

## FACTS ABOUT INVASIVE PLANTS

Invasive plants have many advantages that allow them to outcompete other plants.

- They are opportunistic, colonizing any vacant ground or disturbed soil.
- They produce large quantities of fertile seeds that are spread on the wind, float down streams, or are eaten and dropped by passing birds.
- Many can spread by underground root suckers or rhizomes.
- They grow quickly taking up all available space, water, nutrients, and sunlight.
- Many have defenses such as sharp spines or a bad taste that prevent wildlife from feeding on them.
- In natural areas, including wetlands, ponds, and tidal marshes, invasive species crowd out the plants that provide food and cover for local wildlife, reducing habitat quality.
- They also reduce natural plant diversity as they replace ecosystems containing hundreds of different plant species with single-species monotypic stands.
- In agricultural areas, invasive plants not only compete with crops for light and nutrients, but may also interfere with farm machinery or sicken livestock.

## INVASIVE EXOTIC PLANTS

Invasive exotic or non-native species were brought to the US from other regions with similar climatic conditions but the diseases, insects and animals that would normally keep their numbers in check have not yet arrived.

Many non-native plants that we consider invasive were imported intentionally for use in American gardens. Some arrived accidentally as seed in livestock feed or ship ballast. Some even hitched rides on migrating waterfowl.



A dense stand of *Phragmites australis*, common reed.

## LOOK-ALIKES

While the Phragmites you see covering acres of wetlands throughout the US is considered invasive, there is a less aggressive desirable strain of Phragmites that is sometimes found in small patches on wetland fringes. There are also other grasses, some native (Big Cordgrass, *Spartina cynosuroides*) and some exotic (Giant Reed, *Arundo donax* and Chinese Silver Grass, *Miscanthus sinensis*) that have many physical similarities to Phragmites.



Big Cordgrass,  
*Spartina cynosuroides*

It is important to carefully identify these grasses before beginning any eradication efforts.

## For More Information:

### PHRAGMITES

**Maryland Department of Natural Resources**  
**A Landowner's Guide for the Control of Phragmites**  
<http://www.dnr.state.md.us/wildlife/phrag.asp>

**Maryland Invasive Species Council**  
[http://www.mdinvasivesp.org/archived\\_invaders/archived\\_invaders\\_2005\\_07.html](http://www.mdinvasivesp.org/archived_invaders/archived_invaders_2005_07.html)

**The Nature Conservancy**  
**Global Invasive Species Team—*Phragmites australis***  
<http://tncweeds.ucdavis.edu/esadocs/phraaust.html>

**Plant Conservation Alliance**  
**Alien Plant Working Group**  
<http://www.nps.gov/plants/alien/fact/phau1.htm>

**USDA National Invasive Species Information Center**  
<http://www.invasivespeciesinfo.gov/aquatics/commonreed.shtml>

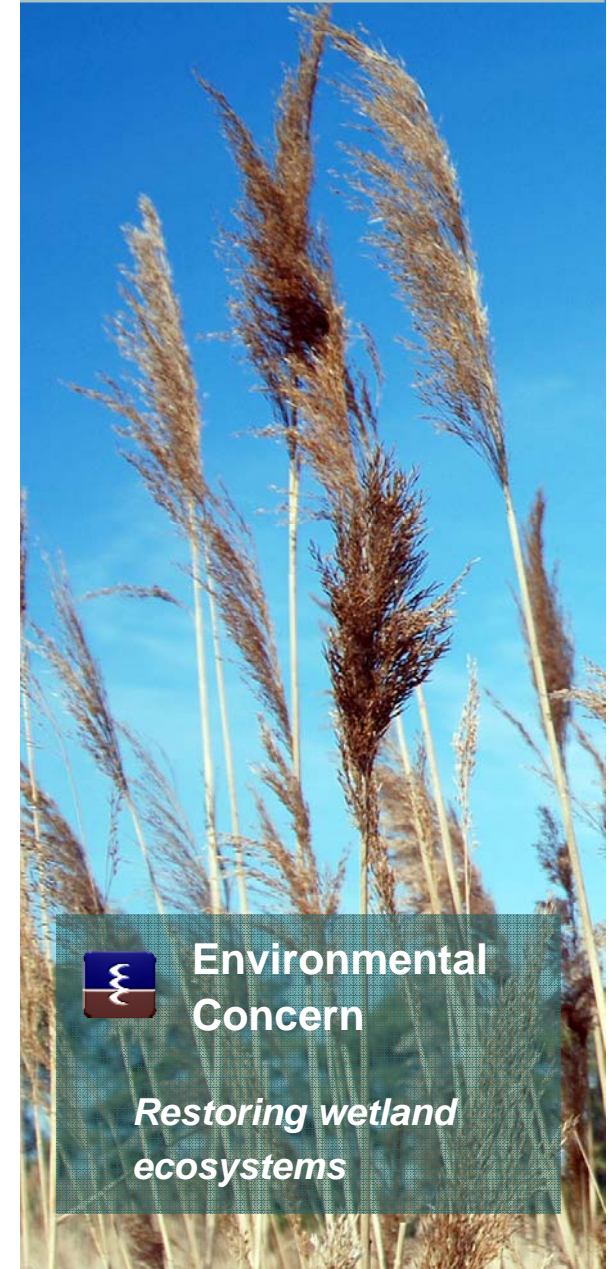
**INVASIVE PLANTS**  
**Invasive Plants of the Eastern United States**  
<http://www.invasive.org/eastern/>

**Environmental Protection Agency**  
**Watershed Academy Web**  
**Invasive Non-native Species**  
<http://www.epa.gov/watertrain/invasive.html>



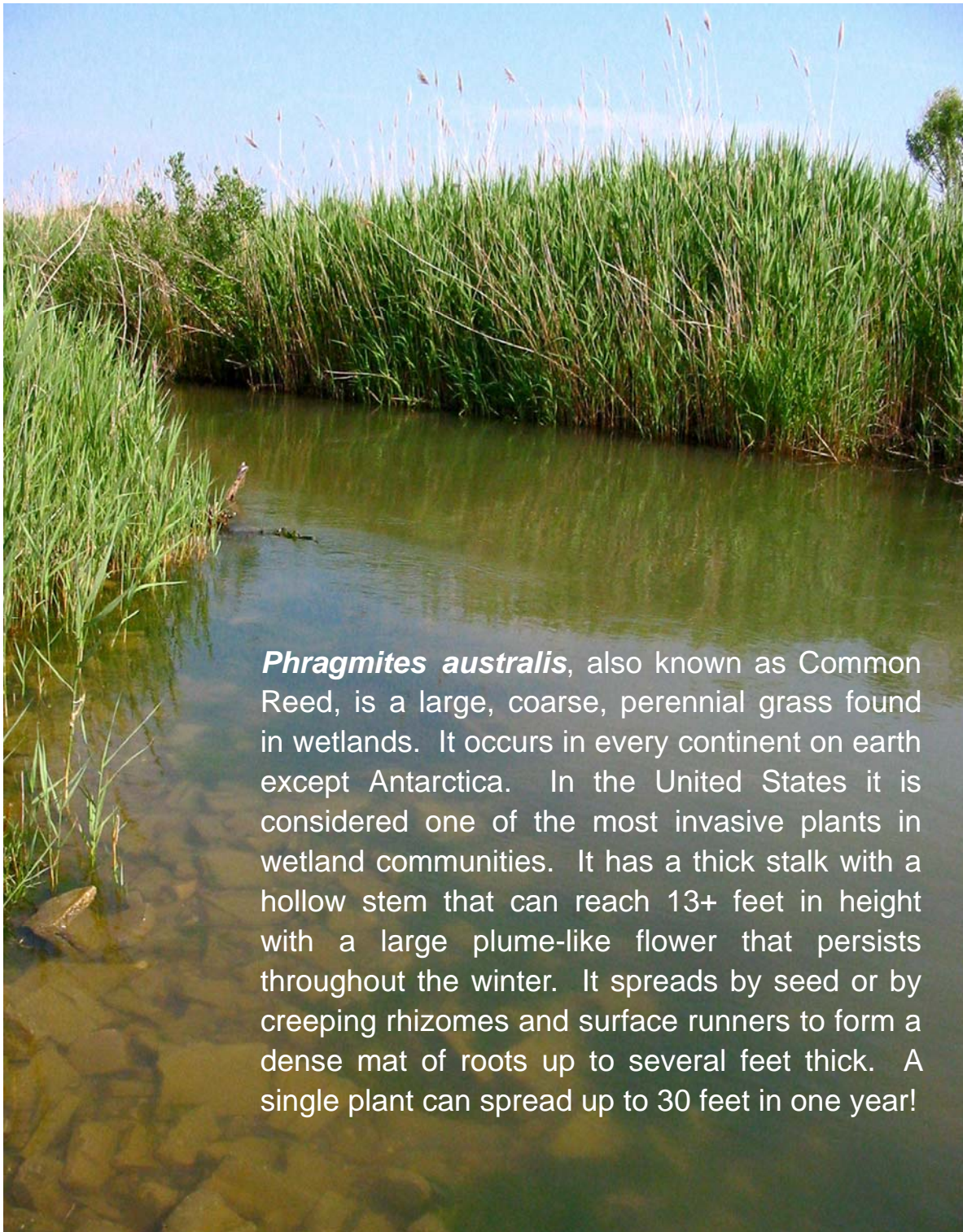
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# Managing Phragmites



**Environmental Concern**

*Restoring wetland ecosystems*



*Phragmites australis*, also known as Common Reed, is a large, coarse, perennial grass found in wetlands. It occurs in every continent on earth except Antarctica. In the United States it is considered one of the most invasive plants in wetland communities. It has a thick stalk with a hollow stem that can reach 13+ feet in height with a large plume-like flower that persists throughout the winter. It spreads by seed or by creeping rhizomes and surface runners to form a dense mat of roots up to several feet thick. A single plant can spread up to 30 feet in one year!

## MANAGING PHRAGMITES

Based on our years of experience, the most effective method for controlling Phragmites combines chemical (herbicide) and physical (mowing) treatments.

Herbicide treatment of Phragmites is done in the Fall (August through October), when the foliage is green, the plants are actively growing, and at mid-to full-bloom. When sprayed at this time, the herbicide is rapidly absorbed and transported throughout the plant tissues, killing the entire plant, including the rhizomes. After the application of herbicide, the Phragmites dies within 6-8 weeks.

Cutting or mowing Phragmites takes place in the winter (December through March). By cutting Phragmites, light reaching the ground is increased. This encourages germination of seeds from the existing seed bank dormant in the soil and in many cases desirable plants recolonize the wetland quickly.

Even with a successful initial treatment, some regrowth of Phragmites is expected due to unconnected rhizomes and new seed germination. For best results, the area is treated for at least two consecutive years, and is re-planted with native grasses as needed. Future spot treatments may be necessary to prevent reestablishment.

## HERBICIDE USE IN WETLANDS

Environmental Concern Inc. is licensed by the Maryland Department of Agriculture to apply herbicides.

The herbicide Environmental Concern uses to kill Phragmites is called Rodeo. This herbicide is specially formulated to break down quickly in the environment. It does not harm fish, insects, or other wildlife. This formulation has been approved by the U.S. Environmental Protection Agency for use in wetlands.

Rodeo is a non-selective herbicide, which means it kills all green plants. Care should be taken to spray only target plants with the herbicide. This is best done by professionals.



Early Summer prior to the first treatment. The current -year's growth is not yet flowering and previous-years stalks are still visible.



After 2 years of Fall herbicide treatment and Winter mowing, native wetland plants are rebounding. Structures that were hidden are revealed.