Common Reed (*Phragmites australis)*

Growth Habit

Common reed (*Phragmites australis*) is a tall, erect perennial grass 6 – 14 feet high with strong, leathery horizontal shoots growing on or beneath the ground surface (rhizomes). The stems are round, hollow, and thick. The leaves are gray-green during the growing season, long, flat, and tapering (long-pointed) up to 24 inches long and 2 inches wide. Flower clusters appear in late July to October and may be dense and erect or somewhat open and drooping. The distinctive flower clusters are purplish when young and white or light brown and feathery when mature. The plant turns brown in the fall and most leaves drop off, leaving only the plume-topped shoot.

Common reed is a native plant in the coastal plain of Virginia. Recent and previously uncharacteristic increases in common reed abundance led to the study of its genetics. This research determined that 11 native haplotypes and 1 introduced haplotype occur throughout North America. The introduced haplotype (M) is of European origin and is referred to as the "non-native haplotype". The European form is believed to be the aggressive, invasive type of this grass. It spreads by wind-dispersed seeds and strong vegetative growth. It is difficult to distinguish between the native and non-native types of common reed.

Common reed grows in wet areas like brackish and freshwater marshes, seepage areas, on riverbanks, lakeshores, plus drainage ditches, stormwater ponds, dredged material disposal areas, and other disturbed sites.

Ecological Significance

The non-native, invasive type of common reed has replaced much of the native reed. The invasive common reed displaces native plants where it forms dense monocultures. The accumulation of dead leaves and stems, as well as the pervasive rhizome system, prohibits the growth of desirable plant species. Invasive common reed does not always develop into monoculture stands. Sometimes it is mixed with other native wetland plants, shrubs and trees.

Even though it can be invasive, some benefits of common reed include shoreline stabilization and nesting habitat for some birds. Marsh islands with dense stands of common reed separated by open water areas have been known to provide wind and wave protection for migratory waterfowl during the winter. Recent evidence of vertical wetland accretion due to the presence of dense *Phragmites* has been reported. Loss of tidal wetland elevation, increased erosion, and failure of native wetland plant recovery after *Phragmites* removal have been reported in recent studies.

Control Methods

Just because common reed is an invasive species does not mean that it should always be eradicated. Integrated management of common reed is advised. This means correctly identifying the plant, deciding what level of control is needed, if any, understanding what incidental impacts may occur to non-target organisms, and selecting the least harmful method for each situation. Where control is considered necessary, having a clear plan with objectives is important and a long-term monitoring program is typically needed. Complete eradication is difficult in most circumstances so repeated treatments are usually needed.

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Early detection and control of new stands is easiest and helps to prevent expansion. Both mechanical and chemical control methods are used. Chemical controls have proven to be more effective. Mechanical control methods can be effective on smaller patches, but must be repeated many times and can be labor intensive. A combination of control methods can also be applied. There are no biological controls currently known to be effective.

Mechanical methods include repeated mowing where equipment access and soil conditions allow, flooding with either fresh or salt water in settings where water levels can be controlled, and fire. Most landowners should not use fire to control *Phragmites* because of the potential risk to life and property. Shading is also an effective control to limit the amount of sunlight. Excavating or dredging *Phragmites* is another mechanical control method that usually requires special permit authorizations.

Chemical control includes the use of herbicides approved for use in habitats where *Phragmites* grows. When using herbicides, federal law requires that all label instructions must be followed. This may include application only by certified aquatic pesticide applicators.

References *with links to electronic copies*

Plant Invaders of Mid-Atlantic Natural Areas, National Park Service & U.S. Fish & Wildlife Service

Marsh Invader! How to identify and combat one of Virginia's most invasive plants: Phragmites. Virginia Department of Conservation and Recreation. 2007.

A Summary of Methods for Controlling Phragmites australis. Libby Norris, James E. Perry, and Kirk J. Havens. 2002. Virginia Institute of Marine Science Wetlands Program Technical Report No. 02-2.

Images *courtesy VIMS Center for Coastal Resources Management*



Similar Species

Big Cordgrass *Spartina cynosuroides* Leaves arranged on stem in overlapping sheaths, coming off in different directions; minute upturned teeth along leaf margins that scratch or cut skin