

Tools to manage...

Phragmites (Common reed)

Phragmites australis subsp. *australis*



Phragmites is now part of the landscape in the Great Lakes and St. Lawrence Region. It is a formidable invader; it dries and modifies bodies of water, causing ecological and socioeconomic harms, such as undermining activities like swimming and angling. It can even damage infrastructures like pool liners and asphalt. Finally, colonies of common reed present a high risk of fire because of the great amount of dry matter they contain. However, it is possible (and very important!) to control this plant.

What to do?

- 1) **Prevent** new establishments by cleaning boots and tools after working with phragmites and avoiding planting and composting it.
- 2) Adopt **early detection and rapid response** thinking to avoid high costs related to phragmites management.
- 3) **Map and inventory** phragmites stands and surrounding biodiversity to ease the evaluation of the colonies' evolution upon time.
- 4) Set a **management plan** that will be valid for multiple years (at least 3) and that contains various control techniques.
- 5) Ensure the **monitoring** of the identified sites to evaluate the settlements and to choose the appropriate control methods.

Control techniques

Herbicides: Often advised to control phragmites, especially when colonies are tall and very dense.

Mowing: Not recommended alone, because it could stimulate below-ground stem growth, unless it is carried out many times per year for many years. Best when used in combination with herbicides and burning.

Compressing or rolling: Often used to prepare a land for a prescribed burn. In all cases, compressing or rolling dead stems eases the identification of new sprouts and promotes growth of native species.

Prescribed burning: To be carried out after the use of herbicides when phragmites stems have died to eliminate stems and promote growth of new species. Prescribed burning can constitute a nuisance if performed close to an urban area.

Hand-pulling or mechanical excavation: Require many efforts but may be useful to control colonies living in sensitive areas. Make sure to remove all fragments of plants from sites after pulling.

Flooding: Can be effective if controlling the water level is possible.

Tarping: Will be the most efficient when used for full-sun colonies. It is necessary to keep the tarp on for at least six months and to visit the site regularly to limit the growth of ground-level stems outside the tarp.

Grazing: The use of livestock to control phragmites colonies is mostly used in Europe. Studies are underway to learn about the efficiency of this method and its eventual consequences on wetlands.

To learn more...

This paper is also available in a **4 page version** on our website! You will find more details about control techniques, examples of good practices, links to various tools, a comparative table to distinguish the native subspecies from the invasive one and the sources of this information:

<http://goo.gl/oOdyHM>

About us



The Great Lakes and St. Lawrence Cities Initiative (glslicities.org) is a binational coalition of over 100 mayors that works actively to advance the protection, restoration and promotion of the Great Lakes and St. Lawrence River basin. During its 2010 and 2015 Meetings, it adopted resolutions to actively fight against phragmites (2010, R2: <http://goo.gl/wujeqv>; 2015, R6: <http://goo.gl/lu30Ua>).

Invasive

Native

Photo : Unknown author, <http://goo.gl/VblcnQ>

Phragmites...

- 2 subspecies: *americanus* (native) and *australis* (invasive)
- Habitats: Wetlands, ditches, roadsides, disturbed areas. Tolerates dry lands.
- Reproduction: Can reproduce either by seed dispersal, by the growth of new stems from stolons and rhizomes or by the growth of new individuals from stolons and rhizomes fragments.
- Vectors of dispersal:
 - Natural: wind, watercourses, animals
 - Anthropogenic: dispersal of fragments (boots, tires, tools, soil transportation, etc.), disturbance of areas, horticulture
 - A lowering of water levels and the presence of roads also facilitate the settlement/expansion of new phragmites stands.