



# RARE PLANTS OF NEW HAMPSHIRE

## Salt-marsh Gerardia

*Agalinis maritima* (Raf.) Raf.

**Synonyms:** *Gerardia maritima* Raf., many others exist; salt-marsh gerardia, salt marsh false foxglove  
**Broom-rape family (Orobanchaceae, formerly of Scrophulariaceae)**

### What Does It Look Like?

A charming plant in bloom, salt-marsh gerardia's flowering is brief but beautiful. Without the flowers the plants are inconspicuous and easily overlooked. The plants are also often concealed by taller vegetation making them especially hard to find. This fairly small, smooth-stemmed, fleshy-leaved and fibrous-rooted annual grows to about 40 cm (16 in.) high.

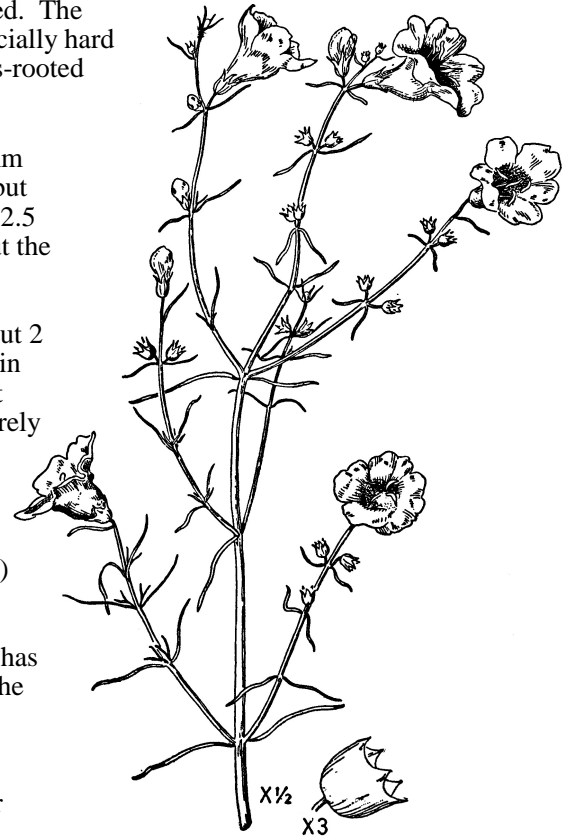
**Leaves:** The fleshy or succulent leaves are very narrow, about 2 mm (less than 0.1 in.) wide, opposite each other on the stem (but tending to be alternate on the branches) and mostly about 2.5 cm (1 in.) long. The leaf edges are entire (not toothed) but the tops can be slightly roughened.

**Flowers:** The pink to purple, 5-petaled, bell-shaped flowers are about 2 cm (0.75 in.) long or less, located at the tops of the stems in pairs of 2 to 5, and flower from the bottom up. The throat inside the flower is often purple-dotted. White flowers rarely occur. Flowering occurs in late summer, usually August and September. The flowers are delicate and easily dislodged, and upon opening, last only a day.

**Fruit:** The fruit is a nearly spherical capsule about 5 mm (0.2 in.) long and pointed on top where it splits open.

**Key features:** Salt-marsh gerardia is the only member of this genus that has fleshy or succulent leaves and is found in salt marshes. The calyx (the cup-shaped base of the flower, shown in the illustration) is shallowly lobed.

**Similar species:** Purple gerardia (*Agalinis neoscotica*, formerly *Agalinis* or *Gerardia purpurea*), a more common species, is usually a much larger plant, sometimes up to 1.2 m (48 in.) tall. The calyx lobes of the flower are longer and more triangular compared to salt-marsh gerardia's, which are very short. Purple gerardia is not found in the salt marsh as it is not adapted to saline conditions.



### Where Is It Found?

Salt-marsh gerardia is found in very shallow, moderately vegetated forb pannes in the high salt marsh. These pannes are small depressions or shallow pools scattered throughout the marsh within reach of only the highest of tides. Because they are flooded infrequently, they undergo a repeating cycle of evaporation and inundation that only certain plant species are adapted to.

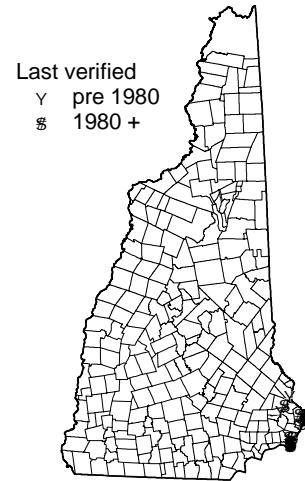


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**Conservation status:** Salt-marsh gerardia is threatened in New Hampshire. Of 18 locations, only 15 have been verified since 1980. Populations in the state range from just a few plants to more than 1,000 at the best locations.

**Range:** In salt marshes from Nova Scotia to Texas.



## Why Is It Rare?

New Hampshire is near the northern extent of salt-marsh gerardia's range. The shorter growing season and colder temperatures reduce the plants' ability to thrive in New Hampshire. Habitat loss is also a factor.

## Conservation Considerations:

Threats to salt-marsh gerardia include any activity that eliminates plants or causes salt marsh deterioration. Healthy salt marshes and the estuaries in which they occur provide ecological, aesthetic, and practical values, including protection from storm flooding and erosion, and critical nursery areas for many fish species.

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. These activities can also lead to the establishment of invasive non-native plants which are another major threat to salt marshes. In addition to their direct impacts, these activities can fragment the habitat and create cumulative negative effects.

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.

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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 Lucille E. Kopp Blum. Reprinted with permission by the artist and 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. 243, copyright 1952, The New York Botanical Garden.

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