

INDIAN SEA OATS

Chasmanthium latifolium

(Michx.) Yates

Plant Symbol = CHLA5

Contributed By: USDA NRCS Nacogdoches (TX)
Technical Office and the National Plant Data Center



© Lee Davis

USDA NRCS Nacogdoches Technical Office

Alternate Names

Indian woodoats, broadleaf wood-oats, creek oats,
Indian sea-oats, inland sea-oats, broadleaf uniola;
Uniola latifolia

Uses

Chasmanthium latifolium is best known for its ornamental uses. It is a desirable ornamental grass because of its flower color, drought, moisture, salt and shade tolerance. It is popular for its uses as cut flowers and for groundcover in partial or full shade. The flower heads may be cut and dried while the plant is green or when it has fully matured to its natural copper-brownish color. The plant persists through winter or until snow weighs it down.

The seeds have been noted as a source of food for birds and the leaves are a host plant for Linda's Roadside Skipper (*Amblyscirtes linda*), a butterfly native to Oklahoma. Cattle will graze this species.

Status

In 2005, this species was considered threatened in Michigan. Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Description

General: Grass Family (Poaceae). *Chasmanthium latifolium* (previously in the *Uniola* genus and commonly called broadleaf uniola) is a native, rhizomatous perennial often found in small colonies. The leaf shape and size are similar to many of the larger species of panic (*Panicum* species) grasses. The height of this grass and the inflorescence (seed cluster) somewhat resemble domestic oats; thus, the common name "wood, creek, or sea oats." The weight of the seed heads causes the inflorescence to droop.

Stems are glabrous, relaxed and can reach heights of 1.5 m. Striated and glabrous leaves are found along the stem up to the base of the panicle. The leaves are broad (0.8 to 2.0 cm) and 10-20 cm long. Blade sheaths are small and glabrous. Panicles are open and drooping with relaxed branching. Spikelets have 9-26 florets and are broad and flattened. They range in lengths of 1.5-4 cm and widths of 1-2 cm. Glumes and lemmas overlap; however, the glumes are smaller than the lemmas. The glumes are 7-9 nerved, keels rough to the touch, and range in lengths of 5-8 mm. The lemmas are 9-15 nerved, keels rough to the touch, and range in lengths of 8-13mm. Paleas are 6-10 mm long with thin and dry margins. Caryopsis is flat, oval in shape and range in lengths of 4-5 mm.

Distribution

Known from Arizona to Florida and Michigan to New Jersey. For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

Establishment

Propagation can be accomplished by allowing the seeds to mature and fall naturally or by plant division.

Chasmanthium latifolium is widely used in gardens throughout the United States. They seed and spread readily if the spikelets are not removed before the

seeds mature. It should be fertilized once a year, preferably with a slow release 3-1-2 ratio. Since it may take up to three years for the plant to reach its optimum growth, new plantings should be spaced about 2 feet apart. The new plants should be given a sufficient amount of water throughout the first growing season. One inch of water per week is recommended, perhaps more during the dry, hot days of summer. Mulch before the winter and mow the grass in the early spring.

Adaptation: It inhabits areas along streams and water banks, shaded slopes and bottomland hardwoods. It flowers from June to October and is found in hardiness zones 4-10. In Texas, this species is very common on loamy, terrace soils adjacent to creeks, bayous and rivers in eastern Texas, particularly under a hardwood forest canopy. It becomes less common westward, although it is found under favorable conditions in the Edwards Plateau, Rio Grande Plains, and Southern Rolling Plains. It is quite common in river bottoms of the Western Gulf Coast Prairie. An abundance of *Chasmanthium latifolium* is usually a good indicator of a Class I or II soil; though, it will grow on wet natured clayey soils. It is never found on droughty sites. Some of the literature suggests that it is found in marshes and mud flats. However, stress appears to limit the colonies to 1-3 plants on wet sites, rather than the 10-30 plant colonies commonly found on better-drained sites.

General: There are 5-6 species of *Chasmanthium* in the U.S. and three in Texas. All are generally associated with forested ecosystems, but none resemble *Chasmanthium latifolium*. A similar species with regards to shade tolerance and vegetative growth habits, is savanna panic grass (*Phanopyrum gymnocarpon*). Older references refer to this plant as *Panicum gymnocarpon*. *Phanopyrum* occurs on very wet (ponded) sites and the inflorescence is completely different. Virginia wildrye (*Elymus virginicus*) in east Texas and Canada wildrye (*Elymus canadensis*) further west, commonly occupies similar forested sites but the seed head remains upright and the leaves of wildrye are clustered much more towards the base.

Management

Indian seaoats prefers a rich, well-drained soil and partial shade, approximately six hours of sun each day. If spikelets are not removed before they mature, they propagate rapidly by seed. Indian seaoats have no known diseases associated with it.

Cultivars, Improved and Selected Materials (and area of origin)

None known, though it is commonly available from selected seed companies and nurseries.

Contact your local Natural Resources Conservation Service (formerly Soil Conservation Service) office for more information. Look in the phone book under "United States Government." The Natural Resources Conservation Service will be listed under the subheading "Department of Agriculture."

References

Allen, C.M. 1992. *Grasses of Louisiana*. 2nd ed. Cajun Prairie Habitat Preservation Society, Louisiana. 74 p.

Davis, L. 2000. *Texas plant fact sheet: Chasmanthium latifolium*. USDA, NRCS, Nacogdoches Technical Office #2, Nacogdoches, Texas.

Godfrey, R.K. & J.W. Wooten. 1979. *Aquatic and wetland plants of Southeastern United States – Monocotyledons*. University of Georgia Press, Athens. 234 p.

Hitchcock, A.S. 1950. *Manual of the Grasses of the United States*. 2nd ed. (revised by Agnes Chases.) U.S. Dept. of Agr. Misc. Publ. 200, 181 p.

USDA NRCS. 2005. *The PLANTS database*. <<http://plants.usda.gov>>. Accessed: 050928. National Plant Data Center, Baton Rouge, Louisiana.

USDI Geological Survey. 2002. *Butterflies of North America-butterflies of Oklahoma. Linda's roadside skipper*. Northern Prairie Wildlife Research Center. http://www.npwrc.usgs.gov/resource/distr/lepid/BFL_YUSA/ok/6255.htm

Prepared By

Lee Davis

USDA NRCS Nacogdoches Technical Office #2, Nacogdoches, Texas and Marya Gates, National Plant Data Center, Baton Rouge, Louisiana.

Species Coordinator

Lee Davis

USDA, NRCS, Nacogdoches Technical Office #2, Nacogdoches, Texas

Edited 08jan01 jsp; 14feb03 ahv; 05jun06 jsp

For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the

PLANTS Web site<<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

Read about Civil Rights at the Natural Resources Conservation Service.