



Invasive Plant Atlas of New England

Catalog of Species Search Results



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Euphorbia esula

(Leafy spurge)

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COMMON NAME

Leafy spurge

FULL SCIENTIFIC NAME

Euphorbia esula L.

FAMILY NAME COMMON

Spurge family

FAMILY SCIENTIFIC NAME

Euphorbiaceae

IMAGES



Incursion



Inflorescence close-up



Habit



E. esula on right and *E.*



E. esula taller plants and *E.*

cyparissias on left
cyparissias
shorter plants in back

NOMENCLATURE/SYNONYMS

Synonyms: None

DESCRIPTION

Botanical Glossary

Euphorbia esula is an herbaceous perennial that can reach a height of 30-70 cm (1-2.25 ft.). It is a colonial plant that has strong roots. The leaves and stems of the plant are bluish-green in color. The leaves are linear to lance-linear in shape and measure 3-8 cm (1.25-3 in.) long and 3-8 mm (0.1-0.3 in.) wide; they are alternate in their arrangement. The leaves that are just below the umbel are shorter and broader and are lanceolate to ovate in shape. The bracts of the umbel are opposite in arrangement and are broadly cordate to reniform in shape. When this plant is damaged, it exudes white latex.

The flowers are borne in umbels. The flowers themselves are inconspicuous and contained within the larger yellow-green bracts, which form a cup-like structure called a cyathium. The bracts are rounded with pointed tips. The small flowers are arranged in the bract with four reduced staminate flowers on the outside and one pistillate (female) flower in the center. The bracts open in late May to early June, while the flowers themselves do not open until late June. Often below the main umbel of the plant there are smaller umbels that are borne from the upper leaf axils. The plants produce capsules that contain 1 seed in each chamber. The mottled brown seeds are ovoid in shape and 2 mm (0.07 in.) long.

Page References Fernald 968, Gleason & Cronquist 338, Holmgren 317, Magee & Ahles 703, Newcomb 408, Peterson & McKenny 162,374. See reference section below for full citations.

SIMILAR SPECIES

Euphorbia cyparissias L. (cypress spurge)

Euphorbia cyparissias is similar non-native invasive species. The most obvious difference between these two plants is that *E. esula* is much taller and more robust than *E. cyparissias*; it also has fewer, wider leaves and larger bracts.

REPRODUCTIVE/DISPERSAL MECHANISMS

Euphorbia esula reproduces readily both by seed and vegetative means. It forms a deep and complex root system with multiple buds. It can easily re-sprout from small root fragments. Its seeds are dispersed ballistically, have a high germination rate, and can

remain viable in the soil for a number of years. The seeds may also be dispersed by water or by "hitching a ride" on animals.

DISTRIBUTION

Euphorbia esula is distributed across southern Canada and all of the northern U.S., including all of New England. It is most problematic in the northern plain states.

HISTORY OF INTRODUCTION IN NEW ENGLAND

It is likely that *Euphorbia esula* was transported to the United States as a seed lot impurity or in ship ballast water in the early 1800's. Its presence was first reported in Newbury, Massachusetts in 1827.

HABITATS IN NEW ENGLAND

In New England *Euphorbia esula* is most commonly found in disturbed sites, old fields, pastures and along roadsides.

THREATS

Euphorbia esula threatens native plant species by displacement, outcompeting for light and water, and through the effects of allelopathic compounds. It is especially problematic on the rangelands of the plain states.

MANAGEMENT LINKS

[Illinois Natural History Survey](#)

General description and management guidelines

[The Nature Conservancy](#)

[Missouri Department of Conservation](#)

[Wisconsin Department of Natural Resources](#)

[Plant Conservation Alliance](#)

Fact sheet including management information

DOCUMENTATION NEEDS

Documentation required: A specific photograph or mounted snippet of the flowers.

Best time for documentation: Summer.

ADDITIONAL INFORMATION

[Integrated Taxonomic Information System](#)

Taxonomic information about the species

[The PLANTS database](#)

General information and map

[The Nature Conservancy](#)

Extensive descriptive and control information

[USDA Fire Effects Information System](#)

A wide variety of information including a description and ecology of the species

[USDA TEAM Leafy Spurge](#)

An extensive site devoted to this species

[Plant Conservation Alliance](#)

A fact sheet with description and control information

[Missouri Department of Conservation](#)

General information and control

[Illinois Nature Preserves Commission](#)

General information and control

[Wisconsin Department of Natural Resources](#)

Description, biology and control information

[Invasivespecies.gov](#)

Additional links

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DATA RETRIEVAL

Select a task by clicking the radio button and then click "Submit Selection."

- Formatted display as table
- Export as comma-delimited text file

MAPS OF PLANT DISTRIBUTION IN NEW ENGLAND

Select a study area by clicking the radio button and then click 'Selection.'

- The whole New England area
- One or more states
- One or more counties

One or more towns (county sub-divisions)

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