Pinus glabra spruce pine

Dr. Kim D. Coder, Warnell School of Forestry & Natural Resources, UGA Dec. 2006

Spruce pine (*Pinus glabra*) is once of the least seen pines of the South. In dense mixed species forests, spruce pines may not be recognized as a pine from only its trunk. Spruce pine was recognized as a species early (1788). The scientific name is derived from its relatively smooth bark. Other common names include cedar pine, Walterís pine, Walter pine (named for its identifier), white pine and bottom white pine. It is a tree of the southern and southeastern coastal plain ranging from eastern South Carolina to southeastern Louisiana, but not growing far into north Florida. See Georgia range map. It is found growing as single stems and in isolated areas across the lower coastal plain in river bottoms and along stream banks on coarse but moist soils.

Spruce pine has a moderate growth rate and normal lifespan of 80 years. It can be found growing beside many species of trees in a mixed pine-hardwood forest or mixed swamp forest. Spruce pine is tolerant of shade and stress but needs a mycorrhizal fungal associate for best growth. Moist sandy soils provide the best growing and seed germination site. The growth Hardiness Zone is 8a - 8b and the Heat Zone is 8-9. The lowest number of the Hardiness Zone tends to estimate the northern range limit of the tree and the largest Heat Zone number tends to estimate the southern end of the range. Coder Tree Grow Zone C-D. Spruce pine reaches a height of 85 feet (maximum is 110 feet) and a diameter of 2.5 feet (maximum of 4 feet).

Spruce pine needles are medium to dark green in color, with occasionally a hint of grey. Needles grow in bundles of 2. Needle length is 1.8 - 3.8 inches long. The needles are slender, flexible, twisted, and stay attached to the twigs for 2-3 seasons.

Spruce pine becomes sexually mature by age 10. The seeds produced on isolated trees are usually less viable because of the lack of cross-pollination. Cones tend to be more rounded egg-shaped and smaller than shortleaf pine (*Pinus echinata*) cones. The cone scales have a weak, small prickle on the ends. The cones are 1.3 - 3.2 inches long and open at maturity. The cones tend to stay attached to the stem and branches for 3-4 years, many times in clusters of 2-3 cones. The cones are reddish brown in color and somewhat shiny. Spruce pine cones point downward or back along the twig.

Spruce pine twigs are smooth, slender, and grey-green to reddish brown in color. The twig bark tends to be rough but not flaky. The branches self prune well and can make it difficult to get a sample or even see the foliage held high in the air. The branch form tends to be droopy. The bark on spruce pine is thin, smooth, and silver grey-brown in color on twigs and young stems. The bark color develops toward dark grey-brown with age. The bark is furrowed into long, thin, flat, scaly ridges (like a spruce *Picea* spp. or southern red oak *Quercus falcata*) on older stems.

Spruce pine hybridizes with shortleaf pine *Pinus echinata* and this can create some limited identification problems because they have an overlapping range. Spruce pine has the unique greyish-brown colored, smooth bark on young twigs and the dark grey-brown, narrowly furrowed bark on older stems. Spruce pine has no contrasting borders on the cone scale tips.

Spruce pine also overlaps ranges with sand pine *Pinus clausa*. Spruce pine differs from sand pine is several ways if you examine the cones. Spruce pine has small, weak prickles on cone scale ends where sand pine has sharp thick prickles. Spruce pine cones tend to fall from the tree where sand pine cones stay on the tree and may become embedded in the stem and branches. Spruce pine does not overlap Virginia pine *Pinus virginiana* but spruce pine has a weak small prickle on cone scale ends while Virginia pine has slender pointed prickles on cone scale ends.

Spruce pine is utilized for low quality lumber, weak pulp, Christmas trees, fuelwood, limited resin products (naval stores), and essential oils for pine scents. Historic medicinal use include treatment of worms, diarrhea, painful joints, rheumatism, colds and flu, cough, bruises, fever, colic, gout, hemorrhoids, constipation, measles, mumps, tuberculosis, and venereal disease.

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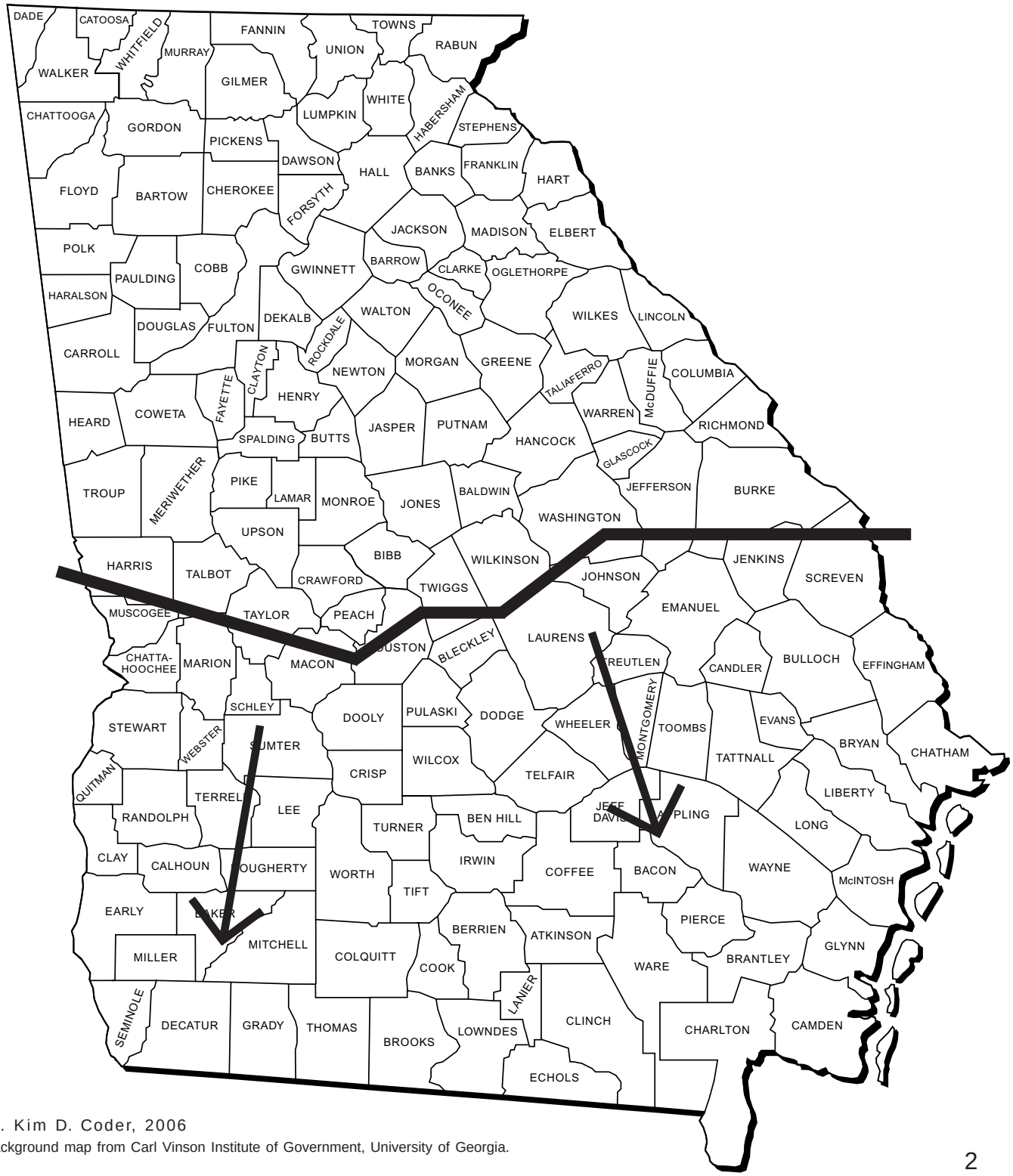
Native Range Of Growth For *Pinus glabra*: spruce pine

Native contiguous range derived from federal and state maps, herbarium samples and personal observations. The native range includes all areas south of the lines on the side of the lines with the arrows.



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