



Virginia Spiraea (*Spiraea virginiana*)

Common Name
Virginia Spiraea

Scientific Name
Spiraea virginiana

Status
Virginia spiraea is classified as a **Threatened** under the Federal Endangered Species Act.

West Virginia Status
This spiraea is found on 24 stream systems in 7 states. Of these known sites 14 populations have fewer than 10 clumps of the shrub, 8 consist of 10-50 clumps and only 3 contain more than 50 clumps. Six extant populations occur in West Virginia with an estimated 1,000 to 4,000 individuals, by far the most of any state. Plants occur in West Virginia along the Gauley, Meadow, Bluestone, and Greenbrier rivers. The Gauley River Gorge below Summersville Dam harbors what is thought to be the world's largest population.

Description
Virginia spiraea is a colonial shrub ranging in height from 3 to 7 feet. Each clone consists of a number of erect or arching stems arising from an underground rootstock. The leaves are simple, deciduous, alternately arranged along the stem. The size and shape of the leaves are extremely variable; the usual length is 2-4 inches and elliptic in outline. The flowers, found in June and July, are white and occur in groups at the end of leafy branches.

Habitat
The seven states in which Virginia spiraea occurs are Georgia, Tennessee, North Carolina, Kentucky, West Virginia, Virginia, and Ohio. Habitat is usually rocky, flood scoured banks of high-energy (high gradient) streams or rivers. Flood scouring may be important to this species by preventing canopy closure and creating river wash deposits, thereby decreasing competition from larger trees and providing an appropriate rooting medium. One site in the state is along a two lane highway. While wetland borders the roadway there is no stream and

this lends a little mystery as to why the plant occurs here. An additional site was found nearby between a drainage ditch and mine waste piles that may have been brought in with fill material of unknown origin. No other populations are known in the area.

Factors
Because Virginia Spiraea is primarily a shrub that grows between forested slopes and the rocky shores of high-energy rivers, the factors that most affect the species are those that either eliminate its habitat altogether, or reduce the moderate level of flood-scouring it seems to require. It is thought that the scouring reduces competition from native and non-native plants that would otherwise crowd it from the limited substrate or reduce its access to sunlight.



(Photo by Craig Stihler)

According to the U.S. Fish and Wildlife Service, suitable habitat has been eliminated at former sites throughout the range of the species by reservoir construction. Furthermore, they conclude that population sites may face the potential indirect threats of upstream and downstream water stabilization, which would eliminate or reduce scouring action necessary to maintain open habitat for the species. Historically known populations have been destroyed along the Monongahela River by the construction of navigation facilities, and along the New River by the construction of a hydroelectric dam at Hawks Nest. A third population on the Buckhannon River apparently did not recover from severe flooding events and can no longer be found.



One of the threats to West Virginia populations of Virginia Spiraea that we see at almost all sites is damage to individual plants and to their habitat by recreational users of the rivers upon which they occur. Populations along the Gauley, Meadow, Bluestone, and Greenbrier Rivers are being impacted by the clearing of riverside sites for fishing, camping, and rafting. Overuse by hikers, fishermen, and boaters has resulted in breakage of the fragile stems of these plants. Botanists have not seen seedlings at any population, and attempts to germinate seeds by various workers have been only slightly successful.

Threats and Prospects

Many miles of streamside habitat has been lost through reservoir construction. Summersville Dam eliminated about one-third of the habitat along the

Gauley River. The perpetuation of this species will require streamside habitat with natural flood regimes. All remaining habitat should remain undammed so that these natural processes can help maintain appropriate habitat. The entire Gauley River canyon below Summersville Dam has been cut off from naturally occurring flood events due to the regulation of water flows through the dam. Long-term it is possible that this will increase vegetation along the shores and create enough competition to displace the Virginia Spiraea growing there. If this is the case then the world's largest population could be in trouble over the next fifty to one hundred years. If streams harboring the species are left undammed and recreational development takes the habitat needs of the species into account then the Virginia Spiraea should continue to occur as a rare species in the east-central United States.