

APPENDIX

I. TREES

THE prevailing trees (I speak only of what I saw) on the east and west branches of the Penobscot and on the upper part of the Allegash were the fir, spruce (both black and white), and arbor-vitæ, or "cedar." The fir has the darkest foliage, and, together with the spruce, makes a very dense "black growth," especially on the upper parts of the rivers. A dealer in lumber with whom I talked called the former a weed, and it is commonly regarded as fit neither for timber nor fuel. But it is more sought after as an ornamental tree than any other evergreen of these woods except the arbor-vitæ. The black spruce is much more common than the white. Both are tall and slender trees. The arbor-vitæ, which is of a more cheerful hue, with its light-green fans, is also tall and slender, though sometimes two feet in diameter. It often fills the swamps.

Mingled with the former, and also here and there forming extensive and more open woods by themselves, indicating, it is said, a better soil, were canoe and yellow birches (the former was always at hand for kindling a fire, — we saw no small white birches in that wilderness), and sugar and red maples.

The aspen (*Populus tremuloides*) was very common on burnt grounds. We saw many straggling white pines, commonly unsound trees, which had therefore been skipped by the choppers; these were the largest trees we saw; and we

occasionally passed a small wood in which this was the prevailing tree; but I did not notice nearly so many of these trees as I can see in a single walk in Concord. The speckled or hoary alder (*Alnus incana*) abounds everywhere along the muddy banks of rivers and lakes, and in swamps. Hemlock could commonly be found for tea, but was nowhere abundant. Yet F. A. Michaux states that in Maine, Vermont, and the upper part of New Hampshire, etc., the hemlock forms three fourths of the evergreen woods, the rest being black spruce. It belongs to cold hillsides.

The elm and black ash were very common along the lower and stiller parts of the streams, where the shores were flat and grassy or there were low gravelly islands. They made a pleasing variety in the scenery, and we felt as if nearer home while gliding past them.

The above fourteen trees made the bulk of the woods which we saw.

The larch (juniper), beech, and Norway pine (*Pinus resinosa*, red pine) were only occasionally seen in particular places. The *Pinus Banksiana* (gray or Northern scrub pine), and a single small red oak (*Quercus rubra*) only, are on islands in Grand Lake, on the East Branch.

The above are almost all peculiarly Northern trees, and found chiefly, if not solely, on mountains southward.

II. FLOWERS AND SHRUBS

It appears that in a forest like this the great majority of flowers, shrubs, and grasses are confined to the banks of the rivers and lakes, and to the meadows, more open swamps, burnt lands, and mountain-tops; comparatively very few

indeed penetrate the woods. There is no such dispersion even of wild-flowers as is commonly supposed, or as exists in a cleared and settled country. Most of our wild-flowers, so called, may be considered as naturalized in the localities where they grow. Rivers and lakes are the great protectors of such plants against the aggressions of the forest, by their annual rise and fall keeping open a narrow strip where these more delicate plants have light and space in which to grow. They are the *protégés* of the rivers. These narrow and straggling bands and isolated groups are, in a sense, the pioneers of civilization. Birds, quadrupeds, insects, and man also, in the main, follow the flowers, and the latter in his turn makes more room for them and for berry-bearing shrubs, birds, and small quadrupeds. One settler told me that not only blackberries and raspberries but mountain maples came in, in the clearing and burning.

Though plants are often referred to primitive woods as their locality, it cannot be true of very many, unless the woods are supposed to include such localities as I have mentioned. Only those which require but little light, and can bear the drip of the trees, penetrate the woods, and these have commonly more beauty in their leaves than in their pale and almost colorless blossoms.

The prevailing flowers and conspicuous small plants of the woods, which I noticed, were: *Clintonia borealis*, linnæa, checkerberry (*Gaultheria procumbens*), *Aralia nudicaulis* (wild sarsaparilla), great round-leaved orchis, *Dalibarda repens*, *Chiogenes hispidula* (creeping snowberry), *Oxalis Acetosella* (common wood-sorrel), *Aster acuminatus*, *Pyrola secunda* (one-sided pyrola), *Medeola Virginica* (Indian cucumber-root), small *Circæa* (enchanter's nightshade), and perhaps *Cornus Canadensis* (dwarf cornel).

Of these, the last of July, 1858, only the *Aster acuminatus* and great round-leaved orchis were conspicuously in bloom.

The most common flowers of the river and lake shores were: *Thalictrum cornuti* (meadow-rue); *Hypericum ellipticum*, *mutillum*, and *Canadense* (St. John's-wort); horsemint; horehound, *Lycopus Virginicus* and *Europæus*, var. *sinuatus* (bugle-weed); *Scutellaria galericulata* (skullcap); *Solidago lanceolata* and *squarrosa*, East Branch, (goldenrod); *Diplopappus umbellatus* (double-bristled aster); *Aster Radula*; *Cicuta maculata* and *bulbifera* (water hemlock); meadow-sweet; *Lysimachia stricta* and *ciliata* (loosestrife); *Galium trifidum* (small bed-straw); *Lilium Canadense* (wild yellow lily); *Platanthera peramœna* and *psycodes* (great purple orchis and small purple fringed orchis); *Mimulus ringens* (monkey-flower); dock (water); blue flag; *Hydrocotyle Americana* (marsh pennywort); *Sanicula Canadensis* (?) (black snake-root); *Clematis Virginiana* (?) (common virgin's-bower); *Nasturtium palustre* (marsh cress); *Ranunculus recurvatus* (hooked crow-foot); *Asclepias incarnata* (swamp milkweed); *Aster Tradescanti* (Tradescant's aster); *Aster miser*, also *longifolius*; *Eupatorium purpureum*, apparently, lake shores, (Joe-Pye-weed); *Apocynum Cannabinum*, East Branch, (Indian hemp); *Polygonum cili-node* (bindweed); and others. Not to mention, among inferior orders, wool-grass and the sensitive fern.

In the water, *Nuphar advena* (yellow pond-lily), some *potamogetons* (pond-weed), *Sagittaria variabilis* (arrowhead), *Sium lineare* (?) (water-parsnip).

Of these, those conspicuously in flower the last of July, 1857, were: rue, *Solidago lanceolata* and *squarrosa*, *Diplopappus umbellatus*, *Aster Radula*, *Lilium Canadense*, great and small purple orchis, *Mimulus ringens*, blue flag, virgin's-bower, etc.

The characteristic flowers in swamps were: *Rubus triflorus* (dwarf raspberry); *Calla palustris* (water-arum); and *Sarracenia purpurea* (pitcher-plant). On burnt grounds: *Epilobium angustifolium*, in full bloom, (great willow-herb); and *Erechtites hieracifolia* (fire-weed). On cliffs: *Campanula rotundifolia* (harebell); *Cornus Canadensis* (dwarf cornel); *Arctostaphylos Uva-Ursi* (bear-berry); *Potentilla tridentata* (mountain cinquefoil); *Pteris aquilina* (common brake). At old camps, carries, and logging-paths: *Cirsium arvense* (Canada thistle); *Prunella vulgaris* (common self-heal); clover; herd's-grass; *Achillea millefolium* (common yarrow); *Leucanthemum vulgare* (whiteweed); *Aster macrophyllus*; *Halenia deflexa*, East Branch, (spurred gentian); *Antennaria margaritacea* (pearly everlasting); *Actæa rubra* and *alba*, wet carries, (red and white cohosh); *Desmodium Canadense* (tick-trefoil); sorrel.

The handsomest and most interesting flowers were the great purple orchises, rising ever and anon, with their great purple spikes perfectly erect, amid the shrubs and grasses of the shore. It seemed strange that they should be made to grow there in such profusion, seen of moose and moose-hunters only, while they are so rare in Concord. I have never seen this species flowering nearly so late with us, or with the small one.

The prevailing underwoods were: *Dirca palustris* (moose-wood), *Acer spicatum* (mountain maple), *Virburnum lantanoides* (hobble-bush), and frequently *Taxus baccata*, var. *Canadensis* (American yew).

The prevailing shrubs and small trees along the shore were: osier rouge and alders (before mentioned); willows, or small willows, of two or three kinds, as *Salix humilis*, *rostrata*, and *discolor* (?); *Sambucus Canadensis* (black elder); rose; *Vi-*

burnum Opulus and *nudum* (cranberry-tree and withe-rod); *Pyrus Americana* (American mountain-ash); *Corylus rostrata* (beaked hazelnut); *Diervilla trifida* (bush honeysuckle); *Prunus Virginiana* (choke-cherry); *Myrica gale* (sweet-gale); *Nemopanthes Canadensis* (mountain holly); *Cephalanthus occidentalis* (button-bush); *Ribes prostratum*, in some places, (fetid currant).

More particularly of shrubs and small trees in *swamps*: some willows, *Kalmia glauca* (pale laurel), *Ledum latifolium* and *palustre* (Labrador tea), *Ribes lacustre* (swamp gooseberry), and in one place *Betula pumila* (low birch). At *camp*s and *carries*: raspberry, *Vaccinium Canadense* (Canada blueberry), *Prunus Pennsylvanica* (also alongshore) (wild red cherry), *Amelanchier Canadensis* (shad-bush), *Sambucus pubens* (red-berried elder). Among those peculiar to the *moun-*
tains would be the *Vaccinium Vitis-Idæa* (cow-berry).

Of plants commonly regarded as *introduced* from Europe, I observed at Ansel Smith's clearing, Chesuncook, abundant in 1857: *Ranunculus acris* (buttercups); *Plantago major* (common plantain); *Chenopodium album* (lamb's-quarters); *Capsella Bursa-pastoris*, 1853, (shepherd's-purse); *Spergula arvensis*, also north shore of Moosehead in 1853, and elsewhere, 1857, (corn-spurry); *Taraxacum Dens-leonis* — regarded as indigenous by Gray, but evidently introduced there — (common dandelion); *Polygonum Persicaria* and *hydropiper*, by a logging-path in woods at Smith's, (lady's-thumb and smart-weed); *Rumex Acetosella*, common at carries, (sheep sorrel); *Trifolium pratense*, 1853, on carries, frequent, (red clover); *Leucanthemum vulgare*, carries, (whiteweed); *Phleum pratense*, carries, 1853 and 1857, (herd's-grass); *Verbena hastata* (blue vervain); *Cirsium arvense*, abundant at camps,

1857, (Canada thistle); *Rumex crispus* (?), West Branch, 1853 (?), (curled dock); *Verbascum Thapsus*, between Bangor and lake, 1853, (common mullein).

It appears that I saw about a dozen plants which had accompanied man as far into the woods as Chesuncook, and had naturalized themselves there, in 1853. Plants begin thus early to spring by the side of a logging-path, — a mere vista through the woods, which can only be used in the winter, on account of the stumps and fallen trees, — which at length are the roadside plants in old settlements. The pioneers of such are planted in part by the first cattle, which cannot be summered in the woods.

III. LIST OF PLANTS

The following is a list of the plants which I noticed in the Maine woods, in the years 1853 and 1857. (Those marked * not in woods.)

1. THOSE WHICH ATTAINED THE HEIGHT OF TREES

Alnus incana (speckled or hoary alder), abundant along streams, etc.

Thuja occidentalis (American arbor-vitæ), one of the prevailing.

Fraxinus sambucifolia (black ash), very common, especially near dead water. The Indian spoke of "yellow ash" as also found there.

Populus tremuloides (American aspen), very common, especially on burnt lands, almost as white as birches.

Populus grandidentata (large-toothed aspen), perhaps two or three.

Fagus ferruginea (American beech), not uncommon, at least on the West Branch. (Saw more in 1846.)

Betula papyracea (canoe birch), prevailing everywhere and about Bangor.

Betula excelsa (yellow birch), very common.

Betula lenta (black birch), on the West Branch in 1853.

Betula alba (American white birch), about Bangor only.

Ulmus Americana (American or white elm), West Branch and low down the East Branch, *i. e.* on the lower and alluvial part of the river, very common.

Larix Americana (American or black larch), very common on the Umbazooksus; some elsewhere.

Abies Canadensis (hemlock spruce); not abundant; some on the West Branch, and a little everywhere.

Acer saccharinum (sugar maple), very common.

Acer rubrum (red or swamp maple), very common.

Acer dasycarpum (white or silver maple), a little low on East Branch and in Chesuncook woods.

Quercus rubra (red oak), one on an island in Grand Lake, East Branch, and, according to a settler, a few on the east side of Chesuncook Lake; a few also about Bangor in 1853.

Pinus Strobus (white pine), scattered along, most abundant at Heron Lake.

Pinus resinosa (red pine), Telos and Grand Lake, a little afterwards here and there.

Abies balsamea (balsam fir), perhaps the most common tree, especially in the upper parts of rivers.

Abies nigra (black or double spruce), next to the last the most common, if not equally common, and on mountains.

Abies alba (white or single spruce), common with the last along the rivers.

Pinus Banksiana (gray or Northern scrub pine), a few on an island in Grand Lake.

Twenty-three in all (23).

2. SMALL TREES AND SHRUBS

Prunus depressa (dwarf cherry), on gravel-bars, East Branch, near Hunt's, with green fruit; obviously distinct from the *pumila* of river and meadows.

Vaccinium corymbosum (common swamp blueberry), Bucksport.

Vaccinium Canadense (Canada blueberry), carries and rocky hills everywhere as far south as Bucksport.

Vaccinium Pennsylvanicum (dwarf-blueberry?), Whetstone Falls.

Betula pumila (low birch), Mud Pond Swamp.

Prinos verticillatus (black alder), 1857, now placed with *Ilex* by Gray, 2d ed.

Cephalanthus occidentalis (button-bush).

Prunus Pennsylvanica (wild red cherry), very common at camps, carries, etc., along rivers; fruit ripe August 1. 1857.

Prunus Virginiana (choke-cherry), riverside, common.

Cornus alternifolia (alternate-leaved cornel), West Branch, 1853.

Ribes prostratum (fetid currant), common along streams; on Webster Stream.

Sambucus Canadensis (common elder), common along riversides.

Sambucus pubens (red-berried elder), not quite so common; roadsides toward Moosehead, and on carries afterward; fruit beautiful.

Ribes lacustre (swamp-gooseberry), swamps, common; Mud Pond Swamp and Webster Stream; not ripe July 29, 1857.

Corylus rostrata (beaked hazelnut), common.

Taxus baccata, var. *Canadensis* (American yew), a common undershrub at an island in West Branch and Chesuncook woods.

Viburnum lantanoides (hobble-bush), common, especially in Chesuncook woods; fruit ripe in September, 1853, not in July, 1857.

Viburnum Opulus (cranberry-tree), on West Branch; one in flower still, July 25, 1857.

Viburnum nudum (withe-rod), common along rivers.

Kalmia glauca (pale laurel), swamps, common, as at Moosehead Carry and Chamberlain Swamp.

Kalmia angustifolia (lambkill), with *Kalmia glauca*.

Acer spicatum (mountain maple), a prevailing underwood.

Acer striatum (striped maple), in fruit July 30, 1857; green the first year; green, striped with white, the second; darker, the third, with dark blotches.

Cornus stolonifera (red-osier dogwood), prevailing shrub on shore of West Branch; fruit still white in August, 1857.

Pyrus Americana (American mountain-ash), common along shores.

Amelanchier Canadensis (shad-bush), rocky carries, etc., considerable fruit in 1857.

Rubus strigosus (wild red raspberry), very abundant, burnt grounds, camps, and carries, but not ripe till we got to Chamberlain dam and on East Branch.

Rosa Carolina (swamp rose), common on the shores of lakes, etc.

Rhus typhina * (staghorn sumach).

Myrica Gale (sweet-gale), common.

Nemopanthus Canadensis (mountain holly), common in low ground, Moosehead Carry, and on Mount Kineo.

Crataegus (coccinea ? scarlet-fruited thorn), not uncommon; with hard fruit in September, 1853.

Salix (near to *petiolaris*, petioled willow), very common in Umbazooksus meadows.

Salix rostrata (long-beaked willow), common.

Salix humilis (low bush willow), common.

Salix discolor (glaucous willow) (?).

Salix lucida (shining willow), at island in Heron Lake.

Dirca palustris (moose-wood), common.

In all, 38.

3. SMALL SHRUBS AND HERBACEOUS PLANTS

Agrimonia Eupatoria (common agrimony), not uncommon.

Circæa alpina (enchanter's nightshade), very common in woods.

Nasturtium palustre (marsh cress), var. *hispidum*, common, as at A. Smith's.

Aralia hispida (bristly sarsaparilla), on West Branch, both years.

Aralia nudicaulis (wild sarsaparilla), Chesuncook woods.

Sagittaria variabilis (arrowhead), common at Mooshead and afterward.

Arum triphyllum (Indian turnip), now *arisæma*, Mooshead Carry in 1853.

Asclepias incarnata (swamp milkweed), Umbazooksus River and after; redder than ours, and a different variety from our var. *pulchra*.

Aster acuminatus (pointed-leaved aster), the prevailing

aster in woods, not long open on South Branch, July 31; two or more feet high.

Aster macrophyllus (large-leaved aster), common, and the whole plant surprisingly fragrant, like a medicinal herb; just out at Telos Dam, July 29, 1857, and after to Bangor and Bucksport; bluish flower (in woods on Pine Stream and at Chesuncook in 1853).

Aster Radula (rough-leaved aster), common, Moosehead Carry and after.

Aster miser (petty aster), in 1853 on West Branch, and common on Chesuncook shore.

Aster longifolius (willow-leaved blue aster), 1853, Moosehead and Chesuncook shores.

Aster cordifolius (heart-leaved aster), 1853, West Branch.

Aster Tradescanti (Tradescant's aster), 1857. A narrow-leaved one, Chesuncook shore, 1853.

Aster, longifolius-like, with small flowers, West Branch, 1853.

Aster puniceus (rough-stemmed aster), Pine Stream.

Diplopappus umbellatus (large diplopappus aster), common along river.

Arctostaphylos Uva-Ursi (bear-berry), Kineo, etc., 1857.

Polygonum cilinode (fringe-jointed false-buckwheat), common.

Bidens cernua (bur-marigold), 1853, West Branch.

Ranunculus acris (buttercups), abundant at Smith's dam, Chesuncook, 1853.

Rubus triflorus (dwarf raspberry), low grounds and swamps, common.

Utricularia vulgaris * (greater bladderwort), Pushaw.

Iris versicolor (larger blue flag), common, Moosehead, West Branch, Umbazooksus, etc.

Sparganium (bur-reed).

Calla palustris (water-arum), in bloom July 27, 1857, Mud Pond Swamp.

Lobelia cardinalis (cardinal-flower), apparently common, but out of bloom August, 1857.

Cerastium nutans (clammy wild chickweed) (?).

Gaultheria procumbens (checkerberry), prevailing everywhere in woods along banks of rivers.

Stellaria media * (common chickweed), Bangor.

Chiogenes hispidula (creeping snowberry), very common in woods.

Cicuta maculata (water hemlock).

Cicuta bulbifera (bulb-bearing water hemlock), Penobscot and Chesuncook shore, 1853.

Galium trifidum (small bed-straw), common.

Galium Aparine (cleavers) (?), Chesuncook, 1853.

Galium, one kind on Pine Stream, 1853.

Trifolium pratense (red clover), on carries, etc.

Actæa spicata, var. *alba* (white cohosh), Chesuncook woods, 1853, and East Branch, 1857.

Actæa, var. *rubra* (red cohosh), East Branch, 1857.

Vaccinium Vitis-Idæa (cow-berry), Ktaadn, very abundant.

Cornus Canadensis (dwarf cornel), in woods Chesuncook, 1853; just ripe at Kineo, July 24, 1857, common; still in bloom, Moosehead Carry, September 16, 1853.

Medeola Virginica (Indian cucumber-root), West Branch and Chesuncook woods.

Dalibarda repens (dalibarda), Moosehead Carry and after, common. In flower still, August 1, 1857.

Taraxacum Dens-leonis (common dandelion), Smith's, 1853; only there. Is it not foreign?

Diervilla trifida (bush honeysuckle), very common.

Rumex Hydrolapathum (?) (great water dock), in 1857; noticed it was large-seeded in 1853; common.

Rumex crispus (?) (curled dock), West Branch, 1853.

Apocynum cannabinum (Indian hemp), Kineo (Bradford) and East Branch, 1857, at Whetstone Falls.

Apocynum androsamifolium (spreading dogbane), Kineo (Bradford).

Clintonia borealis (clintonia), all over woods; fruit just ripening, July 25, 1857.

A *Lemna* (duckweed), Pushaw, 1857.

Elodea Virginica (marsh St. John's-wort), Moosehead, 1853.

Epilobium angustifolium (great willow-herb), great fields on burnt lands; some white at Webster Stream.

Epilobium coloratum (purple-veined willow-herb), once in 1857.

Eupatorium purpureum (Joe-Pye-weed), Heron, Moosehead, and Chesuncook lake shores, common.

Allium (onion), a new kind to me in bloom, without bulbs above, on rocks near Whetstone Falls (?), East Branch.

Halenia deflexa (spurred gentian), carries on East Branch, common.

Geranium Robertianum (herb-robert).

Solidago lanceolata (bushy goldenrod), very common.

Solidago, one of the three-ribbed, in both years.

Solidago thyrsoides (large mountain goldenrod), one on Webster Stream.

Solidago squarrosa (large-spiked goldenrod), the most common on East Branch.

Solidago altissima (rough hairy goldenrod), not uncommon both years.

Coptis trifolia (three-leaved gold-thread).

Smilax herbacea (carrion-flower), not uncommon both years.

Spiraea tomentosa * (hardhack), Bangor.

Campanula rotundifolia (harebell), cliffs, Kineo, Grand Lake, etc.

Hieracium (hawkweed), not uncommon.

Veratrum viride (American white hellebore).

Lycopus Virginicus (bugle-weed), 1857.

Lycopus Europæus (water horehound), var. *sinuatus*, Heron Lake shore.

Chenopodium album (lamb's-quarters), Smith's.

Mentha Canadensis (wild mint), very common.

Galeopsis tetrahit (common hemp-nettle), Olamon Isle, abundant, and below, in prime, August 3, 1857.

Houstonia carulea (blueets), now *Oldenlandia* (Gray, 2d ed.), 1857.

Hydrocotyle Americana (marsh pennywort), common.

Hypericum ellipticum (elliptical-leaved St. John's-wort), common.

Hypericum mutilum (small St. John's-wort), both years, common.

Hypericum Canadense (Canadian St. John's-wort), Moosehead Lake and Chesuncook shores, 1853.

Trientalis Americana (star-flower), Pine Stream, 1853.

Lobelia inflata (Indian tobacco).

Spiranthes cernua (ladies'-tresses), Kineo and after.

Nabalus (rattlesnake-root), 1857; *altissimus* (tall white lettuce), Chesuncook woods, 1853.

Antennaria margaritacea (pearly everlasting), common, Moosehead, Smith's, etc.

Lilium Canadense (wild yellow lily), very common and

large, West and East Branch; one on East Branch, 1857, with strongly revolute petals, and leaves perfectly smooth beneath, but not larger than the last, and apparently only a variety.

Linnæa borealis (linnæa), almost everywhere in woods.

Lobelia Dortmanna (water lobelia), pond in Bucksport.

Lysimachia ciliata (hairy-stalked loosestrife), very common, Chesuncook shore and East Branch.

Lysimachia stricta (upright loosestrife), very common.

Microstylis ophioglossoides (adder's-mouth), Kineo.

Spiræa salicifolia (common meadow-sweet), common.

Mimulus ringens (monkey-flower), common, lake-shores, etc.

Scutellaria galericulata (skullcap), very common.

Scutellaria lateriflora (mad-dog skullcap), Heron Lake, 1857; Chesuncook, 1853.

Platanthera psycodes (small purple fringed orchis), very common, East Branch and Chesuncook, 1853.

Platanthera fimbriata (large purple fringed orchis), very common, West Branch and Umbazookskus, 1857.

Platanthera orbiculata (large round-leaved orchis), very common in woods, Moosehead and Chamberlain carries, Caucomgomoc, etc.

Amphicarpæa monoica (hog peanut).

Aralia racemosa (spikenard), common, Moosehead Carry, Telos Lake, etc., and after; out about August 1, 1857.

Plantago major (common plantain), common in open land at Smith's in 1853.

Pontederia cordata * (pickerel-weed), only near Oldtown, 1857.

Potamogeton (pondweed), not common.

Potentilla tridentata (mountain cinquefoil), Kineo.

Potentilla Norvegica (cinquefoil), Heron Lake shore and Smith's.

Polygonum amphibium (water persicaria), var. *aquaticum* Second Lake.

Polygonum Persicaria (lady's-thumb), log-path, Chesuncook, 1853.

Nuphar advena (yellow pond-lily), not abundant.

Nymphaea odorata (sweet water-lily), a few in West Branch, 1853.

Polygonum Hydropiper (smart-weed), log-path, Chesuncook.

Pyrola secunda (one-sided pyrola), very common, Caucomgomoc.

Pyrola elliptica (shin-leaf), Caucomgomoc River.

Ranunculus Flammula (spearwort, var. *repens*).

Ranunculus recurvatus (hooked crowfoot), Umbazookskus landing, &c.

Typha latifolia * (common cat-tail or reed-mace), extremely abundant between Bangor and Portland.

Sanicula Marylandica (black snake-root), Moosehead Carry and after.

Aralia nudicaulis (wild sarsaparilla).

Capsella Bursa-pastoris (shepherd's-purse), Smith's, 1853.

Prunella vulgaris (self-heal), very common everywhere.

Erechthites hieracifolia (fire-weed), 1857, and Smith's open land, 1853.

Sarracenia purpurea (pitcher-plant), Mud Pond Swamp.

Smilacina bifolia (false Solomon's-seal), 1857, and Chesuncook woods, 1853.

Smilacina racemosa (false spikenard) (?), Umbazookskus Carry, July 27, 1853.

Veronica scutellata (marsh speedwell).

Spergula arvensis (corn-spurry), 1857, not uncommon, 1853, Moosehead and Smith's.

Fragaria (strawberry), 1853, Smith's; 1857, Bucksport.

Thalictrum Cornuti (meadow-rue), very common, especially along rivers, tall, and conspicuously in bloom in July, 1857.

Cirsium arvense (Canada thistle), abundant at camps and highway-sides in the north of Maine.

Cirsium muticum (swamp thistle), well in bloom, Webster Stream, August 31.

Rumex acetosella (sheep sorrel), common by river and log-paths, as Chesuncook log-path.

Impatiens fulva (spotted touch-me-not).

Trillium erythrocarpum (painted trillium), common West Branch and Moosehead Carry.

Verbena hastata (blue vervain).

Clematis Virginiana (common virgin's-bower), common on river-banks; feathered in September, 1853; in bloom July, 1857.

Leucanthemum vulgare (whiteweed).

Sium lineare (water-parsnip), 1857, and Chesuncook shore 1853.

Achillea millefolium (common yarrow), by river and log-paths, and Smith's.

Desmodium Canadense (Canadian tick-trefoil), not uncommon.

Oxalis Acetosella (common wood-sorrel), still out July 25 1853, at Moosehead Carry and after.

Oxalis stricta (yellow wood-sorrel), 1853, at Smith's and his wood-path.

Liparis liliifolia (tway-blade), Kineo (Bradford).

Uvularia grandiflora (large-flowered bellwort), woods, common.

Uvularia sessilifolia (sessile-leaved bellwort), Chesuncook woods, 1853.

In all, 145.

4. OF LOWER ORDER

Scirpus Eriophorum (wool-grass), very common, especially on low islands. A coarse grass, four or five feet high, along the river.

Phleum pratense (herd's-grass), on carries, at camps and clearings.

Equisetum sylvaticum (sylvatic horse-tail).

Pteris aquilina (brake), Kineo and after.

Onoclea sensibilis (sensitive fern), very common along the riversides; some on the gravelly shore of Heron Lake Island.

Polypodium Dryopteris (brittle polypody).

Woodsia Ilvensis (rusty woodsia), Kineo.

Lycopodium lucidulum (toothed club-moss).

Usnea (a parmeliaceous lichen), common on various trees.

IV. LIST OF BIRDS

WHICH I SAW IN MAINE BETWEEN JULY 24 AND AUGUST 3,
1857

A very small hawk at Great Falls, on Webster Stream.

Haliaeetus leucocephalus (white-headed or bald eagle), at Ragmuff, and above and below Hunt's, and on pond below Mattawamkeag.

Pandion haliaëtus (fish hawk or osprey), heard, also seen on East Branch.

Bubo Virginianus (cat owl), near Camp Island, also above mouth of Schoonis, from a stump back and forth, also near Hunt's on a tree.

Icterus phæniceus (red-winged blackbird), Umbazooksus River.

Corvus Americanus (American crow), a few, as at outlet of Grand Lake; a peculiar cawing.

Fringilla Canadensis (tree sparrow), think I saw one on Mount Kineo, July 24, which behaved as if it had a nest there.

Garrulus cristatus (blue jay).

Parus atricapillus (chickadee), a few.

Muscicapa tyrannus (kingbird).

Muscicapa Cooperii (olive-sided flycatcher), everywhere a prevailing bird.

Muscicapa virens (wood pewee), Moosehead, and I think beyond.

Muscicapa acadica (small pewee), common.

Muscicapa ruticilla (American redstart), Moosehead.

Vireo olivaceus (red-eyed vireo), everywhere common.

Turdus migratorius (red-breasted robin), some everywhere.

Turdus melodus (wood thrush), common in all the woods.

Turdus Wilsonii (Wilson's thrush), Moosehead and beyond.

Turdus aurocapillus (golden-crowned thrush or oven-bird), Moosehead.

Fringilla albicollis (white-throated sparrow), Kineo and after, apparently nesting; the prevailing bird early and late.

Fringilla melodia (song sparrow), at Moosehead or beyond.

Sylvia pinus (pine warbler), one part of voyage.

Trichas Marylandica (Maryland yellow-throat), everywhere.

Coccyzus Americanus (?) (yellow-billed cuckoo), common.

Picus erythrocephalus (red-headed woodpecker), heard and saw, and good to eat.

Sitta Carolinensis (?) (white-breasted American nuthatch), heard.

Alcedo alcyon (belted kingfisher), very common.

Caprimulgus Americanus (nighthawk).

Tetrao umbellus (partridge), Moosehead Carry, etc.

Tetrao cupido (?) (pinnated grouse), Webster Stream.

Ardea cærulea (blue heron), lower part of Penobscot.

Totanus macularius (spotted sandpiper or peetweet), everywhere.

Larus argentatus (?) (herring gull), Heron Lake on rocks, and Chamberlain. Smaller gull on Second Lake.

Anas obscura (dusky or black duck), once in East Branch.

Anas sponsa (summer or wood duck), everywhere.

Fuligula albeola (spirit duck or dipper), common.

Colymbus glacialis (great northern diver or loon), in all the lakes.

Mergus Merganser (buff-breasted merganser or sheldrake), common on lakes and rivers.

A swallow; the night-warbler (?) once or twice.

V. QUADRUPEDS

A bat on West Branch; beaver skull at Grand Lake; Mr. Thatcher ate beaver with moose on the Caucomgomoc. A muskrat on the last stream; the red squirrel is common in the depths of the woods; a dead porcupine on Chamberlain road; a cow moose and tracks of calf; skin of a bear, just killed.

VI. OUTFIT FOR AN EXCURSION

The following will be a good outfit for one who wishes to make an excursion of *twelve* days into the Maine woods in July, with a companion and one Indian, for the same purposes that I did.

Wear, — a check shirt, stout old shoes, thick socks, a neck-ribbon, thick waistcoat, thick pants, old Kossuth hat, a linen sack.

Carry, — in an india-rubber knapsack, with a large flap, two shirts (check), one pair thick socks, one pair drawers, one flannel shirt, two pocket-handkerchiefs, a light india-rubber coat or a thick woolen one, two bosoms and collars to go and come with, one napkin, pins, needles, thread, one blanket, best gray, seven feet long.

Tent, — six by seven feet, and four feet high in middle, will do; veil and gloves and insect-wash, or, better, mosquito-bars to cover all at night; best pocket map, and perhaps description of the route; compass; plant-book and red blotting-paper; paper and stamps, botany, small pocket spy-glass for birds, pocket microscope, tape-measure, insect-boxes.

Axe, full size if possible, jackknife, fish-lines, two only apiece, with a few hooks and corks ready, and with pork for bait in a packet, rigged; matches (some also in a small vial in the waistcoat pocket); soap, two pieces; large knife and iron spoon (for all); three or four old newspapers, much twine, and several rags for dish-cloths; twenty feet of strong cord, four-quart tin pail for kettle, two tin dippers, three tin plates, a fry-pan.

Provisions. — Soft hard-bread, twenty-eight pounds; pork, sixteen pounds; sugar, twelve pounds; one pound black tea or three pounds coffee; one box or a pint of salt; one quart Indian meal, to fry fish in; six lemons, good to correct the pork and warm water; perhaps two or three pounds of rice, for variety. You will probably get some berries, fish, etc., beside.

A gun is not worth the carriage, unless you go as hunters. The pork should be in an open keg, sawed to fit; the sugar, tea or coffee, meal, salt, etc., should be put in separate water-tight india-rubber bags, tied with a leather string; and all the provisions, and part of the rest of the baggage, put into two large india-rubber bags, which have been proved to be water-tight and durable.

Expense of preceding outfit is twenty-four dollars.

An Indian may be hired for about one dollar and fifty cents per day, and perhaps fifty cents a week for his canoe (this depends on the demand). The canoe should be a strong and tight one. This expense will be nineteen dollars.

Such an excursion need not cost more than twenty-five dollars apiece, starting at the foot of Moosehead, if you already possess or can borrow a reasonable part of the outfit. If you take an Indian and canoe at Oldtown, it will cost seven or eight dollars more to transport them to the lake.

VII. A LIST OF INDIAN WORDS

1. *Ktaadn*, said to mean *Highest Land*, Rasles puts for *Mt. Pemadene*; for *Grai*, *pierre à aiguiser*, *Kitadaügan*. (*Vide* Potter.)

Mattawamkeag, place where two rivers meet. (Indian of carry.) (*Vide* Williamson's History of Maine, and Willis.)

Molunkus.

Ebecme, rock.

Nolisecmack; other name, Shad Pond.

Kecunnilessu, chickadee.

Nipsquecohossus, woodcock.

Skuscumonsuk, kingfisher. Has it not the pl. termination *uk* here, or *suk*? } Joe.

Wassus, bear, *auessous* (Rasles).

Lunxus, Indian-devil.

Upahsis, mountain-ash.

Moose (is it called, or does it mean, wood-eater?), *mous* (Rasles).

Katahdinauguoh, said to mean mountains about Ktaadn.

Ebemena, tree-cranberry. *Ibibimin*, *nar*, red, bad fruit. (Rasles.) } Joe.

Wighiggin, a bill or writing, *auixigan*, "livre, lettre, peinture, ceinture" (Rasles.) } Ind'n of carry.

Sebamook, Large-bay Lake, *Pegouasebem*; add *ar* for plural, *lac* or *étang*, (Rasles). *Ouaürinaügamek*, *anse dans un lac*, (Rasles). *Mspame*, large water. Polis. } Nicholai.

Sebago and *Sebec*, large open water.

Chesuncook, place where many streams empty in. (*Vide* Willis and Potter.) } Tahmunt, etc.

Caucomgomoc, Gull Lake. (*Caucomgomoc*, the lake; *Caucomgomoc-took*, the river, Polis.)

Pammadumcook.

Kenduskieg, Little Eel River. (*Vide* Willis.) } Nicholai.

Penobscoot, Rocky River. *Puapeskou*, stone. (Rasles) } Ind'n of carry.
v. Springer.)

Umbazookskus, meadow stream. (Much-meadow river, Polis.)

Millinocket, place of islands.

Souneunk, that runs between mountains.

Aboljacarmegus, Smooth-ledge Falls and Dead-water. } Nicholai.

Aboljacarmeguscook, the river there.

Muskiticook, dead stream. (Indian of carry.) *Meskikou*, or *Meskikouikou*, a place where there is grass, (Rasles). *Muskéticook*, deadwater, (Polis).

Mattahumkeag, Sand-creek Pond.

Piscataquis, branch of river.

Shecorways, sheldrakes.

Naramেকেচুস, peetweet.

Medawisla, loon.

Orignal, Moosehead Lake. (Montresor.)

Chor-chor-que, usnea.

Adelungquamooktum, wood thrush.

Bematruehtik, high land generally. (*Mt. Pemadené*. Polis. Rasles.)

Maquoxigil, bark of red osier, Indian tobacco.

Kineo, flint (Williamson; old Indian hunter). (Hodge.)

Artoosoqu', phosphorescence.

Subekoondark, white spruce.

Skusk, black spruce.

Beskabekuk, the "Lobster Lake" of maps.

Beskabekukskishtuk, the deadwater below the island. } Polis.

Paytaytequick, Burnt-Ground Stream, what Joe called *Ragmuff*.

Nonlangyis, the name of a deadwater between the last and Pine Stream.

Karsaootuk, Black River (or Pine Stream). *Mka-zéouighen*, black, (Rasles).

Michigan, *fimus*. Polis applied it to a sucker, or a poor, good-for-nothing fish. *Fiante* (?) *mitseگان* (Rasles). (Pickering puts the ? after the first word.)

Cowosnebagosar, *Chiogenes hispidula*, means, grows where trees have rotted.

Pockadunkquaywayle, echo. *Pagadaükoueouérré* (Rasles). Polis.

Bororquasis, moose-fly.

Nerlumskeechtcook (or *quoik* ?), (or *skeetcook*), Dead-water, and applied to the mountains near.

Apmoojenegamook, lake that is crossed.

Allegash, hemlock bark. (Vide Willis.)

Paytaywecongomec, Burnt-Ground Lake, *Telos*.

Madunkehunk, Height-of-Land Stream (Webster Stream).

Madunkehunk-gamooc, Height-of-Land Lake.

Matungamooc, Grand Lake.

Uncardnerheese, Trout Stream.

Wassataquoik (or *-cook*), Salmon River, East Branch. (Vide Willis.)

Pemoymenuk, amelanchier berries, "*Pemouaimin*, *nak*, a black fruit. Rasles." Has it not here the plural ending?

Sheepnoc, *Lilium Canadense* bulbs. "*Sipen*, *nak*," Polis. white, larger than *penak*" (Rasles).

Paytgumkiss, Petticoat (where a small river comes into the Penobscot below Nicketow).

Burntibus, a lake-like reach in the Penobscot.

Passadumkeag, "where the water falls into the Penobscot

above the falls" (Williamson). *Paüsidaükioui* is, *au dessus de la montagne* (Rasles).

Olarmon, or *larmon* (Polis), red paint. "Vermilion, paint, *Ouramaü*" (Rasles).

Sunkhaze, "See canoe come out; no see 'em stream" (Polis). The mouth of a river, according to Rasles, is *Saüghe-détegue*. The place where one stream empties into another, thus *ö* is *saüktaiüui*. (Vide Willis.)

Tomhegan Br. (at Moosehead). "*Hatchet*, *temahigan*" (Rasles).

Nicketow, "*Nicketaouteguë*, or *Niketoutegoue*, *rivière qui fourche*" (Rasles).

2. From WILLIAM WILLIS, on the Language of the Abnaquies, Maine Hist. Coll., Vol. IV.

Abalajako-megus (river near Ktaadn).

Aitteon (name of a pond and sachem).

Apmogenegamook (name of a lake).

Allagash (a bark camp). Sockbasin, a Penobscot, told him, "The Indians gave this name to the lake from the fact of their keeping a hunting-camp there."

Bamoneuwengamock, head of Allegash, Cross Lake. (Sockbasin.)

Chesuncook, Big Lake. (Sockbasin.)

Caucongamock (a lake).

Ebeeme, mountains that have plums on them. (Sockbasin.)

Ktaadn. Sockbasin pronounces this Ka-tah-din, and said it meant "large mountain or large thing."

Kenduskeag (the place of eels).

Kineo (flint), mountain on the border, etc.

Metawamkeag, a river with a smooth, gravelly bottom. (Sockbasin.)

Metanawcook.

Millinoket, a lake with many islands in it. (Sockbasin.)

Matakeunk (river).

Molunkus (river).

Nicketow, Neccotoh, where two streams meet ("Forks of the Penobscot").

Negas (Indian village on the Kenduskeag).

Orignal (Montresor's name for Moosehead Lake).

Ponguogamook, Allagash, name of a Mohawk Indian killed there. (Sockbasin.)

Penobscot, *Penobskeag*, French *Pentagoet*, etc.

Pougohwaken (Heron Lake).

Pemadumcook (lake).

Passadumkeag, where water goes into the river above falls. (Williamson.)

Ripogenus (river).

Sunkhaze (river), deadwater.

Souneunk.

Seboomook. Sockbasin says this word means "the shape of a Moose's head, and was given to the lake," etc. Howard says differently.

Seboois, a brook, a small river. (Sockbasin.)

Sebec (river).

Sebago (great water).

Telos (lake).

Telasius (lake).

Umbagog (lake), doubled up; so called from its form. (Sockbasin.)

Umbazookskus (lake).

Wassatiquoik, a mountain river. (Sockbasin.)

Judge C. E. Potter of Manchester, New Hampshire, adds in November, 1855: —

"*Chesuncook*. This is formed from *Chesunk*, or *Schunk* (a goose), and *Auke* (a place), and means 'The Goose Place.' *Chesunk*, or *Schunk*, is the sound made by the wild geese when flying."

Ktaadn. This is doubtless a corruption of *kees* (high), and *auke* (a place).

Penobscot, *penapse* (stone, rock place), and *auke* (place).

Suncook, goose place, *Schunk-auke*.

The Judge says that *shoot* means to rush, and hence *schoo-dic* from this and *auke* (a place where water rushes), and that *schoon* means the same; and that the Marblehead people and others have derived the words "scoon" and "scoot" from the Indians, and hence "schooner"; refers to a Mr. Chute.