

EDIBLE WILD PLANTS OF NOVA SCOTIA.—BY WALTER H.
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(Read 13th March, 1905.)

These notes on the edible wild plants of Nova Scotia are the result of my early experience in the backwoods, and are offered with the hope that they may prove of benefit to those whom business or accident may lead temporarily beyond the reach of the resources of civilization. While some of the wild fruits here mentioned, such as the blueberry and cranberry, are of commercial value, others are included because they may assist in sustaining life at a critical time. While lost in the forest, persons have perished through a want of knowledge of the resources which nature has bounteously provided in many sections at certain seasons of the year. As these resources are more animal than vegetable, the latter class has been much neglected. Therefore, the result to a lost man, unprovided with weapons or the means of snaring, trapping or catching game or fish, might be perhaps serious. I propose, therefore, to tabulate these edible plants, so far as known to me, and describe as freely and popularly as possible, all that have come under my personal notice. To Dr. A. H. MacKay I am indebted for several of the more difficult scientific identifications. As, however, the best scientific description, especially during the fruiting season, would be almost useless to the average man, we will be forced to largely fall back on nature's testing apparatus, the eyes, nose and mouth.

The nuts and seeds, with few exceptions, do not repay the labor and time spent in gathering, except in extreme cases; therefore an astute backwoodsman searches the hillsides for the stores of food buried by ground squirrels for winter use. These

industrious little animals dig burrows usually in the side of a small knoll (or cradle-hill as it is often called). The entrance is about 1 in. wide, and descends about 1 ft. at an angle of 40° to 50°, though often nearly vertically. After a tortuous and somewhat horizontal course of 2 ft. to 5 ft., a chamber nearly 1 ft. in diameter is made. In this is the nest, packed round with nuts and seeds of various kinds. Several branch burrows also contain the same kind of food, often to the amount of three or four gallons.

A knowledge of the appearance, location, and edible qualities of the plants described herein, though not always ensuring a bounteous meal, will, without doubt, keep off the pangs of hunger so frequently dwelt on in tales headed "Lost in the woods." To a backwoodsman of ordinary intelligence such stories sound like gross exaggerations. A pocket knife, a tin kettle, and a few matches, provide means of existing in a forest which would be totally inadequate in a city. The addition of a little sugar and salt would place him beyond need, and if he has any skill as a trapper the animal world would also be largely at his mercy.

Note.—The descriptions in this paper are intended to be given, as far as possible, in plain, untechnical language, so as to be easily understood by those for whom the paper is primarily intended, namely, persons with little or no botanical knowledge. The writer does not wish to be considered as at all attempting to present technically accurate descriptions, which may be found in various systematic works. The nomenclature is mainly that of Gray's *Manual of Botany*.

FRUITS AND BERRIES.

1. *Vaccinium Canadense* Kalm., and *Vaccinium Pennsylvanicum* Lam. Canadian, and Dwarf Blueberry.

Two species much alike; but the former has downy leaves with entire edges, the latter little or no down and finely-toothed

edges. 5 in. to 24 in. high, many branched, brownish-grey main stalks with green leaf stalks. Leaves, oblong and pointed, $\frac{3}{4}$ in. to $1\frac{1}{4}$ in. long, $\frac{1}{4}$ in. to $\frac{1}{2}$ in. wide, thin, light green. Berries blue to blueish-black, with thin skin, purple juicy pulp and many small seeds. Sweet to slightly acid, globular, $\frac{3}{16}$ in. to $\frac{1}{4}$ in. thick. A wholesome and valuable article of food. Eaten raw or easily prepared. Sometimes the delicious sweetish fruit is in heavy clusters.

Grows on open barrens and dry partly wooded land, sometimes covering large districts with its abundant growth. Forms a large item in the exports of Yarmouth county. Ripens in July and August.

2. *Vaccinium uliginosum* L. Great Bilberry.

Bush 4 in. to 10 in. high. Branches spreading and tufted, but not so thickly branched as blueberry. Leaves oblong, narrowed at the base, $\frac{1}{2}$ in. to 1 in. long, pale beneath. Berries purple to black, juicy pulp with small seeds, sweetish taste, slightly oblong and pear-shaped with thick end next stalk, $\frac{1}{16}$ in. long. Pleasant and wholesome food. Does not grow in clusters as do blueberries.

Found on barrens with blueberries, very rarely in swampy land. Not plentiful. Grows chiefly in the western and northern counties. Too rare to be considered an important article of food in this country.

3. *Vaccinium macrocarpon* Aiton. Large Cranberry.

A creeping vine, 6 in. to 30 in. long, from which the fruitstalk ascends 3 in. to 6 in. Leaves oblong, $\frac{3}{16}$ in. to $\frac{5}{16}$ in. long, evergreen, dark-brownish green above and pale beneath, with turned-back edges, thick and somewhat ridged, attached directly or almost so to the vine, two bracts on fruit stalk. Berries, 1 to 3 on each fruit stalk, red when ripe, round to slightly oblong, $\frac{1}{2}$ in. to $\frac{3}{4}$ in. long, ripens late and remains in

good condition until next May. Very acid, but one of the most digestible of our sour berries.

Easily domesticated in fields or prepared bogs. Sometimes very abundant in meadows and along stillwater brooks; but often found in dry fields and on sandy hills and flats. Generally distributed in Nova Scotia.

4. *Vaccinium Oxycoccus* L. Small Cranberry, "Bog-berry."

A creeping vine, 4 in. to 10 in. long, very slender, with thread-like fruit stalks. Leaves ovate or egg-shaped, few and irregularly disposed, $\frac{1}{8}$ in. long, with curved margins. Berries round, $\frac{1}{8}$ in. thick, with a few small seeds, generally one berry on each fruit stalk, which seldom stands erect, very sour, changes from white with greyish-brown spots to red when ripe, ripens late like the large cranberry, but remains good until the next May. Very palatable, but requires much sugar.

Found on moderately wet open bogs, only on a certain green or reddish-green moss, but never on dry soil or water-covered meadows, as the large cranberry. Either too much or too little moisture is fatal to its growth. Generally distributed, but rarely very plentiful.

5. *Vaccinium Vitis-Idæa* L. Foxberry, Mountain Cranberry, "Cowberry," locally "Partridge-berry."

Vine 6 in. to 10 in. long, tufted creeping stems, with erect ends 1 in. to 3 in. high. Leaves alternate and closely set on stems $\frac{1}{2}$ in. long, wide oval, not pointed, slightly notched at ends, dark green, thick and hard with turned-back edges, smooth and shining above, light green, smooth, with very small black spots below. Berries round, $\frac{1}{3}$ thick, dark red, acid and very slightly bitter, mealy, juicy after becoming ripe, seeds few and small. Berries in bunches of from 2 to 5, very productive. Important as an article of food, but requiring much sugar.

On bare headlands, barrens or other exposed situations, usually near or on the sea coast, seldom found on wet soil or

far inland. Widely distributed and plentiful in the eastern and northern counties, scarcer in the western counties. Ripe in September; remains late, but does not keep as well as the large cranberry.

6. *Gaylussacia resinosa* T. & G. Huckleberry.

Bush 1 ft. to 10 ft. high, many branched, thin limbed. Leaves oblong, $\frac{3}{4}$ in. to $1\frac{1}{4}$ in. long, light green above and below, thinner and larger than blueberry leaves, often spotted with red. Berries round, black, $\frac{3}{16}$ in. to $\frac{1}{8}$ in. thick, more seedy than the blueberry, but more juicy, sweeter, and better flavored, one of the most palatable and agreeable of Nova Scotian wild fruits. Bushes well laden, but fruit distributed more evenly and on longer fruit stalks than the blueberry.

Associated on barrens and partly wooded land with blueberry, but unlike the latter often capable of growing in more shady places. A valuable food, but will not keep long. Widely distributed and plentiful everywhere throughout Nova Scotia. Ripens in August, after the blueberry.

7. *Viburnum lantanoides* Mx. Hobble-bush, locally "Moose-bush."

A shrub 6 ft. to 9 ft. high, with spreading branches, growing in pairs from main stalk and larger branches, the pairs alternating at right angles to each other. Bark, brown to brownish-grey on all branches except the growths of the present year, which are covered with a light green velvety bark, continuous to the ends of the leaf ribs. The old bark is spotted with minute white warts. Leaves in pairs opposite each other on leaf stalks, 2 in. long, 3 in. to 6 in. diameter, round, but curved inward at junction with leaf stalk, thick, soft, smooth above, scurfy to downy beneath, somewhat wrinkled, leaf-ribs large, leaves toothed irregularly and slightly pointed. Berries in widely spreading flat topped bunches, 3 in. to 5 in. across, no berries on outer row of flower stalks. Changing from red to

black when ripe, $\frac{3}{16}$ in. to $\frac{4}{16}$ in. thick, somewhat flat, and containing a single hard flat seed about half the size of the fruit, thin skinned, with moist soft black pulp, very sweet and easily digested, decays soon, unless eaten by birds and squirrels. Ripens in August.

Grows in deep shady woods, in moderately dry soil. Widely distributed, but not very abundant.

8. *Viburnum Opulus* L. Cranberry-tree, Bush Cranberry.

Shrub 5 ft. to 12 ft. high, with many branches. Bark light grey. Leaves 3 to 5 ribbed, strongly lobed, lobes pointed, base of leaf wide, sides notched. Berries $\frac{3}{16}$ in. long, round, bright red, very sour but pleasant, with a single thin flat smooth seed. Smooth skinned, juicy, remains uninjured until spring.

In low or moist rocky lands, or beside streams, but not in swamps, meadows or pine timber land. Preserve made of the berries is sometimes to be had in the Halifax country market. Plentiful only in a few districts of the northern and western counties.

9. *Viburnum cassinoides* L. Withe-rod.

Bush 5 ft. to 8 ft. high, thin, tough, wiry, branches few, which ascend at slight angle with main stem; much used for basket making. Bark light brown. Leaves 2 in. to 3 in. long, oval, pointed, wavy margin notched into rounded teeth, dark green, not shining nor very thin. Berries slightly flattened, $\frac{2}{16}$ in. to $\frac{3}{16}$ in. long, with a bluish bloom, smooth black skin and pulp, with a flattened stone, sweet, but pleasant tasting, agreeable and easily digested, and of considerable value as an article of food. Their dark color makes them objectionable to some whose fastidiousness exceeds their common sense.

In nearly all meadows, swamps, wet barrens and low open lands, often in great abundance. Widely distributed.

10. *Cornus Canadensis* L. Dwarf Cornel, Bunch-berry, locally
"Pigeon-berry."

Slender green red-ribbed stalk $2\frac{1}{2}$ in. to $4\frac{1}{2}$ in. high, rising from long tangled creeping roots, evergreen. Four large white petal-like bracts surround the cluster or bunch of small inconspicuous flowers. Leaves 4 to 6, ovate, pointed at both ends, $1\frac{1}{4}$ in. to 2 in. long, arranged in a whorl at foot of fruit stalk, light green, smooth, grooved above and ribbed below, two scale like leaves clasp the stem lower down. Leaf stalk very short. Berries in a bunch, round, red, $\frac{2}{10}$ in. to $\frac{3}{10}$ in. thick, smooth skinned, fleshy white or pinkish pulp of sweetish taste, containing a single large, hard, round, white seed, which is hard to separate. Its value as a food is therefore slight in spite of its abundance. The seed, however, is easily crushed between the teeth.

Grows in mixed woods in moderately dry soil where ground is not too thickly covered by leaves. Ripens in August and September. Very plentiful and widely distributed.

11. *Chiogenes hispidula* T. & G. Creeping Snowberry, locally
"Maidenhair," "Capillaire."

Slender creeping vines, often grows in thick and matted masses. Leaves evergreen, oval, $\frac{3}{10}$ in. long, not notched, margins curved, light green, smooth above, bristly below, leaf stalks extremely short, has the aromatic taste of the birch or tea berry. Berry white, $\frac{3}{10}$ in. long, slightly oblong, with many minute seeds, dry and mellow with a sweetish spicy flavor, without visible fruit stalks. Nova Scotia's most delicious berry; either eaten uncooked or as a preserve. Ripens in July and August.

Grows in mossy woods or shady bogs where not too wet. Generally distributed and fairly abundant, though their small size makes them unimportant as an article of food. Make very delicious preserve.

12. *Gaultheria procumbens* L. Creeping Wintergreen, Check-
 erberry, locally "Tea-berry," "Deer-berry,"
 "Partridge-berry."

Stalks 2 in. to 4 in. high, connected beneath the surface. Leaves in a crown of 2 to 4, smooth and dark green, ovate, slightly pointed and minutely notched, $\frac{3}{4}$ in. to $1\frac{1}{4}$ in. long, edges curved, hard, thick, light green below, strongly aromatic odor and taste, containing a volatile oil known as wintergreen, used as a flavor or perfume. Flowers small pinkish-white and cup-shaped, in bunch of 2 to 3 beneath leaves, which are nearly edible. The juice of the chewed leaves is very invigorating. Berries bright red, round, end indented and containing dark-colored bristle in centre, $\frac{3}{8}$ in. to $\frac{1}{4}$ in. thick, pulp dry and spicy. Does not complete its growth in one season, remains on stalk over winter, and increases in size and ripeness next spring.

Dry barrens, open or burnt woods, and old pastures. Widely distributed and abundant, available at all times except July to September.

13. *Prunus Pennsylvanica* L. Wild Red Cherry, Bird Cherry.

Small tree 7 ft. to 20 ft. high, with many straight thin branches. Bark smooth, light reddish-brown; outside thin and paper-like, but tearing easily in strips around the trunk, inside green and intensely bitter. Leaves very oblong and sharply pointed, notched, thin, shining light green and smooth on both sides, on leaf stalks 1 in. long. Berries not in a long cluster, round, $\frac{3}{8}$ in. to $\frac{1}{2}$ in. thick, smooth skinned, red, juicy, very sour, somewhat clustered, but on fruit stalks 1 in. to $1\frac{1}{2}$ in. long; contains a single round hard seed with bitter kernel, which is more or less unsafe to eat. Ripens in July.

On the driest and rockiest soil, on barrens and burnt or open woods, never in swamps. Widely distributed, and often extremely plentiful. Much eaten by birds.

14. *Prunus serotina* Ehrh. Wild Black Cherry.

A large tree, 15 ft. to 50 ft. high, often used for cabinet work. Bark rough and dark grey on trunk, with reddish-brown branches, thin outside bark, and very bitter inner bark. Leaves very oblong, tapering to a point, a little larger and thicker than the leaves of the wild red cherry, dark green and shining above, a little lighter and duller below, on leaf stalks nearly 2 in. long. Berries in a long cluster, round, $\frac{1}{8}$ in. thick, purplish black, pulpy, juicy, sour to slightly bitter but pleasant and digestible, contains a single slightly oval hard seed. Ripens in August.

Found chiefly on rich intervalles, Musquodoboit, Shubenacadie, and other valleys. Not very plentiful, though widely distributed.

15. *Prunus Virginiana* L. Choke-cherry.

A shrub 5 ft. to 10 ft. high, consisting chiefly of separate stems from the same root. Leaves oblong, abruptly pointed, 3 in. to 4 in. long, dark green, sharply notched. Bark rough, greyish-brown. Berries in a long cluster, crimson-brown or nearly black, round, $\frac{3}{8}$ in. to $\frac{1}{2}$ in. thick, moderately sour, juicy, astringent, pleasant, digestible, with single slightly oval hard seed; arranged thickly and regularly to the number of 10 to 16 on long fruit stalk. Ripens in August.

Grows around the edges of cultivated land, roads, intervalles, seldom found in uninhabited districts. Widely distributed, and plentiful in the western counties; scarce in the east except in the older settlements and towns.

16. *Pyrus arbutifolia* L. Choke-berry.

A bush $1\frac{1}{2}$ in. to 7 in. high, branching tough stalk. Bark brownish-grey. Leaves oblong, pointed, finely notched, thick, dark green to brownish-green, smooth above and slightly downy beneath. Berries deep reddish-purple or nearly black, with

lighter colored juice, the stains of which are very difficult to efface, nearly round or slightly egg-shaped, $\frac{3}{10}$ in. to $\frac{4}{10}$ in. thick, smooth skinned, juicy, sweetish-sour, astringent; in heavy bunches, though each berry has a separate long fruit stalk. Pleasant and digestible. Contains several small seeds.

In meadows, wet intervalles, or moist places in open woods and barren land. Widely distributed and abundant, especially in the southern counties.

17. *Pyrus Americana* D. C. American Mountain Ash.

Tree 8 ft. to 25 ft. high, straight and regularly branched. Bark greyish-brown. Leaflets $2\frac{1}{2}$ in. long, taper pointed, sharply notched, bright green above, pale green below, 13 leaflets on each leaf stalk. Berries in flat-topped clusters, round, size of field peas, bright red or scarlet, has a peculiar astringent sour taste unlike that of any other berry, therefore unpleasant to the great majority, pulpy, juicy, with few seeds. Grow in great flat clusters nearly on every branch, often covering the tree in a canopy of scarlet fruit. In autumn it is our most beautiful tree, much used as an ornament for lawns and gardens. Ripens in September, remaining uninjured long after the first frosts. Seldom used as a food.

In moist woods, hanging over river and lake banks, which it greatly beautifies. Particularly abundant in Yarmouth and Sherburne counties, becoming less plentiful going east.

18. *Amelanchier Canadensis* Medic. (2 or more varieties).

Shad-bush, Service-berry, June-berry, June plum, locally "Indian Pear."

(a). Tree 6 ft. to 30 ft. high, branches ascending at a slight angle with the trunk, thin limbs and open foliage, close tough wood. Bark moderately smooth, light grey with dark grey or light brown stripes, running vertically. Leaves oblong, pointed, 2 in. to $2\frac{1}{2}$ in. long, sharply notched, heart-shaped at base in some

larger varieties, thin, dark or dingy green. Berries deep reddish-purple, round, on $\frac{1}{2}$ in. leaf stalk, size of large peas, 10-seeded, very sweet and pleasant tasting, containing more sugar than any other native fruit. These, with huckleberries and witherod berries, are the most easily digested and nourishing wild fruit of Nova Scotia.

In low woods and along banks of streams and lakes where alone it is abundant. Is scattered elsewhere. Generally distributed, but more plentiful in the western than the eastern counties.

(b). Small bush or twig, with 2 to 5 thin branches. Bark brownish-grey. Leaves oblong or oval with round end, notched, light green. Berries purple, oval, slightly longer than thick, $\frac{1}{16}$ in. to $\frac{5}{16}$ in. long, very sweet and juicy, superior to any other variety in taste and size, and well worthy of domestication. 10-seeded, scattered irregularly over bush, never in clusters.

On level and not too rocky barrens, and dry open lowlands, mixed with blue and huckle berries; seldom on river banks with the larger varieties. Generally distributed, but not very abundant; more plentiful in the western than in the eastern counties.

19. *Fragaria Virginiana* Duchesne. Wild Strawberry.

So well known that for practical purposes it needs no description. Pleasant and digestible, very abundant. Ripens in July.

Found almost everywhere in cultivated grounds, barrens and open woods, usually never far from settlements.

20. *Rubus strigosus* Mich. Wild Red Raspberry.

Very abundant and well known, description superfluous.

Around cultivated grounds, in pastures, open woods, and on barrens far from settlements. A juicy, delicious and easily digested fruit. Ripens in August.

21. *Rubus villosus* Ait. Common or High Blackberry.

Well known accompaniment of cultivation, description unnecessary.

Found nearer settlements, but not so abundant as the raspberry. Generally distributed. Ripens in early part of September.

22. *Rubus Canadensis* L. Low Blackberry, Creeping Blackberry. Dewberry (?)

Thin trailing prickly vines. Leaf stalks with 3 leaflets, prickly, oval, pointed, sharply notched, thin and smaller than those of the high blackberry. Berries black, not in bunches, much smaller than those of the high blackberry, much like it in structure, taste, and juiciness; pleasant and easily digested.

Found chiefly in rocky, low, but not swampy ground, on flat barrens or in open woods, especially after the underbrush has been burned. Common in Nova Scotia, but not very abundant.

23. *Rubus triflorus* Rich. Dwarf Raspberry, locally "Dewberry," and "Mulberry."

Vine 3 in. to 6 in. high, reclining or upright, with 2 or 3 branchlets of 3 leaves each. Leaves oblong, pointed, doubly notched, thin, smooth, 1 in. to 1½ in. long. Berries ½ in. thick, red, with few and almost separate lobes, each containing a seed. Juicy, vinous, and pleasant.

Wet mossy woods or moderately wet bogs partly tree covered. Nowhere in great abundance though quite common.

24. *Rubus Chamæmorus* L. Cloud-berry, locally "Bake Apple."

Single stem 2 in. to 9 in. high, with 2 or 3 leaves on 1½ in. leaf stalks half way to top of stems. Leaves almost round, roughly 5-lobed, 1½ in. to 2 in. across, rough and slightly hairy. Berries 1 to 3, usually 1 on each plant on separate fruit stalks,

at first hard and light red, changing to a dark amber color when ripe, $\frac{1}{2}$ in. thick, consisting of a fewer, but larger, lobes than raspberry. Has a thick rich yellow juice, which leaves little residue, slightly acid, pleasant, wholesome and easily digested though somewhat seedy. Ripens early in August.

Found only on dry mossy bogs (savannas, so called) in the eastern part of Nova Scotia. More plentiful in northern Cape Breton. It reaches its greatest size and perfection in Labrador. Nova Scotia is near the southern limit of its growth, and it is rarer now than forty years ago.

25. *Ribes lacustre* Poir. Swamp Gooseberry.

Small bush 1 ft. to 2 ft. high, erect or slightly reclining, stem and branches full of sharp spines, bark light grey. Leaves 3-lobed, 1 in. across, light green, downy, leaf stalks short. Berries round, dark red when ripe, $\frac{3}{16}$ in. to $\frac{1}{8}$ in. thick, covered with small prickles, in bunches of 2 and 3 growing chiefly on sides of stem; pulpy, juicy, moderately sour, with several large seeds. A pleasant food.

In open rocky or burned woods, old pastures or waste land. Common, but not very abundant.

26. *Ribes oxycanthoides* L. Hawthorn Gooseberry, Northern Gooseberry.

Berries roundish, smooth, $\frac{1}{3}$ to $\frac{1}{2}$ inch in diameter, reddish purple when ripe. Low bush, spines solitary, light colored, $\frac{1}{4}$ to $\frac{1}{2}$ inch long, sometimes none. Prickles scattered or wanting. Leaves petioled, three to five lobed, nearly as broad as long, under surface and stalk generally bearing some down. Flowers, one to three on stalk less than $\frac{1}{4}$ inch, nearly $\frac{1}{4}$ inch long. Fruit more dainty and pleasant than the garden gooseberry when ripe.

27. *Ribes prostratum* L'Her. Fetid, Wild or Stinking Currant.

A reclining or creeping vine-like bush, ends of stems above being upright. Bark grey, when bruised emits a peculiar and

intensely strong odor objectionable to some people at first, but not so disagreeable as elder. Leaves somewhat heart-shaped, but 5 to 7-lobed, 1 in. to 2 in. across, lobes pointed, doubly notched. Berries round, size of small field peas, red, slightly bristly, juicy, contains a few large seeds; in clusters of 8 to 20 on fruit stalks $2\frac{1}{2}$ in. to 4 in. long; smell less strongly than bark or leaves, sour with a peculiar taste related to smell, but in spite of this is enjoyed by many people.

In rocky open woods or barrens. In greatest abundance where land is most rocky. Very abundant in southern and western counties of Nova Scotia and southern Cape Breton.

28. *Ribes rubrum* L. Wild Red Currant.

Stems straggling or reclining. Leaves somewhat heart-shaped, 3 to 5-lobed, notched. Berries round, a little larger than the stinking currant, smooth skinned, red, resembles the garden currant in size, taste, and foliage, without the strong smell of the former; makes a delicious preserve.

In open woods or waste land, in deep soil. Very scarce in Nova Scotia, found by me only in the northern counties.

29. *Ribes floridum* L'Her. Wild Black Currant.

Creeping stems, slightly spinous. Leaves much like those of the red currant. Berries round, black, same size as *Ribes prostratum*, bristly, with slightly musky smell and taste. Barely tolerable as a food.

In rocky open woods and moist barrens. Scarce in Nova Scotia.

30. *Mitchella repens* L. Partridge-berry, Snake-berry, sometimes locally "Wild Ivy-berry."

Slender evergreen vines, 4 in. to 12 in. long, scattered and creeping. Leaves round, $\frac{1}{16}$ in. long, scarcely pointed, arranged closely and regularly along vine, dark green and shining above,

light green below. Berries round or slightly flat at end, $\frac{3}{16}$ in. to $\frac{1}{4}$ in. thick, with 2 eyes or flower marks, the only common doubly marked berry we have, scarlet, almost tasteless or slightly sweet, nearly dry, fleshy, white pulp, remaining uninjured over winter and improving with time. Has 1 or 2 large seeds. Of little value as food.

In dry shady mossy woods where other plants are rare. Generally distributed, but not plentiful.

31. *Sambucus Canadensis* L. Common Canadian or Black-berried Elder.

Shrub 4 ft. to 9 ft. high, leaf stalks branching at almost right angles with stalk, woody, with large core of white pith. Bark, outside grey and paper-like, inside green and tender with a strong and disagreeable smell when bruised; often used for making a salve. Leaves 7 to 11 on each leaf stalk, 4 in. long, oblong, taper-pointed, notched, smooth. Berries round, $\frac{2}{8}$ in. thick, dark purple, our smallest berry, in thick, flat-topped bunches of 20 to 60; with purple juicy pulp, 3-seeded, peculiar acid taste. Liked by some people, disagreeable to others on account of taste. Probably nourishing if taste can be overcome.

In rich soil, open woods, burnt land, around old fields and brooks. Widely distributed, abundant in some places.

32. *Sambucus pubens* Mx. Red-berried Elder; "Boltry."

With large pyramidal clusters of red berries. Character very similar to those of the last mentioned.

33. *Aralia nudicaulis* L. Wild Sarsaparilla.

Stem 8 in. to 10 in. high, dividing at top into 3 leaf stalks, stems annual. Leaflets, 15 in number, viz., 5 on each leaf stalk, 2 in. to 4 in. long, oblong, taper-pointed, finely notched, altogether distinct from fruit stalks, though growing from the same long white far-reaching aromatic roots. Berries roughly round, dark brown to black, $\frac{1}{4}$ in. thick, with a few sharp spines

around top of berry, watery, sweetish, not unpleasant, few seed ; in large bunches or flat-topped clusters on tall fruit stalk. Food value slight.

Widely distributed and fairly abundant.

34. *Aralia racemosa* L. American Spikenard.

Herbaceous, much-branched, from 3 to 6 ft. high, in rich intervale soil. Leaves compounded of 3 or 5 leaflets, each roundish, heart-shaped at the base, pointed at the apex, 2 to 6 in. long, and sharply and finely toothed on the margins. Flowers in clusters, made up of numerous umbels, each floret small and greenish. The fruit, when ripe, consists of compound clusters of beautiful reddish-brown or purplish berries with a pleasant taste and peculiar aromatic flavor characteristic of the plant and its large rootstalk, which is used for flavoring home-made beer in some places. Not common.

35. *Smilacina bifolia* Ker. Two-leaved Solomon's Seal, locally "Cowslip."

Leaves and fruit on one stem, 3 in. to 5 in. high, roots creeping. Leaves, 2 in number, 2 in. long, 1 in. wide, heart-shaped, pointed, longitudinally ribbed, base almost clasping stem, somewhat downy. Berries red, round, $\frac{1}{8}$ in. thick, with 1 or two large seeds, very juicy, taste resembles somewhat the imported liquorice, with vinegar added. In bunches of 5 to 12 on each stem, on very short fruit stalks. Food value slight.

In damp or moderately dry deep soil in shady or partly open woods. Generally distributed, and in some places abundant.

36. *Taxus baccata* L. Var. *Canadensis* Marsh. American Yew, Ground Hemlock.

Stems 2 in. to 6 in. long, reclining and often thickly tangled, evergreen ; bark and foliage resembles the large hemlock, except that the needles are larger. Berries round, the size of a large

pea, smooth and tender skinned, pulp colorless, resembling uncooked white of egg, juicy, sweetish, pleasant taste, large cup-shaped hollow in top containing a single hard smooth greenish seed, thus differing from every other Nova Scotian fruit. Berries scattered, growing on main stems rather than on branches. Digestible, but not abundant enough to count on as a food supply in a time of need.

In cool damp woods and ravines. Resembles a cone-bearing bush and therefore may be passed without notice. Most abundant in the western counties.

37. *Empetrum nigrum* L. Black Crowberry, Heath-berry.

Slender dark-colored spreading vines, many branched, ends erect 2-in. to 4 in. high. Leaves oblong, not pointed, scarcely $\frac{1}{8}$ in. long, set thickly along stems. Berries black, size of small peas, juicy, with mild sweetish taste somewhat like sarsaparilla berries, 6 to 9 seeds, palatable, though not of great value as a food.

In great abundance on dry savannas or undulating open barrens where the soil is thin. Widely distributed throughout Nova Scotia, especially the eastern part.

38. *Streptopus roseus* Mx. Rosy-flowered Twisted Stalk.

Annual, branching stem, 10 in. to 20 in. high, green tender stalk slightly bent at each leaf stalk. Its 2 to 4 branches often assume an umbrella-like form, being curved outwards and drooping at ends. Leaves, long, oval, taper-pointed at both ends, $1\frac{1}{2}$ in. to 3 in. long, light green, tender, finely haired, longitudinally ribbed, growing close to stems, alternate, 10 to 20 on each plant. Berries oval to almost round, $\frac{2}{10}$ in. to $\frac{5}{10}$ in. long, red, smooth-skinned, with pulp like white of egg in appearance, very juicy, with several large white seeds, hanging singly or in twos to thread-like fruit stalks to the number of 8 or 10 on each plant, almost tasteless.

In damp or cool shady woods. Generally distributed, but not very plentiful. Unimportant as a food.

S. amplexifolius D. C., with clasping leaves, whitish underneath, and greenish-white flowers; has similar oval berries, slightly larger.

39. *Crataegus coccinea* L. Scarlet Thorn, Hawthorn-berry.

Bush 4 ft. to 8 ft. high with small thorns, many branched. Leaves oval, somewhat lobed, thin, sharply notched, truncated base. Berries light coral red, slightly oval, with some seeds, light colored mealy pulp, mild sweetish sour, edible but not important as an article of food.

In dry soil in low woods. Generally distributed; most plentiful near coasts and settlements.

40. *Crataegus tomentosa* L. Black-thorn, Pear-thorn, locally "Thornberry."

Low tree, 4 ft. to 12 ft. high, many branched, with thorns $1\frac{1}{4}$ in. to $2\frac{1}{4}$ in. long. Leaves larger than last species, oval, sharply notched, abruptly narrowed at base. Berries light scarlet, round, or slight pear-shaped, few seeds, $\frac{1}{2}$ in. thick, pulp pinkish-white, moist though mealy, pleasant tasting and easily digested.

On rocky river banks in burnt or open woods. Generally distributed, but not very abundant.

ROOTS AND BULBS.

41. *Apios tuberosa* Moench. Ground-nut, Indian Potato, "Indian-bean."

A reclining and climbing vine. Leaflets 5 to 7 on each leaf stalk, round base, taper-pointed, 2 in. to 3 in. long, dark green. Blossoms brownish purple, pea-shaped, in cluster along flower stalk. Pods pea-shaped and many-seeded. Flowers early in September. Long roots, swelling into tubers resembling sweet

potatoes. Tubers grey, 1 in. to 2 in. long. Roots, 2 ft. to 16 ft. long, containing from five to fifty tubers. Each plant has several roots. Tubers tough and albuminous, somewhat strong tasting, but not more so than some cultivated potatoes. Nourishing, but needs much cooking. Parboil with salt, then roast. In dry intervales and rocky lake and river banks; but never far above water level, and never in the shade. Available any time.

Plentiful in western Nova Scotia. Have never seen it east of Halifax, though it may exist there.

42. *Aralia trifolia* Decaisne. Dwarf Ginseng, Ground-nut.

Annual, 3 in. to 4 in. high, 3 leaf stalks at two-thirds height. Leaflets 3 or 5, oblong, narrow, taper-pointed, notched on margin. Flowers in close set bunch at top of stem, white; blooms in latter part of May. Tubers set deep in ground at end of long tender white stalk, round, white, with 2 or 3 minute rootlets, starchy, pungent sweetish taste. Passable as a food only in extreme cases. Cut open and boil well.

43. *Dentaria diphylla* Michx. Two-leaved Toothwort, Pepper-root.

From 4 to 12 in. high, divided into 2 or 3 leaf stalks of 3 leaflets each. Leaves, roughly oval, coarsely toothed on margin, pointed, dark green. Flowers white. Roots, 3 in. to 7 in. long, irregular in size, $\frac{1}{8}$ in. to $\frac{1}{4}$ in. thick, white, tender, crisp; hot, like pepper, but pleasant when eaten raw.

In rich moist soil in limestone lands and intervales. Generally distributed, but not very abundant.

44. *Typha latifolia* L. Common Cat-tail, locally "Bulrush."

Stem 2 ft. to 6 ft. high, a tall column of overlying leaves with small central core, 1 ave long and grass-like. Top of flower stalk ending in a beautiful brown seed spike, 6 in. long, and resembling, when ripe, a cat's tail. Above this projects the

pollen producing portion of the plant to a height of 4 in. higher. At junction of stem and root is a starchy edible pith, tasting like tapioca. Eat roasted or boiled—but to extract all nourishment dry and grate the root, soak in water or boil, and strain. A valuable food, but not abundant enough to be important.

In quiet, shallow ponds or miry swamps. Common throughout Nova Scotia. Abundant only in some districts.

45. *Osmunda cinnamomea* L. Cinnamon Fern.

Fronds 1½ ft. to 4 ft. high, springing from a common root. Flowers and seed on a mass of curled fronds in centre. Edible part is core of root which is tender, white and sweet; found just below the surface. Root is massive, scaly, and firmly rooted and difficult to extract. Roasting or boiling in salt improves. Edible part 1½ in. long.

Plentiful in every swamp and wet tract of land throughout the province.

LEAVES.

46. *Rumex crispus* L. Curled Dock, Sourdock.

Stems 1½ ft. to 3 ft. high, upper part leafless and seed-bearing. Leaves spread from root and base of stem, 5 in. to 12 in. long, pointed, arrow-like, smooth with strongly crimped margins. Seeds with wings, which are heart-shaped or almost round, and nearly ¼ in. wide, in long tapering cluster of several hundred at top of stem. Root long, spindle-shaped, vertical, orange-colored.

In fields, pastures, waste lands, in woods around old lumber camps. Very abundant. Leaves tender, somewhat sour, used as a green boiled with salt, pleasant tasting and digestible especially from May to August. Generally distributed.

47. *Rumex sanguineus* L. var *Viridis*. Bloody-veined Dock, Sourdock.

Stems long, slender, leafless, spring from base of leaves. Leaves long, slender, pointed at both ends, except lower leaves

which are heart-shaped at base, tender, sour, pleasant. Boil in salt as before. Seeds winged, a somewhat triangular oval, rounded at ends.

In waste and cultivated lands, old roads, and lumber camps. Generally distributed and abundant.

48. *Taraxacum dens-leonis* Desf. Dandelion.

Low spreading leaves, 6 in. by 1 in., irregular, curve-toothed margin, exudes a milky juice when broken, very bitter, used as green, boiled. Disagreeable to some on account of its rather bitter taste. Flowers cluster golden yellow, composite, 1 in. across, on erect hollow tender stems 2 in. to 6 in. high, seeds downy, closely packed on crown-shaped base to number of 100 to 150.

Very abundant in and around all cultivated lands and roads.

49. *Chenopodium album* L. Lamb's-quarters.

5 in. to 13 in. high, erect and branching from a central stem. Leaves 1 in. to 2 in. long, pale green, tender, juicy, glistening mealy surface, oblong, pointed at both ends, irregular or notched margin, palatable and pleasant. Boiled as a green for the table. One of the best.

Common in waste and cultivated land, old clearings. Generally distributed. Abundant only in a few places.

50. *Oxalis Acetosella* L. Common Wood-sorrel.

Leaf and flower stalks spring from a creeping scaly root growing along the surface or beneath the leaves and moss. Leaves, 3 at top of each leaf stalk which is 2 in. to 3 in. high, strongly heart-shaped with wide end toward stalk, $\frac{1}{2}$ in. to $\frac{3}{4}$ in. across, slightly hairy above and below, juicy and sour. Parboil, then boil whole plant with salt. Unimportant as a food. Flowers 5 sepals, 5 petals, 10 stamens, white with pink veins, $\frac{1}{8}$ in. to $\frac{5}{8}$ in. across, each on a separate stalk 2 in. high. Seed

Pods hanging, pear-shaped but reversed, brown, $\frac{1}{4}$ in. long, with 8 to 12 seeds.

In deep shady woods. Abundant everywhere.

51. *Fagus ferruginea* Aiton. American Beech.

Tree 30 ft. to 60 ft. high, spreading branches. Wood dark colored, hard, yearly growths not easily seen. Bark smooth, light grey, without an outer skin. Leaves 2 in. to 4 in. long, ovate, pointed at both ends, coarsely notched ribs start alternately from mid-rib, smooth above, hairy below, especially on edge of leaf, acid and tender when young, soon become bitter and tough, need much boiling and make an indifferent food. Available in May and June.

Abundant on dry land and in deep soil. Generally distributed.

52. *Pteris aquilina* L. Common Brake, Bracken.

The young curled fronds, when a few inches high, are tender and palatable. Boil well, as asparagus, which it much resembles. Best in May, soon becomes tough. Also *Osmunda cinnamomea* L., Cinnamon Fern, No. 44 preceding.

53. *Allium schoenoprasum* L. Chives.

Flower stalk 4 in. to 9 in. high, with round bunch of light purple flowers and pointed sepals. Leaves 4 in. to 7 in. high, awl-shaped, hollow, separate from flower stalk, taste and smell like onions or garlic, useful more as a seasoning than as a food.

Found in low wet lands near sea shore or rivers. In northern Nova Scotia. Have not seen it in the southern or western counties.

54. *Medeola Virginica* L. Indian Cucumber-root.

Stem of plant 1 to 2 $\frac{1}{2}$ ft. high, bearing a whorl of about six or more several nerved leaves from 2 to 6 in. long, and tapering to each end, about its middle, and a smaller whorl immediately

below an umbel-like cluster of from 2 to 9 greenish-yellow flowers, with its ovary cells and styles in 3's, and its stamens and perianth in 6's. Berries, dark purple, nearly $\frac{1}{2}$ in. in diameter. It grows from a tuber-like root stalk from 1 to 3 in. long, which has a flavor suggesting cucumber.

Not very abundant, and its food qualities not sufficiently tested.

FLOWERS.

55. *Rosa blanda* Aiton. Early Wild Rose.

Stem branching, with scattered spines, 1 ft. to 4 ft. high, flower stalk smooth. Leaflets, 5 to 7 on each leaf stalk, oblong, pointed, pale green, a little downy beneath, notched on margin. Flowers, 1 to 3 on each flower stalk, petals 5, stamens many, light rose color, fragrant, edible. Seed-pod round, red smooth, $\frac{1}{3}$ in. to $\frac{1}{2}$ in. thick, many seeded. Blooms in June.

In rocky soil, barrens, and river and lake banks where not too wet. Common in all parts of Nova Scotia.

56. *Rosa lucida* Ehrhart. Dwarf Wild Rose.

As the description and range of this species is much like the preceding, it is difficult to distinguish. The flowers of both being edible, a mistake in identification is of no consequence.

57. *Epigæa repens* L. Mayflower, Trailing Arbutus.

Trailing matted vines from 6 in. to 24 in. long. Leaves, wide oval, $\frac{3}{4}$ in. to $1\frac{1}{2}$ in. long, bristly inside, evergreen. Flowers at end of leaf stalks in clusters of 3 to 8, tube-like with 5 clefts, bristly inside, stamens 10 with slender filaments, anthers oblong, sepals long, scale-like, pointed, nearly distinct, flowers $\frac{5}{16}$ in. to $\frac{6}{16}$ in. long. Exhales a delicate perfume, white to pink, edible. Blooms in April. Nova Scotia's earliest flower.

In open woods, dry barrens, dry rocky or sandy soil. Abundant everywhere in Nova Scotia under above conditions.

NUTS AND SEEDS.

58. *Fagus ferruginea* Aiton. American Beech.

Described in No. 50. Nuts 3-sided, abrupt at base, pointed at top, $\frac{1}{3}$ in. to $\frac{1}{2}$ in. long, in pairs, each pair forms a 4-sided pyramid, and are enclosed in a coarse bristly 4-parted husk, open at top, and growing on extremity of branch. Nut shell brown, easily opened, kernel rich, sweet, and easily digested. A favorite food of squirrels. Very abundant in October. Does not produce regularly.

Generally distributed, but most abundant in the eastern counties.

59. *Corylus rostrata* Aiton. Beaked Hazel-nut, Filbert.

Tree-like, 3 ft. to 6 ft. high, branching near top, root often bent at right angles to stem. Bark, light-brown with light-grey spots, spotted appearance quite noticeable. Leaves oblong or somewhat heart-shaped, $1\frac{1}{2}$ in. to $2\frac{1}{2}$ in., pointed, soft and slightly downy, doubly notched. Nut round or slightly oval, with beaked top and thick shell, $\frac{1}{2}$ in. to $\frac{3}{4}$ in. long, sweet and easily digested. Enclosed in a long bristly husk with ragged end, in the base of which lies the nut. Husks hang singly or in twos with rudimentary husks attached, and when green is juicy and extremely sour.

In dry or moderately dry open woods or barrens. Generally distributed and abundant.

60. *Quercus rubra* L. Red Oak.

Tree 50 ft. to 90 ft. high, and 1 ft. to 3 in. in diameter, with heavy spreading limbs. Wood heavy, strong, porous when dry, white in outer part with red heart. Bark grey and strongly corrugated, but not so regularly as the ash. Leaves 4 in. to 6 in. long, with 5-pointed lobes. Nuts round with small spur on end, flat base resting a scaly truncated cup. Size $\frac{1}{2}$ in. to $\frac{3}{4}$ in., with large white kerne, very bitter, which almost precludes its use

even in extreme cases, otherwise it would form a valuable article of food. Bitterness can however be modified considerably by boiling in salt or grating finely and soaking in water, and then roasting.

In dry and moderately wet soils. Very abundant in the western counties; rare or absent east of Halifax.

61. *Polygonum convolvulus* L. Black Bindweed, "Wild Buckwheat."

A climbing tree, 3 ft. to 10 ft. long, with slender stem and triangular leaves, long and pointed, climbing through fallen trees and bushes. Seeds very small, black and triangular, with dry starchy kernels. A poor substitute for common buckwheat.

In old clearings and open woods. Abundant in many districts.

62. *Pinus Strobus* L. White Pine.

Tree 60 ft. to 100 ft. high, evergreen and coniferous, with rough corrugated dark grey bark and often sweeping trunk, sometimes heavily branched. Wood white with red heart, softest of Nova Scotia coniferous woods, as well as most durable. No other Nova Scotian tree resembles it. Leaves, five from the same sheath, needle-shaped, $1\frac{1}{4}$ in. to $2\frac{1}{4}$ in. long, cones gently swelled in middle and pointed at outer ends, 4 in. to 5 in. long, Seeds $\frac{1}{8}$ in. to $\frac{3}{16}$ in. long, sweet, soft, slightly resinous, inside of and at base of cone scales, nourishing and easily digested, but not liked much.

In all sorts of soil except the wettest portion of swamps. Generally distributed and often abundant, but difficult to gather. Available until spring.

63. *Pinus resinosa* Aiton. Red Pine.

Tree 40 ft. to 70 ft. high, coniferous, straight trunked with branches at right angles to trunk. Bark red, rough, not so regularly corrugated as that of the white pine. Wood harder,

more resinous, and darker in color than that of the white pine. Needles, 2 from the same sheath, 3 in. to 5 in. long, and in far larger bunches than the preceding species. Cones pear-shaped, with ends reversed, $1\frac{3}{4}$ in. to $2\frac{1}{2}$ in. long, with short spurs on lower outside edge of each cone scale. Seeds enclosed at base of scales, $\frac{1}{4}$ in. long, sweetish, though resinous. Difficult to gather.

On dry barrens or sandy rocky soil. Abundant in western half of province, rarely seen east of Halifax. Available until May.

64. *Acer*, several species. Maple.

Tree 15 ft. to 60 ft. high. Wood firm, white, durable when dry. Bark black to grey with flaky outer bark. Leaves deeply notched, with radiating ribs; some species turning many colored in autumn. One species, *A. Pennsylvanicum*, with striped bark, has leaves 5 in. to 8 in. across, turning to a bright yellow. Seeds winged, often in pairs, not always very palatable, are gathered by squirrels when beech and hazel nuts are scarce; are more digestible than pleasant tasting. Ripens in October.

In all but the wettest and poorest soils. Abundant everywhere where conditions are suitable.

FUNGI.

65. *Agaricus campestris* L. Common Mushroom.

Appearance well-known. Description unnecessary.

Never found in a forest except, perhaps, near an old lumbering camp. Abundant in long settled parts of the country.

66. *Lycoperdon*. Puff Ball.

1 in. to $1\frac{1}{2}$ in. thick, skin rough and dark grey, without roots. White, dry, pithy or spongy inside, gradually turning black after completing its growth, earthy or musky smell. Parboil

twice. A poor substitute for nuts. Squirrels search for and eat them only when other food is exhausted. Grows just beneath the surface of moss or leaves without any visible sign of their presence, yet the squirrel detects them easily.

In moderately moist soil in shady woods. Widely distributed but not very abundant. Edible from August to October.

[Dr. A. H. MacKay has tested a large number of Nova Scotian species when cooked, some of them superior to the "mushroom." The edible list of fungi is a long one; but it requires an expert to distinguish them. This is very important, for a few common species are terribly poisonous.]

PARASITIC PLANTS.

67. *Monotropa uniflora* L. Indian Pipe, locally "Death-plant."

White semi-transparent stalk, 2½ in. to 5 in. high, with highly organized flower of five petals, without smell, stalk with thin transparent scales or leaflets, tender and almost tasteless. Parboil, then boil or roast, comparable to asparagus.

In dry or moderately dry soil in thick woods, June to August. Generally distributed and abundant.

JUICES AND EXTRACTS.

68. *Acer saccharinum* Wang. Sugar Maple, Rock Maple.

Tree 40 ft. to 60 ft. high, branches usually crooked and irregular. Bark dark grey, rough, flaky and corrugated, but not so much as the oak or ash. Wood extremely hard, fine-grained, and durable when dry. Leaves 3 in. to 5 in. in diameter, deeply notched into 5 unequal pointed lobes with 5 main ribs radiating from centre (turning color in autumn). A sweet sap is obtained by boring or cutting into the tree to a depth of ½ in. to 2 in. A spout of wood is fitted into a cut made below the boring, and this conducts the sap into a wooden trough or dish of birch-bark. It is then boiled down, about 4

gallons of sap making 1 pound of sugar or a larger quantity of syrup. One tree will make from 2 to 5 pounds of sugar a year. Supposed to be superior to cane sugar. Sap runs only in March or April.

In moderately dry soil, though sometimes found in low wet land. Common, though not abundant, except in few districts.

69. *Ledum latifolium* Aiton. Labrador Tea, locally "Indian-tea."

Leaves which grow directly from main stem are oblong, $1\frac{1}{4}$ in. \times $\frac{3}{8}$ in., light green, smooth above with light brown woolly growth beneath, margins curved downward. Aromatic, somewhat bitter and pungent, though pleasant. Formerly much used as a substitute for tea, and a remedy for dysentery. Steep 20 to 30 minutes, slightly narcotic. Flowers few, large, white, 5-parted corolla, many stamens and petals though not composite.

In open bogs, savannas, barrens where not too dry, and also in partly wooded swamps. Abundant everywhere.

70. *Gaultheria procumbens* L. Creeping Wintergreen, Mountain Tea, locally "Tea-berry."

For description see No. 12. Leaves often used as a substitute for tea. It, however, requires much boiling. A very pleasant beverage, but somewhat astringent.

71. *Chiogenes hispidula* T. & G. Creeping Snowberry, locally "Maiden-hair, "Capillaire."

For description see No. 11. Leaves and vines steeped for $\frac{1}{2}$ hour makes a pleasant drink.

72. *Fragaria Virginiana* Duchesne. Wild Strawberry.

See No. 19. Leaves a substitute for tea.

73. *Rubus strigosus* Michx. Wild Red Raspberry.

See No. 20. Leaves a substitute for tea.

74. *Betula lutea* Michx. Yellow Birch.

Tree 40 ft. to 70 ft. high. Wood clear, white, and fine-grained. Tall clean trunk. Bark yellowish-grey when young, becomes dark and rough when old. Leaves elongated heart-shape, pointed, thin, soft, well-ribbed, slightly downy or bristly beneath. The young twigs are very aromatic, resembling tea-berry or creeping snow-berry. These, well boiled, give a delicious flavoring for beer, or a substitute for tea.

On dry deep soil. Very abundant everywhere.

75. *Juniperus Sabina* L. var. *procumbens* Pursh. Creeping or Ground Juniper.

A thick, prickly recumbent bush, with hard curved needles $\frac{1}{2}$ in. long, light green above and greenish-white below. Low, spreading over large spaces, with many herby, resinous, slightly bitter seedy berries, which turn from light green to blue when ripe. Used as a blood purifier and a substitute for tea, as well as a flavoring for beer.

On dry open ground, barrens, or sandy stony plains and slopes. Abundant.

76. *Rhus typhina* L. Staghorn Sumach.

Large shrub or tree, 5 ft. to 20 ft. high. Moderately rough greyish-green bark. Stems once used for dyeing. Consists of an outer layer of nearly white wood, covering large core of deep greenish-yellow color, unlike any other Nova Scotian tree in this respect. Branches few and massive. Leaves 3 in. to 5 in. long and $\frac{1}{2}$ in. to $\frac{3}{4}$ in. wide, pointed at both ends, strongly notched, soft, hairy above and below, especially the latter, arranged in regular order along the sides of long leaf stalks, the whole showing at a distance as a beautiful feathery mass of foliage. Seeds oval, size of truncated grains of barley, hard, covered with minute purplish-red bristles. These are impregnated with an intensely sour juice from which a pleasant acid

beverage is extracted by boiling. They grow close set in bunches, resembling at a distance rough tapering pods, each 3 in. to 5 in. long and 1 in. to 1½ in. thick. Each bush carries from 2 to 20 seed clusters. These clusters in the fall become much infested by worms.

Generally distributed, but much rarer in the eastern than in the western counties. Particularly abundant in the interior of Yarmouth county.

77. *Geum rivale* L. Purple or Water Avens, "Wild Chocolate."

A single erect stem, 6 in. to 12 in. high, with drooping peculiar purple flower ½ in. in diameter. Full of stiff hairy bristles projecting beyond the short round petals. One or two leaflets on flower-stalk. Leaves, 3 or 4, spring from root around flower-stalk, resemble geranium leaves, but are thinner, though they perhaps are more like the leaves of the Bake-apple. See No. 22. Roots from 2 in. to 6 in. long, and ¼ in. thick, dark purplish-brown inside, with many rootlets. Taste somewhat like chocolate, but astringent with a very slight addition of acid. Was once used as a substitute for chocolate. Boil well, and add sugar.

Common in open mossy bogs in eastern Nova Scotia, more rare in the western counties.