



SPECIES AT RISK ACT

CONSULTATION WORKBOOK on the proposed change in status of a species on the List of Wildlife Species at Risk



Wavy-rayed Lampmussel

November 2010



CONSULTATION WORKBOOK

The Wavy-rayed Lampmussel

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Introduction

Why are we asking for your feedback on the Wavy-rayed Lampmussel?

The purpose of this workbook is to invite all Canadians to share their views on whether the status of the Wavy-rayed Lampmussel should be changed from an “Endangered” species to a “Special Concern” species (a lower risk category) under the federal *Species at Risk Act* (SARA).

The Workbook summary

This workbook is broken down into three parts.

- Part 1 provides general background information on the federal *Species at Risk Act*, and explains how a species is added to the List of Wildlife Species at Risk, and what happens once that occurs.
- Part 2 provides information about the Wavy-rayed Lampmussel in Canada, and outlines its current “at risk” status.
- Part 3 (detachable) consists of a questionnaire for you to complete and send to the federal government. It is intended to assist you in stating your concerns and advice.

This workbook can also be downloaded by visiting:

www.registrelep.gc.ca/involved/consultation/default_f.cfm

Your view is important to us!

Your view on whether the status of the Wavy-rayed Lampmussel should be changed to “Special Concern” on the SARA List of Wildlife Species at Risk is important to this consultation process. Your opinions will be carefully considered.

Part 1: The *Species at Risk Act*

The *Species at Risk Act* (SARA) became law on June 5, 2003. This federal legislation helps prevent Canada's wildlife species from becoming extinct. The Act sets out how the federal government will decide which species are in greatest need of protection and what it will do to protect those species. It identifies how governments, organizations and individuals can work together to protect plants and animals (including aquatic species), and it establishes penalties for failing to obey the *Act*.

Plants and animals protected under the *Act* are included in the SARA "List of Wildlife Species at Risk". This inventory of protected species will be called "the SARA List" in the rest of this consultation workbook.

Who determines if a species is "at risk"?

The federal government will consider adding a species to the SARA List only if the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) considers a species 'at risk' and recommends legal protection. COSEWIC is a legally recognized group of independent experts who use science and traditional knowledge to determine which species need added protection. These recommendations are formally presented to the federal government.

As part of the recommendations, COSEWIC places the species it considers to be "at risk" into one of five categories:

Extinct - A wildlife species that no longer exists.

Extirpated - A wildlife species that is no longer found in the wild in Canada, but may be found elsewhere.

Endangered - A wildlife species that will likely soon become Extirpated or Extinct.

Threatened - A wildlife species likely to become Endangered if nothing is done to help protect it.

Special Concern - A wildlife species that may become Threatened or Endangered if nothing is done to help protect it.

Once the COSEWIC recommendations are received, the federal Cabinet must decide if it will support, reject or send recommendations back to COSEWIC for further consideration. As part of the Cabinet's consideration process, it must consider the views of Canadians, as well as the economic and social implications of protecting a species under SARA.

What happens once a species or population is added to the SARA List?

The amount of protection that SARA provides depends on its status in the above five "at risk" categories.

It is illegal to kill, harm, harass, possess, collect, buy, sell or trade an Extirpated, Endangered or Threatened species. It is also generally illegal to damage or destroy the places these species live. These prohibitions do not apply to species of Special Concern.

The ministers responsible for the *Act* are: the Minister of the Environment, who is responsible for animals and plants found on federal lands; and the Minister of Fisheries and Oceans, who is responsible for aquatic animals. Under special circumstances, these Ministers may make exceptions to the above prohibitions. For example, a responsible minister can issue a permit that would allow a qualified scientist to carry out a research project that would likely benefit a listed species, but may require the collection of specimens, or a physical relocation from its current habitat. Exceptions can only be made if the Minister is assured that the survival or recovery of the species will not be jeopardized.

Public consultation

When deciding whether to add a species to the SARA List, the federal government must consider potential social and economic benefits and costs. It must also consider the potential consequences of *not* adding the species. To do this, government representatives meet with various group and individuals that have a direct interest in the species or that wish to provide comments. This may include landowners, aboriginal groups, land users, wildlife management boards, non-government environmental organizations and industry. This consultation workbook provides another option to allow Canadians to provide their views to government.

Following the consultation period, the Government carefully considers all comments it receives. Following this final consideration, the Government must decide whether to add the species to the SARA List. Its decision is published in the Canada Gazette, Part II and on the SARA Public Registry.

Recovery strategies and management plans

If a wildlife species is added to the SARA List as an **Extirpated, Endangered or Threatened** species, the federal government must prepare a strategy for its recovery. The *recovery strategy* outlines known threats to the species, identifies the habitat it needs to survive, and highlights gaps in knowledge. It also sets a goal for the species' recovery.

A recovery strategy must be completed within one year of a species being listed as Endangered, and within two years if it is Threatened or Extirpated.

If a wildlife species is considered **Special Concern**, the federal government must prepare a *management plan* within three years of the species being added to the SARA List. The management plan identifies conservation measures aimed at protecting the species and its habitat.

The recovery strategies and management plans are prepared in cooperation with directly affected groups, including wildlife management boards, Aboriginal organizations and provincial or territorial governments responsible for managing the species. Using public notices, letters and meetings, every effort is made towards to consult individuals, organizations and communities that may be directly affected by these strategies and plans.

When complete, the recovery strategy or management plan is posted on the online SARA Public Registry website, which provides information and documents about species at risk in Canada. Once posted, the public has 60 days to let the federal government hear its views. The government then has 30 days to consider any comments received, make any changes to the proposed recovery strategy or management plan, and post a final copy in the Public Registry.

Action plans

After the final posting of the recovery strategy, one or more **action plans** are prepared. Action plans identify ways to reduce threats to the species and protect its critical habitat, as well as other activities to be undertaken to support the recovery strategy. Action plans are prepared in cooperation with directly affected groups, including wildlife management boards, Aboriginal organizations and provincial or territorial governments responsible for managing the species. Using public notices, letters and meetings, every effort is made to consult individuals, organizations and communities that may be directly affected by these plans.

When the proposed action plan is completed, it is posted on the Public Registry for 60 days, to allow the federal government to hear views of Canadians. After

60 days, the government has 30 days to consider any comments received, make any changes to the action plan and post a final copy in the Public Registry.

For more information

Visit the SARA Public Registry (<http://www.sararegistry.gc.ca>) for more information on the *Species at Risk Act* and the various species that receive federal protection.

Additional information can be found on the Fisheries and Oceans Canada Species at Risk website (www.dfo-mpo.gc.ca/species-especes/) and on the website of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) (www.cosewic.gc.ca).

Part 2: The Wavy-rayed Lampmussel

REFERENCE: COSEWIC Assessment and Status Report on the Wavy-Rayed Lampmussel *Lampsilis fasciola* in Canada. 2010.

Current COSEWIC designation

1999: Designated by COSEWIC as "*Endangered*"

2010: Re-evaluated and designated by COSEWIC as "*Special Concern*"

Current SARA Listing status

2004: Placed on the federal SARA List as an "*Endangered*" species.

Rationale for reassessment

As a result of COSEWIC's reassessment of the Wavy-rayed Lampmussel in 2010, the Government of Canada is presently considering whether to change this species' status from "*Endangered*" to "*Special Concern*" on the SARA List of Wildlife Species at Risk.

The rationale for the re-assessment relates to recent studies that identified large reproducing populations in the Maitland and Thames Rivers, which were previously unknown or believed remnant.

Provincial or Territorial protection

The Wavy-rayed Lampmussel is currently listed as "*Endangered*" under Ontario's *Endangered Species Act, 2007*; however, the Wavy-rayed Lampmussel is also currently undergoing a reassessment, as the provincial Committee on the Status of Species at Risk in Ontario (COSSARO) has recommended a status of "*Threatened*" (June 2010).

Species description

The Wavy-rayed Lampmussel (*Lampsilis fasciola*) is a freshwater mussel, which is a type of mollusc. The Wavy-rayed Lampmussel is one of five species of the genus *Lampsilis* that occur in Canada.

The Wavy-rayed Lampmussel is more easily distinguished from other mussels by its yellow or yellow-green colour, with numerous thin, wavy green rays. The rays may be narrow and individual, or thin and coalesced into wide rays, but are always wavy with multiple interruptions.

The shell is rounded at both ends, while top and bottom edges are nearly parallel. However, males and females can be differentiated based on slight variations to the shell's shape (Figure 1).

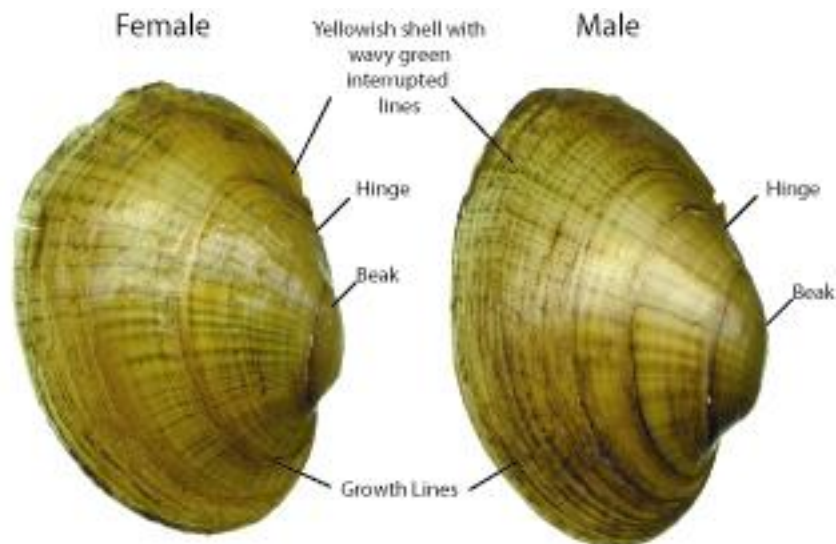


Figure 1: Anatomy of the Wavy-rayed Lampmussel shells (exterior)

The shell surface is relatively smooth, although there is some texture resulting from the concentric wrinkles and the growth rests.

Its posterior ridge is relatively indistinct.

Shells are usually less than 75 mm long, but may grow to 90 or 100 mm. The shells are heavy and strong, and are moderately inflated with a mid-anterior shell-wall thickness of about 7.5 mm.

The beak, or raised part at the top of the shell, is elevated and beak cavities are moderately excavated.

The colour inside of the shell may be white or bluish-white.

Lastly, the triangular teeth at the front edge of the hinge are short and divergent. There are two lateral teeth in the left valve, and one in the right valve.

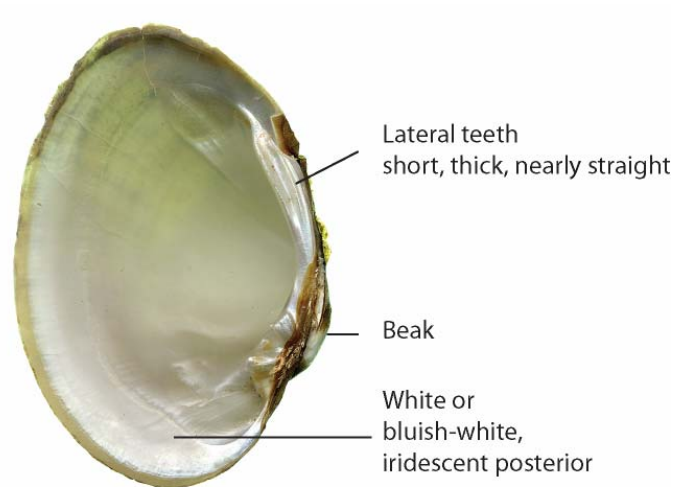


Figure 2: Anatomy of the Wavy-rayed Lampmussel shells (interior)

Where are Wavy-rayed Lampmussels found?

Wavy-rayed Lampmussels have historically been found in 13 U.S. states and the Great Lakes southern drainage of Ontario.

Currently in Ontario, Wavy-rayed Lampmussels are found in one lake and its associated river system (Lake St. Clair delta and the St. Clair River), and four other watersheds: the Ausable, Grand, Maitland, and Thames Rivers, and their associated tributaries.

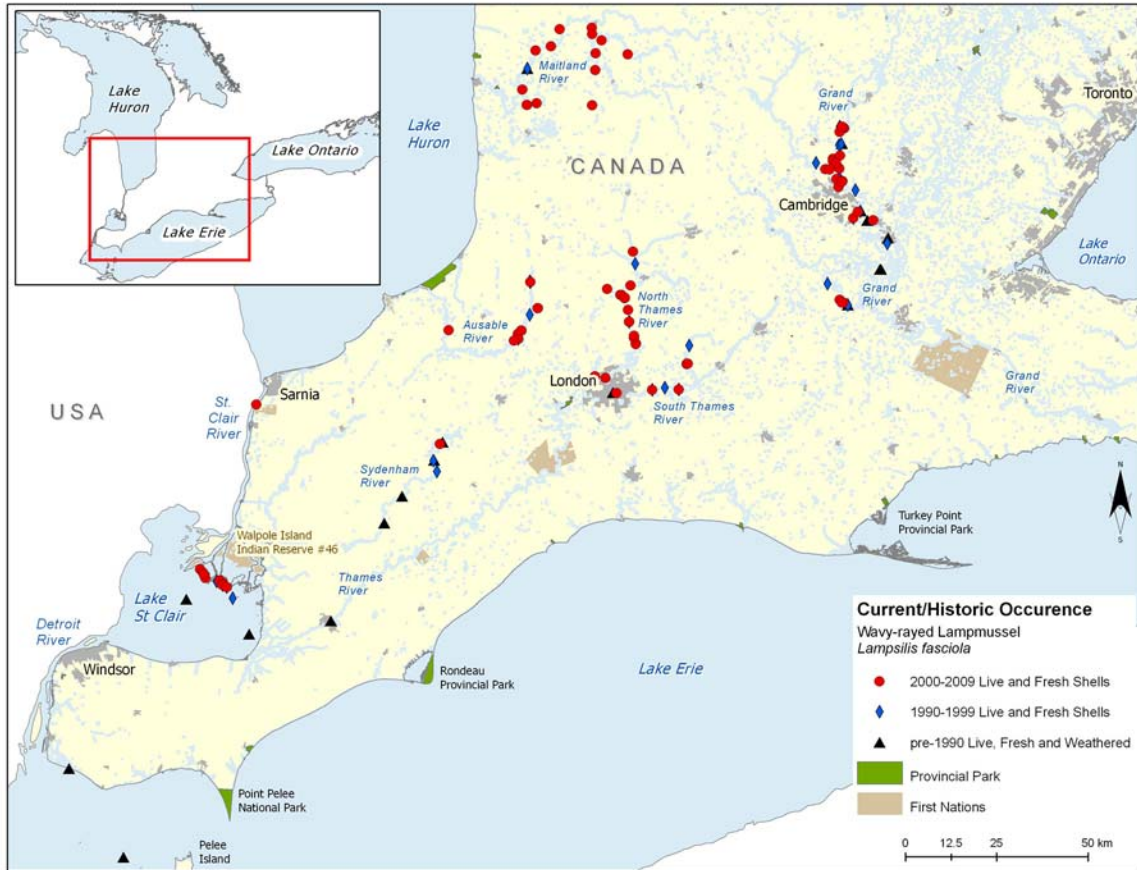


Figure 3. Canadian Distribution of the Wavy-rayed Lampmussels

How many Wavy-rayed Lampmussels exist?

Recent population estimates suggest that the numbers for the discrete populations of Wavy-rayed Lampmussels are gradually improving, with the exception of the St. Clair population. The Grand River population is the largest population at approximately two million individuals, followed by roughly 300,000 individuals in each of the Thames and Maitland Rivers. A smaller population found in the Ausable River is estimated at 30,000. The smallest, and most vulnerable, population is found in the St. Clair River and delta population, and is estimated at 3,500.

The Lake Erie and Sydenham River populations of the Wavy-rayed Lampmussel are extirpated, and no longer have living populations.

Threats to Wavy-rayed Lampmussel

The dominant threats to most of the Wavy-rayed Lampmussel populations are declining habitat quality and overall habitat loss resulting from agricultural and urban activities, with a threat from the aquatic invasive Zebra and Quagga mussels.

Water quality issue is a primary threat to the Wavy-rayed Lampmussel. Similar to most freshwater mussels, the Wavy-rayed Lampmussel is extremely sensitive to a number of chemical contaminants, including copper and ammonia, particularly during their glochidial (larval) and juvenile life phases. Water quality is further degraded by runoff of sediment, pesticides, herbicides and fertilizers into nearby watersheds, along with livestock contributions of manure and trampled riparian vegetation.

While Zebra and Quagga Mussels have become a key threat to many freshwater mussels in the Great Lakes, most Wavy-rayed Lampmussel populations are less vulnerable as only an estimated 15% of the Wavy-rayed Lampmussels traditional habitat is overlapped by the Zebra Mussels. However, in this area of overlap, mainly in the St. Clair River River and delta, the Wavy-rayed Lampmussel is heavily impacted by the Zebra Mussels for food and space. The Zebra Mussels' ability to attach themselves directly to hard surfaces results in a direct impairment to the Wavy-rayed Lampmussel's ability to feed, respire, reproduce and even move.

What will happen if the Wavy-rayed Lampmussel status is changed from "*Endangered*" to "*Special Concern*" on the SARA List?

It is illegal to kill, harm, harass, possess, collect, buy, sell or trade an extirpated, endangered or threatened species. It is also generally illegal to damage or destroy the places these species live.

However, as a species of "special concern", the Wavy-rayed Lampmussel will no longer be subject to these prohibitions. As a species of special concern, the Wavy-rayed Lampmussel will continue to be recognised under the *Species at Risk Act*, and a management plan will be developed to establish measures which the Minister of Fisheries and Oceans considers appropriate to ensure the conservation of the species.

Part 3: Let Us Know What You Think

The following questionnaire invites you to reflect on the implications of changing the status of the Wavy-rayed Lampmussel from "*Endangered*" to "*Special Concern*" on the SARA List.

Your answers and comments will tell us what you think about the protection and recovery of this unique species, and especially about the possible effects of the decision to change its status on the SARA List.

If you wish to keep the other sections of this workbook, please feel free to detach them and return only the questionnaire.

Return the completed questionnaire or your comments by mail, fax or E-mail to the following address:

SARA Coordinator
Fisheries and Oceans Canada
501 University Crescent
Winnipeg, Manitoba R3T 2N6

Email: fwisar@dfo-mpo.gc.ca
Fax: 204 983-5192
Telephone: 204 984-0599
Toll-free: 1-866-538-1609

Alternately, you can provide your views by visiting the Public Registry (www.sararegistry.gc.ca) and posting your comments.

Please submit your comments by January 7, 2011

Questionnaire on the Wavy-rayed Lampmussel

1. In what capacity are you completing this questionnaire?

- Individual
- Individual, member of an aboriginal people, please specify (optional):

- Representative of an organization or company (please specify):

- Other (please specify):

2. Your name (optional): _____

3. Where do you live (if individual)? / Or, what territory does your organization or company cover?

- Ontario
- Other Canadian province or Territory. Which one?
- Outside of Canada. If so, where? _____

4. Which sectors do you represent? Check all that apply.

- | | |
|---|---|
| <input type="checkbox"/> Aboriginal Policy, Land Claims, Co-management Board or Organization | <input type="checkbox"/> Mines, Oil and Gas - exploration, exploitation, transportation |
| <input type="checkbox"/> Agriculture, Forestry | <input type="checkbox"/> Non-profit Organization - environmental, sustainable development |
| <input type="checkbox"/> Commerce | <input type="checkbox"/> Non-profit Organization - economic, social and community development |
| <input type="checkbox"/> Construction | <input type="checkbox"/> Service Sector - public administration, health and social welfare |
| <input type="checkbox"/> Commercial Fishing | <input type="checkbox"/> Service Sector - tourism, culture |
| <input type="checkbox"/> Hunting, Fishing and Trapping | <input type="checkbox"/> Service Sector - transportation and communications |
| <input type="checkbox"/> Hydroelectric or Wind Energy - exploration, production, transportation | <input type="checkbox"/> Other (please specify): |

5. How familiar are you with the *Species at Risk Act*?

- I am not familiar with the Act
- I know this Act well
- I have heard about this Act in the media
- I have gathered some information on this Act
(pamphlets, websites, consultation workbooks, etc.)
- I have participated in information sessions or public consultations relating to this Act
- Other (please specify): _____

6. a) Do you think the Government of Canada should change the status of the Wavy-rayed Lampmussel from Endangered to Special Concern on the SARA *List of Wildlife Species at Risk*?

- Yes No Undecided

b) If you have answered "Yes" or "No", please indicate the reasons for your answer. If possible, please provide information which could help us in deciding whether to recommend changes to the status of the Wavy-rayed Lampmussel on the SARA List:

c) If you have answered "Undecided", please indicate why:

7. Based on your understanding of the *Species at Risk Act*,

a) Do you believe that your activities could be affected if the status of the Wavy-rayed Lampmussel is changed from *Endangered* to *Special Concern*?

- Positive affect Negative affect No affect Not Sure

b) Please describe how your activities would be negatively or positively affected.

8. Which of these options best reflect your agreement or disagreement with the following statements concerning the Wavy-rayed Lampmussel:

Wavy-rayed Lampmussel	Strongly disagree	Somewhat disagree	Indifferent	Somewhat agree	Strongly agree	No opinion
They are of social, cultural and traditional importance in my community (<i>e.g.</i> for ceremonial purposes)						
They are, or have been, an important subsistence food source						
They have economic value (<i>e.g.</i> commerce, hunting)						
They create job opportunities (<i>e.g.</i> tourism) in the local economy						
They play an important role in maintaining a healthy freshwater ecosystem						
They are an important to our Canadian heritage						
They will be a valuable resource for future generations						
I value them, though I have never seen them						
Other (please specify):						

9. Do you have any other comments concerning the legal listing of the Wavy-rayed Lampmussel on the SARA List of Wildlife Species at Risk? (include additional sheets, if necessary)

The following questions are optional

10. Has this workbook helped you?

a) Understand how the listing process works under SARA?

Yes No Undecided

b) Understand the important issues concerning the Wavy-rayed Lampmussel?

Yes No Undecided

c) Find an effective way to communicate your views?

Yes No Undecided

11. What changes or additions can we make to the workbook to make it easier to understand and more user-friendly?

THANK YOU!

Please submit your comments on the Wavy-rayed Lampmussel by mail, fax or e-mail to:

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501 University Crescent
Winnipeg, Manitoba R3T 2N6

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