KOCHIA CALIFORNICA S. WATSON

COMMON NAME: RUSTY MOLLY
FAMILY: AMARANTHACEAE (FORMERLY CHENOPODIACEAE)
GROWTH FORM: PERENNIAL OR SUBSHRUB

PLANTING

Seeds of this species were hand-sown onto raised planting beds during several growing seasons. Plants became established during one growing season and currently (2009) persist at the nursery, but for the most part we have not been successful in cultivating *K. californica*.

PHENOLOGY

We have observed *K. californica* germinating from seed during February, and new growth emerging from perennial rootstock during late March and early April. We have observed the species in flower during September and October. Peak time for seed collection is likely from November through mid-December. We have observed that the species has the capacity to flower and produce fruits within its first year of growth.

SEED HARVESTING AND PROCESSING

We have harvested and processed seed of this species on few occasions and have not developed any methods that can be presented here. However, we have realized that during late summer and fall when seeds are maturing and foliage has begun to senesce and turn dark brown in color, *Kochia californica* strongly resembles another native shrub species, *Suaeda nigra* (formerly *S. moquinii*). In areas of native habitat where the two species co-occur, extra care should be taken to properly identify the species before collecting seed. One of the more apparent differences between the species is that *K. californica* foliage is typically hairy, whereas *S. nigra* foliage is typically glabrous (without hair) and glaucous (covered with a waxy or powdery coating). However, the Jepson Manual (Hickman, 1993) states that *S. nigra* foliage is sometimes hairy.

CULTIVATION OVERVIEW

We have had limited success with establishing *K. californica* from seed. Several individuals germinated from seed during 2003 and they have persisted at the nursery. However, when we planted seeds in subsequent years, we were not able to establish any additional individuals. It is possible that the growing conditions at the nursery are unsuitable for the species or that the seed we planted was of low quality. We last collected *K. californica* seed from an area of native habitat in December 2003 and we continued to plant portions of that seed lot through 2007; it is possible that the seeds lost viability over time.

ADDITIONAL INFORMATION ABOUT *KOCHIA CALIFORNICA*:

Literature

Vasek, F.C. and L.J. Lund. 1980. Soil characteristics associated with a primary plant succession on a Mojave Desert dry lake. Ecology 61: 1013-1018.

PREPARED BY

Brianna D. Borders, Restoration Botanist.

Other Contributors: Dr. Nur Ritter, Justine Kokx, Adrian Howard, and Graham Biddy.

PHOTOS

Juvenile *K. californica* at the Alkali Sink Ecological Reserve (managed by the California Department of Fish and Game)

New *K. californica* growth at the native plant nursery during March 2009.

K. californica at the native plant nursery. *Isocoma acradenia, Atriplex polycarpa*, and *Allenrolfea occidentalis* can be seen in the background.