Dame's Rocket

Hesperis matronalis

Dame's rocket flower and leaves.

Ecological Impact

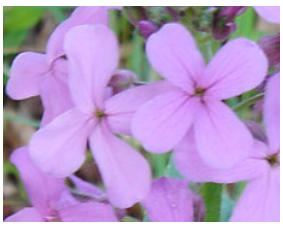
- Dame's rocket quickly escapes cultivation because of its prolific seed set.
- Many people think that it is a native wildflower because dame's rocket is often sold in wildflower mixes. Dame's rocket eliminates native vegetation with its profuse plant density.

Characteristics

Dame's rocket is an erect, herbaceous biennial or perennial in the mustard family (*Brassocaceae*) growing 1.5 to 3 feet in height. The leaves are oblong, sharply toothed, and alternate. Leaves decrease in size as they ascend the stem. The pink, purple, or white four-petaled flowers form large loose, fragrant clusters that bloom from May to June. Long, narrow fruits produce many seeds which spread mechanically when the seed pods open. Ground-foraging birds eat and disperse the seeds as well.

Dame's rocket generally produces a basal rosette during the first year and flowers the following year. The plant blooms prolifically and produces large quantities of seed from May into July. Each plant may have several clusters of flowers at various stages of development, enabling the plant to produce both flowers and seeds at the same time.

The seed pods of dame's rocket strongly resemble the seed pods of Garlic Mustard—another plant in the mustard family that is invasive in the Barrington area.



Four petals on dame's rocket.

Five petals on Phlox divaricata.

Habitat

Dame's rocket grows in moist woodlands, woodland edges, roadsides, railroad rights-of-way, disturbed sites, waste ground, thickets, and open areas.

Five petals on marsh phlox. Phlox glaberrima.

Wild sweet William. Phlox maculata.

Dame's rocket flowers in their multiple colors.

Similar Species

Non-native

- Garden phlox (*Phlox paniculata*) has opposite leaves that are not toothed and flowers with five petals not four.

Native

- Woodland phlox (*Phlox divaricata*) blooms April-June. Flowers have five petals. Height is 12-20". Leaves are mostly opposite and oblong with a blunt end, 1-2" long. Thrives in woods and forests.
- Marsh phlox (*Phlox glaberrima*) is 1½–2½' tall with opposite leaves. Flowers are about ¾" across with 5 rounded petals. Prefers moist soil in light shade to full sun.
- Wild sweet William (*Phlox maculata*) is 1-3' tall with opposite leaves. Fragrant mostly lavender flowers are about ¾-1" across with 5 rounded overlapping petals.

Control Methods
for Dame's rocket

Locating and removing plants immediately before seed sets is the best way to prevent the spread of dame's rocket. Be sure to check the contents of wildflower seed mixes for this species, and do not purchase or plant mixes that carry it. As a general practice, avoid all "meadows-in-a-can."

Manual

Pulling or using a dandelion digger is most effective when the soil is moist. If you pull blooming plants, do not compost them as the seeds can still ripen and spread.

It is important to remove the whole root and not just to break off stalks at ground level. Roots left in the ground can sprout new plants the following year that may be even larger or more robust.

You can cut the flower heads off established plants after bloom so the plants do not set seed. Flower heads should be bagged for the landfill or burned where permissible. Do not allow the plants to dry before burning as seedpods may burst open and spread seeds when dry. Where there is sufficient leaf litter or other fuel, burning has been found to be an effective control method.

Chemical

Dame's rocket can be effectively controlled using any of several readily available general use herbicides such as glyphosate. Follow label and state requirements. To avoid damaging adjacent native vegetation, apply herbicide in late fall when native plants are dormant but the dame's rocket basal leaf rosettes are still green and vulnerable to sprays. Avoid getting the herbicide on other plants. Repeat control measures for a few years until seeds in the soil are depleted.

Education

Tell your family, friends and neighbors about dame's rocket. Many people mistakenly think of this plant as "wild phlox" and are unaware of its invasive potential. Leaving the plant to grow and disperse seed will create a bigger invasive problem in the years to come.

Suggested Replacements

Immediately upon removing a patch of dame's rocket, install replacement plants or cover the bare soil with several sheets of newspaper and wood chips. Leaving bare soil encourages garlic mustard and other weeds to invade.

Most native grasses and forbs that grow happily in the habitat from which you are removing dame's rocket will thrive in its place.

USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. An illustrated flora of the northern United States, Canada and the British Possessions. 3 vols. Charles Scribner's Sons, New York. Vol. 2: 175.

Sources

http://www.na.fs.fed.us/fhp/invasive_plants/weeds/dames-rocket.pdf

http://pddc.wisc.edu/factsheets/Low%20Color%20PDF%20Format/Dames%20Rocket.pdf

http://dnr.wi.gov/invasives/fact/dames_rocket.htm

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