



Asiatic Colubrina

Colubrina asiatica (L.) Brongn.
Buckthorn family (Rhamnaceae)

NATIVE RANGE

Eastern Africa to India, Southeast Asia, tropical Australia, and the Pacific Islands

DESCRIPTION

Asiatic colubrina, also called latherleaf, because of its ability to produce a lather in water, is a shrubby member of the buckthorn family (Rhamnaceae). It is a low shrub with long, climbing or drooping branches that can reach 20 feet long or more. The leaves are 1½ to 5½ inches long, egg-shaped, and easily recognized by their shiny, green upper surfaces and toothed edges. They are attached to stems by slender stalks and are arranged alternately along the branches. Flowering, which usually occurs in July, produces clusters of small, greenish-white flowers at the junctures of leaf and stem. The fruits are small capsules, measuring less than ½ inch across, which reach maturity as early as September. At first green and fleshy, the capsules become dark brown with age. Each fruit contains three tiny grayish seeds.



NOTE: Asiatic colubrina should not be confused with U.S. native species of the genus (*Colubrina*) that are all trees with erect branches and hairy leaves. Other members of the buckthorn family include such plants as the jujube, California lilac, and buckthorn.

ECOLOGICAL THREAT

Asiatic colubrina produces a thick mat of tangled stems that can be several feet thick, impacting the underlying vegetation by growing on it or shading it out. The occurrence of Asiatic colubrina in Florida's coastal tropical hardwood forests is of special concern due to the uniqueness of this habitat and the rarity of some of its constituent plant species, including a number of Florida State-listed threatened and endangered species such as West Indian mahogany, Florida thatch palm, wild cinnamon, manchineel, prickly-pear and dildo cacti, and a number of bromeliads and orchids. Sites infested by colubrina experience a great reduction in biological diversity as very few plants (including seedlings of Asiatic colubrina itself) can persist under these conditions. Impacts to natural areas include alterations of community composition and structure, diminishment of natural habitats for native wildlife, disruption of species relationships and interactions, and interference with ecological and geological processes such as water and nutrient cycling.



DISTRIBUTION IN THE UNITED STATES

Asiatic colubrina only occurs along the eastern and western coastlines of central and southern Florida (more or less frost-free), including the Florida Keys. As it is widespread throughout the Caribbean Basin, it is also likely to occur in the U.S. possessions of Puerto Rico and the U.S. Virgin Islands.

HABITAT IN THE UNITED STATES

Asiatic colubrina is an upland plant that inhabits only the higher portions of coastal areas. It can invade both disturbed and undisturbed forest sites. Coastal forests (or hammocks) comprised of tropical hardwoods and buttonwoods are especially vulnerable as they occur on such flood-free sites,

created from the deposition of soils left by storms and tidal influences. Natural ridges or berms that have formed within inundated mangrove forests can also support Asiatic colubrina. It is also frequently found along elevated road shoulders in coastal areas, from which it can spread into adjacent natural areas.

BACKGROUND

Asiatic colubrina is believed to have been carried to Jamaica in the 1850s by East Asian immigrants, probably on account of its traditional uses (food, medicine, fish poison, and soap substitute). From there, it spread on its own to other Caribbean islands, Mexico (Yucatan Peninsula), and Florida. The earliest known record of its occurrence in Florida is 1937 where it was collected in the Florida Keys. The first reports of it on the mainland are specimens collected in Everglades National Park in the early 1950s.

BIOLOGY & SPREAD

Asiatic colubrina reproduces sexually and vegetatively. It has been reported that plants can flower and fruit within the first year of growth. Seeds are believed to retain their viability in the soil for at least several (3-5) years. Little is known about seed germination except that it requires loose soil and does not normally occur on exposed rock.

Asiatic colubrina exhibits tremendous vegetative regeneration, including adventitious rooting from branches coming in contact with the soil and vigorous resprouting from cut or injured stems. Plants require considerable light and growth rates of seedlings increase with the removal of the shading canopy. Seedlings normally occur near larger, reproductively mature plants, suggesting that long-distance dispersal is uncommon. Asiatic colubrina's buoyant and salt-tolerant seeds and fruits are dispersed by ocean currents. Because the seeds resemble small pebbles, it has been suggested that they may be used as crop stones by seed-eating birds, which may disperse them long distances.



MANAGEMENT OPTIONS

Mechanical and chemical methods are the primary means of control of Asiatic colubrina. The application of a 10% solution of triclopyr (e.g., Garlon® 4) in a band around the base of the trunk (basal bark method) or application of a 50% solution of the same (e.g., Garlon® 3A) on a freshly cut trunk (cut stump method) are the most effective ways to kill adult plants. The application of a 3% solution of triclopyr to the foliage (foliar application method) may be used if non-target vegetation in the immediate vicinity will not be impacted by herbicide drift. Because of the possibility of resprouting from the rooted portions of the plant, follow-up inspections and retreatments may be necessary for a year (if not longer) following the initial treatment. In addition, the long viability of seeds in the soil requires monitoring of treatment sites for several years after the initial treatment. Seedlings and young plants, up to about 5 feet tall, may be hand-pulled as long as their root systems are small and can also be removed. Care should be taken not to disturb the soil any more than necessary.

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

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OTHER LINKS

- http://www.hear.org/starr/hiplants/images/thumbnails/html/colubrina_asiatica.htm

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Plant Conservation Alliance's Alien Plant Working Group

Weeds Gone Wild: Alien Plant Invaders of Natural Areas

<http://www.nps.gov/plants/alien/>

PHOTOGRAPHS

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