

Invasive Plants in Pennsylvania

Star-of-Bethlehem

Ornithogalum nutans & *O. umbellatum*

O. umbellatum



Leslie J. Mehrhoff, U. of Connecticut
www.forestryimages.org

Background:

Star-of-Bethlehem, a name that refers to two commonly cultivated and similar species, was likely introduced into New England as a horticultural plant. The exact date of introduction is unknown.

Range:

O. nutans is native to Asia, while *O. umbellatum* ranges across Europe and North Africa. Both species can be found across much of the United States, with *O. umbellatum* being more common and wide-ranging.

Description:

Both species are herbaceous plants that grow from bulbs and have narrow, linear, grass-like leaves formed into dense tufts. The leaves have a distinct white midrib and are often folded in *O. nutans*. The showy, white flowers exist in a spike-like raceme in *O. nutans*, and appear more umbel-like in *O. umbellatum*.

O. nutans



Dan Tenaglia

www.missouriplants.com

Habitat:

Star-of-Bethlehem prefers moist to wet habitats along the banks of rivers and streams, and in disturbed situations in early successional forests, forest edges, floodplain forests, wet meadows, yards and gardens.

Biology and Spread:

Star-of-Bethlehem spreads mainly through the dispersal of its bulbs, which can travel by water or careless gardener. Its ability to disperse by seed is currently unclear.

Ecological Threat:

This plant is a potential threat to native vegetation. It can form dense stands along the edges of rivers and streams, traveling rapidly downstream to new locations. Since it is still being used in horticulture, it will likely continue to spread beyond its current range. Star-of-Bethlehem is poisonous to livestock, as well as to curious children.



Mike Frey, The Presidio Trust

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How to Control this Species:

Physical

Small infestations may be eliminated by digging up entire plants, being sure to remove and dispose of all bulb material. The bulbs may be extremely deep.



Mike Frey, The Presidio Trust
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Chemical

Chemical control of star-of-Bethlehem is difficult since the plant is non-responsive to several herbicides and often regenerates following herbicide injury.

Native Alternatives:

Many delicate native wildflower alternatives to star-of-Bethlehem exist, such as rue anemone (*Thalictrum thalictroides*), bloodroot (*Sanguinaria canadensis*) and liverleaf (*Hepatica nobilis*).



Wendy VanDyk Evans
www.forestryimages.org

Look-A-Likes:

The flowers and leaves of star-of-Bethlehem look similar to some other spring-flowering herbaceous bulbous plants, such as our native spring beauty (*Claytonia virginica*).



Joseph O'Brien, USDA Forest Service
www.forestryimages.org

References:

University of Delaware Cooperative Extension:
<http://kentcoopextension.blogspot.com/2008/02/turf-and-landscape-star-of-bethlehem.html>

USDA Forest Service: http://na.fs.fed.us/fhp/invasive_plants/weeds/star-of-bethlehem.pdf

For More Information:

DCNR Invasive Species Site: <http://www.dcnr.state.pa.us/conservationscience/invasivespecies/index.htm>

DCNR Invasive Exotic Plant Tutorial for Natural Lands Managers:
http://www.dcnr.state.pa.us/forestry/invasivetutorial/star_of_bethlehem.htm