

## Wayside aster (*Eucephalus vialis*)



### THREATENED



Flowers (left), habit (center), and habitat (right) of wayside aster. Photos by ODA staff. If downloading images from this website, please credit the photographer.

### Family

Asteraceae

### Taxonomic notes

Synonym: *Aster vialis*

Putative hybrids between wayside aster and *Eucephalus tomentellus* have been collected within the southern portion of the threatened taxon's range, and hybridization may also occur between these species and *E. glabratus* and *E. breweri*. Species boundaries in the *Eucephalus* group tend to be weak, and further work is needed to elucidate taxonomic boundaries.

### Plant description

Wayside aster is an erect perennial mostly 60-120 cm tall, growing from a stout caudex. The lowermost leaves are reduced and scale-like; those above are elliptic or broadly lanceolate, sessile, entire or with a few irregular teeth, 5-9 cm long by 1.5-3 cm wide and gradually reduced toward the inflorescence. Leaves are glabrous to glandular above and glandular-pubescent beneath. Several to many turbinate flowering heads are arranged in a leafy bracteate inflorescence. Disks are 1-1.5 cm wide, disk flowers yellow; ray flowers are typically lacking. Involucres are 0.8-1 cm high, the bracts imbricate, sharp-pointed with a strong midvein, somewhat keeled, and greenish above.

### Distinguishing characteristics

Wayside aster is similar in appearance to a few other species that occur within its range: *Eucephalus tomentellus*, *E. glabratus*, *E. breweri*, and *Sericocarpus oregonensis*. *Eucephalus tomentellus* is distinguished from wayside aster by its flowering heads, which bear (0-) 1-3 (-6) violet-purple rays (versus usually rayless heads), and typically smaller mid leaves, 2.5-6 cm long and densely woolly to cottony beneath (versus 5-9 cm long and glandular-pubescent beneath); *E. glabratus* is shorter (30-60 cm tall versus 60-120 cm tall), with smaller mid leaves that are 3-6 cm long by 0.5-1.5 cm wide and more or less glabrous throughout (versus 5-9 cm long by 1.5-3 cm wide and

glandular pubescent beneath); *E. breweri* has smaller mid leaves, 2-5 cm long by 0.6-1.5 cm wide with glabrate and eglandular to moderately glandular and/or woolly surfaces (versus 5-9 cm long by 1.5-3 cm wide and glabrous to glandular above and glandular-pubescent below); *Sericocarpus oregonensis* has white to cream disk flowers and 2-6 ray flowers (versus typically rayless heads with yellow disk flowers). Wayside aster likely hybridizes with the other *Eucephalus* species with which it occurs, complicating identification within the genus.

### **When to survey**

Surveys for wayside aster should be completed when the species is in flower or fruit, typically from July through September.

### **Habitat**

This species occupies a range of habitat types, including dense coniferous forests, open deciduous woodlands, grassy balds, and exposed serpentine slopes. It is often found in relatively open areas in the understory of mixed coniferous/hardwood forests, along roadsides, and on open slopes and prairie balds. Most populations occur at elevations ranging from 150-450 m (490-1480 ft), although the species is found at a few high elevation sites at up to 2040 m (6680 ft). The open habitat preferred by wayside aster is thought to have been historically maintained by frequent fires. In areas where reduced canopy cover allows high levels of light to reach the ground, higher levels of reproduction and vigor have been observed among wayside aster plants compared to those growing in closed canopy conditions.

Due to the variety of habitats in which wayside aster occurs, it is associated with a broad range of species. Associated overstory tree species include *Abies grandis*, *Acer macrophyllum*, *Alnus rubra*, *Arbutus menziesii*, *Chrysolepis chrysophylla*, *Cornus nuttallii*, *Corylus cornuta*, *Prunus virginiana*, *Pseudotsuga menziesii*, *Quercus garryana*, *Rhamnus purshiana*, *Thuja plicata*, *Tsuga heterophylla*, and (in the southern portion of its range) *Quercus kelloggii*. Common understory associates include *Acer circinatum*, *Achlys triphylla*, *Amelanchier alnifolia*, *Berberis nervosa*, *Ceanothus velutinus*, *Cytisus scoparius*, *Gaultheria shallon*, *Holodiscus discolor*, *Lathyrus nevadensis*, *Linnaea borealis*, *Lonicera hispidula*, *Oxalis suksdorfii*, *Polystichum munitum*, *Pteridium aquilinum*, *Rubus laciniatus*, *R. parviflorus*, *R. ursinus*, *Symphoricarpos albus*, *Thermopsis* sp., *Toxicodendron diversilobum*, and *Vancouveria hexandra*.

### **Range**

Wayside aster ranges from Linn County in western Oregon south to northern California. Most occurrences of the species are found in Oregon, although a few are reported from Del Norte and Humboldt counties in California. Wayside aster occurs within three different ecoregions: Klamath Mountains, West Cascade Range and Crest, and Willamette Valley.

### **Oregon counties**

Douglas, Jackson, Josephine, Lane, Linn

### **Federal status**

Species of Concern

### **Threats**

Fire suppression results in successional encroachment of understory brush and canopy closure that reduces suitable light levels in wayside aster habitat and poses a major threat to the species. Intensive logging activities may result in direct negative impacts

to wayside aster plants and habitat, and development of dense tree plantations into closed canopy forest following timber harvest may result in the competitive exclusion of wayside aster. However, logging in the form of selective thinning may be a beneficial management tool. Exotic weed invasions, habitat fragmentation and inbreeding depression, herbivory by deer and livestock, seed predation, and roadside maintenance pose additional threats to the species. Wayside aster likely hybridizes with *Eucephalus tomentellus* and other closely related *Eucephalus* species within the southern portion of its range, which jeopardizes the genetic integrity of the rare taxon.

### **Conservation planning**

An interagency [Conservation Assessment](#) (MS Word document, 255 kB) with management recommendations for wayside aster was updated by the U.S. Forest Service and Bureau of Land Management in 2005.

An interagency [Conservation Agreement](#) (pdf document, 677 kB) for wayside aster was developed by the U.S. Bureau of Land Management, U.S. Forest Service, and U.S. Fish and Wildlife Service in 2006.

### **Did you know?**

Wayside aster was first collected in 1918 near Eugene, Oregon. Attempts to relocate the species after the late 1930s were unsuccessful, and many believed the species was extinct. Then, in 1980, Georgia Mason, former curator of the University of Oregon herbarium, discovered the species on Mt. Pisgah near Eugene. Subsequent surveys have resulted in the location of numerous additional occurrences of wayside aster.

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