



Endangered Species Facts



The Hungerford's crawling water beetle is found in Michigan and Ontario, Canada.



Hungerford's Crawling Water Beetle

The Hungerford's crawling water beetle (*Brychius hungerfordi*) is an endangered species. Endangered species are animals and plants that are in danger of becoming extinct. *Threatened species* are animals and plants that are likely to become endangered in the foreseeable future. Identifying, protecting and restoring endangered and threatened species is the objective of the U.S. Fish and Wildlife Service's endangered species program.

Appearance – Hungerford's crawling water beetles are small (less than ¼ inch long) yellowish brown water beetles with irregular dark markings and stripes along the back.

Range - Hungerford's crawling water beetles are found in only five isolated locations in Michigan and Ontario, Canada. The disjunct distribution of this species suggests that it is a relict from glacial periods when cool, fast moving streams were more prevalent and the beetle was more widespread.

Habitat - Hungerford's crawling water beetles are found in the cool riffles of clean, slightly alkaline streams. All streams where this beetle has been found have moderate to fast water flow, good stream aeration, inorganic substrate, and alkaline water conditions. The highest densities of Hungerford's crawling water beetles have been found below beaver dams or immediately below structures that provide similar conditions.

Life History - Little is known about the Hungerford's life history, but it is thought that its life cycle is similar to other closely related beetles. Eggs of the Hungerford's crawling water beetle are probably laid in spring and early summer. The larvae may go through three stages and pupate in the moist soil above the water line. Both adults and larvae are herbivorous (plant

What is the Hungerford's crawling water beetle?

What is the Hungerford's crawling water beetle? (cont'd.)

eaters) but are seldom found together because they use different stream microhabitats. The larvae are found along stream edges in dense aquatic vegetation which protects them from predators and provides food. Adults are usually found in areas with stronger currents where they feed on algae that grows on rocks and stones. Adults are unusually reluctant to fly, so it is unlikely that they disperse by flight. Instead, dispersal is probably by moving within the stream system.

Why is the Hungerford's crawling water beetle endangered?

Stream Modification – The primary threat to Hungerford's crawling water beetle is modification of its habitat. Actions that are potentially harmful include dredging, channelization, bank stabilization, and impoundment.

Beaver Dam Removal - Removing beaver dams may remove habitat for the beetle. The downstream side of beaver dams provide riffles and highly aerated water that are key components of the Hungerford's habitat. Because so few populations of this beetle remain, dam removal could cause local extinctions. Ironically, new impoundments caused by beaver dams could also eliminate Hungerford's habitat.

Fish Management - Fish introductions or removals may pose a threat to the Hungerford's. The introduction of brown trout, for example, can result in increased predation of the beetle. Other management practices, such as the use of chemical treatments, may also be harmful to this rare species.

What is being done to prevent extinction of the Hungerford's crawling water beetle?

Listing - Hungerford's crawling water beetle was added to the List of Endangered and Threatened Wildlife and Plants on April 6, 1994.

Recovery Plan - Listing the Hungerford's crawling water beetle requires the U.S. Fish & Wildlife Service to prepare a Recovery Plan to identify and prioritize conservation measures that are needed to bring this species back from the brink of extinction. A draft Recovery Plan was prepared and is available for public review and comment until September 7, 2004.

Research - Research on the Hungerford's crawling water beetle will be conducted on its distribution, life history, and threats to survival. This information is needed so that occupied sites can be managed and suitable unoccupied sites identified for potential reintroductions.

Protection - Protection of the existing sites that support the Hungerford's is essential because so few populations of the species remain.

What can I do to help prevent the extinction of species?

Learn - Learn more about the Hungerford's crawling water beetle and other endangered and threatened species. Understand how the destruction of habitat leads to loss of endangered and threatened species and plant and animal diversity. Discuss with others what you have learned.

Join - Join a conservation group; many have local chapters.

Protect – Protect water quality by minimizing use of lawn chemicals (i.e., fertilizers, herbicides, and insecticides), recycling used car oil, and properly disposing of paint and other toxic household products.