



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Consultation Workbook Regarding the Addition of the Grass Pickerel

to the List of Wildlife Species at Risk

under the *Species at Risk Act*.

November 2005



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Canada

Preamble

Your opinion is being sought by the Canadian Government in order to make an informed decision concerning the addition of the Grass Pickerel to the List of Wildlife Species at Risk, as presented in Schedule 1 of the Species at Risk Act (SARA).

The status of the grass pickerel (Quebec region) has recently been designated of special concern by the Committee on Status of Endangered Wildlife in Canada (COSEWIC) in May 2005. The Minister of Fisheries and Oceans must now decide whether to recommend that the Governor in Council adds the species to the List of Wildlife Species at Risk. Before deciding how to proceed, the federal government wishes to consult Canadians, particularly those directly concerned, to obtain their opinion in order to properly determine the social and economic impacts, both positive and negative, of the addition of the grass pickerel to the List of Wildlife Species at Risk. This consultation workbook was therefore designed with this objective in mind.

We encourage you to answer the questions (any or all) at the end of this workbook. We also invite you to add any comment you consider relevant. You can be assured that your answers and comments will be taken into consideration in the decision-making process. To make sure your comments are considered, responses are required before:

December 31, 2005

You can download a copy of this consultation workbook and find additional information regarding SARA at the following Internet address:

<http://www.sararegistry.gc.ca>

Sources used:

COSEWIC, 2005. COSEWIC Grass Pickerel Assessment and Situation Report (*Esox americanus vermiculatus*) in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vi + 32 p. (www.registrelep.gc.ca/status/status_e.cfm).

1. The *Species at Risk Act*

A large variety of wildlife species inhabit Canadian lands and waters. Unfortunately some of them are in danger of disappearing. The Canadian government has therefore seriously committed to protecting them, particularly by adopting the Species at Risk Act (SARA) in June 2003, as part of its Endangered Wildlife Species Protection Strategy.

This Act provides a legal framework for adopting measures, throughout Canada, that will ensure the survival of wild animal and plant species and protect our natural heritage. This Act also establishes the criteria being used to determine which species must rapidly become the focus of recovery measures, and the methods to implement recovery in order to protect them. Finally, this Act establishes guidelines for cooperation between governments, organizations and individuals, and provides sanctions for offenders.

Environment Canada is responsible for the overall implementation of SARA. However, Fisheries and Oceans Canada has the responsibility for aquatic species at risk, except for individuals located on territories managed by Parks Canada (national parks, national historical sites, national marine conservation areas, and other protected heritage sites).

Since no single organization or entity can, on its own, take on the responsibility of ensuring the survival of a species, the effectiveness of the new Act will depend on everyone's goodwill to ensure the survival of all species at risk. With this in mind, SARA requires, at several steps throughout the process, that the federal government consult provincial and territorial governments, First Nations, landowners, resource users, and the general public.

The consultation objective of the current workbook is about adding the grass pickerel to the List of Wildlife Species at Risk presented in Appendix 1 of SARA. This list contains all the species that have been assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), and benefit from SARA's protection. COSEWIC designated the grass pickerel as "of special concern" in May 2005. The reader will find more details in the following sections regarding the addition of wild species, in grass pickerel, to the List of Wildlife Species at Risk and its legal consequences.

1.1. The role of COSEWIC

The mandate of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) is to assess the status of wild animal and plant species present in Canada and assign them a designation. The Committee is comprised of specialists working in various relevant fields such as biology, ecology and traditional native knowledge. The members of COSEWIC come from different circles, such as governments, universities, aboriginal organizations, and non-governmental organizations. They are appointed according to their expertise, and must provide independent, impartial and scientific advice and recommendations in accordance with the mission of COSEWIC.

COSEWIC assesses the biological status of wildlife species by using the best scientific and traditional knowledge available. It reviews research and takes into account community and aboriginal traditional knowledge. In its species assessment, COSEWIC uses rigorous assessment criteria based on those developed by the World Conservation Union (IUCN).

The first step in assessing the status of a wildlife species is to request a status report, which will then be reviewed by peers and approved by a sub-committee of experts on the species. During a meeting of COSEWIC members (once or twice a year), the status report is examined,

and discussions are held in order to determine whether the species is at risk, and if necessary, to provide a status designation.

The statuses provided, which represent risk level categories, are as follows:

"Extinct" species:	any species that no longer exists;
"Extirpated" species:	any species that no longer exists in the wild in Canada, but exist elsewhere;
"Endangered" species:	any species facing imminent extirpation or extinction;
"Threatened" species:	any species likely to become endangered if limiting factors affecting it are not reversed;
"Of special concern" species:	any species raising concerns because of characteristics that make it particularly sensitive to human activity or to certain natural phenomena.

COSEWIC submits its species assessment to the Minister of the Environment, who, in collaboration with the other competent ministers if necessary, initiates the process of adding the species to the List of Wildlife Species at Risk.

For more information, please visit the COSEWIC Web site at the following address:

<http://www.cosewic.gc.ca>

1.2. Wildlife species listing process

Once COSEWIC has determined that a wildlife species is "at risk", the first step to ensure its protection is to add it to the List of Wildlife Species at Risk, otherwise, it will not benefit from SARA protection. When COSEWIC submits its assessment to the Minister of the Environment, the Minister must produce a recommendation and present it to the Governor in Council (GIC). Within nine months of receiving the COSEWIC assessment (from the Minister of the Environment), GIC must react to the report and recommendation in one of the following ways:

accept the assessment and add the species to the List of Wildlife Species at Risk;

decide not to add the species to the List of Wildlife Species at Risk;

return the assessment to COSEWIC for further information or consideration.

After nine months, if the Governor in Council has not made any decision, the Minister of the Environment will have to add the species to the List of Wildlife Species at Risk, as recommended by COSEWIC.

The Governor in Council's decision will initially be based on the advice of COSEWIC, which is based on the biological status of the species. However, in order to make an informed decision, the Government of Canada must assess other factors such as the social and economic impacts that could occur from adding a species to the List of Wildlife Species at Risk. This consultation

is an opportunity for concerned Canadians to express their point of view and voice their concerns on this issue

Once a species is listed as "extirpated", "endangered" or "threatened", two processes are triggered. Initially, a series of prohibitions are adopted to protect the species, and in order to begin its recovery, a recovery strategy and an action plan are developed. In the case of the species "of special concern" a management plan must be developed but no prohibition applies.

1.3. Protection

Under the terms of SARA, Fisheries and Oceans Canada must ensure the protection of all aquatic species at risk. When a species is added to the List of Wildlife Species at Risk with an "extirpated", "endangered" or "threatened" status, prohibitions are automatically applied. The Act prohibits the killing, harming, harassing, capturing or taking of any individual belonging to that species. It also prohibits people from possessing, collecting, buying, selling or trading individuals of a species at risk. As well, the Act prohibits the damage or destruction of the residence or any part of the species' critical habitat, as defined within a recovery strategy or an action plan. It should be noted that these prohibitions do not apply to "special concern" species.

In the case of aquatic species, the Minister of Fisheries and Oceans (or Parks Canada when these species are found in waters managed by this Agency) may authorize exceptions to these prohibitions as long as the survival or the recovery of the species will not be in jeopardy. In fact, the competent Minister under the Species at Risk Act may enter into agreements or issue permits only if he is of the opinion that: 1) the activity is scientific research relating to the conservation of the species, 2) the activity benefits the species or enhance its chance of survival, 3) the activity only has incidental effect on the species. Furthermore, the competent Minister will not conclude an agreement or issue a permit only if he is of the opinion that: a) all reasonable alternatives to the activity were examined and the best solution was adopted, b) all measures will be taken to minimize the impact of this activity will be taken, and that c) the activity will not jeopardize the survival or recovery of the species.

1.4. Recovery planning and management plan

The goal of the recovery process for "extirpated", "endangered" or "threatened" species is to limit the causes of decline for that species by putting emphasis on stewardship and public awareness, among other things. First, a recovery strategy is prepared containing recovery objectives and strategies that are developed according to the threats on the species. Thereafter, an action plan is developed, which details the actions flowing from the recovery strategy. These two documents must indicate the critical habitat of the species as well as activities that might potentially destroy it. The program must include a schedule of the researches to be undertaken in case of a lack of knowledge. Once the critical habitat has been identified, the competent Minister must make sure there are legal tools to protect this critical habitat.

Planning the recovery of a species requires teamwork. The competent Minister must therefore gather federal, provincial or territorial government ministers, management boards, Aboriginal organizations, landowners, and other people likely to be interested in the recovery of the species, and consult with them during the development of the recovery strategy, which is a continuous process. The competent Minister must also prepare a report on the implementation of the recovery strategy, and the progress made towards meeting its objectives every 5 years.

In the case of a “special concern” species, a management plan must be developed. It differs from a recovery strategy and an action plan because it establishes objectives and goals aiming at maintaining sustainable population levels for a species that is particularly sensitive to environmental factors, but is not endangered.

In collaboration with various stakeholders, the competent Minister must prepare a management plan within the three years after registering a wildlife species as being “of special concern”. When preparing the action plan, the competent Minister can adopt an approach based on several species or on ecosystems. Like recovery strategies, management plans are dynamic documents that can be modified to add new data.

Once the recovery strategies, action plans, or management plans are developed, they are published on the Public Registry (see next section). Anyone can make comments to the competent Minister in writing concerning the recovery strategy, the action plan, or the management plan for a listed animal or plant species. The general public has 60 days, after publication of the strategy or the plans in the Registry, to inform the Minister of their position. Within 30 days of the closing of the public commentary period, the proposed management plan must be completed. Management plans are assessed every five years and upgraded when needed.

1.5. Public Registry

The SARA Public Registry, available on the Internet, is a complete source of information on issues covered by the Act giving access to public records concerning the administration of SARA. It is a key instrument in allowing the government to respect its commitment to support public contribution in the environmental decision making process.

The Registry includes various documents, such as regulations, orders, agreements, guidelines, standards and codes of practice. Furthermore, it contains status reports, recovery strategies, action plans, as well as management plans. The Public Registry can be found at the following address:

<http://www.sararegistry.gc.ca>

2. Information on grass pickerel

Status: Species of special concern.

Last COSEWIC assessment: May 2005.

2.1. Description of the species

Grass pickerel (*Esox americanus vermiculatus*, Lesueur, 1846), a member of the family *Esocidae*, is a subspecies of redfin pickerel (*Esox Americanus*). Grass pickerel is small in size (less than 30 cm), but shows nevertheless the main characteristics of its family: lengthened shape, rather cylindrical body, forked tail, dorsal and anal fins far back on the body, and prominent snout well-armed with teeth. It features a green-to-brown colour with 12 to 24 irregular vertical stripes, and perpendicular black bands around the eyes.

2.2. Species distribution

In Canada, grass pickerel is found only in Quebec and Ontario, distributed in a discontinuous way, with several populations relatively concentrated in distinct areas. The Ontario distribution includes Lake Ontario and its tributaries; the St. Lawrence River and its tributaries (including the Upper Canada and Welland rivers); the northern shore of Lake Erie; the upstream portion of Lake St. Clair and its tributaries; the Lake Huron watershed. It is however noted that grass pickerel is absent in certain watercourses within intermediate areas that would be adequate for the species (between two places of occupation).

In Quebec, grass pickerel was observed in 3 sections of the St. Lawrence River: in Lake Saint-François, in Coteau-du-Lac (in the river section immediately downstream from Lake Saint-François), and in Lake Saint-Louis (Perrot island, Saint-Jean brook and Lachine). Pollution in the area of Montreal is suspected to be the cause of the absence of grass pickerel between Contrecoeur and Lachine.

2.3. Biology of grass pickerel

2.3.1. Characteristics

The nature of habitats populated by a relatively large number of grass pickerel suggests a great adaptation capability. Grass pickerel expanded beyond its initial range for three reasons: adaptability, accidental introductions and man-made introductions. As this species can support low water oxygen levels, it can survive in small water bodies having no-flow conditions in the summer and covered with ice in the winter.

2.3.2. Reproduction and spawning

Grass pickerel comes to sexual maturity at around two years of age, and would reproduce at least twice a year. The main spawning period takes place at the time of the thaw (end of March-beginning of May) in the new vegetation. The second spawning period would occur between the end of the summer and the winter. Males seem to move towards the sites

favourable to spawning located upstream before females. Neither eggs nor juveniles are cared by adults. Grass pickerel is known to hybridize with redbfin pickerel, chain pickerel and northern pike.

2.3.3. Movements and dispersal

Except for places suitable for egg-laying, grass pickerel is seen near shores or at the outer edge of patches of vegetation. Depending on the depth of water, there could be a vertical distribution of individuals, young ones being close to the surface and adults in deeper water. Mainly influenced by the water level fluctuations, grass pickerel aggregate in the deeper areas, even in isolated pools.

2.3.4. Diet

Diet varies according to growth stage. Diet is initially composed of a variety of insects and then gradually changes, integrating fish and crayfish.

2.3.5. Population size

In Ontario, population size varies from one place to another depending on water conditions. Moreover, the number of individuals seems rather high considering the nature of the habitat. Elsewhere the population seems stable, while at certain places a decline is observed.

In Quebec, grass pickerel has become a rare and declining species. Samplings made from 1988 to 2003 in Lake Saint-Louis, around Perrot island, the archipelago of the îles de la Paix and Dowker island, only collected one specimen in 1988.

2.3.6. Habitat

The typical habitat of grass pickerel is characterized by clear or slightly tinted water, rather neutral or slightly alkaline with very slow or no flow. Often shallower than 2 meters, the water body must be populated by abundant and dense vegetation. Generally, the bottom is muddy. Exceptionally, grass pickerel can inhabit water bodies with rocky bottom. It can also survive in isolated pools in sufficiently oxygenated temporary and seasonal watercourses.

Grass pickerel is very sensitive to changes in its habitat: drainage activities, sharp changes in climate and temperature, conversion of wetlands for recreational purposes, channelling and fragmentation caused by road construction. Grass pickerel aggregations in isolated pools are very vulnerable to overfishing (including predation, harvest for scientific purposes, bait and angler fishing).

An exhaustive inventory of the historical and current habitats of grass pickerel has not been done yet at a provincial, regional or local level. It is however possible to evaluate the potential habitat available for the species for each tributary, considering that grass pickerel is invariably associated with organic based wetland streams.

2.4. Why has COSEWIC given the grass pickerel a species of special concern status?

Here is the reason for the grass pickerel status designation by COSEWIC:

This distinct subspecies is found in 10 sites in Canada, between Lake Saint-Louis in Quebec and Lake Huron in Ontario, for a total approximate surface of 683 km². An overall decline of approximately 22% observed in the species range area is the result of habitat loss and degradation caused by human activities related to urban development (channelling and dredging).

2.5. What are the threats to the species?

2.5.1. Habitat changes and alterations

The changes to habitat caused by urban development make it less favourable for the maintenance of grass pickerel. In the areas surrounding the known populations, extirpation and clearing of watery vegetation in watercourses, related ponds or quiet bays reduced the number of favourable habitats and the possibilities of range expansion.

The greatest threats remain however the destruction and degradation of wetlands. In certain cases, an increase in the opacity of water would have a negative impact on grass pickerel feeding.

2.5.2. Agricultural activities

Watercourse silting caused by the collapse of banks due to cattle activity and the use of herbicides and insecticides could make the habitat less favourable for the species.

In several areas, particularly in agricultural areas, draining works are made to remove exceeding water from the fields. Being generally open ditches, these draining works rapidly resemble to natural watercourses colonized by vegetation and fauna. The maintenance of these works is harmful for grass pickerel because it generally results in a decrease of water level. Where drainage works are made (digging of ditches, dredging, etc.), a decline or the extirpation of the species is noted.

An excessive decrease in water level in rearing areas could cause death of fries (1 year) and mature individuals. A similar decrease, during the winter, could result in an insufficient oxygen level in water, causing mortalities.

2.5.3. Hybridization

In Quebec, redfin pickerel is found in certain habitats close to Contrecoeur, at 57 km approximately of Lake Saint-Louis. If redfin pickerel reached this lake and was in sympatry with grass pickerel, a high rate of hybridization could be expected, and even the replacement of *E. americanus vermiculatus*.

3. Overview of potential consequences for different stakeholders

This consultation workbook was designed so that stakeholders can better understand the implications, on their activities, of adding grass pickerel to the List of Wildlife Species at Risk as a species of special concern. A recovery process will be implemented and will likely result in the adoption of management measures that may have consequences on the activities of the stakeholders concerned. In order to better illustrate this fact, a few examples of possible consequences are presented below. These examples are obviously not an extensive list of measures and are not necessarily a representation of what will actually be the adopted measures.

3.1. Shoreline residents and landowners

Revegetation projects to reproduce a favourable habitat could be carried out.

3.2. Agricultural and industrial activities

To reduce the risks of habitat destruction, cattle breeders could have a restricted access to certain sections of watercourses in order to prevent silting. In areas identified as being grass pickerel habitats, it could be suggested to farmers to carry out the maintenance of their drainage works in a way that does not alter the habitat of fish.

3.3. Recreational activities

Considering the little interest from sport fishermen for this species, this activity is relatively free from threat.

Acquisition of riparian lands and stewardship of strategic territories giving access to places attended by the species would reduce public disturbance by restricting access to these places.

3.4. Fishery industry

Once this species is listed, restrictions would apply to fishery activities considered as a threat for the survival and recovery of grass pickerel because, in particular, of the risk of accidental catches.

3.5. Municipal activities

Measures to better target the areas for future channelling, directives regarding developments that can affect the habitat of grass pickerel, and measures to decrease the degradation of shores could be developed.

Promoters of projects having an impact on watercourses where grass pickerel is found could have to prepare, as a precondition, an inventory list of the species and an evaluation of risks.

3.6. Aboriginal activities

For the moment, aboriginal populations have no known interest in grass pickerel. These populations, however, will be contacted for a confirmation.

It should be noted, however, that the recovery planning process will require new consultations.

4. Let us know what you think

Adding the grass pickerel to the List of Wildlife Species at Risk will lead to the implementation of a series of prohibitions to protect the species, and to the establishment of a recovery process that could have both positive and negative impacts for interested stakeholders.

It is now your turn to speak up! By answering the following questions before **December 31, 2005**, you will ensure the federal government has a complete description and understanding of costs, advantages and impacts related to the addition of the copper redhorse to the List of Wildlife Species at Risk.

How to proceed:

- You can answer the questionnaire (detachable) in the reserved space below or on separate sheets that you will send us by mail at the following address:

**Species at Risk Coordination Office
Maurice Lamontagne Institute
Fisheries and Oceans Canada
P.O. Box 1000
850 route de la Mer
Mont-Joli, Québec
G5H 3Z4**

- Or by fax :
(418) 775-0542
- You can also send us your answers by email at the following address:

especiesperilqc@dfo-mpo.gc.ca

Deadline: December 31, 2005

For any question or comments concerning the *Species at Risk Act* or concerning this consultation process, please do not hesitate to write (coordinates above) or to communicate with us at:

1 877 775-0848

Thank you!

Questionnaire

Name: _____

Affiliation (if applicable): _____

Question 1

Briefly describe your business line or your interest concerning the grass pickerel (use of shoreline, agriculture, urbanization, etc.)

[illegible]

Question 2a

Based on what you know about the *Species at Risk Act*, do you think the addition of the grass pickerel will have a positive or negative impact on **your activities**? (revenues, turnover, opportunities, number of jobs, hours worked, etc.) Explain.

[illegible]

Question 2b

On the other hand, do you think that not adding the grass pickerel would have a positive or negative impact on **your activities**? (revenues, turnover, opportunities, number of jobs, hours worked, etc.) Explain.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Question 3a

Based on what you know about the Species at Risk Act, do you think the addition of the grass pickerel will have a positive or negative impact on **other activities** (commercial fishing, sport fishing, other industries, communities, etc.)? Explain.

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Question 3b

On the other hand, do you think that not adding the grass pickerel would have a positive or negative impact on **other activities**? (commercial fishing, sport fishing, other industries, communities etc.)? Explain.

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Question 4

According to you, can these positive or negative impacts progress with time? Explain.

[illegible]

Question 5

If you indicated negative impacts, do you have suggestions in order to minimize them?

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Question 6

In order for SARA to be really effective, the recovery of species at risk must be a joint effort, carried out in collaboration with all interested parties. According to you, how can the interested parties best be involved?

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Question 7

How could you contribute to the recovery of the grass pickerel as an individual, company or institution? Can you give a few examples of activities?

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Question 8

a) Are you in favour of the Canadian government adding the grass pickerel to *the Species at Risk Act list*?

Yes_____ No_____ Don't know _____ Yes, but _____

Why? _____

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b) Check an answer for each statement below:

	AGREE COMPLETELY	SOMEWHAT AGREE	INDIFFERENT	DON'T REALLY AGREE	DON'T AGREE AT ALL
I believe this species is precious because it plays a significant role in maintaining a healthy ecosystem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe this species is precious for future generations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I value this species even though I may never see one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe this species needs protection or particular attention against interaction with humans and/or their activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that protecting this species will have a positive impact on my leisure, employment or personal activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I believe that adding this species to the official list might limit my leisure, employment or personal activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 9

Do you have any other comments or concerns?

[illegible]

Thank you for contributing