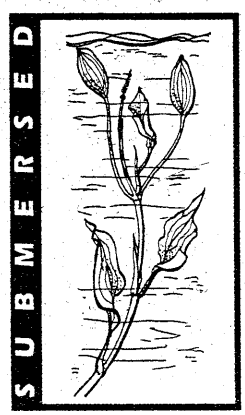
Vallisneria americana (VAL-is-NER-ee-a a-mer-e-KAN-a)

Wild celery, eel-grass, tape-grass

Vallisneria – named for Antonio Vallisneri, an Italian botanist (1661-1730); *americana* – American

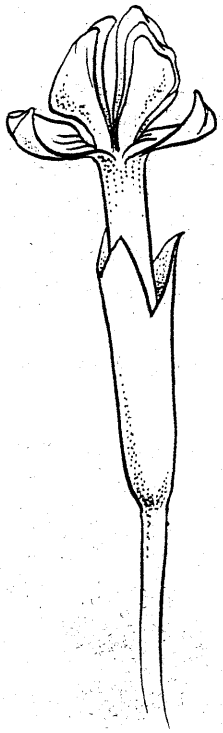


The steel blue clouds and crisp morning air foreshadowed the cold to come. Great flocks of canvasbacks circled and landed in the beds of wild celery. They dove among the trailing cellophane leaves in search of the thick, starchy tubers that would boost their energy for the long journey ahead.

Description: Wild celery has ribbon-like leaves that emerge in clusters along a creeping rhizome. The leaves (up to 2 m long, 3-10 mm wide) have a prominent central stripe and a cellophane-like consistency. The leaves are mostly submersed, with just the tips trailing on the surface of the water.

Male and female flowers are produced on separate plants. The tiny male flowers (1 mm wide) are clustered in a case that develops underwater. As the flowers mature, they are released from the case. Each male flower is in a closed "floral envelope" that contains an air bubble. This helps lift it to the surface. When it reaches the surface, the floral envelope opens and creates a sail that allows it to skim along the surface.

The female flowers (3.5-6.5 mm wide) also develop underwater, but then are raised to the surface by a fast-growing, spiral-coiled stalk. These delicate, white flowers bob at the surface creating a dip in the surface tension. When one of the tiny male flowers sails by, it glides down to meet and pollinate the female flower. After fertilization, the female flower is retracted beneath the surface and a long, capsular fruit (5-12 cm) develops.

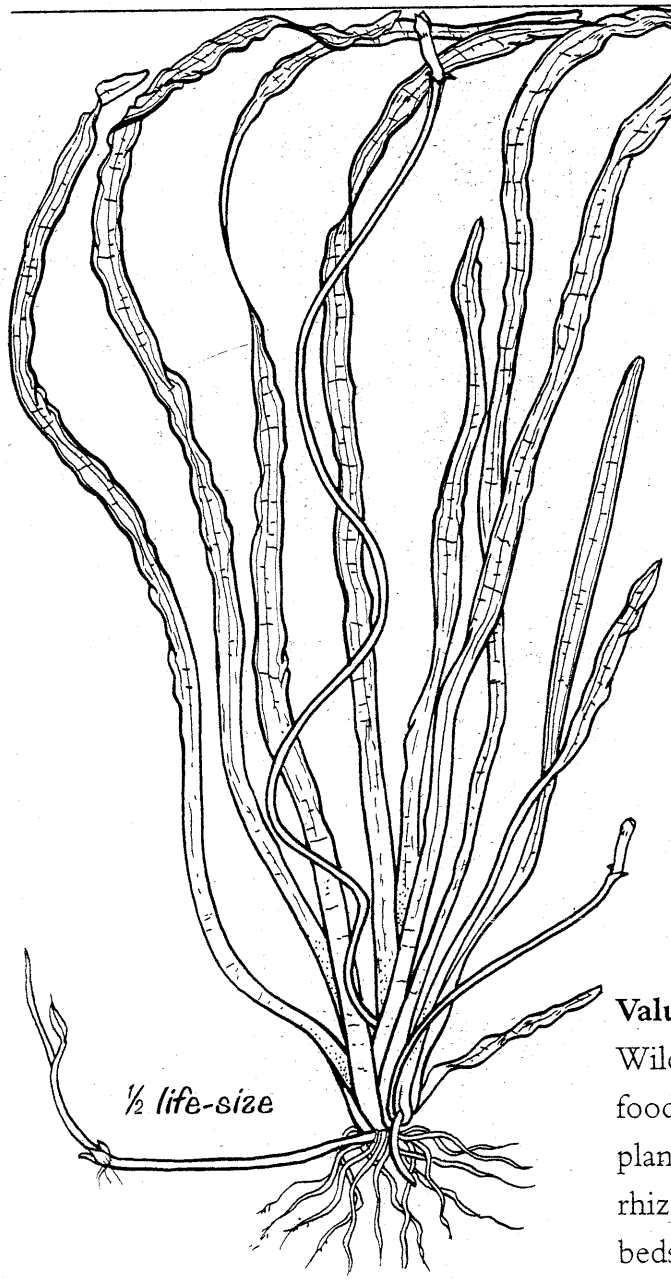


female flower 4 x life-size

Similar Species: The foliage of wild celery is sometimes confused with the submersed leaves of bur-reeds (*Sparganium* spp.) or arrowheads (*Sagittaria* spp.). The prominent middle stripe will usually distinguish wild celery. The leaves of ribbon-leaf pondweed (*Potamogeton epihydrus*) are also similar, but they are alternate on a stem rather than basal.

Origin & Range: Native; found throughout Wisconsin; range includes most of U.S.

Habitat: Wild celery is usually found growing in firm substrates in water ranging from ankle-deep to several meters. It is turbidity tolerant and will survive in a broad range of water chemistries.

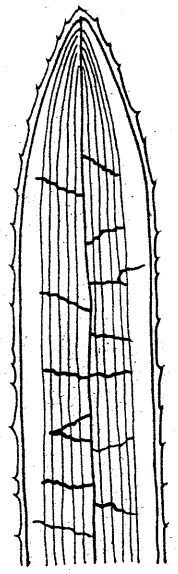


A Closer Look

Wild celery beds are so important to canvasback ducks that they will change their migration patterns to find it. This can be seen in Mississippi River backwaters during periods when *Vallisneria* is sparse. The common name of wild celery is thought to come from the fact that ducks that eat a lot of *Vallisneria* have meat with a celery-like flavor.

Through the Year: Wild celery overwinters by hardy rhizomes and tubers. Reproduction by seed may occur when conditions are favorable. During the growing season, wild celery stakes out new territory with spreading rhizomes. Flowering occurs midsummer and the podlike fruit is mature by fall. In the fall, vegetative "offsets" break free from rhizomes and float to new locations.

Value in the Aquatic Community: Wild celery is a premiere source of food for waterfowl. All portions of the plant are consumed including foliage, rhizomes, tubers and fruit. Wild celery beds become a prime destination for thousands of canvasback ducks every fall. The relationship between wild celery and canvasbacks is so strong that the scientific name for these ducks is *Aythya valisneria*. Wild celery is also important to marsh birds and shore birds including rail, plover, sand piper and snipe. Muskrats are also known to graze on it. Beds of wild celery are considered good fish habitat providing shade, shelter and feeding opportunities.



serrated leaf with prominent central stripe 2 x life-size