Small Bur-reed

Sparganium natans in flower

Photo credits: *Jackie Donnelly*

Scientific Name	*Sparganium natans* L.
Family Name	Sparganiaceae bur-reed family

Did you know?

Summary

Protection Threatened in New York State, not listed federally.

This level of state protection means: listed species are those with: 1) 6 to fewer than 20 extant sites, or 2) 1,000 to fewer than 3,000 individuals, or 3) restricted to not less than 4 or more than 7 U.S.G.S. 7 ? minute topographical maps, or 4) listed as threatened by U.S. Department of the Interior.

Rarity G5, S2

A global rarity rank of G5 means: This species is demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.
A state rarity rank of S2 means: This plant is threatened/imperiled in New York because of rarity (typically 6-20 populations or few remaining individuals) or is vulnerable to extirpation from New York due to biological factors.

Conservation Status in New York

There are 11 verified occurrences, 23 historical occurrences.

Conservation and Management

Habitat

In New York, Small Bur-reed has been found in a wide variety of habitats with still, open water. It occurs in small pools within both bogs and fens, as well as in Northern White-cedar swamps, beaver ponds, and shrub swamps (New York Natural Heritage Program 2011). Small open water pools at edge of fen mat; open water sections of fen near open stream flow; mucky shrub swamps with open water zones; mountain pool surrounded by trees; small swamps surrounded by northern white cedar woods; open water within willow swamps; open water in dwarf shrub bogs; submergent/emergent communities along a beaver affected area along streams; dwarf shrub bogs with small stream channels of wet peat; shallow depressions within shrub and hummock swamps; (New York Natural Heritage Program 2011). Cool, quiet, slightly acid to somewhat basic waters of bays, pools, ditches, and peat bogs, usually in shallow water but sometimes to 60 cm depth (FNA 2000). Clean, relatively still, shallow waters of lakes, ponds, bog pools, limestone sinkholes, small creeks, interdunal ponds, and deepwater marshes; often in alkaline water (Jenkins 1990). Ponds, bogs, beach pools and interdunal swales (of the Great Lakes), and other wet places (Voss 1972). Shallow pools, brooks, springs, etc. (Fernald 1970).

Associated Ecological Communities

Dwarf Shrub Bog
A wetland usually fed by rainwater or mineral-poor groundwater and dominated by short, evergreen shrubs and peat mosses. The surface of the peatland is usually hummocky, with shrubs more common on the hummocks and peat moss throughout. The water in the bog is usually nutrient-poor and acidic.

Northern White Cedar Swamp
A swamp that occurs on organic soils in cool, poorly drained depressions in central and northern New York, and along lakes and streams in the northern half of the state. These swamps are often spring-fed with continually saturated soils. Soils are often rich in calcium. The characteristic tree is northern white cedar, which makes up more than 30% of the canopy cover.

Shrub Swamp
An inland wetland dominated by tall shrubs that occurs along the shore of a lake or river, in a wet depression or valley not associated with lakes, or as a transition zone between a marsh, fen, or bog and a swamp or upland community. Shrub swamps are very common and quite variable.

Other Probable Associated Communities

Bog lake
Hemlock-hardwood swamp
Inland poor fen
Medium fen
Oligotrophic pond

Rich graminoid fen
Rich shrub fen

Associated Species

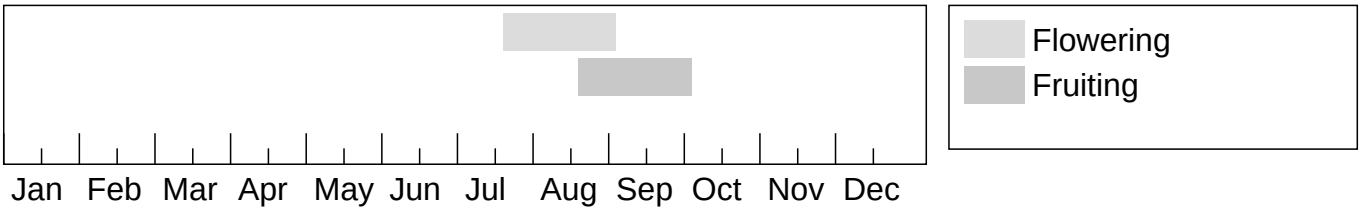
Balsam Fir (*Abies balsamea*)
Red Maple (*Acer rubrum*)
Northern Water-plantain (*Alisma triviale*)
Speckled Alder (*Alnus incana ssp. rugosa*)
Swamp Milkweed (*Asclepias incarnata*)
Water-shield (*Brasenia schreberi*)
Wild Calla (*Calla palustris*)
Bristly Sedge (*Carex comosa*)
Yellow Sedge (*Carex flava*)
Mountain Fringed Sedge (*Carex gynandra*)
Boreal Bog Sedge (*Carex magellanica*)
Cyperus-like Sedge (*Carex pseudocyperus*)
Retrorse Sedge (*Carex retrorsa*)
Broom Sedge (*Carex scoparia*)
Common Hornwort (*Ceratophyllum demersum*)
Leatherleaf (*Chamaedaphne calyculata*)
White Turtlehead (*Chelone glabra*)
Bulb-bearing Water-hemlock (*Cicuta bulbifera*)
Marsh Cinquefoil (*Comarum palustre*)
Red Osier Dogwood (*Cornus sericea*)
Needle Spikerush (*Eleocharis acicularis*)
Matted Spikerush (*Eleocharis intermedia*)
Tawny Cotton-grass (*Eriophorum virginicum*)
Black Ash (*Fraxinus nigra*)
Black Huckleberry (*Gaylussacia baccata*)
Common Frogbit (*Hydrocharis morsus-ranae*)
Spotted Jewelweed (*Impatiens capensis*)
Blueflag (*Iris versicolor*)
Common Rush (*Juncus effusus*)
Sheep-laurel (*Kalmia angustifolia*)
Tamarack (*Larix laricina*)
Bog Buckbean (*Menyanthes trifoliata*)
Slender Naiad (*Najas flexilis*)
Mountain Holly (*Nemopanthus mucronatus*)
Varigated Yellow Pond-lily (*Nuphar variegata*)
Sensitive Fern (*Onoclea sensibilis*)
Cinnamon Fern (*Osmunda cinnamomea*)
Royal Fern (*Osmunda regalis*)
Pickerelweed (*Pontederia cordata*)
Potamogeton
Marsh Mermaidweed (*Proserpinaca palustris*)
Bebb's Willow (*Salix bebbiana*)
Woolgrass Bulrush (*Scirpus atrovirens*)
Bur-reed (*Sparganium emersum*)
Marsh Fern (*Thelypteris palustris*)

Northern White Cedar (*Thuja occidentalis*)
Marsh St. John's Wort (*Triadenum virginicum*)
Broad-leaf Cattail (*Typha latifolia*)
Flatleaf Bladderwort (*Utricularia intermedia*)
Greater Bladderwort (*Utricularia macrorhiza*)
Lesser Bladderwort (*Utricularia minor*)
Lowbush Blueberry (*Vaccinium angustifolium*)
Highbush Blueberry (*Vaccinium corymbosum*)

Identification Comments

The Best Time to See

Surveys should be done when fruiting plants may be found, from mid-July through mid-September.



The time of year you would expect to find Small Bur-reed in New York.

Similar Species

Sparganium hyperboreum is the most closely related plant, but this is a more northern plant that reaches in southern limit around Nova Scotia. Other small Sparganium species that may be confused with S. natans include S. angustifolium, S. erectum and S. fluctuans. The achene beak in all three of these species is 1.5-6 mm long with a stipe 1-5 mm, and two or more staminate heads. Sparganium fluctuans usually has branched flowering heads with several male flowers, the achenes are typically 4-5 mm long with a conspicuous stipe, and the beaks are 2-3 mm long and curved. Sparganium angustifolium has some pistillate flowers which are attached to the stalk 5+ mm above the axil of the subtending bract (super-axillary) with achenes 3-5 mm long contracted abruptly to a 1 mm beak. Sparganium chlorocarpum will have some super-axillary flowers and achene beaks 3-6 mm long.

Taxonomy

Kingdom Plantae
└ **Phylum** Anthophyta
└ **Class** Monocots (Monocotyledoneae)
└ **Order** Typhales
└ **Family** Sparganiaceae (bur-reed family)

Synonyms

Sparganium minimum ((Hartman) Wallr.)

Additional Resources

Links

USDA Plants Database
http://plants.usda.gov/java/nameSearch?mode=sciname&keywordquery=SPARGANIUM+NATANS

Google Images
http://images.google.com/images?q=SPARGANIUM+NATANS

NatureServe Explorer
http://natureserve.org/explorer/servlet/NatureServe?searchName=SPARGANIUM+NATANS

Best Identification Reference

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