

## Dame's Rocket (*Hesperis matronalis*)

(By Uriel Menalled, Undergraduate Student, Land Resources and Environmental Sciences Dept.)

**History:** Dame's rocket, also known as sweet rocket, mother-of-the-evening, or dame's violet, is a showy, short-lived perennial forb native to Eurasia. It was introduced to North America in 1600 as an ornamental and continues to be mistaken as a wildflower. Since its introduction, dame's rocket has been reported in all but eight states and Hawaii. Dame's rocket is NOT a noxious weed in Montana. However, it is a noxious weed in CO, WI, IL, TN, NH, CT, and MA.

**Identification:** Dame's rocket forms rosettes during its first year of growth. The rosette stays green throughout winter with leaves up to 6 inches long. During the following spring, a 2-4' tall erect flower stem emerges from the rosette. Stem leaves are 2-6" long, alternate, lance-shaped, and have serrated edges and pointed ends (top photo). The length and width of leaves decrease as one moves up the stem. Dame's rocket flowers from mid-May through June. As a member of the Brassicaceae family, flowers have 4-petals arranged in a cross pattern (middle photo). Flowers are  $\frac{3}{4}$  to 1" in diameter, range in color from purple to pink to white, and are very aromatic. As summer progresses, seedpods (siliques) develop that are 2-5" long and have faint hairs (bottom photo). Seedpods contain many dark brown seeds, and pods open in late summer to early fall.

Dame's rocket is often mistaken for phlox, however phlox species have 5 petals and opposite leaves.

**Habitat:** Dame's rocket thrives in habitats that are moderately sunny, slightly wet to slightly dry, and have loamy soils. However, it will grow in full sun given adequate water. Preferred conditions are often present in lowland forests, damp meadows, open woods, forest edges, thickets, shaded areas under fence rows, and ditches.

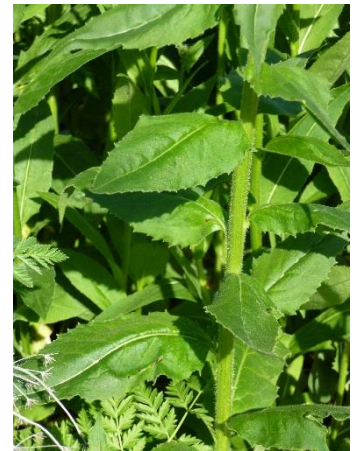
**Spread:** Dame's rocket reproduces by seed. Each plant can produce hundreds of seedpods and each seedpod contains hundreds of seeds. Seeds remain viable for many years, increasing the probability that they will germinate during preferred conditions. Inclusion of this plant in "wildflower" seed mixes is thought to have contributed to its proliferation across North America.

**Impacts:** Dame's rocket does not have any natural predators or diseases in North America. Consequently, given its preferred conditions, it can out-compete native species, form dense monocultures, and decrease diversity. Furthermore, dame's rocket is an alternative host to multiple viruses that are harmful to cruciferous plants such as cauliflower, cabbage, and broccoli. On a positive note, leaves and seeds of this plant are edible. In particular, young leaves are rich in vitamin C and can be eaten raw in salads. Its seed oil is used in perfumes.

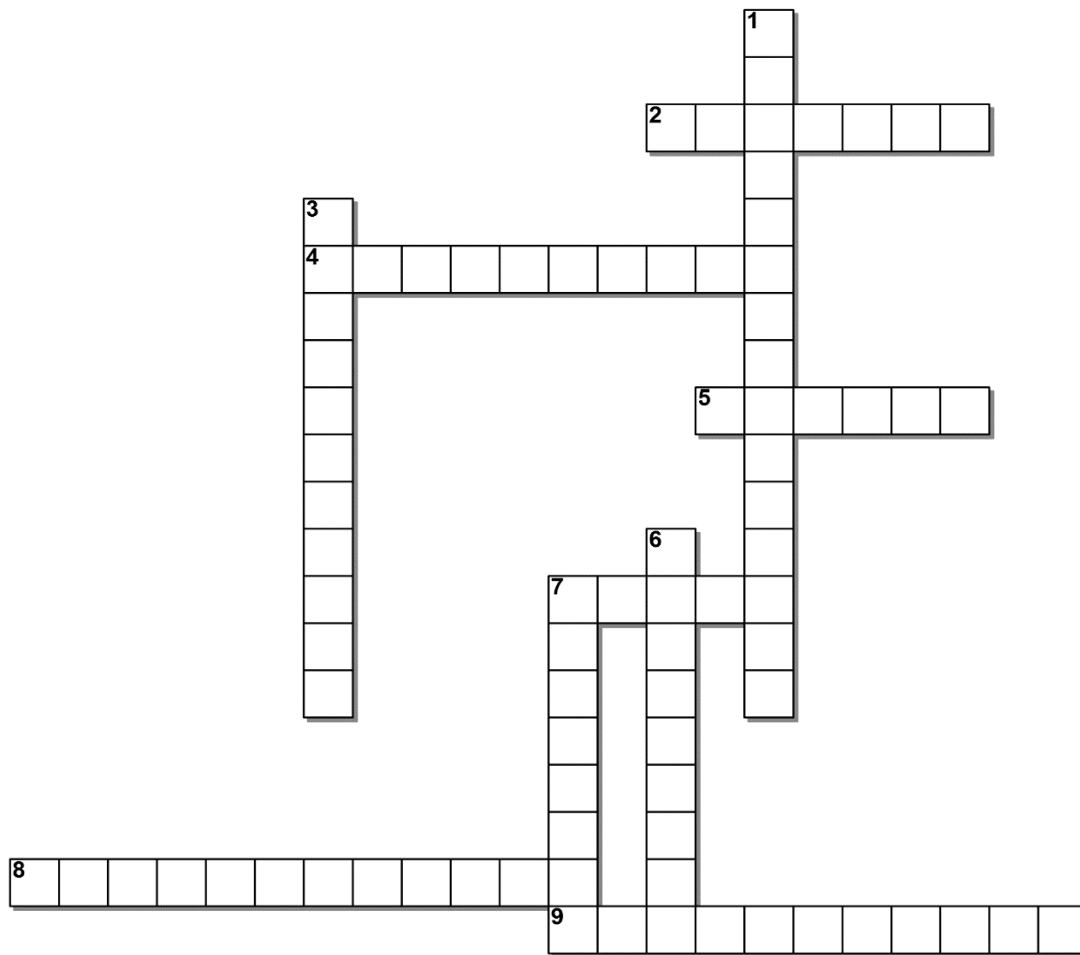
**Management:** From a prevention standpoint, do not use "wildflower" seed mixes that contain this plant and avoid intentionally spreading seeds from existing infestations. Hand-pulling, burning, or spraying with herbicides are all viable management strategies for dame's rocket. Hand-pulling is most effective on small patches during spring or early summer. After hand-pulling, dispose of or burn the flowers/seedpods to prevent seed dispersal. A foliar application of glyphosate or triclopyr can be used to treat large patches of dame's rocket. Herbicide application should be done during early spring or late fall to minimize harm to other vegetation.

To read and see more photos about dame's rocket, check out the following fact sheet from the Forest Invasive Plants Resource Center

<http://na.fs.fed.us/spfo/invasiveplants/factsheets/pdf/dames-rocket.pdf>



## Test your knowledge of dame's rocket



**Across:**

- 2 Long, slender Brassicaceae seed pod
- 4 Reason why dame's rocket was introduced to North America
- 5 Greek word for evening, from which the scientific name of dame's rocket is derived\*
- 7 This genus of plants is easily mistaken for dame's rocket
- 8 Plant family with 4-petaled flowers that dame's rocket belongs to
- 9 One of dame's rocket's aliases (2 words)

**Down:**

- 1 Beward of dame's rocket in packets of these (2 words)
- 3 You may find dame's rocket growing here, one of its preferred habitats (2 words)
- 6 Leaf arrangement of dame's rocket
- 7 Oil from the seeds of dame's rocket is used in these smelly products

\*See fact sheet for answer to this question

Solutions are posted to the MSU Extension Invasive Rangeland Weed website:

[http://www.msuextension.org/invasiveplants/monthly\\_weed\\_post.html](http://www.msuextension.org/invasiveplants/monthly_weed_post.html)