

AIIS

Aquatic Invasive Species

COMMON/GIANT REED



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COMMON NAMES: Common reed, giant reed, phragmites, giant reedgrass, Roseau, Roseau cane, yellow cane or cane.

SCIENTIFIC NAME: *Phragmites australis*

Phragmites (frag-mite-eez) comes from the Greek word phragma meaning “fence.”

DISTRIBUTION: Common reed is found practically worldwide, North and South America, Europe, Asia, Africa and Australia. This wetland plant can be found in every U.S. state, except Alaska and Hawaii. It is most abundant along the Atlantic Coast and in the wetlands of the northeastern United States’ fresh and brackish water tidal wetlands. In the Midwest, populations of *Phragmites australis* are escalating.



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DESCRIPTION: *Phragmites australis* is a native, but invasive, sod-forming grass. It has hollow, rigid, woody stalks, which are nearly one inch in diameter and can grow to over 13 feet in height! This warm season perennial has alternately spaced spear-shaped leaves, which can be anywhere from 7 to 16 inches in length. Flowers, spikelets with tufts of silky hair, are present in mid summer. Rootstalks, called rhizomes (a knobby horizontal root), can spread in dense clones with up to 200 stems per square meter. Rhizomes can grow from 1 to 3 feet below the soil surface which is why this plant has been used as a soil stabilizing grass.



LIFE CYCLE BIOLOGY: Being a warm season grass, common reed begins growing once the greatest threat of frost has passed in the spring. Stems can grow up to an inch and a half a day during optimum growing conditions and the plant will reach its maximum height and density around mid-summer. Its leaves and stems will be killed by the first frost in the fall. Although dead, the strong stems will remain erect throughout the winter. While giant reed produces seeds, its primary method of reproduction is vegetative via a vast underground rhizome network. *Phragmites* seeds are spread by wind and water and become part of the marsh seed bank. This “seed-banking” can play an important role in establishing new plants in areas free of vegetation.

PATHWAYS/HISTORY: The earliest traces of *Phragmites australis* in North America come from the 40,000-year-old dung of a ground sloth (extinct for 10,000 years), which was found in the Southwest and contained 65% phragmites. Core samples from East Coast marshes show 3,000 year old remnants of phragmites. Mats woven from phragmites by Anasazi Indians approximately 1,000 years ago were found in Colorado caves.

While *Phragmites australis* is native to North America, there are population variations throughout the world. Twenty-seven haplotypes (genetic strains) have been identified and eleven of them appear to be native to the United States. A European haplotype entered the US sometime around the early 19th century, presumably at

numerous Atlantic ports. The European strain is far more invasive than the native haplotypes. This non-native haplotype has invaded areas previously unknown to contain phragmites and has displaced the native strain. Now, most of the common reed found in the United States is genetically similar to that found in Europe.

DISPERSAL/SPREAD: Although, seeds may be spread by wind and water, the main pathway through which common reed is spread from site to site is wetland plant transfer. Giant reed has been used for erosion control and for stabilizing disturbed riparian areas. In the past, phragmites was used as a filter plant in wastewater treatment lagoons. The Indiana Department of Natural Resources no longer allows this species in wastewater treatment facilities. This species continues to be sold by a few landscape nurseries. Although the common reed is not an important wildlife food, it can be high quality livestock food in its early growth stages and can be cut for hay.

RISKS/IMPACTS: Common reed grows in vast unbroken stands along marsh edges, forming dense, impenetrable “fence-like” masses. These stands provide poor nesting habitat for waterfowl and other native birds; however it does provide adequate hiding and thermal cover for ducks and big game species, such as deer. This aggressive competitor tends to out-compete and eliminate other marsh species with similar habitat requirements. In some coastal wetlands, phragmites has replaced more desirable brackish water plant species.

MANAGEMENT/PREVENTION: Control of this grass is difficult. Repeated cutting can slow its growth and possibly hinder its spread, but will not eliminate it altogether. Disking, plowing, and dredging can also be used to slow the spread. Burning stands of common reed does not eliminate the plant since its rhizomes are not affected by fire and can quickly regenerate new plants. The best method to eliminate Phragmites is the foliar application of a systemic herbicide when the plants are actively growing. While some herbicides may “burn” the foliage, a systemic herbicide will transfer to the rhizome and kill the plant. When the plants are growing near water, only approved aquatic herbicides labeled for phragmites must be used. Permits may be necessary when treating around public lakes or streams.

Like all invasive species, the key to preventing their spread is knowledge! You can help by practicing a few simple techniques for stopping the spread of phragmites and other aquatic invasive plants.

- ✓ Rinse or remove plant fragments, mud, and debris from equipment and wading gear and drain any water from boats before leaving the launch area. The transportation of plant fragments on boats, trailers, and in livewells is the main introduction route to new lakes and rivers.
- ✓ Do not plant giant reed for erosion control. Instead, use native grasses, shrubs, and trees.
- ✓ Do not plant phragmites as a livestock forage crop. Instead, plant native forage crops.
- ✓ Begin eradication attempts at the initial sign of invasion.

REFERENCES:

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