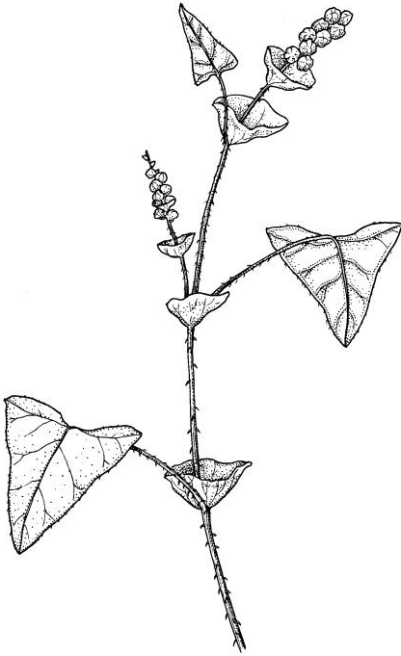


**Mile-a-minute weed**  
*Polygonum perfoliatum* L.  
Smartweed family (Polygonaceae)

**DESCRIPTION**

Mile-a-minute weed, also known as Devil's-tail tearthumb, is a trailing herbaceous, annual vine with a shallow root system. It sprawls over other vegetation, sometimes covering it completely. Mile-a-minute is a tender annual, withering with the slightest frost.



*mile-a-minute weed*

**Stem** - It has a reddish stem that is armed with downward pointing hooks or barbs that are also present on the underside of the leaf blades. The stems may grow to a length of 10–12 feet.

**Leaves** - The pale green leaves are triangular in shape and alternate along the narrow, delicate stems. Distinctive, funnel-shaped leafy structures, called ocreae, surround the stem at the nodes.

**Flowers** - Flower buds, and later flowers and fruits, emerge from within the ocreae. Flowers are small, white and generally inconspicuous.

**Fruits** - The fruits are attractive, metallic blue and contain a single glossy, black or reddish-black seed.

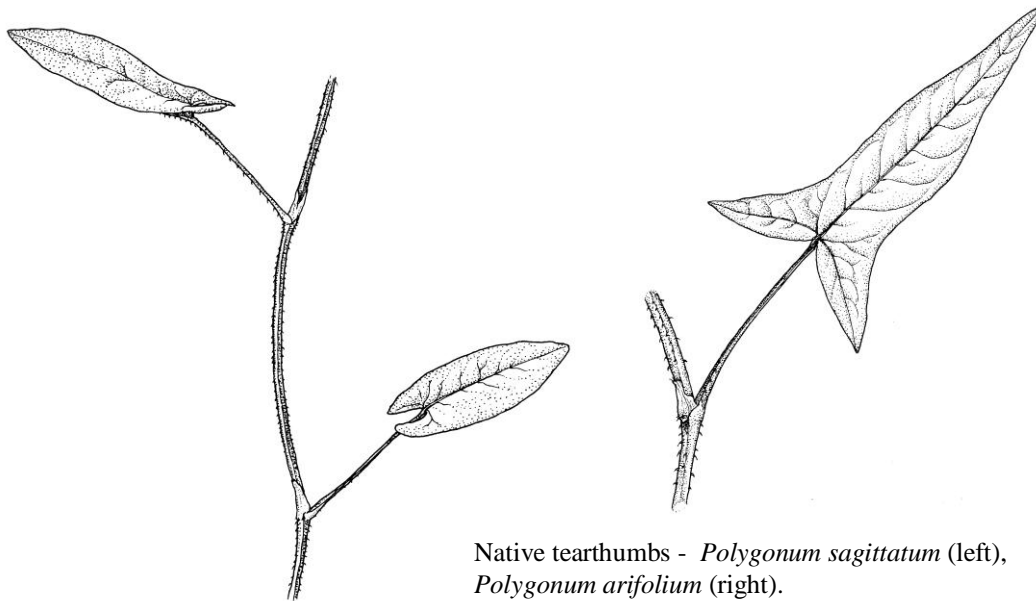
**DISTRIBUTION AND HABITAT**

A native of Asia, mile-a-minute was first reported in the United States on ships' ballast in Portland, Oregon in 1890. It appeared in Pennsylvania in the 1930s, apparently having arrived as a contaminant in a shipment of rhododendrons sent to a nursery in York County. By 1995, mile-a-minute weed had spread to 22 counties in Pennsylvania and Delaware, Maryland, New Jersey, New York, Ohio, Virginia, Washington DC, and West Virginia. These states represent a small percentage of the estimated potential range for this species, which could include many parts of the United States. It needs winter temperatures of 50 degrees F or below for at least an eight-week period to stimulate germination.

Mile-a-minute weed colonizes open and disturbed areas along the edges of woods, wetlands, stream banks, roadsides, and uncultivated open fields. It generally grows in areas with an abundance of leaf litter on the soil surface. Available light and soil moisture are both integral to the successful colonization of this species. It will tolerate shade for only part of the day. The ability of mile-a-minute to attach to other plants with its recurved barbs and climb over the plants

to reach an area of high light intensity is a key to its survival. It can survive in areas with relatively low soil moisture, but demonstrates a preference for more moist conditions.

Two native species of tearthumbs (*Polygonum arifolium* and *P. sagittatum*) are similar to mile-a-minute; but, although all 3 share the weak, prickly stem, neither of the native species has the funnel-shaped ocreae or strongly triangular leaves.



Native tearthumbs - *Polygonum sagittatum* (left),  
*Polygonum arifolium* (right).

### **EFFECTS OF INVASION**

Its rapid growth and viney nature allow mile-a-minute to overtake native vegetation, smothering seedlings and out competing mature plants for space, nutrients, and sunlight. This competition is a particular concern in wet meadows, which may support rare wetland species. Although it does not appear to be a threat to farmers, it can easily become a pest to gardeners and landscapers, destroying ornamental plants and landscaped yards.

### **REPRODUCTION AND DISPERSAL**

Mile-a-minute is an annual vine that grows extremely rapidly from seed. Fruits and viable seeds are produced without assistance from pollinators. Mile-a-minute is a prolific seeder, producing many seeds on a single plant over a long season, from June until frost. Birds are probably the primary long-distance dispersal agents; other animals that eat mile-a-minute fruits include chipmunks, squirrels, and deer. Transport of seeds short distances by native ant species has also been observed.

The plant's preference for areas with dense leaf litter is thought to reflect the improved conditions for seed germination that result from the elevated moisture levels maintained by the mulch of leaf litter over the soil. Vegetative propagation from roots has not been successful for this plant

## **CONTROL**

**Mechanical** - Because mile-a-minute is an annual with a shallow root system, this invasive plant is best removed from lightly infested areas by hand pulling (with strong gloves to protect hands) and disposing of the plants before they go to seed. Removal of the plants is also best accomplished before the plant becomes excessively viney. Removal of brush, leaves and woodpiles that may create thick litter is also effective in controlling the spread of the plant.

**Chemical** - Herbicides may be used as an alternative in heavily infested areas. Spot applications of biodegradable glyphosate herbicides are recommended before mile-a-minute goes to seed. As glyphosate is a nonselective herbicide, which affects all green vegetation, it should be used sparingly to avoid contact with desirable vegetation, which may be growing near the mile-a-minute. To be safe and effective, herbicide use requires knowledge of the chemicals and their appropriate concentrations as well as understanding of the method and timing of their application.

**Biological** – A weevil, *Rhinoncomimus latipes*, promises to be an effective control agent for mile-a-minute. The adults eat the leaves and lay their eggs on the plant; larvae tunnel into the stems to feed. All stages of the weevil are highly host specific, only mile-a-minute will support them. Releases began after USDA approval in 2004, and the weevil has spread from sites of introduction.



*Rhinoncomimus latipes* on a mile-a-minute leaf, note holes from insect feeding.

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Internet resources - <http://www.upenn.edu/paflora>, <http://www.invasivespecies.gov>



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