

Plant Guide

CLAY REED-MUSTARD

Schoenocrambe argillacea (S.L. Welsh & N.D. Atwood) Rollins

Plant Symbol = SCAR5

Contributed by: USDA NRCS Idaho and Utah Plant Materials Program



Clay reed-mustard (Schoenocrambe argillacea). Photo by J.S. Peterson, USDA-PLANTS database

Alternate Names

Clay schoencrambe

Hesperidanthus argillaceus

Thelypodiopsis argillacea

Uinta Basin plainsmustard

Uses

There are no known human or wildlife uses of clay reed-mustard.

Status

Clay reed-mustard was listed as a threatened species in 1992 based on its small population size, restricted distribution and existing threats (USDI-FWS, 1992).

Recently, Al-Shehbaz, and subsequently, the Flora of North America, combined *much of Schoenocrambe* into the larger genus *Hesperidanthus* (Al-Shehbaz, 2005). This change has not yet been adopted by the PLANTS database or USDI Fish and Wildlife Service.

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: Mustard family (Brassicaceae). Clay reedmustard is a perennial forb with 13 to 30 cm (5 to 12 in) tall simple or branched stems, arising from a branching woody caudex and stout taproot. The linear leaves are somewhat thickened and glaucus, 9 to 35 mm (0.35 to 1.4 in) long and 1 to 2 mm (0.04 to 0.08 in) wide. The inflorescence is a 5 to 22 flowered raceme. The flowers sit on 7 to 18 mm (0.3 to 0.7 in) long pedicels; the white or pink petals are 8 to 11 mm (0.3 to 0.4 in) long and are suffused with conspicuous purple veins. The fruit is a silique (a lengthened pod), 18 to 55 mm (0.7 to 2.2 in) long and approximately 1 mm (0.04 in) wide (Welsh et al., 2003).

Distribution:

There are three known populations of clay reedmustard, all located in Uintah County, Utah. The entire species range stretches approximately 21 km (13 mi) from Green River to Willow Creek. There are approximately 6,000 plants total (USDI-FWS, 1994).

For current distribution, consult the Plant Profile page for this species on the PLANTS Web site.

Habitat:

Clay reed-mustard occurs in desert shrub plant communities in association with shadscale (*Atriplex confertifolia*), Indian ricegrass (*Achnatherum hymenoides*), pygmy sagebrush (*Artemisia pygmaea*), western wheatgrass (*Pascopyrum smithii*), Salina wildrye (*Elymus salina*), and jointfir (*Ephedra* spp.) (USDI-FWS, 1994; Welsh et al., 2003).



Clay reed-mustard habitat. Photo by J.S. Peterson, USDA-PLANTS database

Adaptation

Clay reed-mustard grows on gypsiferous clay soils overlain with sandstone talus resulting from a mixture from the zone of contact between the Uinta and Green River formations (USDI-FWS, 1994). This species occurs in a narrow band from 1,465 to 1,720 m (4,800 to 5,640 ft) in a 15 to 23 cm (6 to 9 in) precipitation zone (WRCC, 2011).

Management

Existing threats to clay reed-mustard include oil and gas exploration, oil-shale mining, stone quarrying, and off-road vehicle (ORV) use. All known populations are found on Federal lands leased for oil and gas energy reserves. Additionally, this species' range is underlain by oil shale, which may be mined when economic conditions for oil extraction becomes favorable (USDI-FWS, 1994).

Management goals for clay reed-mustard include inventorying suitable habitat, conducting population studies, and controlling activities affecting the sensitive habitat.

Pests and Potential Problems

Historical sheep and cattle grazing use may have impacted clay reed-mustard on USDI-BLM lands. However current grazing levels are not believed to pose a serious threat (USDI-FWS, 1994).

Environmental Concerns

There are no known environmental concerns associated with clay reed-mustard.

Seed and Plant Production

Flowering occurs from April to May with fruit ripening in May to June (USDI-FWS, 1994). No propagation information is currently available.

References

Al-Shehbaz, I. A. 2005. *Hesperidanthus* (Brassicaceae) revisited. Harvard Pap. Bot. 10: 47-51.

USDI-Fish and Wildlife Service. 1992. Endangered and threatened wildlife and plants; final rule to determine the plant *Schoenocrambe argillacea* (Clay reed-mustard) to be a threatened species, and the plant *Schoenocrambe barnebyi* (Barneby reed-mustard) to be an endangered species. In: Federal Register. 57(9): 1396-1403.

USDI-Fish and Wildlife Service. 1994. Utah reedmustards; clay reed-mustard (*Schoenocrambe argillacea*), Barneby reed-mustard (*Schoenocrambe barnebyi*), shrubby reedmustard (*Schoenocrambe suffrutescens*) recovery plan. Denver, Colorado. 22p.

Welsh, S.L., N.D. Atwood, S. Goodrich, and L.C. Higgins. 2003. A Utah Flora. Third Edition, revised. Brigham Young University, Provo, UT.

Western Regional Climate Center. 2011. Online. http://www.wrcc.dri.edu/index.html. Accessed January 13, 2011.

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