

Wild Celery

Native to Chesapeake Bay

Vallisneria americana

Family - Hydrocharitaceae

Distribution - Wild celery is found from the Atlantic Coastal Plain states west to Wisconsin and Minnesota. It is primarily a freshwater species, although it is occasionally found in brackish waters (up to 12-15 ppt). Wild celery seems to prefer coarse silty to sandy soil, and is fairly tolerant of murky waters and high nutrient loading. It can tolerate wave action better than some other SAV species.

Recognition - Long, flattened, ribbon-like leaves arising from a cluster at the base of the plant are minutely serrate with bluntly rounded tips. Leaves grow to 1.5 m (5 ft) in length and approximately 1 cm (1/3 in) width. A light green stripe runs down the center of the finely-veined leaves.

Ecological Significance - Wild celery is particularly valuable as a food source for waterfowl (Korschgen and Green 1998). For example, the scientific name for the canvasback duck (*Aythya valisineria*) is derived from its association with wild celery. Canvasback and other diving ducks such as scaups, scoters and redhead, rely on the winter buds and rootstocks of wild celery for food during migration and in their wintering habitats (Korschgen and Green 1998).

Similar Species - Wild celery can be confused with eelgrass (*Zostera marina*). However, wild celery has a light green stripe in the center of its leaves and its leaves are generally broader than those of eelgrass. Because wild celery prefers lower salinity and eelgrass higher salinity, the two species are not known to occur in the same location although their salinity ranges overlap slightly.

Reproduction - Sexual and asexual reproduction are both common. Asexual reproduction occurs when winter buds, or turions, form at the meristem of wild celery plants in late summer. These winter buds elongate in spring, sending a stolon to the surface from which a new plant emerges. During the growing season, each plant can send out rhizomes that grow adjacent to the parent plant. Sexual reproduction occurs in late July to September. Wild celery is dioecious and individual plants are either male or female. Individual pistillate flowers have three sepals and three white petals, and occur in a tubular spathe that grows to the water surface at the end of a long peduncle. Staminate (male) flowers are crowded into an ovoid spathe borne on a short peduncle near the base of the plant. Eventually the spathe of staminate flowers breaks free and floats to the surface where it releases its flowers. Fertilization occurs when male flowers float into contact with female flowers. When fertilization is complete the peduncle of the pistillate flower coils up and fruit develops underwater. Fertilization produces a long cylindrical pod containing small, dark seeds.

