

## Phragmites (*Phragmites australis*)

*Phragmites australis* is widely distributed across the globe. Three separate lineages occur in North America – one native (sub-species (ssp.) *americanus*), one whose nativity is unknown and occurs in the southern U.S. (ssp. *berlandieri*, Gulf Coast lineage), and one introduced from the Middle East and invasive (ssp. *australis*). This Weed Post focuses on the invasive sub-species *australis*, which is often referred to simply as “Phragmites” or “common reed.”

**Identification** Phragmites is an erect perennial grass that typically grows 6-15 feet high and has large (5-15 inches), feathery and plume-like inflorescences typically with a purple or golden hue. Stems are cane-like and up to 1 inch in diameter. Distinguishing between native and invasive Phragmites is difficult, and multiple traits should be considered. See table below for key features to examine between native and invasive Phragmites.



**Impacts** Invasive Phragmites is very aggressive and can create dense monocultures that may alter wetland hydrology, increase fire potential, and degrade wildlife habitat of wetland-dwelling species.

**Habitat** Native and introduced Phragmites habitats overlap extensively and include wetlands (both freshwater and brackish), along lakes, streams, and rivers, and near springs. Invasive Phragmites may be more likely to occur in disturbed sites like roadsides and railways, construction sites, and near agricultural fields.

**Spread** Plants spread by seed which is dispersed via wind and water. Phragmites can also spread through the movement of rhizomes, stolons, and their fragments.

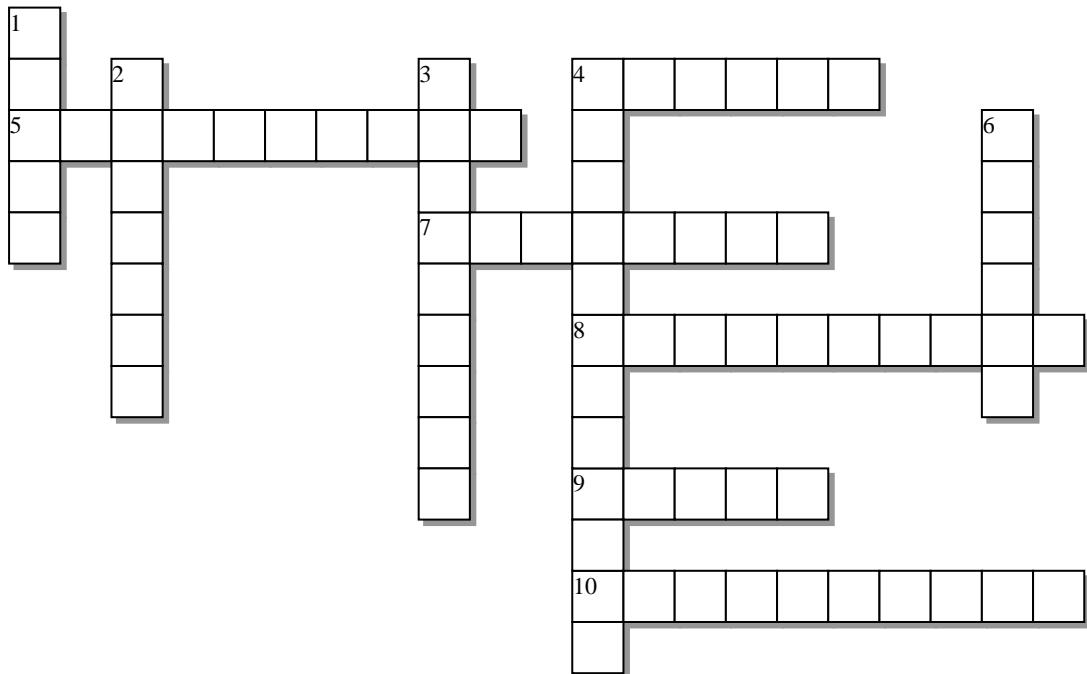
**Current Status and Management** Phragmites is a state-listed noxious weed in the following north-western states: Colorado, Idaho, Nebraska, Oregon, and Washington. It is currently under review for listing in Montana after being petitioned for listing in 2013. In August 2014 a population of *P. australis* ssp. *australis* was confirmed in Hill County, MT. This is believed to be the first confirmed population in Montana, although this population has likely been present for some time. Management is challenging and usually requires integrating mechanical, biological, and chemical methods. See the following publication from University of Nebraska-Lincoln Extension for more information. <http://ianrpubs.unl.edu/live/ec166/build/ec166.pdf>

Feature	Native Phragmites	Invasive Phragmites
*Leaf sheath	Loose, fall away from stem; do not persist	Adhere tightly to stem; persistent
*Glumes (bracts at base of grass spikelet; usually 2, an upper and a lower)	Upper glume much longer (5-11 mm) Lower glume longer (>4 mm)	Upper glume shorter (4.5-7.5 mm) Lower glume short (<4 mm)
*Stem density	Less dense, typically mixed with other species; stems less persistent into next growing season	Often grows in monoculture with high stem density; stems often persist into next growing season
Spots on stems	May be present due to a native fungus	No spots, but maybe dark smudges due to mildew
Leaf color	Yellow-green to dark green	Dark green
Stem texture/color (observable when sheath is removed)	Smooth, shiny; reddish	Slightly ridged, not shiny; green to tan

\*Most reliable features; adapted from Swearingen and Saltonstall (2010)

<http://www.nps.gov/plants/alien/fact/pdf/phau1-powerpoint.pdf> (Great tips on identification!)

## Test your knowledge of Phragmites (*Phragmites australis*)



### Across:

- 4 - Another important and reliable diagnostic feature is ligule length: if greater than or equal to 1 mm, it's a \_\_\_\_\_ Phragmites\*
- 5 - This sub-species is native to North America
- 7 - Hold on to your hats! Inflorescences resemble these
- 8 - Native Americans used native Phragmites to make these\*
- 9 - There are this many sub-species of Phragmites in North America
- 10 - This is the only continent where Phragmites does not occur\*

### Down:

- 1 - Don't expect to see \_\_\_\_\_ spots on the stem of the exotic Phragmites from a native fungus as it prefers a native host.
- 2 - These types of habitats are susceptible to invasion by Phragmites
- 3 - Don't confuse the lineage of this Phragmites of unknown origin with the native and invasive (two words)
- 4 - The invasive sub-species was recently confirmed in this region of Montana
- 6 - The length of these bract-like appendages can clue you in on sub-species identity

Solutions are posted to the MSU Extension Invasive Rangeland Weed website:

<http://www.msuet.org/invasiveplantsMangold/extensionsub.html>