



Whatcom Weeds

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SPARTINA

Spartina alterniflora, *Spartina anglica*, *Spartina densiflora*, *Spartina patens*



THREAT: There are several types of *spartina* of concern in Washington State. All are saltwater grasses capable of invading shallow coastal areas. *Spartina alterniflora* (smooth cordgrass) and *Spartina patens* (saltmeadow cordgrass) are native to the Atlantic coast of North America. *Spartina densiflora* is native to South America, while *Spartina anglica* is a hybrid between *S. alterniflora* and a cordgrass native to England. Of these species, *S. alterniflora* is the most common in Washington while the other three are more restricted. Depending on the species, *spartina* grows from above the spring high tide line to about 6 feet below mean high water. On the west coast, *spartina* invades tidelands, forming grass stands that exclude all other vegetation. The dense root systems trap sediments, changing the elevation of the tideflats. The entire ecosystem of the tidelands can be disrupted, impacting shellfish, fish and bird habitat, native vegetation and water drainage. These plants spread both vegetatively (except for *S. densiflora*) and by seeds, which are spread by water. *Spartina* was introduced through contaminated ballast water, as a packing material for oyster spats and/or by intentional plantings for erosion control. *Spartina* has been found in Birch Bay in Whatcom County, and *Spartina anglica* is present in all adjoining counties and in Boundary Bay, British Columbia.

DESCRIPTION: The four *Spartina* species of concern are all deep-rooted perennial grasses, which grow in salt-water areas. These plants can be difficult to identify. Contact the local weed board to assist with the identification of any suspicious or invasive grasses found in coastal areas, especially any grass growing on tidal mudflats. *Spartina* stems sprout from the root system in the spring, and depending on the species, can grow from less than 1 foot to 6 feet tall. These plants reproduce both by whitish rhizomes (except *S. densiflora*) and by seed, flowering from June to September. However, plants do not necessarily flower every year, and some do not flower for long periods of time. Depending on the species and age of the infestation, plants can occur as single tussocks, in *Spartina* meadows or in circular spreading patches.

MANAGEMENT OPTIONS: *Spartina* can be controlled using mechanical and chemical means. Small infestations can be hand dug but care must be taken to remove as many as the roots as can be located. Hand digging can create disposal problems due to the large amount of sediment (usually mud) that must be removed with the roots; this material must be removed to upland areas, away from the intertidal zone. Covering plants with black plastic has also been used successfully for small infestations. The covering should be put in place in spring, securely held in place over and beyond the infestation, and left in place for at least one year. Repeated mowing can also be used to weaken plants in small infestations, and to prevent seed formation. Mowing can be used in combination with chemical treatments for larger areas. In Washington, aquatic application of herbicides can only be done by licensed applicators. Currently, there are state programs addressing the control of *Spartina*. Contact the weed board for information on these programs or chemical control. Permits may be required for *Spartina* removal projects planned in aquatic habitats.

