



RARE PLANTS OF NEW HAMPSHIRE

Large Salt Marsh Aster

Symphyotrichum tenuifolium (L.) Nesom **Synonyms:** *Aster tenuifolius* L.; perennial salt marsh aster

Aster family (Asteraceae, formerly Compositae)

What Does It Look Like?

A fleshy and hairless perennial with sometimes-zigzagging stems, large salt marsh aster grows from slender creeping rhizomes and reaches 20-70 cm (7.5-27 in.) high. Stems are sparsely-leaved and since flowering doesn't occur until late summer plants are not very obvious most of the year.

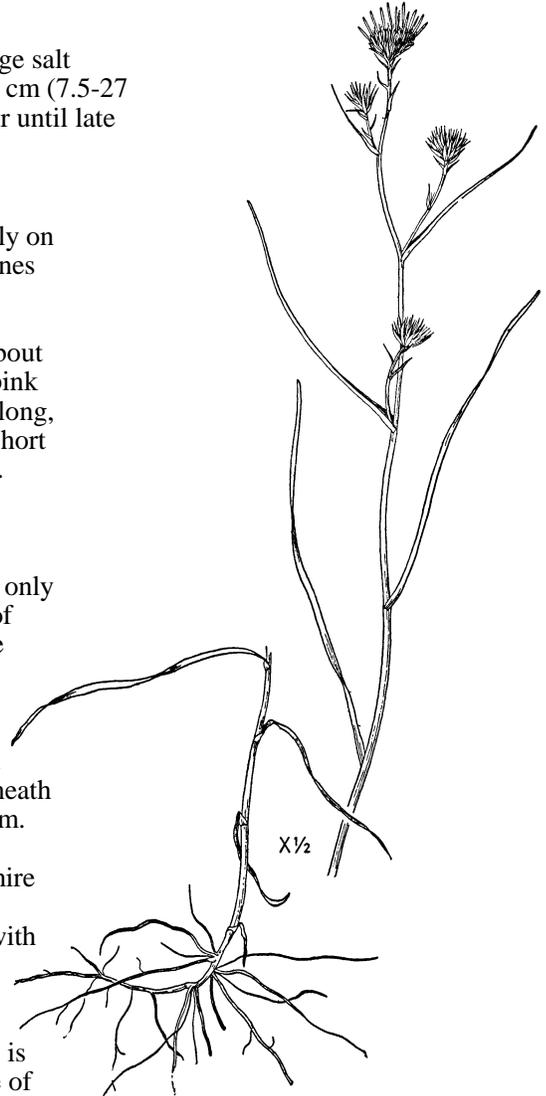
Leaves: The leaves are few, fleshy or succulent, long and narrow, measuring 4-5 cm (1.5-6 in.) long, and arranged alternately on the stem. The lowest leaves soon fall away. The upper ones are reduced in size and appear bract-like.

Flowers: Blooming in late summer and fall, the flower heads are about 1.2-2.5 cm (0.5-1 in.) wide. The ray flowers are blue to pink to pale purple or white, are 4-7 mm (about 0.12-0.25 in.) long, and often curl or roll under. The disc flowers have very short petals, are yellow, and form the center of the flower head. Usually there are several solitary flower heads loosely arranged at the top of the plant.

Fruit: All asters have a single-seeded fruit called an achene that only develops from the disc flowers. The achene bears a tuft of bristles, or a pappus, in a plume on top that causes it to be more easily blown by the wind.

Key features: The size of the flower heads and the length of the rays distinguish this species from the more common small salt marsh aster. Compared to New York aster, the bracts beneath the flower head lie flat and the leaves do not clasp the stem.

Similar species: Only two other species of aster are found in New Hampshire salt marshes. Annual or small salt marsh aster (*Symphyotrichum subulatus*) is a more common species with smaller flower heads (less than 1.25 cm or 0.5 in. wide), and nearly inconspicuous or very short ray flowers. It is also a tap-rooted annual, rather than a creeping-rooted perennial. New York aster (*Symphyotrichum novi-belgii*) is perennial species that may also have fleshy leaves. Some of the leaves clasp the stem, the bract tips on the lower part of the flower head curve outward, and the ray flowers are 6-14 mm (about 0.25-0.56 in.) long.



Where Is It Found?

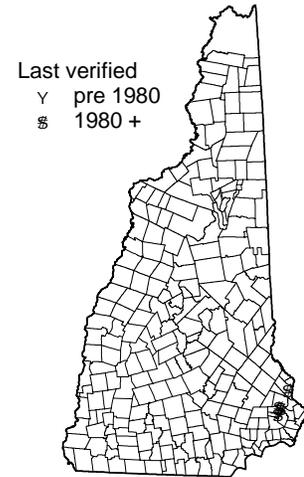
This species is typically found in the high salt marsh or along the brackish intertidal zone. It usually grows along the upper edges of the bank or shore and within reach of only the highest tides. The few populations found in New Hampshire are at the northern end of this species' range. The northern climate is a limiting factor, especially since plants flower late in the fall. Associated plant species include seaside goldenrod (*Solidago sempervirens*), black rush (*Juncus gerardii*), salt-meadow grass (*Spartina patens*), and New York aster (*Symphyotrichum novi-belgii*).



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Conservation status: Large salt marsh aster is endangered in New Hampshire. Only four locations are known in the state. All have been verified since 1980 but two appear to be in decline. Populations in the state are very small and range from just a few plants to about 100 at the largest site.

Range: Along the coast, from New Hampshire to Texas.



Why Is It Rare?

The northern climate is a limiting factor. Also contributing to its rarity is the alteration and filling of its salt marsh habitat.

Conservation Considerations:

Healthy salt marshes and the estuaries in which they occur provide ecological, aesthetic, and practical values, including providing protection from storm flooding and erosion, and critical nursery areas for many fish species.

Threats to large salt marsh aster include any activity that eliminates plants or causes salt marsh deterioration. Salt marshes can be readily damaged by changes to either tidal or freshwater flow, and by increases in the amount of nutrients or pollutants entering the wetland. Ditching, draining, or filling, as well as road, sewage, and agricultural runoff from bordering lands can all cause damaging changes. In addition to their direct impacts, these activities can fragment the habitat and create cumulative negative effects. They can also lead to the establishment of invasive non-native plants, which are another major threat to salt marshes.

Unprecedented growth and development in the coastal region of New Hampshire have increased the pressures on, and represent the primary threat to, salt marshes and the many species and related natural community types found there. Intensive efforts to restore and protect these habitats have been the result of a growing recognition of their values.

The information in this fact sheet is current as of December 2002. It is based on a database maintained by the NH Natural Heritage Program, a bureau in the Division of Forests & Lands in the Department of Resources and Economic Development. NH Natural Heritage is a member of NatureServe, which represents an international network of Heritage programs. Illustration by Walter Lincoln Graham. Reprinted with permission from The New York Botanical Garden Press. Originally published in H. A. Gleason, *The New Britton and Brown Illustrated Flora of the Northeastern United States and Adjacent Canada*, Vol. III, p. 460, copyright 1952, The New York Botanical Garden.

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