ILEX MONTICOLA.

PARTS of the flower usually in 4's or 5's; calyx-lobes acute, ciliate. Leaves ovate or lanceolate-oblong.

Ilex monticola, Gray, *Man.* ed. 2, 264. — Koch, *Dendr.* ii. 228. — Maximowicz, *Mém. Acad. Sci. St. Pétersbourg*, ser. 7, xxix. 30. — Chapman, *Fl.* ed. 2, Suppl. 633. — Trelease, *Trans. St. Louis Acad.* v. 347. — Sargent, *Garden and Forest*, ii. 352. — Watson & Coulter, *Gray's Man.* ed. 6, 108.

I. ambiguus, Torrey, *Fl. N. Y.* ii. 2 (excl. syn.).

I. montana, Gray, *Man.* 276 (not *Prinos montana*, Sw.).

A tree, thirty to forty feet in height, with a short trunk sometimes ten to twelve inches in diameter, slender branches forming a narrow pyramidal head, and fibrous roots; or more often, a low shrub with spreading stems. The bark of the trunk is usually less than one sixteenth of an inch thick, with a light brown surface covered with lenticels. The branchlets are more or less zigzag, glabrous, and covered when they first appear with pale red-brown bark, which becomes dark gray by the end of the first season. The winter-buds are obtuse, with ovate keeled apiculate light brown scales. The leaves are ovate or lanceolate-oblong, wedge-shaped or rounded at the base, and acute at the apex; they are deciduous, membranaceous, long-petioled, sharply and rather remotely serrate with minutely glandular teeth, glabrous or sparingly hairy along the veins on both surfaces. They are four or five inches long and a half to two inches broad, or at the north often much smaller, light green above, pale on the lower surface, with a prominent midrib and primary veins. The flowers appear in June when the leaves are more than half grown, and are produced in one to two-flowered cymes aggregated at the ends of the lateral spur-like branches of the preceding year, or solitary on the shoots of the season. The pedicels of the sterile flowers are half an inch long, and much longer than those of the fertile flowers. These are characterized by acute calyx-lobes with ciliate margins and by an ovary contracted below the broad flat stigma. The fruit is globular, nearly half an inch in diameter, bright scarlet, and crowned with the remnants of the large stigma. The nutlets are deeply ribbed on the back and sides.

The most northern stations where *Ilex monticola* is known to grow naturally are the Catskill Mountains and Cattaraugus County, New York; it extends through the mountains of Pennsylvania, its eastern station in that state being in Northampton County, and southward along the mountains to northern Alabama. It is only on the lower slopes of the Alleghany Mountains in North and South Carolina that *Ilex monticola* attains the habit and size of a tree, reaching its greatest development on the banks of streams flowing from the Blue Ridge, where it is often found growing in peaty soil in thickets of the Great Rhododendron, and accompanied by the Mountain Magnolia, the Yellow Poplar, the Black Birch, the Yellow Birch, the Red Maple, and the Mountain Ash.

The wood of *Ilex monticola* is hard, heavy, and close-grained. It is creamy white, and contains numerous thin medullary rays. The specific gravity of the absolutely dry wood is 0.6563, a cubic foot weighing 40.90 pounds.[1]

Ilex monticola was apparently overlooked by the early botanists who explored the forests of the Alleghany Mountains; and it was not distinguished until about 1840, when Mr. John Carey[2] discovered it on the Catskill Mountains.

[1] This tree apparently grows very slowly. The specimen in the Jesup collection of North American woods in the American Museum of Natural History, New York, is five inches in diameter, and shows one hundred and seven layers of annual growth, of which seventy-nine are sapwood.

[2] John Carey (1798–1880); a native of London, who removed in 1830 to the United States where he resided until 1852, when he returned to England and engaged in commercial pursuits. On his arrival in America Mr. Carey settled first at Tonawanda, New York, then in Vermont, and finally in the city of New York. He had acquired a taste for the study of botany before leaving England, and on his arrival in America began at once to devote himself assiduously to the study of the flora of the northern states, forming intimate relations with Drs. Torrey and Gray. With the last