

EASTERN HEMLOCK

Tsuga canadensis (L) Carr.

OTHER COMMON NAMES: Canada hemlock, Hemlock, Hemlock spruce.

FORM: Usually 60-70 feet high, occasionally 100 feet tall, with trunk diameter 2-4 feet; in the open the crown is obtusely pyramidal, consisting of horizontal branches, (the lower pendulous), which extend to the ground; in the forest the trunk may be devoid of branches more than half of its length and conspicuously tapers toward its apex; branches and foliage in flat-topped sprays.

BARK: 1/2-3/4 inches thick, reddish or grayish-brown, deeply divided by long fissures into broad ridges, closely scaly on the surface.

TWIGS: Their first winter, yellowish-brown and pubescent, later dark grayish or purplish brown and glabrous.

LEAVES: Alternate, appear to be 2-ranked, oblong-linear, flat, obscurely grooved, rounded or notched at apex, dark yellowish-green above, two broad white glaucous lines beneath, 1/2-2/3 inch long, about 1/16 inch wide.

FLOWERS: Appear about April or May, staminate and pistillate cones usually on the same branch; staminate near the ends of branches of the previous season, about 3/8 inch long, subglobose, yellow; pistillate cones terminal, oblong, about 1/8 inch long, pale green at pollination.

FRUIT: An ovate-oblong cone 1/2-3/4 inch long, suspended on a slender peduncle, turns reddish or grayish-brown in autumn; seeds light brown, winged, about 1/16 inch long.

WINTER BUDS: About 1/16 inch long, ovate, obtuse, slightly puberulous, light chestnut-brown.

WOOD: Light, hard, brash, coarse grained, splintery, subject to wind-shake, light brown tinged with red.

USES: Pulp, rough lumber, Historical uses: source of tannin.

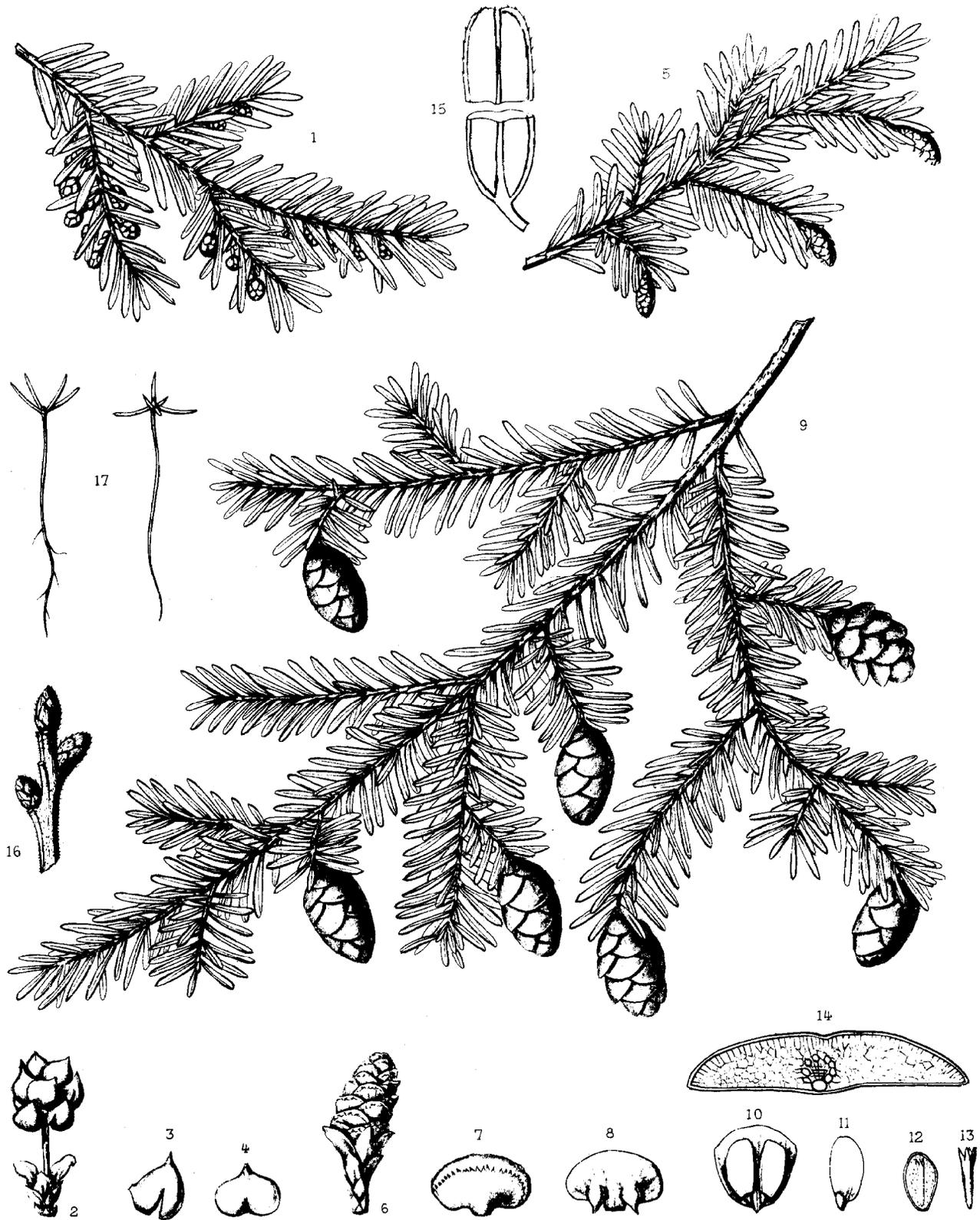
HABITAT: Prefers damp soil along streams, sides of glens or coves, northern slopes, borders of lakes, ponds and margins of swamps.

DISTINGUISHING CHARACTERISTICS: Linear needles with two longitudinal white streaks on the underside; the needles appear 2-ranked, but there is an inconspicuous row of needles on top of the twig; the bark is deeply divided by long fissures.

DISTRIBUTION IN ALABAMA: Franklin, Marion, Winston, Jackson, Bibb, and Jefferson Counties.

EXPLANATION OF PLATE

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| 1. A branch with staminate flowers | 9. A fruiting branch |
| 2. A staminate flower | 10. A cone scale |
| 3. An anther, side view | 11. A seed |
| 4. An anther, front view | 12. Vertical section of a seed |
| 5. A branch with pistillate flowers | 13. An embryo |
| 6. A pistillate flower | 14. Cross section of leaf |
| 7. A scale of a pistillate flower | 15. A leaf divided transversely |
| 8. A scale of a pistillate flower, upper side, with its ovules | 16. Winter branch buds |
| | 17. Seedling plants |



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