

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
ABERDEEN, IDAHO
and
IDAHO AGRICULTURAL EXPERIMENT STATION
ABERDEEN, IDAHO

NOTICE OF RELEASE OF CREEPING SPIKERUSH
FOR LAND RESOURCE REGION B EAST
SELECTED CLASS OF NATURAL GERMPLASM

The Natural Resources Conservation Service, U.S. Department of Agriculture and the Idaho Agricultural Experiment Station announce the release of a selected ecotype of Creeping Spikerush (*Eleocharis palustris*) for Land Resource Region (LRR) B East.

As a Selected release, this plant will not be given a name, but will be referred to as the Mud Lake selection of Creeping Spikerush to document its original collection location. The Mud Lake selection is released as a Selected Class of certified seed (natural track).

This alternative release procedure is justified because existing commercial sources of Creeping Spikerush are inadequate, propagation material of specific ecotypes is needed for ecosystem restoration, enhancement, and construction of wetlands, potential for immediate use is high, and commercial potential beyond specific wetland uses is probably limited. No commercial cultivars of Creeping Spikerush have been released at this time.

Species:	<i>Eleocharis palustris</i> (L.) Roemer & J.A. Schultes
Synonymy:	<i>Eleocharis palustris</i> var. <i>australis</i> , <i>E. palustris</i> var. <i>major</i> , <i>E. macrostachya</i> , <i>E. mamillata</i> , <i>E. calva</i>
Common Name:	Creeping Spikerush
Plant Symbol:	ELPA3
Accession Number:	9067389

Source: Mud Lake Wildlife Management Area, just north of the town of Terreton, Jefferson County, Idaho.

Collection area Information: Stands are located within the Mud Lake WMA. Very little variability among ELPA3 stands was observed within the boundaries of the WMA. This variability was judged to be inconsequential. Therefore, any collection of ELPA3 located within the WMA boundary would be considered a constituent of this Selected Release. Elevation is approximately 4800 feet. Soils are mostly poorly drained calcareous loams.

Method of Selection: From a Creeping Spikerush collection found in Land Resource (LRR) Region B East, which includes Major Land Resource Regions (MLRAs) eastern 1/3 of 11, all of 12 and 13.

A total of 16 ELPA3 collections from the Aberdeen PMC Service Area were evaluated from 1991 to 1995. All collections were evaluated for survival, vigor, overall growth and spread, potential seed production, and above ground biomass production. Only two collections were tested for B East. The Mud Lake collection outperformed the other collection from B East in survival, potential seed production, rate of spread, and shoot density per unit area. The Mud Lake selection of Creeping Spikerush was selected for

its rapid spreading from rhizomes, shoot density per unit area, and potential seed production. This accession needs special seed treatment and stratification procedures to achieve acceptable germination rates.

Description: *Eleocharis palustris* is a perennial, rhizomatous, wetland obligate plant. Culms are scattered or in small clusters on the rhizome. Stems are upright, slender to very stout, and may be from 1 to 3.5 feet tall. Achene lenticular, yellow to dark brown, finely cellular-roughened, mostly 1.5-2.5 mm long including the well differentiated tubercle that is commonly 0.4-0.7 mm long and constricted at the base. Inflorescence is a solitary terminal spikelet.

Anticipated Conservation Use: The potential uses of the Mud Lake selection of *Eleocharis palustris* include erosion control, Constructed Wetland System applications, wildlife food/cover, wetland creations and restorations, and for increasing plant diversity in wetland and riparian communities. Its tendency to spread rhizomatously makes the Mud Lake selection an excellent plant for soil stabilization in sites with saturated soils or up to 3 feet of standing water. The rhizomes also form a matrix for many beneficial bacteria making this plant an excellent choice for wastewater treatment.

Potential Area of Adaptation: *Eleocharis palustris* is an obligate wetland plant and is found throughout the Intermountain West. It commonly inhabits poorly drained soils which are saturated or have up to 3 feet of standing water. It will tolerate long periods of inundation and drought. The Mud Lake selection would be an excellent choice for use throughout the ecoregion defined as LRR B East.

Seed Maintenance: Breeders seed will NOT be maintained by the USDA-NRCS Plant Materials Center. To make collections of the Mud Lake selection of Creeping Spikerush, contact the Mud Lake Wildlife Management Area Manager, Idaho Fish and Game, Upper Snake Region, 1515 Lincoln Road, Idaho Falls, ID 83401-2198, (208) 525-7290. For official Selected tags to verify genetic identity of these plant materials, contact Idaho Crop Improvement Association (208) 377-3420.

Signature sheet for release of a selected class of:

Mud Lake Selection of Creeping Spikerush (*Eleocharis palustris*) for Land Resource Region (LRR) B East from Mud Lake Wildlife Management Area, just north of the town of Terreton, Jefferson County, Idaho.

Luana E. Kiger _____ Date _____
Idaho State Conservationist
USDA, Natural Resources Conservation Service

Dr. Richard C. Heimsch _____ Date _____
Director
ID Agricultural Experiment Station
University of Idaho

Gary R. Nordstrom

Date

Director
Biological Conservation Sciences Division
Natural Resources Conservation Service

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