Pinus palustris longleaf pine

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Longleaf pine (*Pinus palustris*) is one of our heritage trees because it represents a historic forest type. The cultural and romantic connections to longleaf pine and the forest ecosystem it dominates is seeped in traditions of the South. Longleaf pine was first identified as a species in 1768. Historic scientific names included *Pinus australis* (1810). Other common names for longleaf pine include long-leaf pine, long-leaved pine, longleaf yellow pine, southern yellow pine, swamp pine, Georgia pine, marsh pine, yellow pine, southern pine, longstraw pine, hill pine, pitch pine, hard pine, and heart pine. The scientific name means ìpine of the marshes.î

Longleaf pine grows on sandy, well drained upland soils and in flatwoods primarily along the coastal plain from southeast Virginia to far eastern Texas, dropping south into central Florida. It grows up into the Piedmont and foot hill areas of Georgia and Alabama. . Note the Georgia range map. The growth Hardiness Zone is 7b - 9b and the Heat Zone is 7 - 11. 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 B-E. Only tattered fragments of the longleaf pine forests remain today even though it once covered large areas of the southern coastal plain.

Longleaf pine is unique among the southern pines in how it grows. The seed requires bare mineral moist soil to germinate. The seedling delays stem height growth while a large dense clump of needles are produced and almost all of the treeís energy is put into root growth. Because the longleaf pine seedling looks similar to a clump of grass, this stage of growth is called the ìgrass phase.î Once roots have successfully colonized a large area of space and the stem base has become much larger in diameter, height growth begins. Up to this time, if the top of the seedling is damaged, longleaf pine can resprout. The main stem is grown upward and appears like a thick ìcandle.î Branching is delayed until the stem height has greatly expanded. Finally after 4-15 years, a traditional stem and branch form is developed.

The grass stage of longleaf pine is fire resistant. Longleaf pine grows in fire dominated savannahs. Without periodic fire, scrub hardwoods usually start to dominate the site. In the past, lightning strikes and associated fires would help maintain the longleaf pine forest ecosystem. This ecosystem is one of the most diverse and rich forests in the United States containing many species of plants and animals. Longleaf pine grows moderately quickly after it moves from the grass stage.

Longleaf pine thrives on wet springs and dry, hot summers. Longleaf pine is a tall pine reaching 80-105 feet in height (maximum = 140 feet tall) and 2 - 2.5 feet in diameter (maximum = 4 feet). Expected lifespan is about 160 years. Trees can be found older than 300 years of age.

The needles of longleaf pine grow in bundles of 3. The needles are 9-17 inches long and are held on the tree for 2 years, making the crown appear open and the leaves clumped near the ends of twigs and branches. The needles are a shiny yellow-green to bright green in color and are slender, thick but flexible.

Longleaf pine becomes sexually mature at 30 years of age, producing a good seed crop every 6-10 years. The female cones are 6-9 inches long and open at maturity. The female cones are an elongated egg-shaped, and dull brown to dull reddish-brown in color aging to ash grey. The cone scales have a short, weak, curved, stiff prickle. The base of the cone usually remains attached to its branch while the rest of the cone falls away. Longleaf pine can hybridize with *Pinus taeda* to produce *P. x sondereggeri.*

Longleaf pine twigs are thick and stiff, orange-brown in color aging to a dark brown, and rough. The oval terminal bud is large (1.5 inches long) and covered in silvery white hairs. The thick twigs and needles crowded near the twig ends gives the tree crown an open appearance. The bark is a orange-brown to grey-brown in color and relatively thin. The bark has a coarse texture with rectangular, rough, scaly plates.

Longleaf has been used for lumber, plywood, pulp, fuelwood, pine straw mulch, resin products (naval stores), ship masts, ship planking, poles and posts, and wooden ship building. It is a premium naval stores and pole product tree.

The University of Georgia

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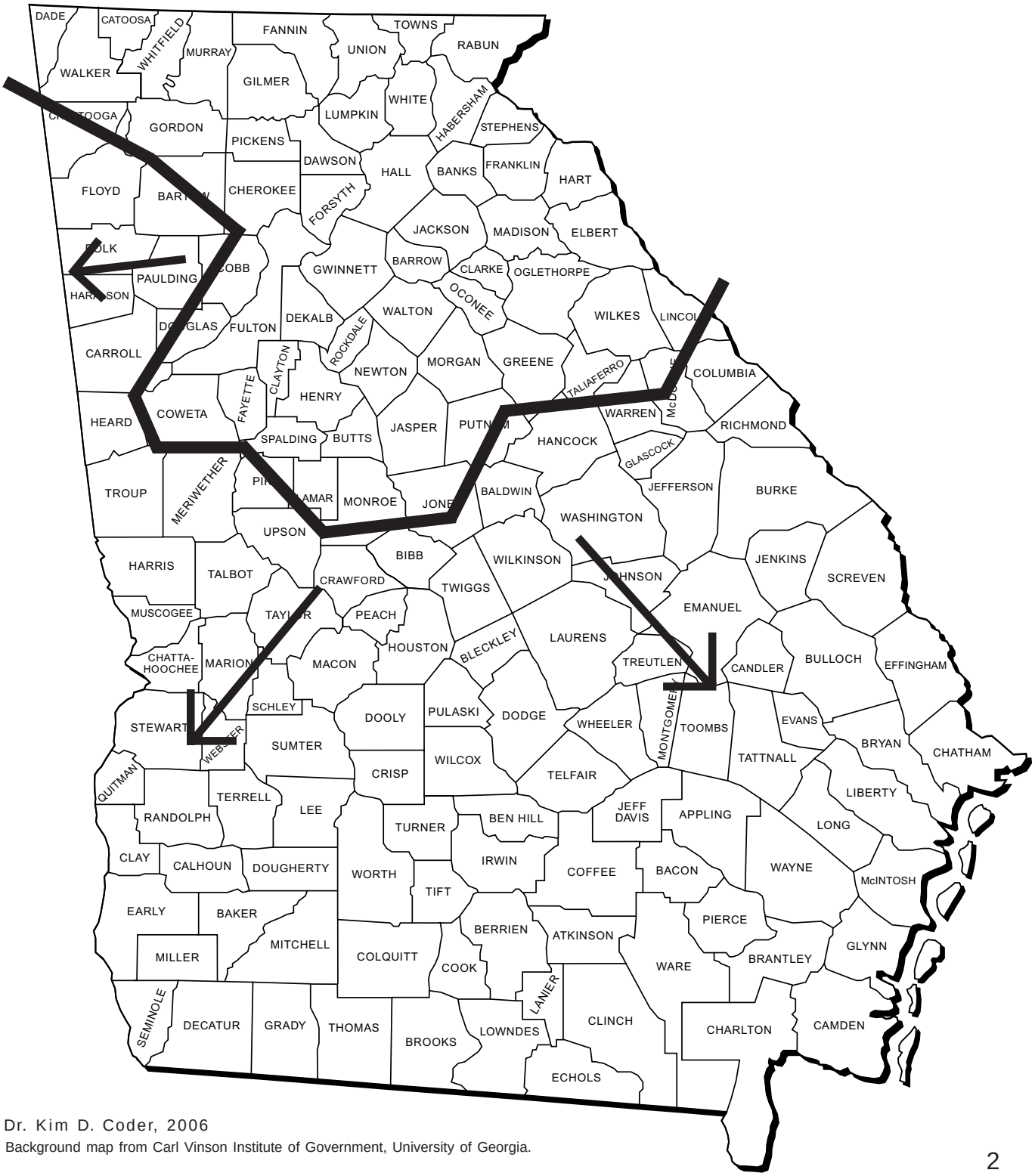
Native Range Of Growth For *Pinus palustris*: longleaf pine

Native contiguous range derived from federal and state maps, herbarium samples and personal observations. The native range includes all areas south and west 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.