



***Pinus virginiana* Virginia pine**

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Pinus virginiana (Virginia pine) is a small to medium sized tree growing among the central hardwoods of the East-central United States. It was first described as a species in 1768. One other scientific name has been historically used for this tree, *Pinus inops*. The scientific name means “pine of Virginia.” Other common names include scrub pine, possum pine, shortstraw pine, poverty pine, black pine, spruce pine, and Jersey pine.

Pinus virginiana grows from Long Island, New York, South to the Northern tier of counties in Georgia, and West to Western Tennessee. New York lists *Pinus virginiana* as a state endangered species. See the Georgia distribution map figure. *Pinus virginiana* is not a Southern yellow pine, but is more closely akin to more Northern and Western pines. It grows in Hardiness Zone 6a - 7a and Heat Zone 5-8. The lowest number of Hardiness Zone tends to delineate the Northern range limit and the largest Heat Zone number tends to define the Southern edge of the range. This native Georgia pine grows in Coder Tree Grow Zone (CTGZ) A-B (a multiple climatic attribute based map), and in the temperature and precipitation cluster based Coder Tree Planting Zone 1-3. Figure 2.

Pinus virginiana is slow growing and short-lived (80 years). *Pinus virginiana* grows on well drained sites in uplands, sandy and rocky woodlands, ridges, and eroded and heavy soils. It colonizes old infertile lands with open mineral soil and few hardwood competitors. *Pinus virginiana* is considered a scrub species growing on poor sites. It does not grow well on sites with high water tables or on wet sites.

Pinus virginiana reaches a height of 35 - 60 feet, with a maximum of 110 feet. Its diameter is 1 - 1.8 feet with a maximum of 2.8 feet. Crown form of *Pinus virginiana* is scrubby and shabby looking. The tree is a poor self pruner holding many dead and living horizontal crooked branches on a stem. Branches grow from irregular spaced whorls into uneven, spreading branches generating an open, flat-topped, ragged looking crown.

Pinus virginiana needles grow in bundles of 2 and are 1 - 3 inches long. Needles are short, thick, rigid, and twisted, with a dull greyish-green to dark yellowish-green color. Needles are kept on a tree 3-4 years.

Pinus virginiana is sexually mature by about 6 years of age in full sun on the best sites. Mature female cones are 1.4 - 2.8 inches long. Cones are egg-shaped and symmetrical in shape. They open at maturity and are kept on the tree 3-4 years, giving the crown a cone-crowded appearance. Cone scale are thin, reddish-brown in color, with a small, slender, stiff prickle. Cone scale tips have a dark purple to red colored lip. Closed cones are usually curved downward. Good seed crops occur every three years, with some seeds produced every year.

Pinus virginiana twigs are smooth, slender, tough, flexible, and pale green in color with a thin purply-white coating, aging to grey-brown. The terminal bud is resinous. Branches are rough, not flaky, and tend to droop. Dead branches and broken stubs tend to remain attached to a stem for many years.

Branches spread out horizontally with the lowest ones sometimes reclining on the ground. Stem periderm is light orangish-brown to reddish-brown in color, thin, and smooth on young stems. Older periderm is thinly fissured with narrow peeling scales. Periderm in the upper crown of older trees form orangish-brown colored papery scales.

Pinus virginiana is fairly unique in appearance when compared to other pines in the same areas where it grows. *Pinus echinata* (shortleaf pine) is sometimes confused with *Pinus virginiana*, but shortleaf pine is not scrubby looking, self prunes well, does not have twisted needles, and does have needles in bundles of 2 and 3. *Pinus glabra* (spruce pine) has minute cone scale prickles compared to *Pinus virginiana*. *Pinus clausa* (sand pine) has short and thick cone scale prickles in comparison. *Pinus pungens* (table mountain pine) has long, thick, curved cone scale prickles and young twigs do not have a whitened or purplish white surface coloration. No hybridization occurs with the other native pines. *Pinus virginiana* is related more closely with a more Northern and Western pines, not Southern yellow pines.

Pinus virginiana has been used for pulp, lumber (limited and local), Christmas trees, cross-ties, fencing, charcoal, fragrance for soaps, and funeral pyres. Historic medicinal uses of *Pinus virginiana* include internal treatments for worms, diarrhea, rheumatism, colds, cough, fever, colic, gout, hemorrhoids, kidney problems, constipation, measles, mumps, poor athletic stamina, lung problems, tuberculosis, swollen testicles, and venereal disease. It has been used as a sedative and stimulant. Externally it has been applied for joint pain, fungal skin infections, bruises, and swollen breasts.

Citation:

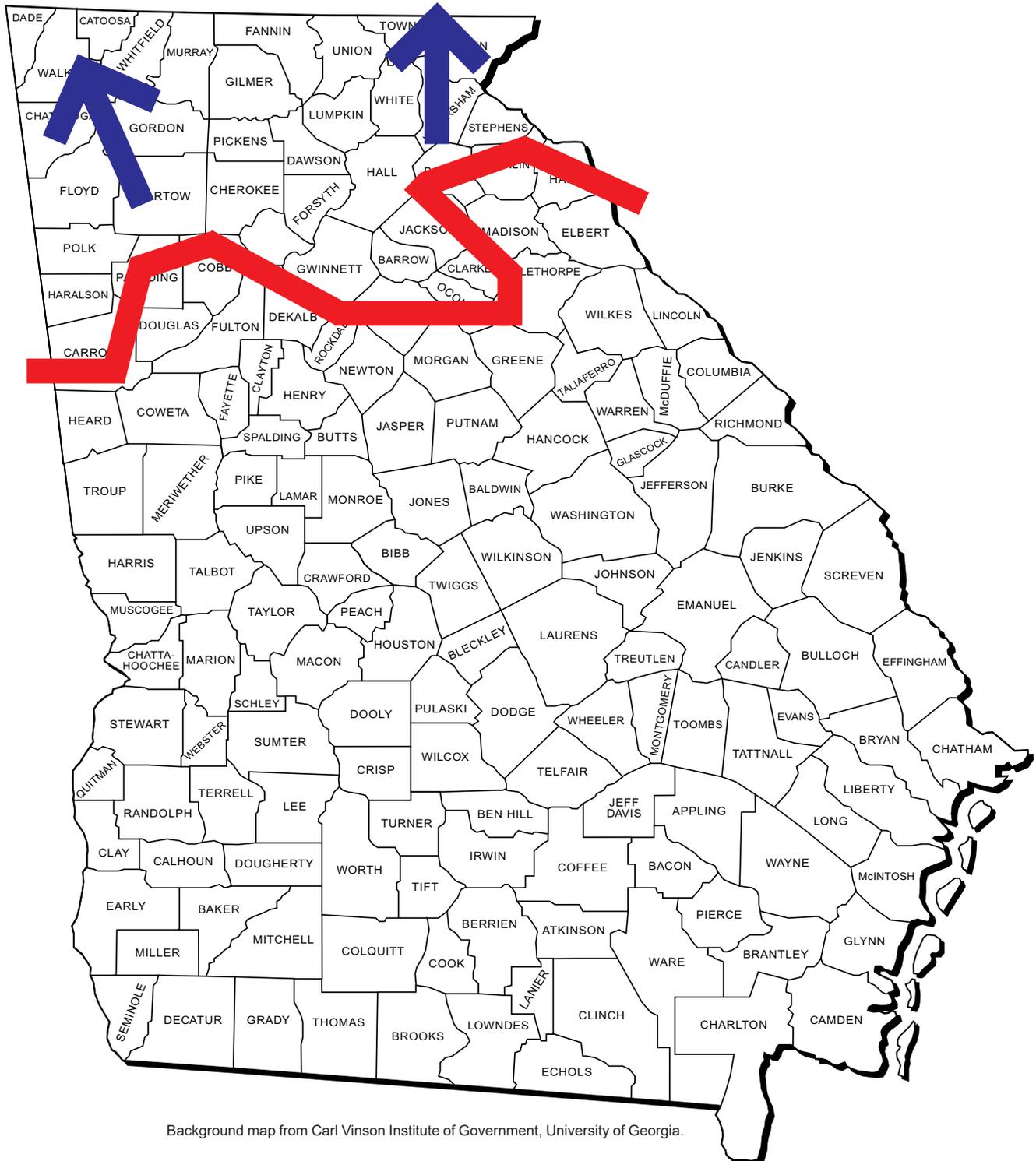
Coder, Kim D. 2021. *Pinus virginiana* Virginia pine. University of Georgia, Warnell School of Forestry & Natural Resources Outreach Factsheet WSFNR21-31C. Pp.4.

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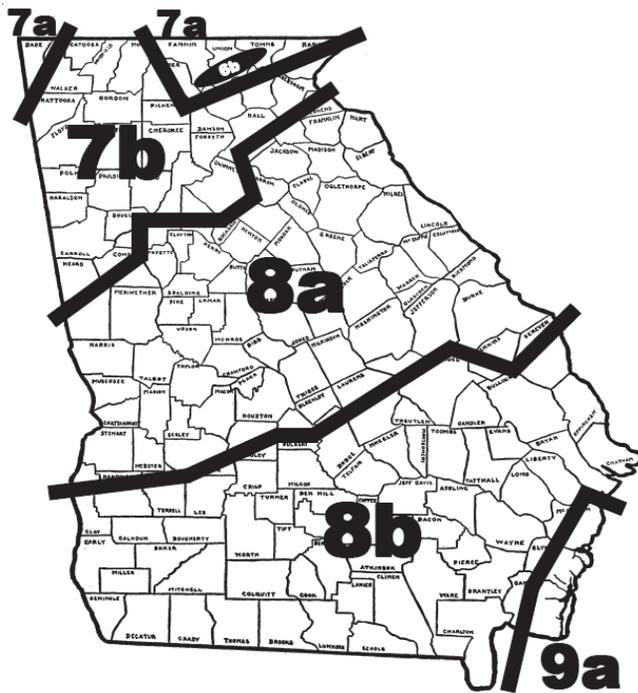
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Figure 1: Native range for *Pinus virginiana* -- Virginia pine in Georgia.

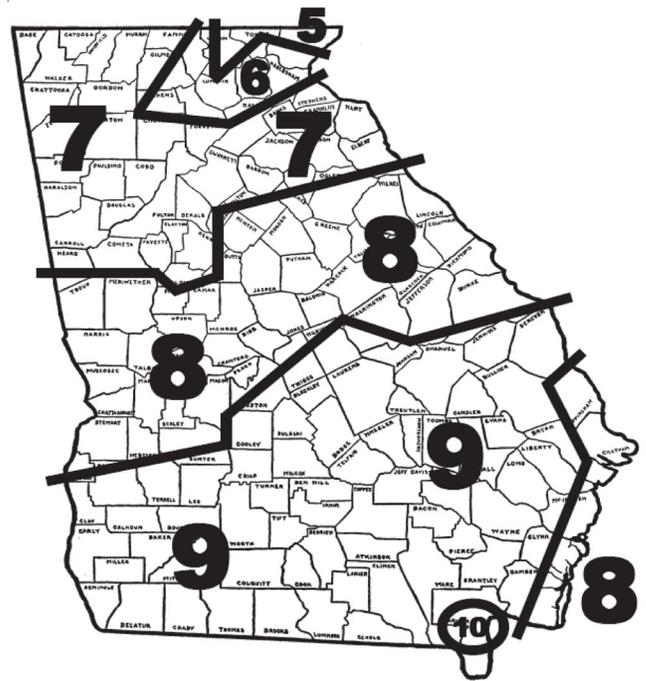
Native range from federal and state maps, herbarium samples and personal observations.
Native range includes areas North and West of line on the side with arrows.



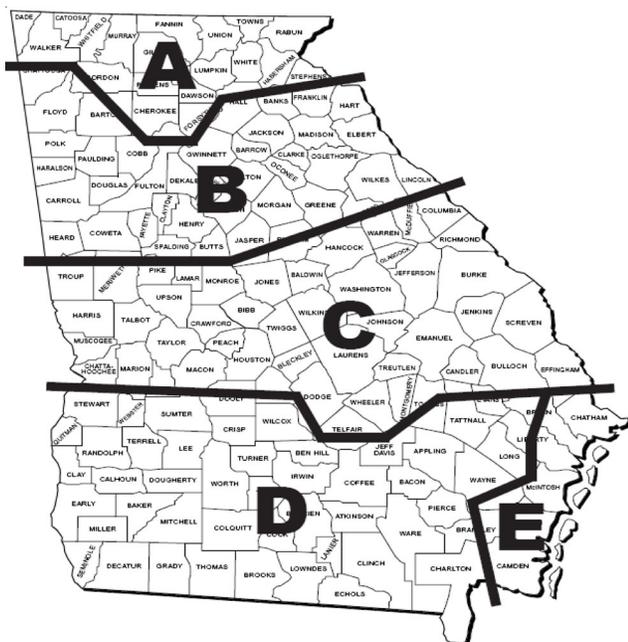
Background map from Carl Vinson Institute of Government, University of Georgia.



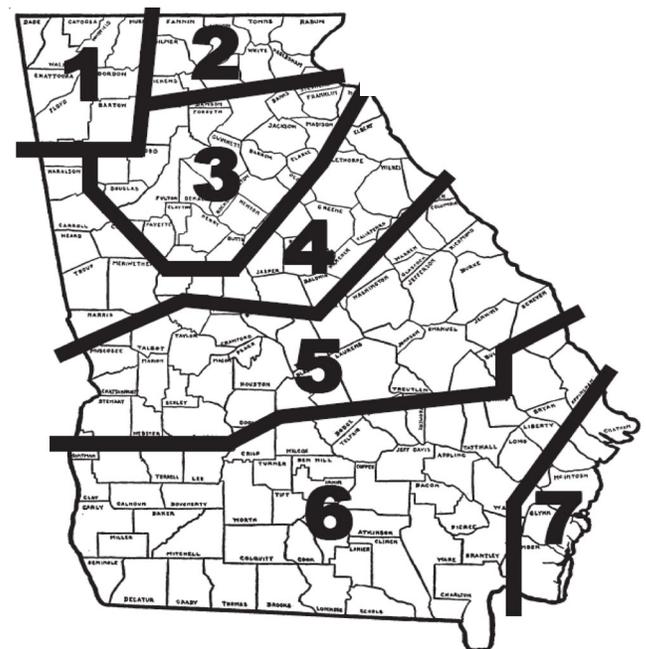
Georgia Hardiness Zones
(cold temperatures)



Georgia Heat Zones
(number of hot days)



Coder Tree Grow Zones
(multiple climatic attributes)



Coder Tree Planting Zones
(temperature & precipitation clusters)

Figure 2: Four types of tree growth zone maps for Georgia.