

Response Statement - Rayed Bean

December 2, 2010

Common Name: Rayed Bean

Scientific Name: *Villosa fabalis*

Status assessment by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC): Endangered

How the Minister of the Environment intends to respond to the assessment: The above assessment confirms the classification of this wildlife species in Schedule 1, the *List of Wildlife Species at Risk* as Endangered. Activities will continue to be undertaken in a manner consistent with the purposes, and according to the timelines identified in, the *Species at Risk Act*.

Reason(s) for status designation provided by COSEWIC: This freshwater mussel is one of the smallest in Canada. It is found in two rivers in southern Ontario; more than 99% of the estimated total population is found in the Sydenham River. The original COSEWIC assessment (2000) concluded that it had been extirpated from most of its Canadian range and was confined to one river but a new, albeit small, population was discovered in 2004 in the North Thames River. Thirteen live individuals were found between 2004 and 2008 in this river. The main limiting factor is the availability of shallow, silt-free riffle habitat. Both riverine populations are in areas of intense agriculture and urban development, subject to siltation and pollution. Invasive Zebra Mussels have rendered much of the historic habitat unsuitable and pose a continuing threat to one of the last remaining populations.

Occurrence: Ontario

Competent Minister(s):

Minister of Fisheries and Oceans

Applicable federal legislation: Fisheries are managed and fish habitat is protected under the *Fisheries Act*.

Conservation activities underway: A recovery strategy for five freshwater mussel species, including Rayed Bean, was developed in 2006 and is currently being implemented. Additionally, the species is also included in the ecosystem-based recovery strategies for the Sydenham River and the Thames River. In 2009, studies were conducted to evaluate the Round Goby, an invasive species, as a threat to the critical habitat of freshwater mussels at risk including the Rayed Bean in Ontario. Habitat Stewardship Funds were provided to the St. Clair Region Conservation Authority to promote habitat stewardship in the Sydenham River ecosystem which contains 14 aquatic species at risk including the Rayed Bean. Activities included: decrease nutrient and sediment loading through hands on habitat improvement; increase knowledge of species at risk, the causes and solutions to landowners and students; evaluate the impact of stewardship initiatives in past and present years through benthic sampling, water quality testing and electrofishing. Rayed Bean was previously listed as Endangered under the *Species at Risk Act* and therefore the *Species at Risk Act* prohibitions already apply.