

Common Name: Smooth cordgrass
Spartina alterniflora Loisel.

Similar Species: Denseflower cordgrass (*Spartina densiflora* Brongn.), English cordgrass (*Spartina anglica* C.E. Hubbard), and saltmeadow cordgrass (*Spartina patens* (Ait.) Muhl.)

Related Species: There are no native *Spartina* species in Alaska.

Description: Erect, rhizomatous, salt tolerant grasses. Plants one to four feet tall. **Ligules consist of a copious fringe of fine hairs.** Leaf blades generally inrolled. Leaves lack auricles. Round hollow stems.

Smooth cordgrass: Plants two to four feet tall. The stems are hairless. The leaf blades are 1/4 to 3/5 inches wide. The flowers are inconspicuous and are borne in greatly congested spikes, two to three inches long. Plants deciduous, stems die back at the end of each growing season. Leaf blades 8-24 in long, tough, green-gray in color, 1/4 to 5/8 in. wide becoming folded at the tip. Stems 2-8 ft long with dense colorless flowers. Panicle of many spikes closely appressed and overlapping. Inflorescence to 16 in. long having 5-20 spike-like branches to 5 in. long. Flowers occur only on branch undersides. Grows between mean higher high water and mean lower low water.

Dense-flowered cordgrass: Plants 1-5 ft. in height. Leaf blades narrow long and **inrolled**, tough, grayish-green color and 1/4-1/3 inch in width. Inflorescence 2-12 in. long with dense compact colorless flowers. Grows in upper intertidal zone near mean high water, among glasswort (*Salicornia* spp.) or just below on open mud.

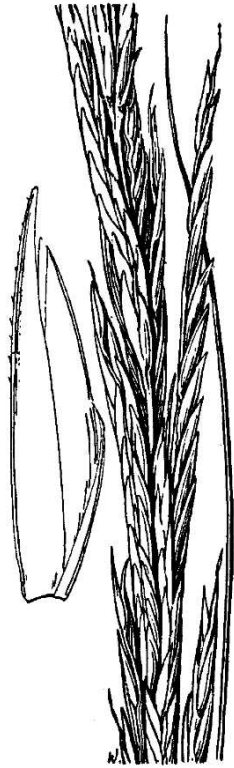
Saltmeadow cordgrass: Plants 1 to 4 feet tall. The hairless leaf blades are 4 to 20 inches long and 1/3 to 1 1/2 inches wide at the base. When fresh, leaf blades are generally **inrolled** and have ridges on the upper surface. Flowers occur in two to several *spikes* that are appressed to somewhat spreading forming dense turf or sod with fine matted decumbent stems. Leaf blades strongly inrolled, green, 1/4-3/4 in. in width. Stems 6-30 in long. Inflorescence 2-9 in. long with 1-4 (2-13) spikes. Spikes 3/8-3 in. long and ascend or diverge from the stem. Flowers are colorless. Mid to upper salt marsh zones, dunes, swales, sand flats, coastal scrublands.

S. alternifolia Photo: NRCS PLANTS database



English cordgrass: Hybrid species with highly variable morphology. Stiff plants 1-4 ft. tall, with stout stems 3/16 inch or more in diameter. **Leaves protrude at angles more or less perpendicular to stem.** The leaf blades flat or inrolled, persistent or falling, green or gray-green, 3/16 to 1/2 inch wide. Flowers in numerous, erect, contracted panicles, consisting of closely overlapping spikelets in two rows on one side of the rachis. Inflorescence 4-16 in. long with 2-12 spikes. Spikes 6-8 in. long. Panicles erect and dense with spike

slightly spreading. Flowers are colorless. Inhabits low to high marsh zones.



S. alterniflora Illustration: NRCS PLANTS database

Life History: All *Spartina* species are perennials, spreading by seeds or rhizomes, growing in ring-shaped clones, which coalesce into extensive monospecific stands.

Where Found: *Smooth cordgrass:* Native to the east coast of the US. Commonly found in marshes of San Francisco Bay CA, Willapa Bay, Puget Sound, Straits of Juan de Fuca WA, Suislaw Estuary, OR.

English cordgrass: Marin County, San Francisco Bay CA, Skagit, Island, Snohomish, San Juan, Kitsap, Jefferson, and King counties WA. Recently found in BC.

Dense-flowered cordgrass: Native to South America. Found in Humboldt Bay, San Francisco Bay, Marin County CA, and Grays Harbor WA.

Saltmeadow cordgrass: Native to upper reaches of salt marshes in eastern US coast. Found in BC, WA, OR, CA, China and the Mediterranean.

Habitat: All four species are saltwater-loving grass that colonize tidal marshes. In its native range, *Spartina alterniflora* exhibits varying growth forms in different salt marsh zones. A tall form occurs along creek banks and drainage channels. Landward of the tall form, an intermediate form occurs, which grades into a stunted form at the marsh interior.

Impacts: Invasion of mudflats and channels and conversion to marsh. Loss of mudflat and channel may impact foraging for numerous shorebirds and waterfowl. Increased rates of sedimentation leading to clogging of sloughs, raising them to overall elevation of the marsh plain. Out competes glasswort (*Salicornia virginica*) which provides habitat for a number of bird and animal species. May displace sea grass (*Zostera marina*) Arrow-grass (*Triglochin maritimum*) Studies indicate populations of invertebrates in *S. alterniflora* clones are smaller than populations in intertidal mudflats. Juvenile chum salmon may lose important food resources and other important attributes of mudflat nurseries.

Fun Facts: The roots are a favorite food of snow geese.