ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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Common Reed Becoming a Common Nuisance

Common reed (*Phragmites australis)* is a wetland plant that spreads quickly and displaces native wildlife and habitats. It is tolerant of a vast range of environmental conditions and is found on every continent except Antarctica. Its various mechanisms of reproduction have led to its rapid expansion throughout New Hampshire, particularly in coastal habitats.

Species Description

- Tall perennial grass standing up to 15 feet tall.
- Smooth hollow stem.
- Purple-brown floral head droops like a feather.
- Reproduces by seed, rhizome buds, or rhizome fragments.
- Long, sharp, pointed green leaves grow up to 2 feet long and 2 inches wide.
- Blooms from July to September.
- Seeds dispersed November through January.

Where Does *Phragmites* Grow in New England?

Phragmites is tolerant of many environmental conditions, but tends to grow in sunny, wetland habitats such as:

- wetlands
- upland edges of estuaries
- freshwater
- nutrient-rich sites
- roadsides
- drainage ditches
- dredged areas

What Makes *Phragmites* a Good Invader?

Phragmites can spread by seed, rhizomes and/or rhizome fragments. Seeds disperse from November to January and environmental changes, such as an increase in salinity, can promote seed germination. Once established, stands grow predominately by sending up new shoots each spring from both existing rhizomes and runners. Rhizomes bud in late summer, and are capable of reaching a length of over 20 feet. Fragments of rhizomes can re-establish themselves readily.

The litter accumulation from dead *Phragmites* leaves and stems can raise the elevation of salt marshes, reducing the frequency of tidal inundation and effectively altering the natural habitat over time. In addition, the large amount of leaf litter excludes the establishment of native plants. Well established populations of *Phragmites*, measuring 15 feet tall, prevent sunlight from

reaching the soil, which also limits the growth of native plants. These tall, dense, single-species stands are nearly impenetrable, providing little food or shelter to wildlife.

Phragmites can tolerate brackish water and is prevalent in wet areas that have disturbed or polluted soils. Human activities, such as development, have accelerated the invasion of *Phragmites* in adjacent wetland areas.

Why Should I Care About *Phragmites*?

- Its invasion alters the structure and function of diverse wetland and marsh ecosystems by changing the nutrient cycles along with the movement, distribution and quality of water.
- The accumulation of dead leaves, stems, and rhizomes can prohibit the growth of native, more desirable wetland plant species, such as cattails and rushes.
- Strong evidence shows that *Phragmites* was established in the U.S. before European contact, but that it was a different genotype, which can be found in New Hampshire in limited populations. It has been suggested that a new, more invasive genotype(s) native to Europe was later introduced.
- It has little food or shelter value to native wildlife.
- Due to its hollow structure and abundant plant material, *Phragmites* is also a fire risk. The plants dry easily, burn with extreme intensity, and can accelerate fire travel.

What Has Been Done to Prevent the Spread of *Phragmites*?

New Hampshire RSA 487:16-a, "prohibits the sale, distribution, importation, purchase, propagation, transportation, or introduction of exotic aquatic weeds into the state," including *Phragmites*.

Example of the invasive (top) and native (bottom) Phragmites *floral heads. Photo: Eric Aldrich.*

What are Some Management Options that Work Well?

Once *Phragmites* has established itself in a wetland, it is extremely difficult to eradicate; therefore, preventing the establishment of new populations is critical. There are several ways to help minimize the spread of *Phragmites* and follow-up treatments are necessary to achieve optimal success.

Mechanical – Once the plant has formed its fluffy flower clusters, repeat cutting and hand-pulling can help to slow its spread, however, this should be done at the end of the summer to avoid the potential risk of stimulating plant growth. Controlled burns are another effective tool used for managing *Phragmites*, but this too should be done at the end of the growing season and with the appropriate permits and authorization. Clearing dead *Phragmites* stands in the winter by cutting/mulching helps to open the area for desired species. The process usually needs to be repeated each year to reduce the number of remaining plants. Extended periods of flooding, wave action and changes in salinity help to further stress and weaken its ability to grow. This technique may be used in eradicating *Phragmites*.

Biological – Like many invasive plants, there are no known biological control agents used on *Phragmites* infestations at this point in time.

Chemical – With established or large populations of *Phragmites*, herbicides can be an effective control technique; however, many herbicides are regulated and may be used only under specific conditions. For instance, New Hampshire regulations restrict the type of herbicides that may be applied to wetlands, stream banks, and other aquatic habitats. Also applications to those habitats must be made by a licensed pesticide applicator.

Each *Phragmites* site is unique, and before beginning a management project it is recommended to contact the N.H. Department of Agriculture – Division of Pesticide Control for use requirements, restrictions or recommendations.

For More Information

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