

Erythranthe lewisii

Erythranthe lewisii (Lewis' monkeyflower, great purple monkeyflower) is a perennial plant in the family Phrymaceae. It is named in honor of explorer Meriwether Lewis. Together with other species in *Erythranthe*, it serves as a model system for studying pollinator-based reproductive isolation. It was formerly known as *Mimulus lewisii*. [1][2][3][4]

Erythranthe lewisii is a perennial herb, with stem length ranging from 25 to 80 cm and individual leaves ranging from 20 to 70 mm. The vegetative tissue is covered with fine hairs. The flowers are medium in size, set on fairly long (30–70 mm) pedicels, and range in color from pale pink (generally found in the Sierra Nevada populations, sometimes separated as *Erythranthe erubescens* G.L.Nesom) to dark magenta (more common in the Cascade Range and Rocky Mountains populations), with a central pair of carotenoid-rich yellow nectar guides covered in trichomes on the lower lobe of the corolla. [citation needed] Occasional populations of white-flowered individuals (which do not express anthocyanin pigments in the corolla) are known. [5][6][7]

Erythranthe lewisii is native to western North America from Alaska to California to Colorado, where it grows in moist habitat such as stream banks, [8] and is generally found at higher elevations in montane areas. [9]

Erythranthe lewisii is pollinated by bees (primarily *Bombus* and *Osmia*), which feed off of its nectar and transfer its pollen. Although it is fully interfertile with its sister species, *E. cardinalis*, the two do not interbreed in the wild, a difference ascribed primarily to pollinator differences (*E. cardinalis* is pollinated by hummingbirds) in areas of overlap. [10][11][12]

This plant is cultivated as an ornamental in mild or coastal areas, as it does not tolerate prolonged freezing. In the UK it has gained the Royal Horticultural Society's Award of Garden Merit. [13] It prefers a very damp soil in full sunlight.

Native Americans ate the leaves of the plant. [14]

