



Natural Heritage & Endangered Species Program

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MASSCHUSETTS WATCH LIST PLANTS

Pendulus Bulrush *Scirpus pendulus* MUHL.

State Status: Delisted

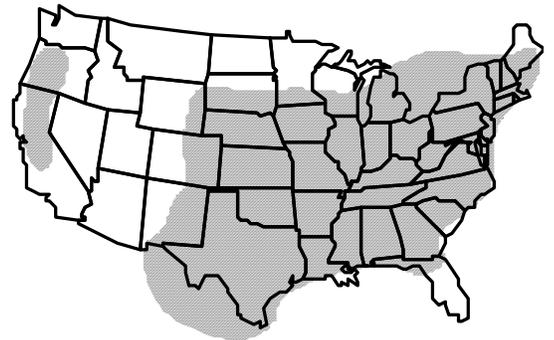
Federal Status: None

Description: Pendulous Bulrush is a perennial sedge forming a small basal tussock of grass-like foliage and one to few erect to somewhat arching stems that reach a height of 1.5 meters (5 ft.). The leaves are long and narrow, 3-8 mm (1/8-1/3 in.) wide, upright (bending only at the tips), and light green. Flowering occurs in June, producing a lax inflorescence composed of small spikelets on drooping rays (pedicels) that arches over to one side of the stem. Beneath the inflorescence is a ring of small leafy bracts tinted pale brown at their bases. The cylindrical to ovoid flower spikelets of Pendulous Bulrush are typically 6-13 mm (1/4-1/2 in.) long and consist of tightly overlapping cinnamon-colored scales with bright green mid-stripes that extend into spiny tips. The inconspicuous flowers (the corolla reduced to thread-like bristles) are well-adapted to wind-pollination; the abundant pollen is readily dispersed from easily agitated stamens and captured by large feathery stigmatic surfaces on the pistils. During July and August the fruits mature into hard, brown, short-beaked nutlets (achenes) which are clearly shorter than the scales. The inflorescence arches and droops more than the accompanying illustration shows.

Range: Pendulous Bulrush has a broad continental range from Maine across southern Canada to eastern Colorado, south to northern Mexico and east to Georgia; it also occurs in a few scattered populations in Oregon, California and Florida. From all indications, it is apparently uncommon everywhere in its range.



Pendulus Bulrush. Photo: Paul Somers, NHESP



Range of *Pendulus Bulrush*

Similar Species: The immediate distinguishing field characteristics of Pendulous Bulrush are its yellowish green foliage, a completely arching flower cluster with almost every spikelet on a single pedicel and fewer spikelets per plant than most bulrushes. A similar species, Dark-green Bulrush (*Scirpus atrovirens*) has much broader leaves and its flower spikelets are crowded on shorter pedicels in an inflorescence which only partially reclines. Another wetland species, Woolgrass (*Scirpus cyperinus*), forms larger, more vigorous tussocks of curved leaves. It has a much larger inflorescence with bunched spikelets on long as well as short rays, and an involucre in which the long bracts extend well beyond the inflorescence. Dusky Wool-grass (*S. atrocinctus*) is a frequent species of fens, intermediate in size of inflorescence, most of whose branches arch downwards. The majority of its flower spikes are on individual pedicels as well, but, it has dull, blackish green scales to the flower spikes and the leaves are soft bright green. Its name refers to the blackish collar at the base of the inflorescence

Habitat in Massachusetts: Pendulous Bulrush is typically found in and near calcareous fens, highly localized and sporadic peaty wetlands that are associated with limestone or dolomitic bedrock mostly restricted to Berkshire County. Disjunct populations occur in fen-like meadows in Northampton, Whately (historically), and Easton. Fens are fragile habitats dependent on cold, calcareous (alkaline) groundwater that surfaces in seeps or springs on mineral-rich, peaty soils.

Pendulous Bulrush is usually restricted to fen borders or adjacent seasonally wet meadows where periodic grazing or mowing maintains an open, sunny habitat. These activities disrupt the natural process of forest succession and favor the presence of a diverse floral community where Pendulous Bulrush and other pioneer (disturbance tolerant) fen and meadow species intermingle. When grazing is severe, however, soil compaction and lack of regeneration favor the establishment and domination of weedy and alien plants. Common fen border species are: Boneset (*Eupatorium perfoliatum*), Purple-stemmed Aster (*Symphyotrichum puniceum* = *Aster puniceus*), rushes (*Juncus dudleyi* and *J. nodosus*), Shrubby Cinquefoil (*Dasiphora fruticosa* = *Potentilla fruticosa*), and Grass-of-Parnassus (*Parnassia glauca*).

Population Status: Pendulous Bulrush is listed as rare in Virginia and is uncommon in all the New England states where it occurs. In Massachusetts it is on the non-regulatory Plant Watch List, which includes species removed, “delisted,” from the regulatory list of the rarest species and has species that are thought to be uncommon but not in danger of extinction. Pendulous Bulrush’s habitats, calcareous fens, are limited and fragile habitats in Massachusetts that usually support many rare species of animals and plants. They depend upon, and are part of the hydrologic regimes of much larger watersheds. Maintenance of high quality fens often involves determining the indirect affects of activities in other parts of the watershed, as well as the immediate threats within the fen.

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