

# 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 on this species.
- 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. *Management plan for the Grass Pickerel (Esox americanus vermiculatus) in Canada*. Species at Risk Act/Management Plan Series. Fisheries and Oceans Canada, Ottawa. vii + 47 pp

2. CROSSMAN, E.J. et E. HOLM. 2005. *COSEWIC status report on the grass pickerel Esox americanus vermiculatus in Canada*. COSEWIC assessment and status report on the grass pickerel *Esox americanus vermiculatus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. 1-27 pp.

3. Coker, G.A., Colm, J.E., Ming, D.L., and Mandrak, N.E. 2021. *Updated review considerations and mitigation guide for habitat of the Grass Pickerel (Esox americanus vermiculatus)*. Can. Manuscr. Rep. Fish. Aquat. Sci. 3218: vi + 23 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
  - [www.dfo-mpo.gc.ca/pnw-ppe/ffhpp-ppph-eng.html](http://www.dfo-mpo.gc.ca/pnw-ppe/ffhpp-ppph-eng.html) • [dfo.habitatquebec.mpo@dfo-mpo.gc.ca](mailto:dfo.habitatquebec.mpo@dfo-mpo.gc.ca)
- Quebec Natural Heritage Data Center • [www.cdpnq.gouv.qc.ca](http://www.cdpnq.gouv.qc.ca)
- Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs
  - [www.environnement.gouv.qc.ca](http://www.environnement.gouv.qc.ca)

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A Species to Protect

# The Grass Pickerel

Citizens:  
Get involved by  
protecting  
your waterways



Scabric

## Why protecting it?

In 2018, Ambioterra initiated a project to protect and restore the habitat of the Grass Pickerel (*Esox americanus vermiculatus*) across four tributaries in the southwestern region of lac Saint-François. In collaboration with the Comité ZIP du Haut Saint-Laurent and the Société de conservation et d'aménagement du bassin de la rivière Châteauguay (OBV SCABRIC), this work will continue from 2023 through 2026. Such work includes the projects: *Protect the grass pickerel in Montérégie-Ouest* by Ambioterra, and *Acquisition of knowledge and recovery of Grass Pickerel, Bridle Shiner and American Eel* by all three organizations, which address the urgent need to ensure the survival of this endangered fish species. The distribution of the Grass Pickerel in Quebec is very limited. It can only be found in a few waterways of the municipalities of Dundee and Saint-Anicet, which flow into lac Saint-François, making this a valuable fish species for Quebec's wildlife heritage.

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# WHAT IS A GRASS PICKEREL ?

The grass pickerel (*Esox americanus vermiculatus*) is a subspecies of the American pike (*Exos 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.<sup>1-2</sup>

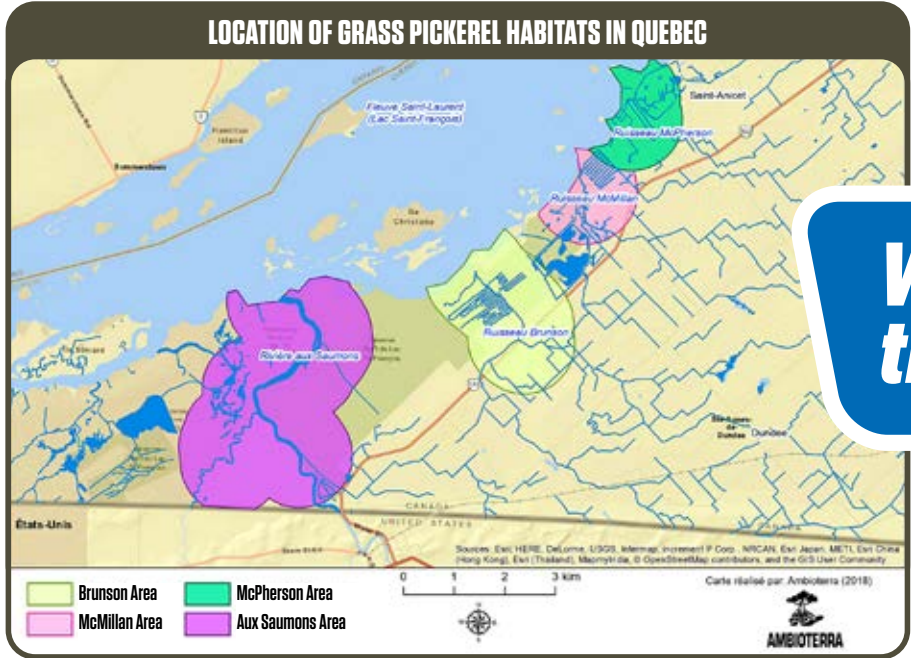
## Grass Pickerel



# THE GRASS PICKEREL IS AN AMBUSH PREDATOR THAT REQUIRES SUFFICIENT VEGETATION AND SLIGHTLY TURBID WATER IN ORDER TO FORAGE<sup>1</sup>

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 grounds<sup>3</sup>. 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 this fish ?

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 mainly agricultural tributaries of lac Saint-François: the rivière aux Saumons and seven brooks (McPhee, Brunson, McMillan, Pike, McPherson and two without a name).<sup>4</sup>. 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.