



[Home](#) | [Early Detection](#) | [IPANE Species](#) | [Data & Maps](#) | [Volunteers](#) | [About the Project](#) | [Related Information](#)

Invasive Plant Atlas of New England

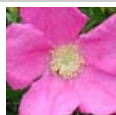
Catalog of Species Search Results

Elaeagnus angustifolia

(Russian olive
Oleaster)



[:: Catalog of Species Search](#)



[Common Name\(s\)](#) | [Full Scientific Name](#) | [Family Name Common](#) | [Family Scientific Name](#) | [Images](#) | [Synonyms](#) | [Description](#) | [Similar Species](#) | [Reproductive/Dispersal Mechanisms](#) | [Distribution](#) | [History of Introduction in New England](#) | [Habitats in New England](#) | [Threats](#) | [Early Warning Notes](#) | [Management Links](#) | [Documentation Needs](#) | [Additional Information](#) | [References](#) | [Data Retrieval](#) | [Maps of New England Plant Distribution](#)

COMMON NAME

Russian olive
Oleaster

FULL SCIENTIFIC NAME

Elaeagnus angustifolia L.

FAMILY NAME COMMON

Oleaster family

FAMILY SCIENTIFIC NAME

Elaeagnaceae

IMAGES



Leaves and flowers



Close-up of flowers

NOMENCLATURE/SYNONYMS

Synonyms: None

DESCRIPTION

Botanical Glossary

Elaeagnus angustifolia is a shrub or small tree that can grow to 10 m (35 ft.) tall. The young branches are silvery while the older branches are brown. They are occasionally thorny and covered with scales. The leaves are simple, alternate and lanceolate to oblong-lanceolate. They are 3-10 cm (1-4 in.) long and have silver scales on both sides.

The fragrant flowers are 1.2-1.5 cm (0.5 in.) wide, silvery outside and yellow within. There are 1-3 flowers within the leaf axils. They appear in May to June. The fruit are 1 cm (0.4 in.) long, are yellow and almost completely covered by densely silver scales. The fruit contain one large seed that can be up to 1 cm (0.4 in.) long within.

Page References Bailey 717, Fernald 1045, Gleason & Cronquist 307, Holmgren 288, Magee & Ahles 757. See reference section below for full citations.

SIMILAR SPECIES

Elaeagnus umbellata Thunb. (Autumn olive)

Character	<i>Elaeagnus angustifolia</i>	<i>Elaeagnus umbellata</i>
Leaf shape	Linear, narrow	Elliptical
Leaf "color"	Upper surface: sparsely silver Lower surface: densely silver	Upper surface: rarely silver Lower surface: sparsely silver and brown scales
Flower corolla lobe color	Yellow	Cream to pale yellow
Berry shape	Elliptic	Round
Berry size	1 cm (0.4 in.) or more	Smaller than 1 cm (0.4 in.)
Berry color	Silver scales covering yellowish fruits	Red or occasionally orange with scattered, peltate scales
Berry consistency	Dry	Juicy
Seed Size	Large, 1 cm (0.4 in.)	Small, 0.5 cm (0.2 in.)

REPRODUCTIVE/DISPERSAL MECHANISMS

The fruit of *Elaeagnus angustifolia* is dispersed mostly by birds as well as small mammals.

DISTRIBUTION

Elaeagnus angustifolia has a wide native range in Asia. It has been reported in most states because of its widespread planting. However, in the western part of the United States it is considered a major pest species, having escaped cultivation in 17 states. This plant has been reported from all the states of New England.

HISTORY OF INTRODUCTION IN NEW ENGLAND

Elaeagnus angustifolia was first introduced into the United States in the late 1800's. It was planted widely in western states in the early 1900's as a windbreak and for wildlife food and shelter. In the west, it was reported as escaping from cultivation in the 1940's to 1960's. *Elaeagnus angustifolia* was introduced into New England through plantings along roadsides and in garden settings.

HABITATS IN NEW ENGLAND

Abandoned Field
Abandoned Gravel Pit
Early Successional Forest
Edge
Open Disturbed Area
Pasture
Planted Forest
Railroad Right-of-Way
Roadside
Utility Right-of-Way
Vacant Lot
Yard or Garden

Elaeagnus angustifolia is found planted along roads, in pastures, fields and along rivers. It can tolerate moist to dry conditions, as well as most soil types.

THREATS

Although *Elaeagnus angustifolia* is not considered to be invasive in New England at this time, in the western part of the United States it is considered invasive as well as a noxious weed in some states. It grows especially well in riparian situations and has been documented as out-competing the native plains cottonwood (*Populus deltoides*). It has been planted along roads and highways in New England because of its drought and salt tolerance. Nitrogen-fixing nodules allow this plant to survive in adverse conditions. Autumn olive (*Elaeagnus umbellata*), its invasive relative, has a similar biology and is already widely invasive in New England.

MANAGEMENT LINKS

Plant Conservation Alliance

Fact sheet including management information

Illinois Nature Preserves Commission

Control information for *Elaeagnus umbellata*, which has similar control measures

The Nature Conservancy

Connecticut Invasive Plant Working Group (CIPWG)

Control information for *Elaeagnus umbellata*, which has similar control measures

DOCUMENTATION NEEDS

Documentation required: Herbarium specimen or mounted snippet of a branch with flowers or fruits.

Best time for documentation: Spring, summer, fall.

ADDITIONAL INFORMATION

Integrated Taxonomic Information System

Taxonomic information about the species

The PLANTS Database

General information and map

University of Connecticut Plant Database

Photographs and general information

USDA Forest Service Fire Effects Information System (FEIS)

Extensive ecological information about the species

National Park Service

Fact sheet that includes general information, images and control.

Virginia Native Plant Society, Virginia department of Conservation and Recreation

General information including control

The Nature Conservancy

Extensive descriptive and control information

Samuel Roberts Noble Foundation

Photographs and general information

Invasivespecies.gov

Additional links

REFERENCES

Bovey, R.W. 1965. Control of Russian olive by aerial application of

herbicides. *Journal of Range Management* 42: 407-411.

Bailey, L.H. 1949. *Manual of Cultivated Plants*. Macmillan, New York.

Christensen, E.M. 1963. Naturalization of Russian olive (*Elaeagnus angustifolia* L.) in Utah. *American Midland Naturalist* 70(1):133-137.

Deiter, L. 1996. *Elaeagnus angustifolia*. p.53. In Randall, J.M. and J. Marinelli. [eds.]. *Invasive Plants: Weeds of the Global Garden*. Brooklyn Botanic Garden Inc., New York.

Dirr, M.A. 1983. *Manual of Woody Landscape Plants*. Stipes Publishing Company, Champaign, Illinois.

Fernald, M.L. 1950. *Gray's Manual of Botany* 8th edition. American Book Company, New York.

Gleason, H. A. 1952. *The New Britton and Brown Illustrated Flora of the Northeastern United States and Adjacent Canada*. Macmillan Publishing Co., Inc. New York

Gleason, H.A. and A.C. Cronquist. 1991. *Manual of Vascular Plants of the Northeastern United States and Adjacent Canada*. 2nd ed. New York Botanical Garden, Bronx, New York.

Holmgren, N.H. 1998. *Illustrated Companion to Gleason and Cronquist's Manual*. New York Botanical Garden, Bronx, New York.

Katz, G.L., J.M. Friedman and S.W. Beatty. 2001. Effects of physical disturbance and granivory on establishment of native and alien riparian trees in Colorado, U.S.A. *Diversity and Distributions* 7:1-14.

Klich, M.G. 2000. Leaf variations in *Elaeagnus angustifolia* related to environmental heterogeneity. *Environmental and Experimental Botany* 44 (3):171-183.

Knopf, F.L and T.E. Olson. 1984. Naturalization of Russian-olive: implications to Rocky Mountain wildlife. *Wildlife Society Bulletin* 12:289-298.

Lesica, P. and S. Miles. 1999. Russian olive invasion into cottonwood forests along a regulated river into north-central Montana. *Canadian Journal of Botany* 77:1077-1083.

Llinares, F., D. Munozmingarro, J.M. Pozuelo, B. Ramos and F.B. Decastro. 1993. Microbial inhibition and nitrification potential in soils incubated with *Elaeagnus angustifolia* L. leaf-litter. *Geomicrobiology Journal* 11 (3-4): 149-156.

Magee, D.W and H.E. Ahles. 1999. *Flora of the Northeast*. University of Massachusetts Press, Amherst.

Olson, T.E. and F.L. Knopf. 1986. Naturalization of Russian-olive in the western United States. *Western Journal of Applied Forestry* 1: 65-69.

Pearce, C.M. and D.G. Smith. 2001. Plains cottonwood's last stand: can it survive invasion of Russian olive onto the Milk River, Montana floodplain? *Environmental Management* 28(5):623-637.

Royer, T.V., M.T. Monaghan and G.W. Minshall. 1999. Processing of native and exotic leaf litter in two Idaho (U.S.A.) streams. *Hydrobiologica* 400:123-128.

Shafroth, P.B., G.T. Auble and M.L. Scott. 1995. Germination and establishment of native plains cottonwood (*Populus deltoides* Marshall subsp. *Monilifera*) and exotic Russian-olive (*Elaeagnus angustifolia* L.). *Conservation Biology* 9(5):1169-1175.

Simons, S.B. and T.R. Seastedt. 1999. Decomposition and nitrogen release from foliage of cottonwood (*Populus deltoides*) and Russian-olive (*Elaeagnus angustifolia*) in a riparian ecosystem. *Southwestern Naturalist* 44 (3): 256-260.

USDA, NRCS. 2001. The PLANTS Database, Version 3.1. (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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

Submit Selection

MAPS OF PLANT DISTRIBUTION IN NEW ENGLAND

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

- ☒ The whole New England area
- ☐ One or more states
- ☐ One or more counties
- ☐ One or more towns (county sub-divisions)

Submit Selection

[:: Site Map](#)

[:: Contact Us](#)

[:: Report a Sighting](#)

Copyright ♦ 2004 University of Connecticut