

**Schoenoplectus acutus - Typha latifolia - (Schoenoplectus tabernaemontani)
Sandhills Herbaceous Vegetation**

COMMON NAME	Hardstem Bulrush - Broadleaf Cattail - (Softstem Bulrush) Sandhills Herbaceous Vegetation
SYNONYM	Sandhills Bulrush Marsh
PHYSIOGNOMIC CLASS	Herbaceous Vegetation (V)
PHYSIOGNOMIC SUBCLASS	Perennial graminoid vegetation (V.A)
PHYSIOGNOMIC GROUP	Temperate or subpolar grassland (V.A.5)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural (V.A.5.N)
FORMATION	Semipermanently flooded temperate or subpolar grassland (V.A.5.N.1)
ALLIANCE	TYPHA (ANGUSTIFOLIA, LATIFOLIA) – (SCHOENOPLECTUS SPP.) SEMIPERMANENTLY FLOODED HERBACEOUS ALLIANCE
CLASSIFICATION CONFIDENCE LEVEL	2
USFWS WETLAND SYSTEM	PALUSTRINE

RANGE

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The vast majority of the stands that characterize this type at LNWR are less than 0.5 ha in size.

Globally

This community is found in floodplains and interdunal valleys of the sandhills regions of the central Great Plains in the United States.

ENVIRONMENTAL DESCRIPTION

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Stands of this community type occur in small, isolated depressions where the water table intersects the surface. The soils are intermittently saturated; however, the amount of moisture probably fluctuates considerably from one year to the next. Because this community is restricted to very small, isolated depressions, the size of the stands probably fluctuates seasonally as well as from one year to the next.

Globally

This community occurs where the regionally high water table of the Sandhills intersects the land surface in interdunal valleys, and is commonly associated with lakes, though it may occur in smaller depressions as well. Soils are deep, very poorly drained, and contain much organic matter (peat or muck) and are formed in eolian sand or alluvium. Soils are flooded or waterlogged through much of the season. The water is usually slightly alkaline, and surface water levels fluctuate seasonally with groundwater levels (Steinauer and Rolfsmeier 2000).

MOST ABUNDANT SPECIES

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<u>Stratum</u>	<u>Species</u>
GRAMINOID	<i>Schoenoplectus acutus</i> , <i>Schoenoplectus pungens</i>

Globally

<u>Stratum</u>	<u>Species</u>
GRAMINOID	<i>Carex lacustris</i> , <i>Eleocharis erythropoda</i> , <i>Phragmites australis</i> , <i>Schoenoplectus acutus</i> , <i>Schoenoplectus pungens</i> , <i>Sparganium eurycarpum</i> , <i>Typha latifolia</i>
FORB	<i>Polygonum amphibium</i> var. <i>emersum</i> , <i>Sagittaria latifolia</i>
SUBMERSED	<i>Ceratophyllum demersum</i> , <i>Lemna trisulca</i> , <i>Zannichellia palustris</i>

CHARACTERISTIC SPECIES

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<u>Stratum</u>	<u>Species</u>
GRAMINOID	<i>Schoenoplectus acutus</i>

Globally

<u>Stratum</u>	<u>Species</u>
GRAMINOID	<i>Phragmites australis</i> , <i>Schoenoplectus acutus</i> , <i>Typha latifolia</i>
FORB	<i>Sagittaria latifolia</i>

VEGETATION DESCRIPTION

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The vegetation is typically 1 to 2 m in height with foliar cover approaching 100%. Cattail (*Typha latifolia*) is the most common secondary species.

Globally

The vegetational composition of this community varies in response to water depth and other factors. This community is dominated by tall, emergent, hydrophytic graminoids. In areas flooded most of the season *Schoenoplectus acutus* (= *Scirpus acutus*) is usually dominant, with *Typha latifolia* increasingly common in areas of deeper water. Scattered patches of *Phragmites australis* may be present, but are seldom common. *Sagittaria latifolia* frequently forms a sparse understory layer, but is often dense in openings in the overstory and in deeper water with *Typha latifolia* at the margin of the permanent water line. Other species found in openings include *Carex lacustris*, *Polygonum amphibium* var. *emersum* (= *Polygonum coccineum*), and *Sparganium eurycarpum*. In areas which experience a more frequent fluctuation in the water level, *Phragmites australis* dominates, and may spread extensively during extended periods of low water. Scattered *Carex lacustris*, *Polygonum amphibium* var. *emersum* (= *Polygonum coccineum*), and *Schoenoplectus acutus* are found with *Phragmites australis* in these sites. Species diversity is low (Steinauer and Rolfsmeier 2000).

The vegetation may form two intergrading zones, a bulrush/cattail zone where areas are flooded most of the season and dominated by a mixture of species, and a reed zone where areas are seasonally flooded and dominated by *Phragmites australis*. *Phragmites* may spread extensively during periods when the water table is low. Understory vegetation is usually sparse in the denser stands, though scattered *Typha* and *Schoenoplectus* may be present along with other plants of the bulrush/cattail zone.

OTHER NOTEWORTHY SPECIES

CONSERVATION RANK G4. Many unmodified marshes remain, though many more have been drained, particularly in the eastern portion of the range of this community. These sites are vulnerable to invasion by *Lythrum salicaria*.

DATABASE CODE CEGL002030

COMMENTS

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(n/a)

Globally

(n/a)

REFERENCES

- Kittel, G., E. Van Wie, M. Damm, R. Rondeau, S. Kettler, and J. Sanderson. 1999. A classification of the riparian plant associations of the Rio Grande and Closed Basin watersheds, Colorado. Unpublished report prepared by the Colorado Natural Heritage Program, Colorado State University, Fort Collins.
- Pool, R. J. 1914. A study of the vegetation of the sandhills of Nebraska. *Minnesota Botanical Studies* 4:189-312.
- Steinauer, G., and S. Rolfsmeier. 2000. Terrestrial natural communities of Nebraska (January 2000 version). Unpublished report of the Nebraska Game and Parks Commission. Lincoln, NE. 143 pp.
- Tolstead, W. L. 1942. Vegetation of the northern part of Cherry County, Nebraska. *Ecological Monographs* 12(3):257-292.