What can you do to keep Spiny Water Flea out of Quabbin Reservoir?

The only hope for excluding spiny water flea from Quabbin is personal vigilance on the part of each and every visiting boater and angler: this means everyone who fishes at Quabbin!

If you move your boat among various water bodies, you are the highest probability carrier of non-native organisms to Quabbin. The most protective measure boaters can adopt is to dedicate their boat and fishing gear for use exclusively in Quabbin.

If you visit other waters, please scour your boat, trailer, bait buckets, fishing gear, and anything else exposed to outside waters and remove all plant fragments, mud, and debris. Drain water from bilge, engine, and live wells and allow all of the above to dry completely for at least five days before visiting Quabbin.

Complete this checklist after visiting any water body:

Inspect
boat, trailer, and fishing gear

Remove
plant fragments, mud, debris (hot wash or pressure wash boat/trailer if possible; clean fishing gear)

Drain
any standing water (bilge, etc.)

Dry
allow at least 5 days of complete dryness (longer if possible) before visiting a different water body.

CLEAN and **DRY** is the only way to keep the spiny water flea at bay don't transport a stowaway for once in Quabbin it's here to stay!

Precautions identified in this brochure help to prevent the spread of all non-native aquatic species, including plants (e.g., Eurasian Water-milfoil) and animals (e.g., zebra mussel), as well as spiny water flea.

More information

Aquatic Nuisance Species (ANS) Task Force "Stop Aquatic Hitchhikers" campaign
www.protectyourwaters.net

United States Geological Survey Nonindigenous Aquatic Species (NAS) Information Resource
http://nas.er.usgs.gov

Quabbin Reservoir Fishing Program

Department of Conservation and Recreation
485 Ware Rd., Belchertown, MA 01007
413-323-7221 (Visitors Center)
413-323-6921 x302 (Aquatic Biology)
www.mass.gov/dcr/quabbinfish

DCR oversees 450,000 acres of parks, forests, beaches, bike trails, watersheds and dams. Its mission is to protect, promote, and enhance the wide variety of natural, cultural, and recreational resources within the Massachusetts state park system. To learn more about the DCR and to discover other parks and recreational opportunities within the Massachusetts state park system visit **www.mass.gov/dcr** or call 617-626-1250 or write DCR, 251 Causeway Street, Suite 900, Boston, MA, 02114.

Cover photo: Jeff Gunderson, Minnesota Sea Grant.

www.mass.gov/dcr/watershed

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dcr
Massachusetts

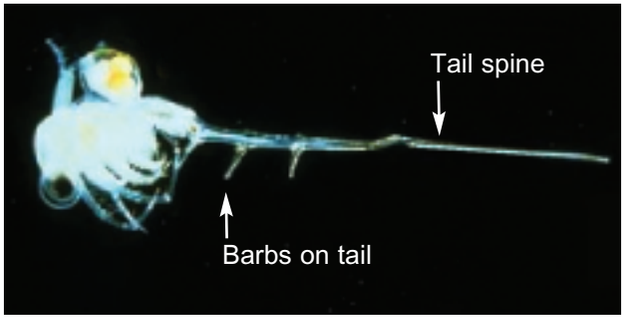
Spiny Water Flea Alert

ATTENTION QUABBIN ANGLERS
Spiny Water Flea Threatens Fishing at Quabbin

The Spiny Water Flea is spreading from the Great Lakes eastward toward Quabbin.
Get the whole story inside.

What is Spiny Water Flea?

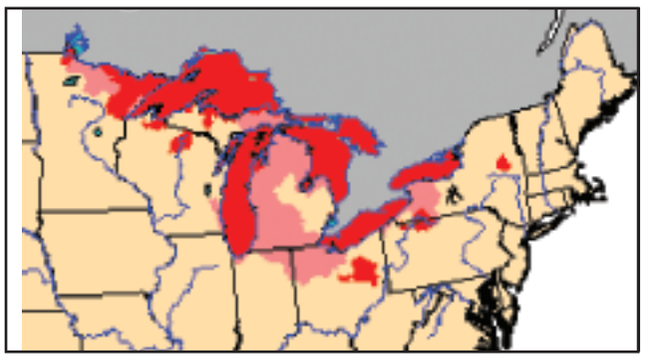
Spiny water flea (alien species *Bythotrephes longimanus*) is a tiny crustacean related to native forms among Quabbin zooplankton, such as Daphnia, but ranges up to about one-half-inch in size, over ten times larger than native water fleas! The elongated, barbed tail of this non-native organism protects against predation by small juvenile fish that have difficulty ingesting the tail spine.



http://sgnis.org/3drotate/flea.htm

Where did it come from?

Spiny water flea is native to Eurasia and was introduced into the Great Lakes via freighter ballast in the mid-1980s. It was discovered in Great Sacandaga Lake, N.Y. in September 2008, just 108 miles northwest of Quabbin. Currently known U.S. distribution is shown in red on the map below.



http://nas.er.usgs.gov

Why is Spiny Water Flea a threat to Quabbin fishing?

Minnesota Department of Natural Resources.

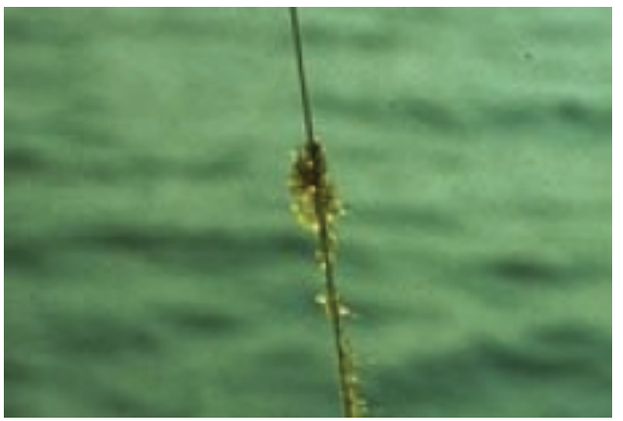
This non-native organism threatens Quabbin fishing in two ways:

1. Spiny water fleas compete with juvenile sport fish for food. Both the spiny water flea and young fish prey almost entirely on native water fleas and other zooplankton. Research has shown that spiny water flea predation is capable of reducing the diversity and density of native zooplankton, thus impoverishing the food chain that sustains adult fish.

2. The barbed tail of this organism catches on fishing gear, especially fishing lines and downrigger cables. Masses of the organism can accumulate as gelatinous, cotton-like clumps, fouling gear, and interfering with fishing (see cover photo).

How does Spiny Water Flea spread from one water body to another?

Research has shown that human recreation involving boats is the principle mechanism of transfer of non-native species between water bodies. Boating is an activity that is extremely vulnerable to “hitch-hiking” by non-native organisms because so many surfaces, nooks, and crannies of nautical gear are immersed in water. This is especially true of the spiny water flea because it produces thick-walled “resting” eggs that can remain dormant for long periods of time and are resistant to envi-ronmental extremes. These eggs even survive passage through the digestive tracts of fish.



www.protectyourwaters.net/hitchhikers/crustaceans_spiny_water_flea.php

Adult spiny water fleas snagged during boating or fishing may contain resting eggs. These eggs can survive for extended periods after being tangled with downriggers, anchor line, trailer parts, and fishing gear. Consequently, resting eggs are insidious
“stowaways” and contribute greatly to the rapid dispersal of this non-native organism from infested lakes to clean ones. There is no way to eradicate spiny water flea once it is introduced into Quabbin.