snail  
Invasive Species Order Amendment No. 1 of 2009

Page 2

November 9, 2009

The New Zealand mud snail, native to New Zealand, is an invasive species in North America and was first found in the United States in 1987. It is believed this snail was brought to North America and Michigan, in particular, via the ballast of ocean vessels. This very small snail, 5 mm in length, has high reproductive rates, can have densities of over one-half million per meter square, and competes with native mollusks and other invertebrates for habitat and food. This mud snail was found in Lake Ontario in 1991 and in Lake Michigan in 2006. The mode of spread is mainly by human transportation. Because of the snails' small size, boaters and anglers need to be diligent in draining water from their boats, and removing plants and mud from equipment and gear to stop movement of this species to other water bodies.

This exotic species may dramatically alter ecosystem function in rivers. As with zebra and quagga mussels, this can significantly change the type and amount of macro-invertebrates that are available to fish, amphibians, reptiles, and other species as a source of food. If the majority of the production in a system is tied up into a food source (snails) that is unavailable to predators, a significant change to species composition in the ecosystem is likely.

Brown trout and rainbow trout do eat the New Zealand mud snail, however studies have shown that their condition decreases with increasing amounts of mud snail consumed (Vinson and Baker 2008). This evidence suggests that this snail likely poses a serious threat to Michigan's trout fishery.

Based on the potential resource damage resulting from the New Zealand mud snail, this amendment recommends this snail be placed on the list of prohibited species.

Prohibited and Restricted Invasive Species List – New Zealand Mud Snail  
Invasive Species Order Amendment No. 1 of 2009

Page 3

November 9, 2009

Recommendation:

This order was submitted for information and consideration at the November 5, 2009, Natural Resources Commission meeting. This item appeared on the Department's October and November 2009 calendars and may be eligible for approval on December 3, 2009.



Russ Mason, Ph.D., Chief  
Wildlife Division



Ronald A. Olson, Chief  
Parks and Recreation Division



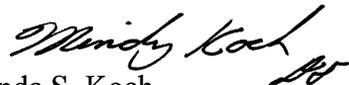
Lynne M. Boyd, Chief  
Forest, Mineral, and Fire Management



Gary Hagler, Chief  
Law Enforcement Division



Kelley D. Smith, Ph.D., Chief  
Fisheries Division



Arminda S. Koch  
Resource Management Deputy

I have analyzed and discussed these recommendations with staff and concur as to matters over which the Natural Resources Commission has authority.

Rebecca A. Humphries  
Director

# INVASIVE SPECIES ORDER

## Amendment No. 1 of 2009

By authority conferred on the Natural Resources Commission by section 41302 of 1994 PA 451, MCL 324.41302 it is ordered that effective December 4, 2009, the following section(s) of the Invasive Species Order shall read as follows:

### **40.1 Short Title.**

Sec. 40.1 This order shall be known and may be cited as "the invasive species order."

### **40.2 Meanings of Words and Phrases.**

Sec. 40.2 For the purposes of this order, words and phrases defined in part 413, transgenic and nonnative organisms, of the natural resources and environmental protection act, 1994 PA 451, as amended, MCL 324.41301 to 324.41323, shall have the meanings ascribed to them in those sections.

### **40.3 Prohibited Species List.**

Sec. 40.3 (1) Prohibited species are listed in part 413, transgenic and nonnative organisms, of the natural resources and environmental protection act, 1994 PA 451, as amended, MCL 324.41301 to 324.41323.

### **40.4 Additional Prohibited Species.**

(1) Possession of the following live mollusk species, including a hybrid or genetically variant of the species, an egg of the species or of a hybrid or genetically engineered variant, is prohibited:

- (a) New Zealand mud snail (*potamopyrgus antipodarum*).

Issued this 3rd day of December 2009.

Approved as to matters over which the Natural Resources Commission has authority.

Keith J. Charters, Chairman  
Natural Resources Commission

Approved as to matters over which the Director has authority.

Rebecca A. Humphries  
Director