

# Seaside alder is one of Delmarva's unique trees

By Susan Yost, Ph.D.

Delaware State University

Seaside alder (*Alnusmaritima*) is one of Delmarva's most unique trees/shrubs. It is globally rare, almost an endemic (confined to a particular geographic region), and the 2 other states where it occurs are 500 and 1,000 miles away.

Seaside alder grows only on the Delmarva Peninsula (in southern Delaware and eastern Maryland), and in one county in Georgia and two counties in Oklahoma. Remarkably, it grows nowhere else in the world!

## Garden Tales

There are two popular hypotheses regarding how seaside alder came to grow in such disjunct (separate) locations. One hypothesis is that it was transported from Delmarva to the distant Oklahoma and Georgia locations by Native Americans, or by some means of natural dispersal.

The other hypothesis is that this species once had a wide distribution in North America which became much reduced due to environmental changes following glacial periods. Currently, most of the evidence supports the second hypothesis. Seaside alder is considered to have the most highly disjunct distribution of all North American trees species!

Seaside alder consists of three subspecies, one in each of its locations, Delmarva, Oklahoma, and Georgia. It's considered uncommon in Delaware, with a state rarity rank of S3. In Oklahoma, it is rare, and in Georgia highly rare and critically imperiled.



Submitted photo/David Smith

**Seaside alder (*Alnusmaritima*) is one of Delmarva's most unique trees/shrubs — it is uncommon, almost an endemic, and occurs only in two other distant states (Oklahoma and Georgia) where it is rare.**

The Georgia location was not even known until 1997!

Alders are shrubs or small trees, with toothed leaves, and distinctive woody cone-like fruiting structures. In Delaware, there is one other native species of alder, the common smooth alder (*Alnus serrulata*) which has a much broader range (Nova Scotia to Florida) than seaside alder. Another species, black alder (*Alnus glutinosa*), a native

and marshes, often standing in water; so the common name "seaside" is somewhat misleading. The Delmarva subspecies (*Alnusmaritima subspecies maritima*) is also called Delmarva alder.

Alders are in the birch family (*Betula-ceae*), which also includes birch (*Betula spp.*), ironwood (*Carpinus spp.*), and hazelnut (*Corylus spp.*). Alder flowers are small, inconspicuous, and wind-pollinated. The trees are monoecious, with separate female and male flowers on the same tree. The female flowers are in cone-like catkins which become woody, and the male flowers are in pendulous catkins.

The female "cones" contain small one-seeded fruits (achenes) that are somewhat flattened. Alder seeds are eaten by small birds such as goldfinches. Alders are said to have been used in folk remedies for cancers, tumors, bruises, wounds etc.

Seaside alder is not often planted as an ornamental, but it is said to grow well in soils drier than its normal habitat, and to be "deserving of cultivation" for its glossy foliage and golden catkins. Another plus is that, like other alders, seaside alder root nodules contain symbiotic organisms that fix nitrogen, and thus improve the fertility of the soil.

*On the campus of Delaware State University, the Claude E. Phillips Herbarium is Delaware's center for research, education, and outreach about plant identifications, locations, and uses. Call 857-6452 (Dr. Susan Yost, Herbarium Educator) to arrange a tour of the herbarium, or for more information about this article.*

of Eurasia, has escaped from cultivation in Delaware. Worldwide, there are approximately 30 species of alder.

Seaside alder can be distinguished from the much more common smooth alder by its larger fruiting structures ("cones"). Also, it flowers in late summer/autumn, as opposed to spring.

Alders generally prefer moist soils. Seaside alder is found in freshwater swamps