



## The Door County Invasive Species Team

Empowering Door County citizens and municipalities with the information, tools, and skills to tackle invasive species.

### A Quick Guide to Phragmites (*Phragmites australis*)

#### What is Phragmites?



Phragmites is an herbaceous perennial grass. It is an aquatic invader, colonizing riparian, wetland, and shoreline areas. It can look like other grasses and plants, but an easy diagnostic tool is to look at where the leaves meet the stem. Phragmites will have prominent white hairs at this juncture. The hairs become more prominent when the leaf is gently pulled away from the stem. Phragmites can grow up to 20' tall and becomes more prominent



in late summer/fall when the feather plume flower heads/seeds heads form. Like most invasive species phragmites has a vast root system that can grow 6' deep and 10' wide resulting in a large underground energy source, making control difficult.

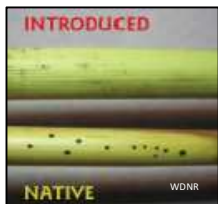
Phragmites consumes a lot of water as it grows and has been documented lowering water levels in wetlands. Phragmites stands grow densely and quickly, shading out native species and preventing movement through well-established populations. Its dense stems can alter the flow of water and even clog drainage ditches. Additionally, these changes in hydrology and the dense impenetrable wall of growth limit water access, impede wildlife movement, alter water fowl habitat, and can decrease property values. There are a few look alike plants to non-native phragmites including native phragmites. The important features to differentiate phragmites from other grasses is to look for the prominent white hairs at leaf and stem junctures.

#### Native Vs. Non-Native Phragmites



Non-native phragmites can look quite similar to native phragmites. There are many guides to differentiate the two subspecies. For a direct comparison, search online for the Great Lakes Phragmites Collaborative Identifying Native Vs. Invasive Phragmites. Always get confirmation from an expert and report all populations (native & non-native) to the Door County Invasive Species Team. Mature non-native stems can be up to 20' tall and robust. Native stems reach about 10' with other native grass growing 8' or less.

**Leaf shape/color:** non-native phragmites has bluish-green leaves compared to native phragmites which has yellow-green stiff flat leaves.



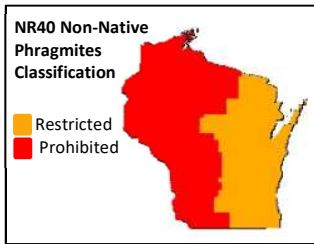
**Leaf sheaths:** This is the area where the leaf meets the stem and wraps around the stem. The leaf sheath persists on dead non-native phragmites stems during winter months where as native phragmites typically sheds its leaf sheaths during those time periods. Underneath the leaf sheath native phragmites have smooth shiny stems speckled with black dot fungus.

**Seed head:** non-native phragmites has large, dense, thick, purple/brown/tan, seed heads approximately 6-20" long. Native plumes are feathery, small, sparse, and never purple. Both tops contain long silky hairs that remain present throughout winter.



**Stems:** Native phragmites have smooth shiny stems and only show black, dot fungus under its leaf sheaths. Stems of native phragmites are purplish/red, and senesce (die back seasonally) earlier than its non-native counterpart. Non-native phragmites stems are ridged and a dull green, with indistinct blackish mold spots.

## Non-Native Phragmites WI DNR Classification



Phragmites is listed under Wisconsin's Invasive Species Rule Chapter NR 40 as a restricted species in some counties and as prohibited in others. Restricted species are those that are already present throughout the state of Wisconsin and are not likely to be eradicated. Prohibited species are not currently found in Wisconsin or are found in very low density and few areas. Both restricted and prohibited species are likely to cause significant environmental and economic harm or harm to human health. The NR 40 Rule makes it illegal to transport, transfer, or introduce invasive species listed as restricted and prohibited species in Wisconsin, and it is illegal to possess prohibited species in Wisconsin.

## How to Control Non-Native Phragmites

There are mechanical and chemical control options available. Please note that manual and mechanical options can be used to reduce the abundance and area of a phragmites infestation, but there are few instances of these methods being shown to completely eradicate the species from a site and these methods take many years to see results. Mechanical methods include: hand cutting, mowing, digging/pulling, burning, & covering populations. Chemical control is recommended for larger more established populations. It is important when doing any treatment to be careful not to spread root fragments, as these have the potential to re-sprout. Chemical control options include foliar applications, hand swiping, and bundle cut applications.



Many herbicides, herbicide combinations and application methods have been tried on phragmites and work to a greater or lesser degree. Like any other weed control method, herbicides will fail if used incorrectly. Using herbicide correctly means: using an herbicide that specialized for site conditions & designated for target species, using correct concentration (rate) of herbicides active ingredient, using an adjuvant if recommended (adjuvants are spray additives which may help the herbicide work more effectively), using the right application method made under the appropriate conditions, and applying herbicide during the correct timing to coincide with plant susceptibility. Make sure to read and follow all directions and follow any restrictions or precautions listed on the product label. Additionally, depending on population location applicators may be required to have a specialized certification, use site specific approved herbicides, and acquire permits prior to treatment (example: treatments in aquatic habitats). More information is available at the Great Lakes Phragmites Collaborative management page: <https://www.greatlakesphragmites.net/management/techniques/>.

## Control Efforts in Door County and How to Help

The Door County Invasive Species Team (DCIST) is a group of natural resource professionals and interested public members that are concerned about the preservation of Door County's natural environment. DCIST seeks to halt the invasion of exotic, non-native plants by empowering citizens with the education, tools and skills necessary to control invasive species. DCIST is committed to educating, preventing, minimizing, and eradicating invasive plants and reducing their impact on Door County's natural resources, economic viability, and human welfare. The partnership promotes an open exchange of information, public and private sector coordination, and citizen involvement.



Non-native phragmites is one of four priority invasive species that the County targets year to year. Additionally, most municipalities within Door County have adopted noxious weed ordinances targeting phragmites. These municipalities can participate in the County Invasive Species Cost Share Program. If you would like to participate in the Municipal Cost Share Program reach out to your municipal clerk to inquire. DCIST also secures control grants to treat populations within specific project areas, landowner permission slips are mailed out for all populations inventoried within DCIST project areas. To see populations that have been inventoried please visit the Door County Web Map at: <http://map.co.door.wi.us/map/>.

Please report any invasive species population to DCIST via their website at [www.Doorinvasives.org](http://www.Doorinvasives.org) or using the Great Lakes Early Detection Network (GLEDN) app <https://apps.bugwood.org/apps/gledn/>, or by reaching out to the DCIST coordinator via email at [DCIST1@gmail.com](mailto:DCIST1@gmail.com) or leave a message on the DCIST message line at (920) 746-5955. These reports help keep inventories up to date and allow landowners to benefit by participating in the Municipal Cost Share Program and/or receive educational resources and potential control resources through grant funding.