

year being near the top of the tree mostly, the previous years next below, that of the year before further down, and so on, the cones diminishing in quantity downwardly as their age is increased. The cone is attached to its branchlets by a curved stalk (whereas that of *P. alba* is straight), and the cone itself is conspicuously much wider in the middle than towards base or apex ; several of these differences are taken from Dr. Bell's notes, but are entirely in accordance with my own observations.

This species appears to be widely distributed, both in coast and inland districts, extending apparently far north, and in the south ascending the mountains. Black spruce is famed among lumbermen as a tree yielding sound, strong and lasting timber. In Nova Scotia it is found, not on dry ground, but on wet flats, apparently irrespective of atmospheric moisture. In inland districts, groves of it occur in the red spruce forests, on the wet lands around lakes, and along river sides, and on shelving terraces on the hill sides, but it also grows down to the sea-shore intermixed with *P. alba*—the favoring condition apparently being a retentive moist soil. In the north and north-west, the tree appears, from accounts and photographs received, to be more vigorous than along the Atlantic region of Nova Scotia.

3. *PICEA RUBRA*, *Link*, in *Linnæa*, xv, p. 521.

*Picea rubra*, the red spruce, is readily known by its clean, uniform bark (not broken into large scales) of a distinctly reddish color, by its long slender shoots, giving it the appearance of being a more rapid grower than *nigra*, but not so robust in habit as *alba*, and by its bright green foliage, without any trace of hoariness or glaucescence. The leaves, as compared with those of the allied species, are short, incurved, not so secundly as in *alba*, but bent inwards towards the branchlets, and on the leading shoots they are more or less closely appressed to the leader, giving it a very elongated slender appearance. The year's shoots are of a lively chestnut-red color, and are beset with short, erect, thickish, curved, epidermal processes (trichomes), which arise especially around the edges of the flat basal plates of the leaf-bases, variously called peg-processes, sterigmata, etc. The cones are of a bright chestnut color, regularly ovate in form. The wood is softer than that of the black spruce, it is also less enduring