

SALTWORT (*Salicornia rubra*)

Description

Saltwort is a salt-tolerant, herbaceous, annual plant that grows 3-6 inches tall. The stems are freely branched, succulent, and jointed. They are also glabrous (hairless) and often reddish at maturity. The leaves are small, scale-like and opposite on the stem. The small, inconspicuous flowers are borne in groups of three and are sunken in the joints of the fleshy inflorescence.

Distribution

Saltwort ranges from western Minnesota to Saskatchewan and western Kansas to Nevada and it is restricted to moist saline or alkaline soils. In Nebraska, saltwort grows only on an isolated site in Phelps County and on seven saline wetlands of Lancaster County. There are no historical records of collections elsewhere in the state. The exact numbers of individuals is not known, though several thousand plants likely exist within the Lancaster County populations. Because saltwort is an annual, population levels can fluctuate widely from year to year, depending on how suitable the climatic conditions are for seed germination.

Habitat

Saltwort grows within a narrow range of habitat within the saline wetlands. It is found growing primarily on moist, saturated, clayey mudflats. Saltgrass (*Distichlis spicata*) and sea blite (*Suaeda calceoliformis*) are generally the only two species that grow in association with saltwort. Saltwort generally grows in heavy soils with about 25% clay, 30% sand and 40% silt and salinity levels ranging from 2.6 % to 4.7 %. The water table is generally within three feet of the surface and at any time of the year standing water may be present. The high salinity levels and lack of soil aeration due to the heavy clay and water content inhibits other plants from growing in this wetland zone.

Status

Global: G5-Secure. Federally not listed. State Endangered. Nebraska: S1-Critically Imperiled. Loss and degradation of habitat is the primary cause of the decline of saltwort and currently is the greatest threat to the species. The species occupies one of the most restricted and imperiled plant community types in the state: eastern Nebraska saline wetlands. Of the remaining 1,600 acres of eastern saline wetlands, only a limited number (<400 acres) provide soil conditions suitable for saltwort.

Most remaining eastern Nebraska saline wetlands have undergone extensive degradation through drainage, diking, filling, farming, overgrazing, stream channelization and head cutting of Salt Creek and its tributaries. Commercial and residential development pressure on the remaining wetlands continues to increase as the city of Lincoln expands to the north and west. The small size of the remaining populations increases the possibility of loss of the remaining populations as a result of any accidental or natural catastrophe.

Management

Protection and restoration of saline wetlands are the primary management needs of this species.