Dame's rocket

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Dame's rocket Identification and Management

Identification and Impacts

Dame's rocket *(Hesperis matronalis)* is a native Eurasia and is a biennial or short lived perennial forb belonging to the mustard family. The flowers are white to purple with four petals and are clustered in loose terminal stalks. Flowers appear from May to August and the plant can produce seeds and flowers on any flower cluster at the same time. The fruits are long, narrow and cylindrically shaped that contains many seeds. The seeds are small, angular, grooved and dark reddish brown. The seed pods are about 1 ½ inches long and very narrow. Leaves are slightly hairy, alternate, and 2 to 4 inches long. The leaves are lance shaped with toothed margins. A mature plant ranges from 4 inches to 3 feet in height. Dame's rocket has a shallow fibrous root system.

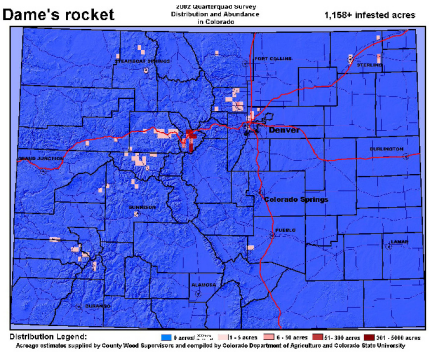
Habitats for Dame's rocket include: gardens, partly shaded woodlands, ditches, roadsides, pastures, rangelands, thickets, open woods, disturbed sites, and other areas that have moist well drained soils and full sun to light shade. Many people think that it is a native wildflower and is planted as a garden ornamental, however; the plant quickly escapes cultivation due to its prolific seed production. It is often sold in "native wildflower" mixes, so please be sure to check the contents of "native wildflower" seed mixes and do not plant those that carry Dame's rocket.

The key to effective control of Dame's rocket is prevention. Locate and remove plants immediately before plants set seed to prevent the spread of Dame's rocket. Since the plant reproduces solely by seed, integrated management efforts must include the elimination of seed production and depletion of seed bank. Combing control methods of herbicide and mechanical can be effective. Mechanical methods include removal of rosettes, and removal of seed heads from any plants that have bolted to prevent seed dispersal. Details on the back of this sheet can help to create a management plan compatible with your site ecology.

Dame's rocket is designated as a "List B" species in the Colorado Noxious Weed Act. It is required to be either eradicated, contained, or suppressed depending on the local infestations. For more information visit www.colorado.gov/ag/csd and click on the Noxious Weed Management Program. Or call the State Weed Coordinator at the Colorado Department of Agriculture, Conservation Services Division, 303-239-4100.

Key ID Points

1. Flowers are white or purple in color with four petals.
2. Leaves are lanced shaped with toothed margins and 2-4" long.



Photos © Clockwise from lower left: Richard Old, XID Services Inc., Bugwood.org; dnr.state.wi.us; Tom Heutte, USDA Forest Service, Bugwood.org; Kelly Uhing, Colorado Department of Agriculture; and map above by Crystal Andrews, Colorado Department of Agriculture.

Hesperis matronalis

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Management Recommendations

Dame's rocket

CULTURAL
Prevent the establishment of new infestations by minimizing disturbance and seed dispersal, eliminating seed production and maintaining healthy native communities. Contact your local Natural Resources Conservation Service for seed mix recommendations.

BIOLOGICAL
There is no biological control available for Dame's rocket. Since biological control agents take years to research, develop and release, no releases are expected in the foreseeable future. For more information, contact the Palisade Insectary of the Colorado Department of Agriculture at 970-464-7916.

MECHANICAL
Hand pull or dig when soil is moist, making sure to get the roots to prevent resprouting. Removing flowers before the plant sets seed will also be effective. Be sure to bag specimens carefully so the spread of seeds does not occur.

Integrated Weed Management:

Locate and remove plants immediately before plants set seed to prevent the spread of Dame's rocket. Since the plant reproduces solely by seed, integrated management efforts must include the elimination of seed production and depletion of seed bank. Combing control methods such as herbicide and mechanical can be effective.

HERBICIDES

NOTE: The following are recommendations for herbicides that can be applied to range and pasturelands. Rates are approximate and based on equipment with an output of 30 gal/acre. Please read label for exact rates. **Always read, understand, and follow the label directions. The herbicide label is the LAW!**

HERBICIDE	RATE	APPLICATION TIMING
NO INFORMATION AVAILABLE: Colorado State University is conducting experiments to provide data and recommendations. Recommedations should control, but waiting official data.		
Metsulfuron (Escort XP)	1 oz product/ac. + 0.25% non-ionic surfactant	Apply when plant is in rosette or bolting growth stage. (Early Spring)
Chlorsulfuron (Telar)	1 oz product/ac. + 0.25% non-ionic surfactant	Apply when plant is in rosette or bolting growth stage. (Early Spring)
Imazypic (Plateau)	9 to 10 fl oz/ac. + 2 pt/ac. methylated seed oil	Apply when plant is in late flower growth stages. (Late Spring to Fall)