

Japanese Honeysuckle*Lonicera japonica* Thunb.

Honeysuckle family (Caprifoliaceae)

NATIVE RANGE

Japan and Korea

DESCRIPTION

Japanese honeysuckle is a perennial vine that climbs by twisting its stems around vertical structures, including limbs and trunks of shrubs and small trees. Leaves are oblong to oval, sometimes lobed, have short stalks, and occur in pairs along the stem. In southern and mid-Atlantic states, Japanese honeysuckle often remains evergreen – its leaves remain attached through the winter. In colder northern climates, the leaves may fall off after exposure to prolonged winter temperatures. Flowers are tubular, with five fused petals, white to pink, turning yellow with age, very fragrant, and occur in pairs along the stem at leaf junctures. Stems and leaves are sometimes covered with fine, soft hairs. Japanese honeysuckle blooms from late April through July and sometimes into October. Small black fruits are produced in autumn, each containing 2-3 oval to oblong, dark brown seeds about ¼ inch across.

**ECOLOGICAL THREAT**

In North America, Japanese honeysuckle has few natural enemies which allows it to spread widely and out-compete native plant species. Its evergreen to semi-evergreen nature gives it an added advantage over native species in many areas. Shrubs and young trees can be killed by girdling when vines twist tightly around stems and trunks, cutting off the flow of water through the plant. Dense growths of honeysuckle covering vegetation can gradually kill plants by blocking sunlight from reaching their leaves. Vigorous root competition also helps Japanese honeysuckle spread and displace neighboring native vegetation.

**DISTRIBUTION IN THE UNITED STATES**

Japanese honeysuckle occurs across the southern U.S. from California to New England and the Great Lakes region. Escaped populations also occur in Hawaii. Severe winter temperatures and low precipitation may limit its distribution in northern latitudes and in the West, respectively.

HABITAT IN THE UNITED STATES

A ubiquitous invader, Japanese honeysuckle thrives in a wide variety of habitats including fields, forests, wetlands, barrens, and all types of disturbed lands.

BACKGROUND

Japanese honeysuckle was introduced to the U.S. in the early to mid-1800s as an ornamental plant, for erosion control, and for wildlife forage and cover. Its highly fragrant flowers provide a tiny drop of honey-flavored nectar enjoyed by children.

BIOLOGY & SPREAD

Growth and spread of Japanese honeysuckle is through vegetative (plant growth) and sexual (seed) means. It produces long vegetative runners that develop roots where stem and leaf junctions (nodes) come in contact with moist soil. Underground stems (rhizomes) help to establish and spread the plant locally. Long distance dispersal is by birds and other wildlife that readily consume the fruits and defecate the seeds at various distances from the parent plant.

MANAGEMENT OPTIONS

Several effective methods of control are available for Japanese honeysuckle, including chemical and non-chemical, depending on the extent of the infestation and available time and labor.

Manual and Mechanical

For small patches, repeated pulling of entire vines and root systems may be effective. Hand pull seedlings and young plants when the soil is moist, holding low on the stem to remove the whole plant along with its roots. Monitor frequently and remove any new plants. Cut and remove twining vines to prevent them from girdling and killing shrubs and other plants. An effective method for removal of patches of honeysuckle covering the ground is to lift up and hold a portion of the vine mass with a rake and have a chain saw operator cut the stems low to the ground. Mowing large patches of honeysuckle may be useful if repeated regularly but is most effective when combined with herbicide application (see below). Mow at twice a year, first in mid-July and again in mid-September. Plants can also be grubbed out using a pulaski or similar digging tool, taking care to remove all roots and runners. Burning removes above ground vegetation but does not kill the underground rhizomes, which will continue to sprout. In certain situations, tethered goats have been used to remove honeysuckle growth, but must be monitored to prevent their escape to the wild where they would become an added ecological threat.

Chemical

In moderate cold climates, Japanese honeysuckle leaves continue to photosynthesize long after most other plants have lost their leaves. This allows for application of herbicides when many native species are dormant. However, for effective control with herbicides, healthy green leaves must be present at application time and temperatures must be sufficient for plant activity. Several systemic herbicides (e.g., glyphosate and triclopyr) move through the plant to the roots when applied to the leaves or stems and have been used effectively on Japanese honeysuckle.

Following label guidelines, apply a 2.5% rate of glyphosate (e.g., Rodeo® for wetlands; Roundup® for uplands) mixed with water and an appropriate surfactant, to foliage from spring through fall. Alternatively, apply a 2% concentration of triclopyr (e.g., Garlon® 3A) plus water to foliage, thoroughly wetting the leaves but not to the point of drip-off. A coarse, low-pressure spray should be used. Repeat applications may be needed. Treatment in the fall, when many non-target plants are going dormant, is best. Also, a 25% glyphosate or triclopyr solution mixed with water can be applied to cut stem surfaces any time of year as long as the ground is not frozen.

Biological control

No biological control agents are currently available for Japanese honeysuckle.

USE PESTICIDES WISELY: Always read the entire pesticide label carefully, follow all mixing and application instructions and wear all recommended personal protective gear and clothing. Contact your state department of agriculture for any additional pesticide use requirements, restrictions or recommendations.

NOTICE: mention of pesticide products on this page does not constitute endorsement of any material.

CONTACTS

For more information on the management of Japanese honeysuckle, please contact:

- Lisa Jameson, National Park Service, Washington, DC; lisa_jameson at nps.gov
- Corey Kudrna, National Park Service, Washington, DC; corey_kudrna at nps.gov
- Vikki Nuzzo, Cornell University; vnuzzo at earthlink.net
- Ann Rhoads, University of PA, Morris Arboretum; rhoadsaf at pobox.upenn.edu
- Sue Salmons, National Park Service; sue_salmons at nps.gov

SUGGESTED ALTERNATIVE PLANTS

Vines that make good substitutes for Japanese honeysuckle include false jasmine (*Gelsemium sempervirens*), trumpet honeysuckle (*Lonicera sempervirens*), trumpet creeper (*Campsis radicans*), crossvine (*Bignonia capreolata*), native wisteria (*Wisteria frutescens*), jackman clematis (*Clematis jackmanii*), and others. Check with your state native plant society, a reputable native plant nursery, for recommendations for plants that are appropriate for your area and conditions.

OTHER LINKS

- <http://www.invasive.org/search/action.cfm?q=Lonicera%20japonica>
- <http://nbii-nin.ciesin.columbia.edu/ipane/icat/browse.do?specieId=65>
- http://www.hear.org/starr/hiplants/images/thumbnails/html/Lonicera_japonica.htm

AUTHOR

Melissa A. Bravo, National Park Service, Roosevelt-Vanderbilt National Historic Sites, Hyde Park, NY

EDITOR

Jil M. Swearingen, National Park Service, Center for Urban Ecology, Washington, DC

REVIEWERS

Sylvan Kaufman, Adkins Arboretum, Ridgely, MD
Corey Kudrna, National Park Service, Washington, DC
Vikki Nuzzo, Cornell University, Ithaca, NY

PHOTOGRAPH

Jil M. Swearingen, National Park Service, Center for Urban Ecology, Washington, DC

REFERENCES

- Barden, L. S. and J. F. Matthews. 1980. Change in abundance of honeysuckle (*Lonicera japonica*) and other ground flora after prescribed burning of a piedmont pine forest. *Castanea* 45: 257-260.
- Dillenberg L.R., D.F. Whigham, A.H. Teramura, I.N. Forseth. 1993. Effects of below- and aboveground competition from the vines *Lonicera japonica* and *Parthenocissus quinquefolia* on the growth of the tree host *Liquidambar styraciflua*. *Oecologia* 93:48-54.
- Fernald, M. L. 1989. *Grays Manual of Botany*. Biosystematics, Floristic and Phylogeny Series. Volume 2. T. R. Dudley, Editor. Dioscorides Press. Portland, OR. 1,632 pp.
- Gleason H. A. and A. Cronquist. *The Illustrated Companion to Gleason and Cronquist's Manual of Vascular Plants of Northeastern United States and adjacent Canada*. New York Botanic Garden, New York, NY. 937 pp.
- Kartesz, J. and C. Meacham *Synthesis of the North American Flora*.
- Nuzzo, V. Japanese honeysuckle. Element stewardship abstract for *Lonicera japonica*. The Nature Conservancy. 1815 North Lynn Street, Arlington VA, 22209. <http://www.imapinvasives.org/GIST/ESA/>. Last updated April 15, 1997.
- Regehr, D. L. and D. R. Frey. 1988. Selective control of Japanese honeysuckle (*Lonicera japonica*). *Weed Technology* 2:139-143.
- Rhoads, A. F. and T. H. Block. 2002. *The Plants of Pennsylvania, An Illustrated Manual*. Morris Arboretum of the University of Pennsylvania. University of Pennsylvania Press, Philadelphia, PA. 1060 pp.
- Swearingen, J. 2009. WeedUS Database of Plants Invading Natural Areas in the United States: Japanese Honeysuckle (*Lonicera japonica*). <http://www.invasive.org/weedus/subject.html?sub=3039>.
- USDA, NRCS. 2009. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
- Virginia Native Plant Society VA NHP Japanese Honeysuckle Fact Sheet <http://www.vnps.org/invasive/invloni.htm>