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THE FORESTS OF CAPE BRETON
IN THE SEVENTEENTH AND EIGHTEENTH
CENTURIES

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ABSTRACT

A description of the primeval forests of Cape Breton Island has been compiled from the accounts of observers and writers in the seventeenth and eighteenth centuries. As an aid in locating the areas described a map has been constructed showing the probable routes followed by these people in their travels about the island. The accounts used were those of Nicholas Denys (1672), the Sieur de la Roque (1752), Thomas Pichon (1760), an anonymous account (1758), Thomas Jeffreys (1760), Samuel Holland (1768), and Joseph Bouchette (1832). The records left by these men form a fairly complete description of the forests which covered a coastal strip about the island and the Bras d'Or Lake, an area now largely cleared and settled. From this it appears that the forests consisted largely of the same associations which now make up the climax Hemlock—White Pine—Northern Hardwood forests of the untouched areas of the island. The forest at the edge of the northern plateau, a boreal forest mainly of fir, has survived relatively untouched, and the poor type forest of fir and spruce on the south and south-east coasts which is prevalent there today was in existence three hundred years ago. It is thought that this latter forest is related to the Fir Edaphic climax of Nichols. Of particular interest in the accounts is the mention of elm in the river valleys and the frequent reference to oak and ash throughout the hardwood forests since both species are comparatively rare today.

The primeval forests of Cape Breton Island have been described by several early travellers. These descriptions are of interest today as a demonstration of the value of historical data in forestry research and because of the comparisons which can be made between the primeval forests described and the remnants of these forests which still exist today. The early forest descriptions, while mainly concerned with the coastal

strip, describe the forests as seen by the first white men and before they were cut or cleared for settlement.

Cape Breton Island, Nova Scotia, is one of the more easterly tips of North America. The island has a maximum length of one hundred and ten miles and is seventy-five miles in width at the widest point. It is below one thousand feet in elevation except for the northern plateau where the hills commonly attain an elevation of fifteen hundred feet. The Bras d'Or Lake, an arm of the sea, occupies a large area in the center of the island.

According to some historians, the first land to be sighted by the discoverers of North America was Cape Breton Island. The island belonged to France until 1763 and during this time several thousand fishermen-farmers settled on the south-east coast. After the fall of Louisbourg and the beginning of British rule, the island was rapidly settled by some Loyalists and many Scottish emigrants, late in the eighteenth and early in the nineteenth century respectively.

The men whose accounts of Cape Breton have been used in this report are Nicolas Denys, the Sieur de la Roque, Thomas Pichon, Thomas Jefferys, Samuel Holland, Joseph Bouchette, and an anonymous author. These men seem to have been interested in all aspects of this new country but because of the particular work in which they were engaged, they did not always stress the nature of the forests which they observed during their travels. Nevertheless, Samuel Holland gave quite a full description of the forests of the island while the Sieur de la Roque and Thomas Pichon gave what appear to be accurate accounts of the forests of the south-east coast. The other travellers described the forests of at least one particular area.

Nicolas Denys was a French trader who came to Nova Scotia in 1632. In 1651 he established a trading post at St. Peters. After several setbacks he became in 1654, Governor of Cape Breton Island, Prince Edward Island, and the coast from Canso to Gaspe. He remained so until his return to France in 1670 after a disastrous fire which destroyed his fort at St. Peters. Denys' report (Trans. 1908) is based upon what he heard from the Indians and on what he actually saw while sailing near the coast.

The *Sieur de la Roque* was a land-surveyor who carried out a detailed census of Cape Breton for the French Government, beginning in the winter of 1752. His observations on the forests were made during the course of this work while he travelled on the roads existing at that time, while following parts of the east coast, and while on a cross-country trip from West Bay to Port Hood. His "Journal and Census of Ile Royale" is contained within a report of the Canadian Archives (1906).

Thomas Pichon accompanied the *Sieur de la Roque* during the first part of the census-taking journey. Since Pichon's observations (1760) seem to be more complete than those of his companion, they are included in this study.

Thomas Jefferys was a King's Surveyor for Great Britain in 1760. His observations on the country near St. Ann and Sydney (1760) are similar to those made by an anonymous author who wrote in 1758.

Samuel Holland was Surveyor of Eastern North America for the British King, George III. After the treaty of Utrecht in 1763 he was sent from Quebec in 1765 to survey the island of Cape Breton. He spent two summers making a detailed survey of the coastal areas. Unfortunately, in the course of time his maps and drawings were mislaid, but his letters, notes and other documents have been preserved (Harvey, 1935). Holland's information on the forests is the most detailed and is a record of what he saw while sailing near the coast and at times landing, except for one expedition overland made to Loch Lomond at the head of the Grand River on the south coast.

The Surveyor-general of Canada, Charles Morris, had Holland's report sent to the King's Government on May 24, 1774. On the basis of this the island was declared to be His Majesty's Timber Reserve on September 7, 1774 and remained as such until July 1, 1775 when it was opened for settlement. The fact that such a step was taken is in itself an indication of the value placed upon the forests which existed on the island at that time.

Joseph Bouchette was a Surveyor-general of Canada who in 1830 wrote a geography of the country. His observations are not confined to the forests and are included here to show that Cape Breton was rapidly being settled by 1825.

According to Harvey (1935), “. . . Cape Breton Island reached the year 1784 practically unencumbered by any title to land . . .”. Today little of the region described by Nicholas Denys and his successors remains as they saw it; only the useless and relatively inaccessible parts of the forest are untouched.

The accompanying map shows the probable routes followed by the men who actually visited the island. In some cases the route could be accurately mapped from the data given, while in other cases this had to be interpreted from obsolete place names and descriptions of rivers and other land-marks. In general, however, little doubt exists as to the general routes followed. Holland gave new names to all the places which he visited and changed existing place names to English ones, only some of which have been retained to the present day.

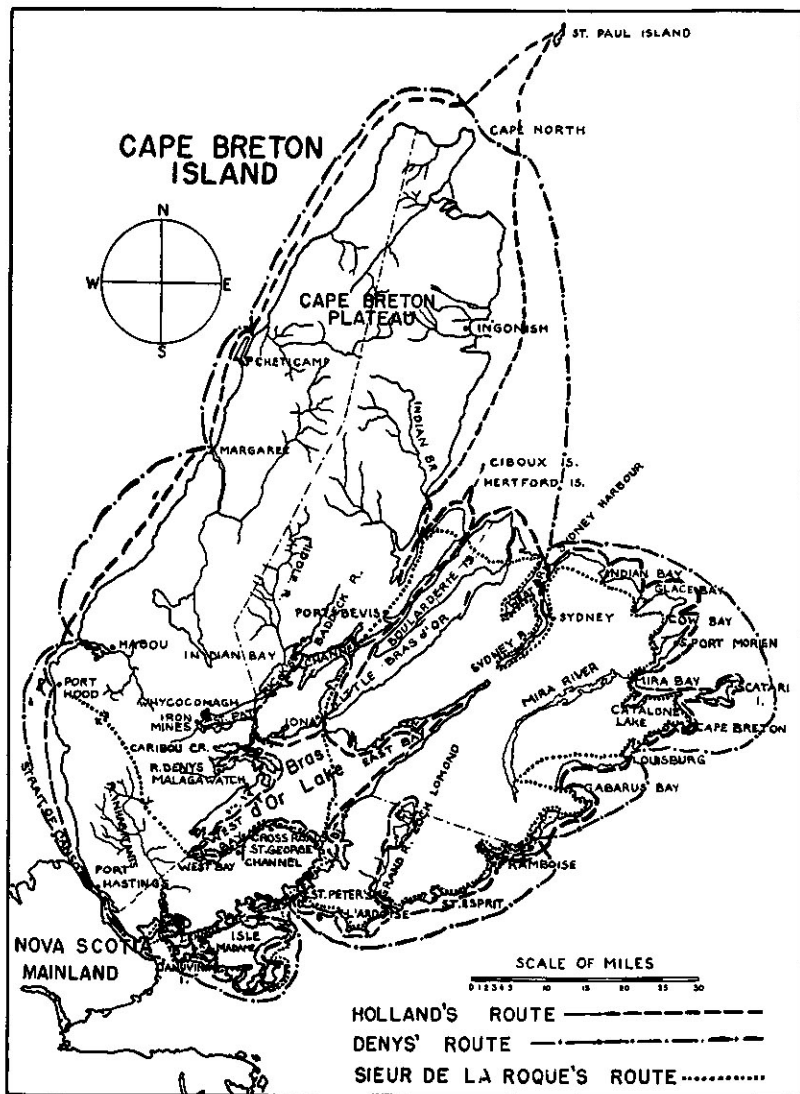
An examination of the map shows that these men probably saw little more than a narrow strip, possibly five miles wide, along the coast of the island and about the Bras d'Or Lake. Exceptions are the inland trips of the Sieur de la Roque and Holland

The common names of tree species used in the early descriptions have been correlated as nearly as possible with present day names. Sometimes the description of the tree was included in the account and this helped considerably in determining which species was meant. For example, Pichon described the “white thorn” tree as having smooth, glossy bark and producing small protuberances about the size of a kidney bean which contain a kind of turpentine used for healing all sorts of wounds. This is probably what is now known as balsam fir.

After an examination of the forest descriptions, it appeared that these could be most conveniently treated by grouping them under three headings based upon sections of the coast. These are the west and north coast from Port Hastings to St. Paul Island, the south and south-east coast from the Strait of Canso to Flat Point near Sydney, and the Bras d'Or Lake and the east coast to Ingonish.

West and North Coasts.

The timber in the region of Port Hastings was of good quality and was used in the construction of fishing vessels (Holland). The Sieur de la Roque noted that a mountain



near the head of the River Inhabitants had its slopes covered with hardwoods in which beech was predominant. Further north along what is now the Inverness County coast in the vicinity of Port Hood the land was low and wooded (Holland) and covered with poor spruce trees (Sieur de la Roque). In the opinion of Denys, the valley of the Mabou River possessed the only good quality forests seen along the entire coast. The meadow-lands of the Margaree River were mentioned by Holland as ideal for improvement but no forests were described for this valley. Northward along the coastal plain from Margaree to the mouth of the Cheticamp River the land was low, flat and covered with trees of all kinds such as ash, birch, beech, maple, pine, and fir but none of these trees were considered to be good timber (Denys). This same area was seen and described by Holland about 100 years later as low and mostly barren, but this author also noted that the French built many fishing boats at Cheticamp. Little information on the forest cover of the coastal strip from the Cheticamp River to Cape North was given except for Denys who reported that this area was "nothing but rocks covered with firs", with some small birch intermingled. Holland described St. Paul Island as a barren rock covered with small spruce trees. A later description of this island is given by Bouchette in 1825 as rocky with some marsh and bog with stunted fir and white birch as the only trees.

Denys, the Sieur de la Roque, and Holland all described in part the forest cover of the coastal strip, mainly as observed from a boat at sea. Apparently in only a few cases were rivers explored or overland journeys undertaken. Since a large part of this region was subsequently settled and cleared or cut, their descriptions are of considerable interest. Bouchette in 1825 records that the whole west coast possessed good land and was at that time thickly settled by Scottish emigrant-farmers for four or five miles inland, and that Port Hood already carried on a considerable trade in agricultural produce with Newfoundland. The valley of the Margaree River and the coast from there to Cheticamp was entirely settled by Acadian fishermen-farmers. It would appear from the above that the west coast of Cape Breton was mainly settled after Holland's survey of 1765-1767 and before that of Bouchette in 1825.

The poor type spruce forest in the vicinity of Port Hood described by the Sieur de la Roque has now largely been cut

or cleared, but in some areas, especially to the south, still exists. The fir and small birch forest just north of Cheticamp mentioned by Denys, and the spruce-fir-white birch forest of St. Paul Island (Holland, Bouchette) are still in existence as part of the Boreal Forest Formation described by Nichols (1918) and Collins (1951), and which is characteristic of the northern plateau of Cape Breton. The coastal forest of ash, beech, maple, pine, and fir trees recorded by Denys for the Margaree to Cheticamp section probably represents a poor growth type of the Hemlock-White Pine-Northern Hardwood Forest of Nichols (1935). Much of this section has now been cut, but virgin stands of better growth type of the same forest can be seen in the more remote ravines and slopes at the back of the coastal strip.

The forests described by these early travellers are on the whole of a poor type. This is not surprising when it is recalled that they saw, for the most part, only a few miles inland from the coast. When penetrations were made further inland, as for example, Denys in the valley of the Mabou River, and the Sieur de la Roque at the head-waters of the River Inhabitants, better type forests were seen and described. In addition, the fact that some ship-building was carried on at Cheticamp and Port Hastings is indicative of the fact that good quality timber was readily accessible near these places.

South and South-east Coast.

The River Inhabitants and the basin of that name supported a mixed forest of hardwood and fine fir trees from which two by twelve inch planks were cut (Sieur de la Roque). There were excellent meadows on the river and the forests nearby had beech, fir, pine, some oak, and other trees (Pichon). Holland was told of French sawmills which had been erected on the river and which were supplied from the fine forests of the district.

Janvrin Island, just west of Isle Madame, was occupied by a forest of small spruce and pine (Holland). Isle Madame was mostly covered with a mixture of spruce and fir of poor quality particularly near the coast (Sieur de la Roque, Pichon, Holland). The Sieur de la Roque and Pichon saw some stands of beech and yellow birch in the interior of the island and this was also reported to Holland. A forest of beech near Arichat Harbour and West Arichat was mentioned by Pichon who

also wrote of the people of the island who made a living by cutting cordwood which was loaded by the English into three hundred ton ships at the Bay of Rocks.

The north shore of Lennox Channel toward St. Peters supported fine stands of timber (Holland), fir near the coast and hardwoods on the hills inland (Sieur de la Roque, Pichon). Pichon was told by the people of St. Peters of an excellent antiscorbutic which they brewed from the tops of fir and of a kind of turpentine called balm which they extracted from this tree. Furniture and gunstocks were made from the fine-grained maple of the district, and the sap of this tree was boiled down to make maple sugar.

Denys wrote that the land east of St. Peters as far as the Grand River was poor and supported a fir forest of little value. This observation was confirmed by all subsequent reports. Pichon noted that the land between St. Peters and Forchu was covered with fir, brambles, and bogs; the Sieur de la Roque saw poor and marshy land covered with fir between St. Peters and Gabarus; and Holland recorded a forest of small spruce and pine trees from L'Ardoise to Gabarus but noted that the barrens at Framboise and Grand River were good hunting grounds. The only hardwood stands mentioned in the reports of this area were those near L'Ardoise (Pichon, Sieur de la Roque), and Grand River (Sieur de la Roque). This latter stand included some pine and spruce.

The road inland from Gabarus to Mira Lake, travelled by the Sieur de la Roque, ran through a beech forest, while that from the lake to Louisbourg was through a softwood forest, mainly fir. Bogs between Flat Point and Louisbourg were mentioned by the Sieur de la Roque. Holland described the approach to this latter place: ". . . on each side of the road you enter upon a barren, rocky, swampy tract, with low brush of spruce and pine".

The coast from Louisbourg to Cape Breton was barren for at least two or three miles inland (Holland) and a layer of peat at least ten to fifteen feet deep covered a large area around the cape (Sieur de la Roque). Further east toward Main-a-Dieu the land was occupied by a scrubby forest (Holland).

Scatari Island, lying directly off Main-a-Dieu, was described by three of the travellers. The Sieur de la Roque noted

that the only trees were scrub fir and spruce not even fit for the construction of fish drying racks; Pichon saw only moss; and Holland described the island as being very rocky and barren, having but some small spruce, moss, and berries.

Between Main-a-Dieu and Catalone Lake the forests were of good quality, as they were about Mira Lake. Holland also wrote of the fine soils, lofty trees, and excellent quality of the forests in the latter area and noted that the timbers for the Cow Bay wharf were brought from the Mira River. No tree species were named for the Mira region.

Holland also noted that the good forests of the Mira district graded out into a scrubby forest toward Cow Bay as they had toward Louisbourg. The vicinity of Cow Bay was covered with fir (Sieur de la Roque) except for some common lands to the north. This writer also described the Glace Bay area as covered with a mixed forest, mostly fir, and the forests of the rest of the coast as useless. Holland's note that the woods were indifferent between North Head and Flat Point seems to agree with this comment.

One of the most interesting aspects of the descriptions of the south and south-east coast is the agreement of all authors on the poor quality of the forests which existed there. This region was described as an area of bogs, barrens, and rocks, with a forest of stunted fir and spruce trees for the most part, which extended inland for a considerable distance. Bouchette (1832) differs from the earlier authors for he wrote that the whole coast from the Strait of Canso to Grand River was of superior quality. The occurrence of pine in this area as mentioned by Holland may refer to jack pine which is known but is very rare in Richmond County at the present time (Roland, 1941). It is more probable, however, that Holland used the name pine to designate either fir or spruce, since the former is not mentioned by him in an area where it was undoubtedly common (Pichon, Sieur de la Roque, Denys). This coastal strip of fir and spruce remains a characteristic part of the forests of Cape Breton and may be a part of the Edaphic Fir climax described by Nichols (1918) near Baddeck.

Apparently inland on higher and more protected sites, hardwood forests with admixtures of spruce, fir and pine existed. Examples of such stands are those about the Mira River (Sieur de la Roque, Holland), and the sheltered hillsides

of Lennox Channel (Sieur de la Roque, Pichon, Holland). Two river valleys, those of the River Inhabitants and the Grand River, were mentioned as supplying particularly fine timber. The forests here were apparently composed of hardwoods, including oak, with pine, fir and spruce. Today both valleys have been settled and the original forests of the valley floors have disappeared. These forests were part of the Hemlock-White Pine-Northern Hardwood Type (Nichols, 1935), characteristic of the lowlands of Cape Breton. Stands of a similar nature are still in existence in a near virgin state on the Mira Hills, Cape Breton County, and on the Sporting Mount-ains of Richmond County.

East Coast and Bras d'Or Lake.

The barren nature of the country surrounding Ingonish caused this place to be deserted during the winter, and even the few inhabitants who were there had to bring fuel wood from St. Ann (Pichon). To the south of Cape Smoky on the Indian Brook and Barrasois River the woods were very good (Holland).

The forests in the vicinity of St. Ann were mentioned by all travellers except Denys who, if he did land here did not record the fact. The trees at St. Ann were chiefly hardwoods (Sieur de la Roque) and were of fine quality, especially oak (Pichon). Maple, yellow birch and oak are mentioned by an anonymous author, and these with the addition of beech by Jeffreys. Excellent timber for ship-building could be obtained here (Anonymous, Jeffreys). According to Pichon the St. Ann district furnished Louisbourg with a thousand cords of fuel wood annually. Ciboux and Hertford Islands to the east of St. Ann were described by Holland as barren rocks serving as a nesting place for sea-fowls.

The south slope of English Mountain was covered with a mixed forest, chiefly fir (Sieur de la Roque). Holland records that the French built many ships on the coast at the foot of this mountain, including a large man-of-war, but that the masts and oak timber were brought from Boulardarie Island.

Boulardarie Island was rich in timber. Holland wrote, ". . . the Woods are of the best Sort, as Oak, Birch, Maple, Beech, &c, with Pines of all Kinds, & of a Growth fit for Masts of all Sorts; but they are in the Center of the Island, however by Means of a Rivulet, the Timber might be brought down,

when it overflows in the Springtime. Monsieur Boulandrie, the Proprietor in the French Time, had here several Saw Mills, particularly upon the aforementioned Rivulet, by which he supplied Louisbourg with Lumber."

Nicolas Denys probably saw the Bras d'Or Lake only near St. Peters, for he described the lands around the lake as being of fair quality with the hills mostly covered with pine and fir, with beech and birch intermingled. The anonymous account referred to the region as one from which fir, pine, and oak could be easily obtained. Holland's account of the forests of the Bras d'Or Lake region is very detailed and covers the entire coast, as well as the valleys of some of the rivers which drain into the lake. The woods from Bevis Point to Cow Point were composed of small spruce, beech, maple, birch and thick brush with moss and peat. A similar type of forest with the addition of small oak and ash trees was described at Indian Bay. The valley of the Middle River was noted as being rich with a deep soil supporting small hazel, alder, and elm trees up to a foot in diameter. The mountain slopes along this valley had pines two feet in diameter, and maple and beech eighteen inches in diameter. Ash up to thirty inches in diameter grew in the fertile valleys above Baddeck. Here the mountain sides had pine trees two feet in diameter, with maple, beech, and birch without underwood. The hills along the coast from Baddeck Bay to Iron Mines were covered with pine and spruce trees one and two feet in diameter, and maple and birch of a size comparable to those of the two preceding areas, and also without underbrush. A French sawmill at the head of Caribou Creek had been supplied from the vast quantity of fine timber, particularly spruce and pine, along the north-west side of St. Patrick's Channel. Indian Island at the head of this channel supported a forest chiefly of birch trees without underbrush. These trees were fifteen inches in diameter.

The poor moss-covered or swampy land between Hennis Cove and Alba Station was occupied by a dwarfed forest of birch, beech, maple, pine, spruce and aspen trees, with thick underbrush. A better type of forest, without underbrush, was described for River Denys and the River Denys Basin district. This was composed of pine (eighteen inches in diameter), spruce, beech, maple, birch, ash, and small hazel. Holland also described a forest of birch, beech, maple and some oak on the Crammond Islands. A similar forest covered the coastal

strip from Malagawatch to Cross Roads of St. Georges Channel, except for some pine, spruce and fir on the marshy land at the head of Gordon Cove near West Bay. There was more oak in the above coastal strip of hardwood than in any other part of Cape Breton seen by Holland.

According to the *Sieur de la Roque*, there were forests of spruce, beech, fir and good hardwoods between West Bay and Port Hood, while the region between West Bay and St. Peters Inlet was covered chiefly with beech and yellow birch. The forest on the coast between St. Peters Inlet and Iona was of beech, birch, maple, some oak, and locally spruce, pine and fir, all without underbrush (Holland). There was a mixed forest at Iona (*Sieur de la Roque*). The good land around the north end of Loch Lomond was covered with birch, maple, beech and ash, with little spruce and pine. This type of forest with the addition of plenty of good spruce and fir extended to the south end of Loch Lomond and down the Grand River to the falls (Holland).

All authors agreed on the large amount of excellent timber available in the Sydney Harbour area. This forest consisted of birch, beech, maple, ash, a few oak, and some pine and fir trees (Denys). Holland noted that this type of forest became poorer toward Flat Point.

When *Bouchette* described the island in 1825, the whole of the Bras d'Or coast was settled by Scottish emigrant-farmers, but even so there was a considerable amount of disposable land around the lake.

The area about the Bras d'Or Lake was described by all travellers as having the finest quality forests of all the areas on Cape Breton Island which they had visited. The only exception was Denys who may not have seen more than the coast of the lake near St. Peters. The descriptions leave little doubt that an excellent type of the Hemlock-White Pine-Northern Hardwood Forest existed here before settlement took place, and that this forest was used extensively by the French, as at *Boulardarie*. In the days of the early British settlement, it was also cut and shipped abroad. *Bouchette* notes that the River Denys and the Whycocomagh Basin were the places where the timber ships usually loaded.

The composition of the forest about the lake was often predominantly of hardwood species, but in some areas, as for

instance on the north shore of St. Patrick's Channel, coniferous species such as spruce and pine were abundant. The individual trees were of good growth form and of large size, and because of this and of the frequently mentioned lack of underbrush, were part of a climax forest. The frequent mention of oak and ash in the descriptions is of interest for today these species are rare. The record of elm on the intervalles of the Middle River supports the idea that elm is a native rather than an introduced species in Nova Scotia. For the most part the forests described by these travellers were cleared during or after settlement, but forest stands similar to those described still exist in a virgin state on the slopes behind the settlements. The forest of small birch, beech, maple, pine, spruce and aspen described for the coast from Iron Mines to River Denys by Holland remains essentially unchanged.

Second only to the forests about the Bras d'Or Lake were those centered on St. Ann. In size of trees and composition, with the exception of ash, these were similar to those of the Bras d'Or. Oak, while still known in the area, is rare or absent from the virgin stands which remain on the upper slopes of the hills, and in the upper parts of the river valleys.

The reference by Pichon to the barrenness of the country about Ingonish is not supported by the evidence of present day vegetation. Old age forests are present in the vicinity of the settlements.

Discussion

The nature of the primeval forests which occupied areas since disturbed by man must be judged from scattered remnants of this forest which may still exist, and from untouched stands in the vicinity of the disturbed areas. A third and most important source of evidence is the historical descriptions by men who actually saw the original forests before their destruction.

In Cape Breton, scattered remnants of the original forest can usually be found within the settled areas, and large tracts of virgin or near virgin forest exist near most settlements. In addition, accounts of the forests which formerly occupied much of the settled areas are available, dating from that of Denys three hundred years ago.

The early travellers described what they saw along the coast as they travelled by boat around the shores of Cape Bre-

ton Island and the Bras d'Or Lake. Apparently they landed only occasionally, and sometimes entered the larger harbours and rivers. Very rarely were overland trips described, but later, after the partial settlement of the island by the French, they used the few roads which existed. In general it can be said that they probably saw little more than a coastal strip, perhaps five miles wide. Even for this strip their descriptions are not complete, as no mention is made of several areas, notably the northern portion of the east coast. In general their records are probably reliable since there is seldom any doubt as to what area was described or as to the species meant.

From the descriptions it would seem that the forests which covered the coast of the Bras d'Or Lake, the Loch Lomond and Grand River area, the valley of the River Inhabitants and the region about St. Ann and north to Indian Brook were similar to those which exist in the vicinity today. All are various associations of species characteristic of the Hemlock-White Pine-Northern Hardwood forest of Cape Breton. Most accounts stressed the presence of ash and oak in these forests. Today these species are rare in the remaining climax forests. In the case of ash at least, this tree is more apt to occur on low-lying land such as that along the coast and in the river valleys, lands which were described by these authors but which have now been cleared. Due to the high value placed upon these trees their presence may have been overemphasised. In no case was hemlock mentioned by name. This species is not common in Cape Breton but it does exist in widely scattered localities throughout the island. It is probable that hemlock was included with other species of evergreens by these authors, for instance Pichon by his description uses the name "spruce-fir" for hemlock.

The forest described for the south and south-east coast, while more extensive in the past, was similar to that which exists there today. This poor type of fir and spruce forest may be similar to that described by Nichols (1918) as the Fir Edaphic climax.

The forests along the west coast were apparently a poorer type of the same associations which existed inland, but with a larger percentage of coniferous trees, particularly fir and spruce. The forest from Cheticamp to St. Paul Island was mainly composed of fir and birch. This remains essentially the same today in the undisturbed parts and in one aspect of the Boreal Forest which is characteristic of the Cape Breton Plateau.

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