

FORESTRY IN BRITISH COLUMBIA.*

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At the present time British Columbia probably possesses within its limits larger unbroken areas of primeval forest than any other country in the world, and is destined in the near future to be the principal source of supply of timber and wood pulp. Hence the question arises how best to conserve our forest wealth to the best advantage and for the greatest good.

British Columbia, it must be premised, is a province of vast extent, extending as it does from the forty-ninth degree of latitude on its southern boundary, to the sixtieth degree on its northern boundary, bounded on the west by the Pacific ocean and on the east by the 120 degree of longitude and the Rocky mountains.

The climatic conditions within this great area, owing to natural causes, it can easily be imagined, are most variable and calculated to suit the requirements of many different kinds of forest trees. Amongst the most prominent of them I make mention of the following. And here I may explain that the descriptions are largely quotations from a report I made some years ago, at the request of the Admiralty, and will serve, to some extent, to give an idea of the forestry resources of British Columbia. I reproduce my remarks with all diffidence, and subject to correction, as I am quite aware of my liability to err in statements involving interests of such magnitude.

Without doubt the timber of greatest economic value in the province, and of which there is the greatest quantity, and most generally distributed, is the Douglas Fir, sometimes called Red Fir and Oregon Pine; it is now known under the botanical name of *Pseudotsuga Douglasii*—Carr.

The synonyms are:

Pinus taxifolia—Lamb.
Abies Douglasii—Lindl.
Abies mucronata—Raf.
Pinus Douglasii—Lamb.
Abies Douglasii—Gordon.
(var *taxifolia*)

Its range may be said to practically extend to the whole of the province with the exception of the Queen Charlotte Islands, where it is said it does not grow, and it accommodates itself to all altitudes from sea level to 6,000 feet; at great altitudes, however, it only grows in a very stunted form. Dawson says: "The best grown specimens are found near the coast, in proximity to the waters of the many bays and inlets which indent it. Here the tree frequently surpasses eight feet in diameter, at a considerable height above the ground, and reaches a height of from 200 to 300 feet, forming prodigious and dark forests." My own experience is that Dawson is quite right in his remarks, and therefore it will readily be seen that the shipping facilities are exceptionally good for the best qualities of this useful timber. Amongst the uses it is put to I may mention house building, ship building, bridging, wharves, piles, masts, furniture, fencing, etc. When growing singly in the open it forms a very beautiful and useful shade tree, the branches starting from near the ground and growing out very thickly all along the stem. It is, however, practically useless for commercial purposes when growing in this form, and it is only useful when growing thickly together in dense forests. In the latter state it grows without branches except at the top and so yields timber of immense size and length, without knots, particularly suited for bridging and similar works. In this country it is not particularly liable to attacks of insects and dry rot, except when immersed in the sea, where it (in common with most of the other woods of the country) is subject to the attacks of the *Penicillaria teredo*. When submerged or buried under ground, away from the influence of the air, it is very durable and will in these positions last for many years; it soon rots, however, if left lying on the ground exposed to damp. The usual methods of seasoning for ordinary purposes is by piling the manufactured wood in the open air and allowing a free circulation of air to pass through the piece. When used for furniture and cabinet making it is usually seasoned in a hot air chamber. As much as 50,000 feet of good lumber have been cut off one acre in the Comox district, and this, although trees under two and over seven feet in diameter, were not used. This is by no means the only instance recorded of so large a cut.

The wood next in importance is probably the Cedar, generally known as Red Cedar, it is also sometimes

called Yellow Cedar, (not to be confounded with Yellow Cypress or Cedar); botanically it is known as *Thuya Gigantea*—Nutt.

The synonyms are:

Thuya plicata—Don.
Thuya Menziesii—Doug.

This tree is very generally distributed on Vancouver Island and the coast of the mainland to the westward of the coast range. Scarce in the dry central plateau, it however again occurs in considerable quantities in the Selkirk and gold ranges of the mountains. As in the case of the Douglas Fir, the finest specimens are to be obtained in proximity to the sea coast. Here the trees attain an immense size, some idea of which may be formed from the fact that some of the native canoes which are all hewn out of the trunks, are six feet and more from the level of the gunwale to the bottom. An Indian plank hewn out of this wood is at present at the museum here, the dimensions of which are 5 ft. wide by 15 ft. long, and this is by no means anything like as wide as others on the west coast. Although second in importance as regards its economic value, it is a more valuable wood than the Douglas Fir, being used principally for interior finishing, cabinet making, doors, shingles, and posts. It is very ornamental when properly finished, splits well, and lasts a long time in the ground. In a specimen bundle of split shingles sent by this Department to the Chicago Exhibition, each shingle measured 22 inches wide, and split boards quite straight from 12 to 15 inches wide and 12 feet long. As regards attacks of insects, dry rot, seasoning and accessibility for transportation, my remarks under Douglas Fir will also answer for this wood. As an ornamental tree it has few equals, and is certainly the finest of our native trees.

Very little below Cedar as regards its economic value is the Spruce, botanically known as *Picea Sitchensis*—Carr—with the synonyms of

Pinus Sitchensis—Bong.
Abies Menziesii—Lindl.
Pinus Menziesii—Doug.
Abies Sitchensis—Lindley & Gordon.

Dawson says, "This tree seems to be confined chiefly to the immediate vicinity of the coast of British Columbia, where it attains a large size." It grows in large quantities in all low lying land in the vicinity of the coast, and is therefore easily accessible for transportation. Its height is not so great as that of the Douglas Fir, but if anything it is larger at the butt; I myself saw one which measured nearly sixteen feet in diameter. The wood of this tree is very white and light, resembling white pine, but is more elastic, and will bend with the grain without splitting. It is therefore much used for boat building, light spoon bladed oars, boxes, shelving and interior work. It lasts a long time without decaying and is an equally good insect resistant as the Douglas Fir. As the shrinkage is generally very great, it is generally kilndried before using, or kept stored away until it is thoroughly seasoned. On account of the sharp pointed short fronds it is quite impossible to grasp them in the naked hand, and this renders this tree easily distinguished from the other Coniferae.

The Yellow Cedar or Yellow Cypress probably ranks next in its economic value. It is known botanically under the name of *Thuya Excelsa*—Bong—and the synonyms of

Cupressus Nutkaensis—Hook.
Chamaecyparis Nutkaensis—Spach.

This tree is not nearly so plentiful as any of the foregoing, its range being confined to the coast ranges of the mainland and islands, generally at a considerable elevation in the southern part of the province, where it occurs in no great quantities. On Queen Charlotte Islands, however, Mr. Dawson says, it is abundant and reaches the sea level. It there also attains a size of six feet and more in diameter. In my experience I have seldom seen it over four feet. On account of its beautiful color and close grain it takes a high polish, and is susceptible of being manufactured into beautiful articles of furniture and interior decorations, hence it commands a much higher price than the woods previously mentioned. It is highly esteemed for ship building, as it is very durable, and is generally credited on account of its strong, pungent, but rather agreeable odor to be teredo resistant; of this, however, I am not prepared to vouch. The natives of the northern part of the province use it largely for paddles, carvings, boxes, and articles of domestic use. It is said that on account of its liability to shrink lengthwise, as well as laterally, it requires to be well

seasoned for use. The expense of bringing this timber to shipping points is somewhat great, except in the northern parts of the province, where it abounds near the sea coast. The long and slender pendulous fronds which hang from the branches give the tree a very graceful appearance, and the strong pungent odor of the wood which it emits when freshly cut, and which it never loses renders it very easy of identification.

The Hemlock, known botanically as *Tsuga Menziesiana*—Carr—and its synonyms of

Pinus Menziesiana
Pinus Canadensis—Bong.
Abies Menziesiana—Lindl.
Abies Alutiana—Murray
Pinus Pseudotsugana
Abies Pattonii—McNab

is, except the bark, practically unused at the present time. Its range extends over the whole of the coast line, where it grows to an enormous size in dark gloomy forests, generally barren of other vegetation, except scattered bushes of the whortle berry (*Vaccinium myrtillus*), with a thick carpet of moss covering the ground. The bark is extensively used for tanning, but although good for inside work, is liable to decay when exposed to wet. It is but fair to say that partly on account of the abundance of other coniferous woods, and the prejudice existing against it, it has never been fully tested, and it is quite possible it may possess unexpected virtues. As its habitat is generally at no great distance from the sea, it is a wood which could be transported to shipping points without great expense. When young the tree is decidedly pretty, and the like fronds which enshroud the trunk form a most welcome and soft bed for the weary prospector or trapper.

The Western White Fir or Balsam Fir, *Abies Grandis*—Lindl.—synonyms:

Pinus grandis—Doug.
Picea grandis—London
Abies Gordoniana—Carr
Abies amabilis—Murray

is quite common in the vicinity of the coast, and grows to a large size, but the wood is held in small esteem, being perishable and brittle. It is, however, white and light, and may in course of time be put to use for boxes, etc. The bark when young is thickly covered with bladders or cells filled with a liquid resinous gum which has great healing properties.

The tree, with its thick flat fronds and rigid growth, although grand in appearance, is rather too stiff and formal and too much of the Noah's ark type to be pleasing.

The Western White pine, known as *Pinus Maximiliana* (Douglas), with its synonyms of

Pinus strobus var *monticola* (Nutt.)
Pinus porphyrocarpa (Lawson.)
Pinus strobus (Hook.)

Dawson says: "It is found in scattered groups, but in no great quantities, on the slopes of the mountains of the interior, where the rainfall is plentiful, and is common in parts of the interior of Vancouver Island and in the Coast Range where there is an abundant rainfall." The wood is nearly identical with and nearly equal to the celebrated "King of Woods," as it is called, the White Pine (*Pinus Strobus*) of Eastern Canada. It has, however, thus far been but little utilized, partly on account of the difficulty of getting it in sufficient quantities together, and partly on account of the expense of transporting it to shipping points. It is the most excellent for window sashes, doors, powder barrels and similar work. Being a white and very light wood, it is suitable for outside work, and has a tendency to absorb moisture when in contact with the ground, and is therefore liable to decay. It is a very grand looking tree, with long bluish green fronds, and cones from eight to twelve inches long.

The other coniferæ of the Province do not, in my opinion require special descriptions, growing as they do in comparatively limited quantities, many of them in the interior of the country, and only used in default of better timber. Some of the principal varieties are:

Western Yellow Pine or Bull Pine (*Pinus Flexilis*) (Doug.)
Pinus Resinosa (Hook.)

Its habitat is the dry plateau of the interior, between the coast and gold ranges. It is a handsome tree, with smooth red bark, very long and large cones bearing a large quantity of seed, etc.

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