

WHAT YOU CAN DO TO HELP

There are several ways to protect and restore grass pickerel habitat. Here are a few:

- Preserve or restore the shoreline by planting trees, shrubs and native plants, covering a minimum width of 10 meters.
- Learn to recognize the grass pickerel and release them if they are accidentally caught.
- Report sightings of the grass pickerel to the Quebec Natural Heritage Data Center (coordinates below).
- Avoid planning any development activities in the littoral zone during spawning and hatching periods (between March and the end of May and during fall).
- If you have to clean up your stream, do it in phases; clean some sections while keeping other sections intact until the habitat function of the cleaned sections returns, minimizing your impact.
- Do not obstruct the flow of water (such as a dam).
- Do not cross watercourses with machinery or motorized vehicles and use proper techniques when constructing a culvert.
- Eliminate or minimize the use of pesticides; use eco-friendly methods to manage your property instead.
- Use biodegradable, ecological and phosphorus-free cleaning products.
- Manage your septic tank in compliance with existing standards.
- Adopt conservation practices for your land and river banks.
- Report any violations to the responsible government authorities (contact details below)
- Contact us for an environmental evaluation of your property and for advice on how to implement voluntary conservation practices!

REFERENCES

1. Plan de gestion : BEAUCHAMP, J., A.L. BOYKO, S. DUNN, D. HARDY, P.L. JARVIS, et S.K. STATON. 2012. *Plan de gestion du brochet vermiculé (Esox americanus vermiculatus) au Canada*. Série de Plans de gestion de la Loi sur les espèces en péril, Pêches et Océans Canada, Ottawa, vii + 52 p.
2. CROSSMAN, E.J. et E. HOLM. 2005. *Rapport de situation du COSEPAC sur le brochet vermiculé (Esox americanus vermiculatus) au Canada*. Évaluation et Rapport de situation du COSEPAC sur le brochet vermiculé (Esox americanus vermiculatus) au Canada. Comité sur l'état des espèces en péril au Canada. Ottawa. 1-31 p.
3. COKER, G.A., D.L. MING et N.E. MANDRAK. 2010. *Review considerations and mitigation guide for habitat of the Grass Pickerel (Esox americanus vermiculatus)*. Can. Manuscr. Rep. Fish. Aquat. Sci. 2941: vi + 18 p.
4. RICARD, M., M. A. COUILLARD et S. GARCEAU (2018). *État des connaissances sur quatre espèces de poissons à statut précaire au Québec: fouille-roche gris, dard de sable, méné d'herbe et brochet vermiculé*. Ministère des Forêts, de la Faune et des Parcs du Québec, Direction de l'expertise sur la faune aquatique, 61 p.

FURTHER SOURCES OF INFORMATION

Fisheries and Oceans Canada - The Fish and Fish Habitat Protection Program
■ habitat-qc@dfo-mpo.gc.ca ■ www.dfo-mpo.gc.ca/pnw-ppe/ffhpp-ppph-eng.html

Quebec Natural Heritage Data Center ■ www.cdpnq.gouv.qc.ca

Ministère des Forêts, de la Faune et des Parcs ■ www.mffp.gouv.qc.ca

Ministère de l'Environnement et de la Lutte contre les changements climatiques ■ www.environnement.gouv.qc.ca

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A Species to Protect

The Grass Pickerel

**Citizens:
Get involved by
protecting
your waterways**

Why protect the grass pickerel ?

Ambioterra initiated a project in 2018 to protect and restore the habitat of the grass pickerel across four tributaries in the south-west area of Lac Saint-François. Protégeons le brochet vermiculé en Montérégie Ouest (Protect the grass pickerel in Montérégie-Ouest) addresses the urgent need to ensure the survival of this endangered fish species. Did you know that the distribution of the grass pickerel in Quebec is very limited? It is present in only a few waterways of the Dundee and Saint Anicet municipalities which flow into Lac Saint-François, making this species of value for Quebec's wildlife heritage.



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WHAT IS THE GRASS PICKEREL ?

The grass pickerel (*Esox americanus vermiculatus*) is a subspecies of the American pike (*Esox americanus*). With a length of less than 30 cm, it is the smallest representative of the Esocidae family in Canada. This small pike has an approximately cylindrical body, dorsal and anal fins located further back on the body, an elongated muzzle and numerous teeth. The colour of its body ranges from green to brownish with 12-24 dark, narrow and irregular bands. It feeds on macroscopic invertebrates, fish and crayfish and the spawning period runs from mid-March to mid-May. The grass pickerel is usually found in small, shallow waterways (less than 2 meters deep) in Southern Quebec. The water is typically clear, warm and calm, with loose soil and very abundant seagrass beds.¹⁻²

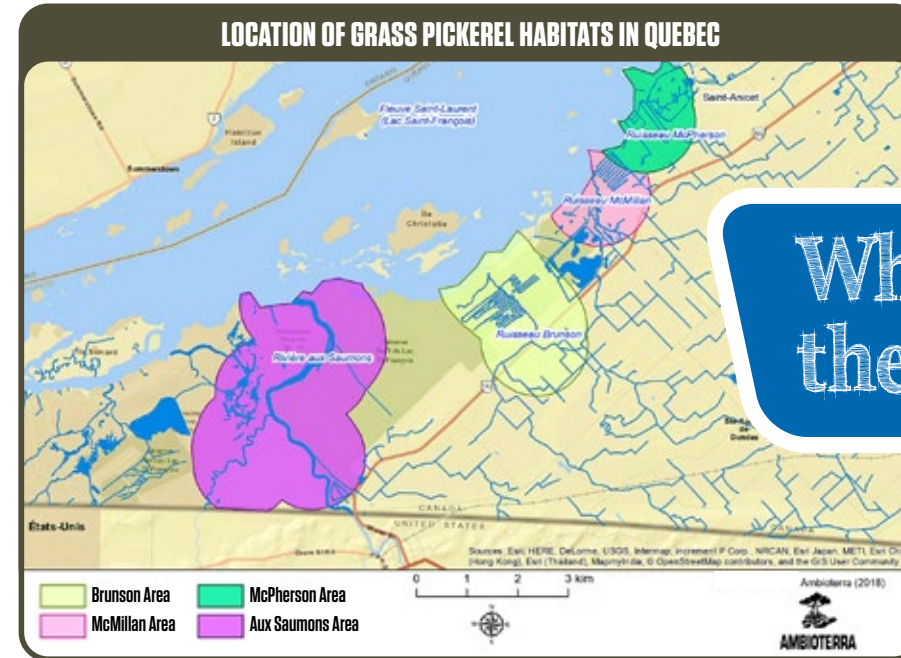
Grass Pickerel



THE GRASS PICKEREL IS AN AMBUSH PREDATOR THAT REQUIRES SUFFICIENT VEGETATION AND SLIGHTLY TURBID WATER IN ORDER TO FORAGE

The grass pickerel is an ambush predator that requires sufficient vegetation and slightly turbid water in order to forage¹. Unfortunately, the stability of favourable habitats for this small pike is compromised since it mainly frequents small agricultural rivers which are experiencing destruction and deterioration. Siltation, drainage and the management of watercourses have a major impact on this species as these threats alter essential components of its habitat.

In addition to reducing its foraging ability, through the loss of hiding places and increased turbidity, these threats can reduce the area of habitat available as well as access to important areas such as spawning grounds³. It is therefore important to minimize the impacts of drainage practices, soil leaching and the use of fertilizers and pesticides. Furthermore, riparian strips and aquatic grass beds must be preserved.



What threatens the grass pickerel?

Southern Quebec is the northern limit of the grass pickerel distribution due to its need for warmer waters. No mention of this species had been made for more than 20 years until inventories commissioned by Fisheries and Oceans Canada between 2012 and 2016 revealed its presence in the tributaries of Lac Saint-François. Grass pickerel were observed in several waterways on mainly agricultural territories including the Rivière aux Saumons and several creeks (McPhee, Brunson, McMillan, Pike, McPherson and two without a name)⁴. These streams are all found in the municipalities of Dundee and Saint

Anicet, indicating that recent grass pickerel occurrences are highly localized. This can be explained by the fact that the habitat sought by the grass pickerel is becoming less and less abundant, due to siltation and the alteration of watercourses and wetlands (e.g., drainage, digging, etc.). Therefore, the protection of both known and potentially favourable habitats for the grass pickerel is a priority for the survival of the species in Quebec. Any efforts to protect and restore the natural environment of the tributaries leading to Lac Saint-François will also improve water quality.