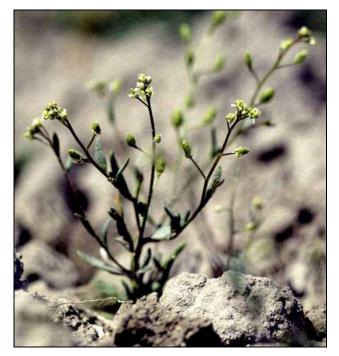
# HUTCHINSIA PROCUMBENS (L.) HAYEK

Common name: prostrate hutchinsia Family: Brassicaceae Growth form: annual herb



### PLANTING

Our seed supply for this species has always been limited so we have only sown seed in flats or planting tubes. For most annual species, we would typically hand-sow seeds onto mounded planting beds at the nursery.

### PHENOLOGY

Since we have only sown seeds of the species in a greenhouse, we are not familiar with the timing of germination under natural conditions. When the species is growing in the San Joaquin Valley, peak seed collection time appears to be between mid-March and mid-April.

# SEED HARVESTING

Fruits mature indeterminately and therefore seed collection on multiple dates is ideal. Fruits are ready for harvesting when they turn light brown in color and the seeds contained inside are an orange-brown color. Once mature, fruits become very fragile and it helps to place a container under the plants to catch any seeds that may fall during collection. Towards the end of the seed collection window, whole plants can be collected. It is ideal to minimize the amount of soil that is collected along with the plants; soil particles that are of a similar size and weight as the seeds can be very difficult to remove during seed processing.

# SEED PROCESSING METHODS

Seeds are very small, approximately 0.5 mm in length. Harvested plant material can be broken up by gently rubbing it over a screen or sieve. Seeds can then be separated from chaff using wire mesh sieves with various screen sizes or an air cleaner such as a Clipper Office Tester (made by the A.T. Ferrell Company).

# **CULTIVATION OVERVIEW**

During two growing seasons, we raised *H. procumbens* seedlings in a greenhouse and then transplanted them into the native plant nursery. In both years, the seedlings were weak and suffered high mortality once they were transplanted into the nursery. During one of the years, we harvested 8.6 grams of seed from 1.4 grams of seed sown. We acknowledge that the weak nature of the seedlings could be attributed to our propagation methods rather than to any inherent characteristics of the species.

We had some difficulty with producing seedlings at the appropriate time of year for transplanting. We have planted seeds in the greenhouse during September, October, and November and we believe that planting the seeds during November or December with the goal of transplanting seedlings during January would be ideal. We have used floating row cover to protect seedlings from frost. However, in the absence of a drip irrigation system, it is labor-intensive to remove the row cover in order to water the transplants<sup>1</sup>.

When seeds were planted on September 19 and kept moist via sprinkler irrigation, the seeds began to germinate within seven days. The seedlings grew their first true leaves within three weeks from the date of planting. However, if *H. procumbens* seeds were sown later in the year, the time to germination and formation of true leaves may be different due to colder temperatures.

We certainly do not recommend greenhouse propagation and transplanting of seedlings over the more straightforward method of hand broadcasting seed at the nursery. The reason that we initiated greenhouse propagation is because our seed supply of *H. procumbens* was limited and we were concerned that if we sowed the seeds directly at the nursery, they could fail to germinate or become lost to predation.

# ADDITIONAL INFORMATION ABOUT HUTCHINSIA PROCUMBENS:

#### Internet Resources

Species photos from Forestry Images: <u>http://www.forestryimages.org/browse/subthumb.cfm?sub=16684&</u> <u>start=1</u>

Species profile from State of Montana Field Guide: <u>http://fieldguide.mt.gov/detail\_PDBRA2Z010.aspx</u>

<sup>&</sup>lt;sup>1</sup> Some types of floating row cover have pores that are large enough to allow water to pass through, but this was not true of the row cover that we used.

### Literature

- Callaway, R. M. and C.S. Sabraw. 1994. Effects of variable precipitation on the structure and diversity of a California salt marsh community. *Journal of Vegetation Science* 5: 433-438.
- Noe, G. B. and J.B. Zedler. 2000. Differential effects of four abiotic factors on the germination of salt marsh annuals. *American Journal of Botany* 87: 1679-1692.
- Noe, G.B. 2002. Temporal variability matters: effects of constant vs. varying moisture and salinity on germination. *Ecological Monographs* 72: 427-443.

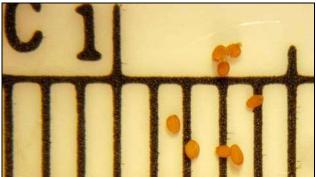
### PREPARED BY

Brianna D. Borders, Restoration Botanist.

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

## Рнотоз





H. procumbens seed. Scale shown is millimeters.

