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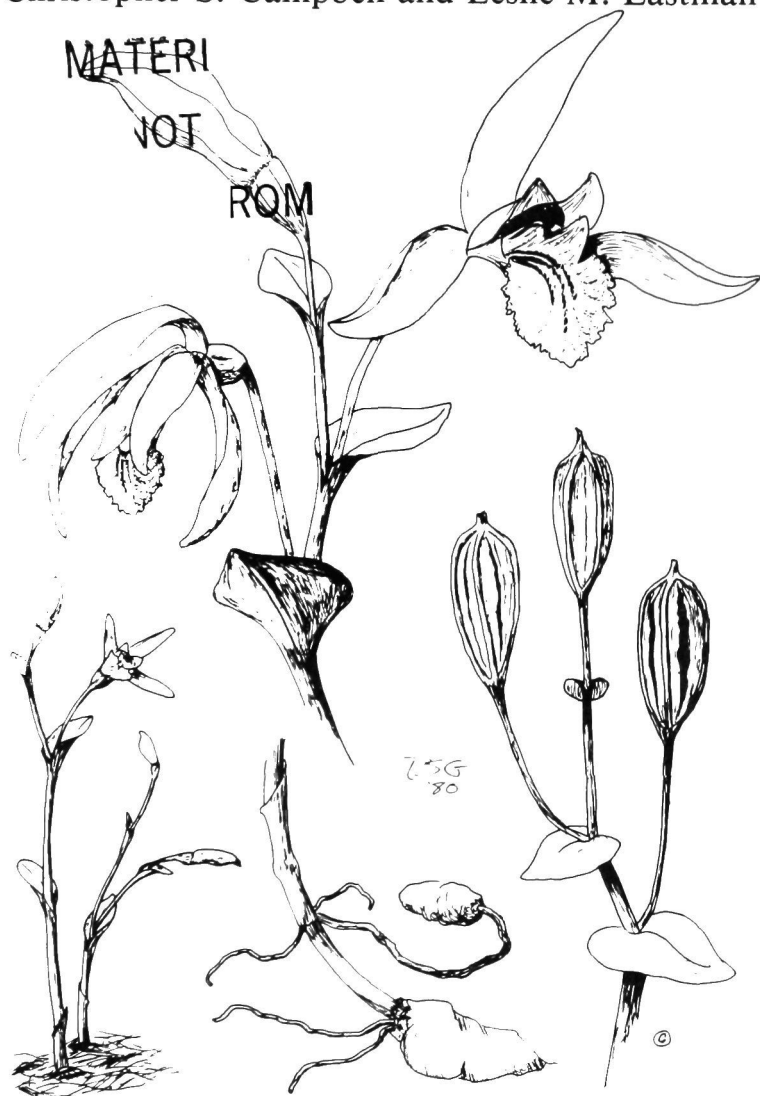
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FLORA

OF OXFORD COUNTY, MAINE

Christopher S. Campbell and Leslie M. Eastman



Flora of Oxford County, Maine

Christopher S. Campbell and Leslie M. Eastman

LIFE SCIENCES AND AGRICULTURE EXPERIMENT STATION
UNIVERSITY OF MAINE AT ORONO

TECHNICAL BULLETIN 99

JULY 1980

DEDICATION

This flora is dedicated to the members of the Josselyn Botanical Society of Maine who have collected vascular plants in Oxford County during the club meetings in the county in 1907, 1920, 1926, 1929, 1938, 1955, 1964, 1972, and 1975.

ACKNOWLEDGMENTS

Many people have contributed to this effort. It is a pleasure to acknowledge their considerable kindnesses.

Charles D. Richards has provided much guidance and support in floristic techniques both in the herbarium and in the field in Oxford County. Several people have contributed their expertise in identifying specimens from Oxford County: Norman Famous in the Asteraceae, Peter Gagnon in *Potamogeton*, Barre Hellquist in aquatics, James Hickey in *Lycopodium*, Fay Hyland in woody plants, Lawrence Morse in *Hudsonia*, Henry Svenson in the Cyperaceae, and Rolla Tryon in *Dryopteris*. Final responsibility for the identification of all specimens cited in this flora is taken by the authors.

The Brown Paper Co. and the International Paper Co. granted us permission to cross their land and to collect specimens. Thanks are also due to the curators of the herbaria at the University of New Hampshire, the New England Botanical Club, the Harvard University Herbaria, and the University of Maine for the use of their collections. We are particularly indebted to the Department of Botany and Plant Pathology of the University of Maine at Orono for facilities and equipment necessary for work on a flora.

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INTRODUCTION

Present Botanical Investigations

This is a study of the vascular plants occurring in Oxford County, Maine. Plants with vascular or conductive tissue (kingdom Plantae, division Tracheophyta [102]*) include the ferns and their "allies" (horsetails and lycopods) and the seed-bearing plants. Our work on this flora began in the summer of 1973 when we collected herbarium specimens in an area centered around Evans Notch and including all the towns of Batchelders Grant, Gilead, and Mason and adjoining portions of the towns of Bethel, Stoneham, and Stow (see Figure 1). In 1974 we decided to expand our work to include all of Oxford County. We have attempted to survey all the types of habitats throughout the county at all times of the growing season. From a review of the plant material collected in the county and deposited in the herbaria of the University of Maine at Orono and the New Hampshire and the New England Botanical Club, it became clear that certain regions of the county, namely the extreme north and south, had been relatively neglected. Hence these areas were explored more intensively than others in 1974. For the county as a whole, in 1974 and 1975, areas which appeared promising in terms of diversity or rarity of species were surveyed with the intent of finding all the species, varieties, and forms of plants growing without cultivation in the county. Over 3000 voucher specimens accompanied by appropriate field data have been deposited in the herbaria of the University of Maine at Orono and the New England Botanical Club.

Our aim has been to determine which plants occur in the county and, based on herbarium collections and observations, their habitat preferences, frequency of occurrence, and geographic distribution. We have also endeavored to explain the nature of the flora first in terms of the various factors which influence its composition and second by grouping the plants into the most important natural associations.

Previous Botanical Investigations

There is no complete botanical survey of Oxford County. Previous work consists of more or less local collecting of herbarium specimens and some generalized collecting throughout the county except in the extreme north. Based on the material in the herbaria of the Universities of Maine at Orono and New Hampshire and the New England Botanical Club, there had been no botanical explorations in Bowmantown, Oxbow, Parmachenee, Parkertown, and Upper Cupsuptic until the present work.

*Numbers in [] refer to published works listed in literature cited on page 217. Numbers in () usually refer to pressed specimens preserved in various herbaria.

Numerous brief articles concerning locations and range extensions of notable plants may be found in the literature [3], [5], [6], [7], [14], [16], [18], [27], [28], [29], [30], [33], [41], [49], [50], [62], [74], [75], [76], [77], [78], [79], [82], [83], [84], [85], [87], [92], [99], [100], [101], and [104]. More comprehensive works on the state and regional levels have been helpful [8], [34], [40], [61], [80], and [97]. Other local floras from the Northeast have been useful in suggesting methods [60], [72], and [86]. Pease's work [86] on Coos County, New Hampshire has provided the basis for the format of our work. Although the two counties share 116 km of boundary, their floras differ in several ways. The biggest differences are the alpine zone of the Mt. Washington Range and the many cedar bogs of Coos County and the sand plains and many southern species at the northern limit of their range in Oxford County.

Location and Area

Oxford County lies in the northwest corner of Maine and is bordered to the north by Frontenac County of the Province of Quebec, Canada, to the east and south by Franklin, Androscoggin, Cumberland, and York Counties of Maine, and to the west by Carroll and Coos Counties of New Hampshire. The only natural boundaries are the northern which divides the watersheds of the Androscoggin and St. Lawrence Rivers, the southern which is the Ossipee River, and those parts of the eastern boundary with Cumberland County made by the Saco and Crooked Rivers and Elkins Brook. In size and shape the county resembles the state of Delaware. It is long in a north-south direction, about 175 km from its northernmost point on Saddle Hill ($45^{\circ} 20'$ N. Lat.) to its southernmost point on the Ossipee River ($43^{\circ} 47'$ N. Lat.) and varies from about 13 km wide at its widest point in the northernmost town (Bowmantown) to its greatest width just below its middle, and back to about 16 km at its southern border. The distance from the westernmost point at Crown Monument ($71^{\circ} 4'$ W. Long.), the junction of Maine, New Hampshire, and Quebec, to its easternmost point in Canton ($70^{\circ} 15'$ W. Long.) is about 68 km. The total area of the county is 5550 sq km, of which 225 sq km are open water and 75 sq km are bog or swamp.

Culture

The county includes 54 towns of which 20 are unorganized. The 44,345 inhabitants of these towns (1975 census) depend upon the pulp and paper and wood products industry as the leading source of employment. The major companies in the county (Brown Paper Co., International Paper Co., Seven Islands Land Co., and Oxford Paper Co.) hold the northern third of the county as a vast reservoir of timber for their

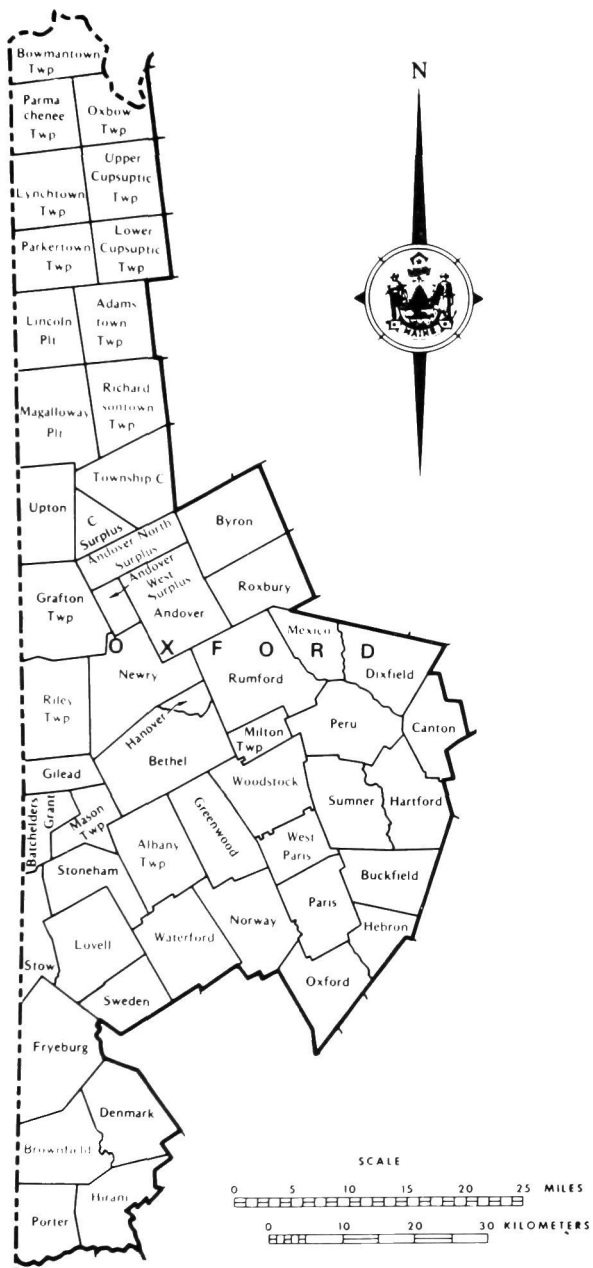


Figure 1. Political map of Oxford County.

mills. Nearly every inhabited town has a mill for the production of paper or wood products such as dowels or tool handles. Oxford Paper Division of Boise-Cascade Paper Group is the largest employer (4000 employees) in the most concentrated population center, the Rumford-Mexico area. Other large towns are Bethel, Fryeburg, Norway, and Paris, the county seat. Farming has been in a steady decline over the past 95 years. Day [24] notes that early movement away from the farm in the decade following agriculture's zenith in 1880 was concentrated in "rough and hilly areas" such as characterize much of Oxford County. In that decade alone Rumford and Norway lost 42 and 50 farms respectively. And now old stone walls that once separated pastures are a common sight in woods that have grown up on abandoned farmland. Nevertheless farming remains a very important aspect of Oxford County's economy. There are about 800 farms of which 200 are dairy (with 52 sq km in pasture), 119 poultry, and the remainder in field crops. Of the 207 sq km of farmland given over to crops, most are in the valleys of the Saco and Androscoggin Rivers. The former, which has the largest farming area of contiguous alluvial soils in Maine [90], produces string, shell, and dry beans, potatoes, squash, cucumbers, lettuce, and broccoli. The latter yields primarily corn and potatoes. In economic importance after the wood industry and farming come tourism, apple orchards, tanning, and canning.

FACTORS AFFECTING THE FLORA

Growth, reproduction, and dispersal of plants and thus the composition of the flora are affected by topography, climate, geology, soils, and the biological environment. It must be understood that these factors are interrelated. The topography of a region reveals variation in its bedrock, particularly its resistance to weathering, and geologic history. Drainage and topography are interrelated since flat areas are usually more slowly or poorly drained than hilly ones. Topography also affects some of the facets of climate. Soils are the product of bedrock, topography, and weathering. Their nature is dependent upon soil moisture levels and such aspects of the biological environment as humus and soil micro-organisms. Climate and the biological environment affect one another. These factors *in toto* comprise the environment of the vegetation.

Topography

The land is ruggedly mountainous (30 peaks exceeding 915 m altitude) in the northern half and dominated by low, rounded hills and flat areas of glacially deposited sands in the southern half. The average elevation in the northern half, which also coincides roughly with the water-

shed of the Androscoggin River, is about 500 m and that of the southern half about 200 m. The total relief in the county is near 1160 m.

There are four major mountain ranges in the county. The first is the Boundary Mountain range which runs northeast from Lynchtown (Bosebuck Mt., 960 m) through Parmachenee (Rump Mt., 1111 m; Ledge Ridge, 896 m; and Thrasher Peaks, 799 m) and into Bowmantown where the major peaks are Twin Peaks (917 m), Marble Mt. (914 m), and Saddle Hill (973 m). This range forms the divide between the watersheds of the Androscoggin and St. Lawrence Rivers. In eastern Lower and Upper Cupsuptic and Oxbow a small north-south aligned range including Kennebago Mt. (1129 m), Twin Mts. (1059 m and 1091 m), and Snow Mt. (1145 m) forms the divide between the Cupsuptic River and waters flowing southeast in Franklin County. The third and largest of the ranges — the Longfellow Mts. — is part of the main backbone of the Appalachian Mountains. The southern part of these mountains is the Mahoosuc Range which begins in Gorham, New Hampshire and enters Maine in Riley. The major peaks are Goose Eye Mt. (1175 m) and Old Speck Mt. (1274 m), the highest point in the county. The Longfellow Mountains continue through Baldpate Mt. (1162 m) in Grafton and are connected by lesser peaks with Elephant Mt. (1150 m) in Township C. The last range is the unnamed, east-west aligned ridge in Batchelders Grant, Mason, and Stoneham. The highest peaks are East Royce Mt. (955 m) and Speckled Mt. (877 m). This range is the divide between the Androscoggin and Saco Rivers.

Notches, cut from existing bedrock by ancient or modern rivers, are common in the last two ranges. Isolated mountains, minor ranges, and large areas of low relief surround the major ranges.

Topography affects the composition of the flora in two ways. First, the steepness and direction of the slope of the land influence the moisture and depth of the soil. Steeper slopes insure a faster runoff and a thinner topsoil. They also provide landslides and permanently open habitats like cliffs and talus slopes. The direction of a slope affects temperature and moisture of the air. East-facing slopes are generally cooler and moister than south- and west-facing ones which are more exposed to the hot, desiccating afternoon sun and the prevailing westerly winds. At the same time west-facing slopes are warmer, drier, and receive more light than north-facing ones. The second way that topography influences the flora, the interaction of climate and altitude, is discussed in the next section.

Climate

According to Lautzenheiser [65] the chief climatic characteristics of Maine are variability of the conditions from place to place and from day to day and equable distribution of moisture throughout the year.

The procession of contrasting air masses and the relatively frequent passage of storms bring about a roughly twice-weekly alteration from fair to cloudy or stormy conditions, attended by often abrupt changes in temperature, moisture, sunshine, wind direction, and wind speed. There is no regular or persistent rhythm to this sequence. It is interrupted by periods of time during which the same weather patterns continue for several days, infrequently for several weeks.

Based on the proximity to the moderating influence of the ocean, elevation, and types of terrain, Maine is divided into three divisions [36], [93]. Oxford County includes two of these divisions. These divide the county in half, the dividing line corresponding roughly to the southern boundary of the Androscoggin River watershed. The area north of this line (called the Northern Division) has more severe winters with greater snowfalls and lower temperatures, a shorter growing season, and less annual precipitation than the Southern Interior Division which includes the remainder of the county. This information is summarized in the climatic maps (Figures 2-5).

It must be understood that there is considerable variation in the above generalities according to local topography. Under normal conditions, cool air will sink into valleys causing frosts earlier than at higher elevations. But during stormy conditions, the higher elevations will be colder. Also there is a gradual decrease in temperature with increase in elevation of about 0.55°C per 100 m [1]. Valleys may receive less precipitation than slopes. In general an increase of 3.3 cm of snowfall will accompany every 10 m increase in elevation [65]. The prevailing westerly winds are considerably stronger at higher elevations normally. Sunshine is reduced at higher elevations which tend to be shrouded by clouds more than lower elevations.

The annual average of days with precipitation exceeding 0.25 mm for Rumford (over 36 years) is 120. The average length of the freeze-free period (growing season) for Rumford (over 38 years) is 134 days, and the same figure for Hiram (for the same period of time) is 137 days [19]. Detailed information for precipitation and temperature is given in Table 1.

Climate at the very local level is affected by such things as proximity to bodies of water which increase atmospheric moisture; shade which also increases moisture in the atmosphere and soil and lowers the temperature of the air; and exposure to winds.

Hurricanes occur with sufficient frequency to be important in creating open habitats through extensive windfall of forest trees. In 1815 the center of a major hurricane with winds greater than 219 km per hour passed over Oxford County [26]. A heavy wind storm levelled scores of square kilometers in central Oxford County in November of 1883 [89]. The hurricane seasons of 1938 and 1954, though less severe than 1815,

CLIMATIC REGIONS OF OXFORD COUNTY

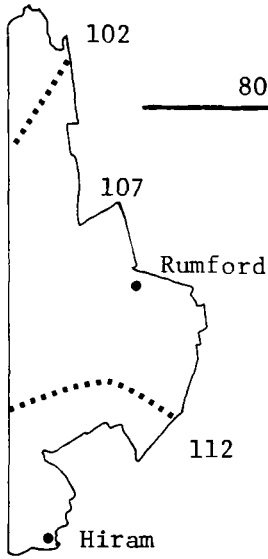


Figure 2. Mean annual precipitation (cm).

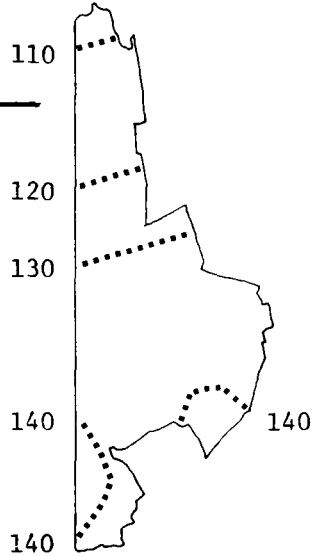


Figure 3. Frost-free days.

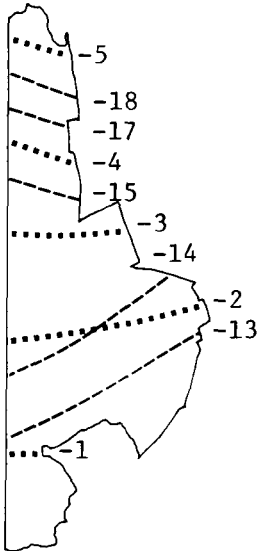


Figure 4. Mean maximum temperature ($^{\circ}$ C) Jan. (Blocked lines). Mean minimum temperature ($^{\circ}$ C) Jan. (Dashed lines).

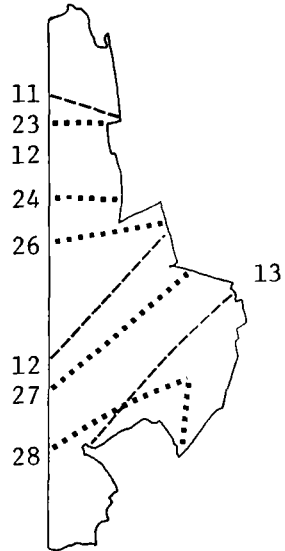


Figure 5. Mean maximum temperature ($^{\circ}$ C) Jul. (Blocked lines). Mean minimum temperature ($^{\circ}$ C) Jul. (Dashed lines).

Table I

PRECIPITATION AND TEMPERATURE AT RUMFORD, OXFORD COUNTY (155 m; N. LAT. 44°33' W. LONG. 70°33') [70]. THE NUMBER OF YEARS UPON WHICH THE AVERAGES ARE BASED IS GIVEN IN PARENTHESES BELOW EACH HEADING.

	PRECIPITATION (in cm)			TEMPERATURE (in °C)			
	Rain (36)	Snow (28)	Avg. (31)	Avg. max. (31)	Avg. min. (31)	High (31)	Low (31)
Jan.	7.31	53.1	-8.5	-3.3	-13.7	-1	-36
Feb.	7.39	52.3	-7.9	-2.1	-13.8	12	-30
Mar.	8.43	34.0	-1.6	3.4	-6.6	13	-28
Apr.	8.17	16.2	5.1	10.1	0.1	24	-17
May	8.33	0.7	11.8	17.8	5.8	28	-4
June	8.96	0.0	15.8	22.8	8.7	36	1
July	9.32	0.0	20.2	26.1	14.3	37	5
Aug.	9.09	0.0	18.4	22.9	14.0	38	2.2
Sept.	8.89	0.0	14.4	19.9	8.8	34	-6
Oct.	8.10	1.0	8.5	13.8	3.4	34	-8
Nov.	8.53	21.0	1.1	5.1	-3.0	29	-19
Dec.	7.36	45.2	-5.7	-1.7	-9.6	16	-29
Annual	99.92	223.7	5.9	11.2	0.7	38	-36

brought considerable local disturbance. While the average wind velocity is undoubtedly higher on ridges and mountain summits, heavy winds of storms often funnel through valleys.

Lightning from thunderstorms has certainly been important in initiating fires, especially during drought years like 1947 when a major fire burned 85% of the town of Brownfield and a lot of adjoining towns. From 1973 to 1977 the Bureau of Forestry of Maine recorded an average of 40 forest fires per year in Oxford County with an average size of 0.31 sq km (personal communication).

Geology and Soils

The bedrock geology of Oxford County is very complex. During the past 30 years most of the county has been mapped [25], [35], [44], [45], [47], [51], [52], [73], [81], [98]. There are many formations the precise nature and interrelationships of which have little bearing upon the flora. However, an overview of the geological history is helpful to an understanding of the minerals contributing to the composition of the soils.

The oldest rocks in the county come from sediments laid down in a long period of deposition centered around the Ordovician. The taconic Orogeny of the Late Ordovician or Early Silurian uplifted these sedi-

ments but metamorphosed them little or not at all. Major igneous intrusions of the Highlandcroft and Oliverian magma series accompanied this orogeny. During the late Silurian, Oxford County was covered by an ocean and marine sediments were deposited. It was during this period that the limited calcareous outcrops of the county were deposited [44], [51]. The Devonian brought further deposition of sediments followed by a period of deformation, volcanism, and metamorphism called the Acadian Orogeny. Tremendous compressive forces produced the southwest-northeast trending folds which are persistent today in the form of mountain ranges. (In some places igneous intrusions deflected these compressive forces away from their southwest-northeast orientation.) This orogeny and the concurrent igneous intrusions of the New Hampshire magma series metamorphosed the folded and uplifted sediments into phyllites, schists, slates, gneisses, quartzite, and marbly calc-silicate granulite. The plutons of these two orogenies have, in certain cases, weathered more quickly than the surrounding metamorphic rock and hence are now lowlands. This correlation between bedrock and topography is evident in much of the Rangeley Lakes area and around Fryeburg where the bedrock is granitic. The pegmatites, feldspars, and gems of contact-metamorphic zones for which Oxford County is famous originated during these intrusions.

Exposures of calcareous bedrock are not common in Oxford County. The Berry Ledge Formation and the similar Patch Mountain Formation both contain calc-silicate granulite and impure marble and are exposed in Greenwood, West Paris, Norway, Paris, Sumner, Buckfield, and Hebron. Either these rocks are too low in calcite or they are too resistant to weathering to produce a highly calcareous soil. A small body of calcareous outcrop near the summit of Science Hill in east Dixfield has been mapped. The areas of the Berry Ledge and Patch Mt. Formation (and adjacent Dixfield) are higher in lime-loving species and cedar bogs than any other area of the county. Several outcrops of arenaceous limestone have been found in Oxbow, Parmachenee, and Lynchtown. The largest of these occurs in the low hills east of the swamp at the head of the unnamed brook which enters Parmachenee Lake above the mouth of Moose Brook.

Serpentine rock is exposed in a few small areas in Bowmantown [52]. The largest area lies about a mile due east of Marble Mt. [45]. From our observations of this outcrop, the serpentine does not influence the species composition of the surrounding forest. We have also observed serpentine on Twin Peaks a few miles south of the large outcrop.

Since the Devonian, the geological history has been mostly erosion of existing rock (13,000 m of bedrock since the Acadian Orogeny [44]) rather than the deposition of sediments. Intrusions of the White Moun-

tain magma series of the Jurassic underlie a very small part of the Fryeburg area. In the Pleistocene, all of Oxford County underwent a series of glaciations by the Laurentide Ice Sheet. The last glacial period, that of the Late Wisconsin, peaked around 18,000 to 20,000 years ago and ended around 12,500 years ago with the dissipation of stagnant ice in the mountains [11]. The effects of glaciation are due to this last period (Borns, personal communication). The glacier removed less than 15 m of bedrock [105] but it exerted a tremendous affect upon the topography [9], soils, and drainage. It smoothed north and northwest (stoss) slopes and plucked bedrock from the south and southeast (lee) slopes to form cliffs. Good examples of this phenomenon are Twin Peaks in Bowman-town and Sunday River Whitecap in Newry. Lower hills were sculptured and drumlinized by ice action. There is evidence of mountain glaciation in the Mahoosuc range in the form of incipient cirques created by mountain glaciers remaining after the melting of the main continental ice mass [73]. Many lakes and ponds arose as kettle holes, from glacial scouring, or the damming up of waterways with glacial debris. The glacier also changed the course of several rivers, most notably the Androscoggin. Glaciation served to divert the Androscoggin from its former path into the Connecticut River in northern New Hampshire to a southerly and easterly course through Oxford County [20].

As the glacier slowly melted during its recession, its melt water brought sand and gravel off the hills and deposited them in the valleys as the velocity of the melt water dropped. These depositions remain today as eskers, kame terraces, and outwash plains in all the valleys. Eskers lie along the course of the Swift and Dead Cambridge Rivers and a long, interrupted esker system extends from Bethel to the Ossipee River valley. When the velocity of the melt-water dropped sufficiently, sand fell out of suspension to remain as sand plains after the lowering of the melt water. These valley trains line the valleys of the Little Androscoggin River in Paris and Oxford, the Crooked River in north Waterford, and are particularly characteristic of the Saco River valley. In the case of the last, the tremendous melt water from the White Mountains to the north and west created a huge lake which covered all of the lowlands of the Saco River in the towns of Fryeburg, Stow, Lovell, Sweden, Denmark, Brownfield, and Hiram [66]. What remains of this lake today are sand plains cut by the circuitous Saco River.

Since the recession of the Wisconsin glacier, there has been continued erosion and the build-up of fluvial deposits along the rivers.

The soils of Oxford County owe their nature largely to the workings of the Wisconsin glacier. Not only did it remove all existing soil from the bedrock, but it also provided till and outwash for the soil-building process. The upland soils are not deeply developed, very rocky, and derived

from granitic and less importantly schistose till [90]. They are characteristically podzolic. Areas of very poor drainage like bogs have a peaty soil due to the incomplete decomposition of organic matter. Soils along rivers are composed of stratified glacial deposits, outwash, and accumulate new deposits each year as the river floods.

Drainage

The Androscoggin River with its many tributaries is the dominant drainage feature of the northern half of the county. The watershed of the northernmost tributary, the Magalloway River, and its branches (the West and First, Second, and Third East Branches) begins along the international boundary with Canada. The Magalloway drains all of Bowmantown and the western half of the northern forty miles of the county (see Figure 6). It flows through Parmachenee Lake and man-made Aziscohos Lake and becomes sluggish and meandering in Magalloway Pt. where it leaves Maine to empty into Umbagog Lake in Errol, New Hampshire. The Cupsuptic River drains the eastern half of the same area beginning with the small watershed divide in eastern Oxbow. Its waters flow through Cupsuptic Lake and the remaining Rangeley Lakes, Mooselookmeguntic and the Richardsons, before entering Umbagog by the Rapid River. The Dead Cambridge River draining C Surplus and northwestern Andover North Surplus and the Swift River draining the northern end of the Mahoosuc Range meet just east of Umbagog Lake into which they empty their waters. Umbagog serves as a 41 sq km reservoir for the Androscoggin River which rises on its western side and flows south through New Hampshire to Gorham where it turns abruptly to the east and enters Maine at Gilead. The river then takes the water from the southern side of the Longfellow Mountains in several large streams in Gilead and Bethel, the Sunday and Bear Rivers in Bethel, and the Ellis and Swift Rivers in Rumford. The Webb River passes through Dixfield from the north taking all the streams in the eastern part of the town before it enters the Androscoggin.

The watershed of the Androscoggin on its south is bounded by a line running parallel and near to North Latitude 44°. The first section of this line is made by the small, unnamed range including East Royce and Speckled Mountains. The Wild River on the west and the Pleasant River on the east are the major sources of water entering the Androscoggin. The watershed boundary then runs to the height of land between Songo Pond and the Androscoggin in Bethel, then east to the height of land between South Pond and Twitchell and Bryant Ponds in Greenwood, through Spruce Mt. and between Little Concord and Shagg Ponds in Woodstock, and along Speckled and Black Mountains and between Mud Pond and Worthley Pond in Peru, and finally through Trask and Thorne Moun-

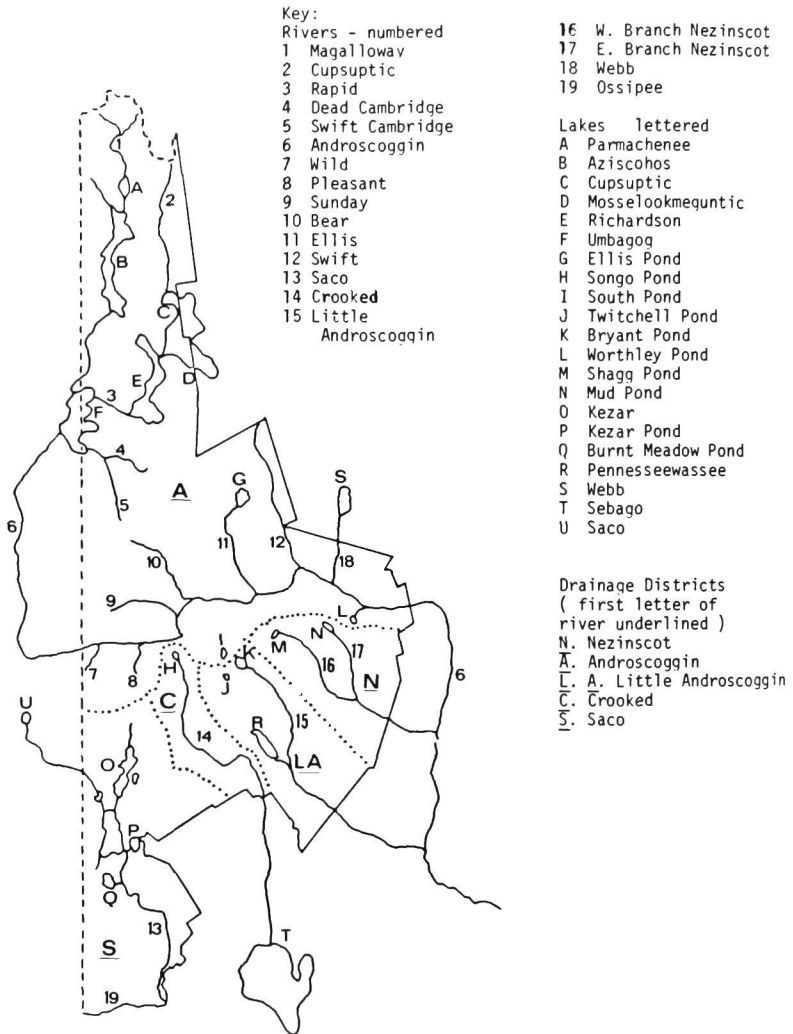


Figure 6. Drainage map of Oxford County.

tains and Lake Anasagunticook in Canton. Throughout Oxford County the Androscoggin River flows through narrow valleys formed by hills and mountains. Contiguous alluvial forest is therefore small in comparison to the Saco which flows through land of smaller relief. The current is generally swift as the Androscoggin falls 104 m in its 80 km path across the county.

The area south of the Androscoggin watershed boundary, which is also the remainder of the county, is drained by four rivers. The most important of these, the Saco, enters Maine (from its source at Saco Lake in New Hampshire) at Fryeburg and flows northward to receive the drainage from the south side of the first section of the watershed of the Androscoggin. The Saco then turns south and gathers the water from Kezar Pond, Lovewell Pond, and other small ponds as it flows south through Brownfield, along the border of Denmark, and through Hiram. In Hiram, at the southeastern corner of the county, the Ossipee River joins the Saco with the runoff from Porter and southern Hiram. Throughout its course the Saco is slow-moving (it falls about 30 m in over 48 km) and meandering. It is lined by low woods into which it frequently overflows. In order to divert the flood waters away from the lowlands the citizens of the town of Fryeburg constructed a canal for the Saco across their town in the nineteenth century. The Androscoggin does flood but with less regularity. In the late 1930's a severe spring flood in the Androscoggin River valley in the town of Canton took John Parlin's house and 10,000 plant specimens with it.

The southeastern section of the county is drained by three rivers all of which are narrow and meandering. The Crooked River rises in Songo Pond in Albany and drains most of Albany, north and east Waterford, and a small part of Norway before flowing into Cumberland County and Sebago Lake. The Little Androscoggin River rises in Bryant Pond in Woodstock and drains much of Greenwood, Woodstock, West Paris, Norway, Paris, and Oxford. It joins the Androscoggin in Lewiston. The Nezinscott River has two branches: the West Branch rises in Shagg Pond in Woodstock and the East in Mud Pond in Peru. The two branches drain most of Sumner, Hartford, and Buckfield where they join before flowing into the Androscoggin in Turner.

There are about 125 lakes and ponds in the county. The largest lie in the north: Mooselookmeguntic Lake (including Cupsuptic Lake), only about 60% of the 67 sq km of which lie in Oxford County, Richardson Lakes (Upper and Lower Lakes combine for an area of 34 sq km), and Aziscohos Lake (27 sq km). The lakes and ponds vary from sandy-bottomed with fine sandy beaches (e.g., Lovewell Pond and Kimball Pond in Fryeburg and Keoka Lake in Waterford) to very mucky-bottomed and lined by a vegetation of a boggy or swampy nature (e.g.,

Shell Pond in Stow, Mud Pond in Greenwood, and Upper Spectacle Pond in Porter) to boulder-filled (e.g., Overset Pond in Greenwood). Many of these have levels artificially controlled by man (e.g., Aziscohos Lake, Richardson Lakes, Anasagunticook Lake, Pennessewasee Lake, Lovewell Pond, Colcord Pond, and Bickford Pond). Fluctuations in the water level other than those which normally occur through the season tend to reduce the species that thrive in a given body of water and along its shore.

By virtue of its mountainous and hilly nature and the coarseness of its soil particles, the uplands of the county have a quick runoff of rainwater and melt water of the winter snows in the spring. This condition contributes to the process of podzolization of the soils. At low points in the land where the surface is near the water table, drainage is poor and a muck of incompletely decomposed organic matter accumulates.

In view of the fact that the soils are generally acidic it is not surprising that the pH of the waters which have been tested in Oxford County are on the acid side of neutral. Hellquist [55], however, found that it is total carbonates that most strongly influence the distribution of the genus *Potamogeton* in New England. In his Table I he lists three aspects of water chemistry for four bodies of water for Oxford County:

	pH	CaCO ₂	CO ₂
		(mg/litre)	
Cold Brook (Lower Cupsuptic)	6.5	6.0	2.5
Charles River (Fryeburg)	5.0	3.0	2.5
old course, Saco River (Fryeburg Harbor)	6.8	20.0	5.0
Horseshoe Pond (North Fryeburg)	6.6	11.0	6.0

Based on the sum of CaCO₂ and CO₂, the first two bodies above are acid ("soft") with less than 15.0 mg/litre, and the second two are in the moderately alkaline group (15.1-25.0 mg/litre).

Biological Environment

This factor includes all organisms that affect the environment. The workings of bacteria, fungi, algae, earthworms, and ants help develop the soil through the degradation of organic matter. Their dead remains and those of other animals and plants comprise humus and provide mineral elements essential to life and greater moisture-holding power for the soil. Organic matter also fills bogs, swamps, lakes, and ponds. Plants make shade and cooler, more moist air. Their roots reduce erosion and enhance the weathering of bedrock. Plants compete with one another for light, moisture, and nutrients. Animals may serve as vectors for pollen or as dispersers of fruit, and (along with pathogenetic fungi, bacteria, and viruses) they may retard the growth of plant populations. Certain animals, namely man and the beaver, drastically alter and create environments.

PLANT ASSOCIATIONS

These five factors are the constituents of the 11 plant associations into which the plants of Oxford County may be grouped. These associations represent the coincidence of physiological and ecological requirements of the plant members of the associations. It is not possible to be precise in characterizing them since the interplay of the various factors is complex. Habitats grade into one another over broad transition zones, and they are dynamic.

The plant associations are presented in a series from wet (aquatic) to moist (forest) to dry (ledges and sand plains).

Aquatic

Since the recession of the Laurentide ice sheet, the bodies of water of Oxford County have been invaded by plants adapted to live partially or wholly submerged. This invasion of lakes and ponds has taken place in deeper waters up to a few meters in depth by such species as *Spartanium fluctuans*, *S. angustifolium*, *Potamogeton robbinsii*, *P. epiphydrus*, *P. natans* (the last two being the commonest members of this genus), *P. amplifolius*, *P. pusillus*, *P. perfoliatus*, *Najas flexilis*, *Elodea nuttallii*, *Vallisneria americana*, *Zizania aquatica*, *Nymphaea odorata*, *Nuphar variegatum*, *Brasenia schreberii*, *Myriophyllum farwellii*, *M. exalbescens*, *Utricularia vulgaris* (the commonest member of the genus), *U. purpurea*, *U. geminiscapa*, *U. infalata*, and *Megalodonta beckii*. As the old stems and leaves of these species accumulate on the bottom, enriching the soil, the depth of water gradually decreases allowing plants accustomed to less than a meter of water to grow. On sandy bottoms, the following species are characteristic: *Isöetes* spp., *Potamogeton bicupulatus*, *Glyceria borealis*, *Eleocharis robbinsii*, *E. smallii*, *Scirpus torreyi*, *S. validus*, *Eriocaulon septangulare*, *Subularia aquatica*, *Elatine minima*, *Myriophyllum tenellum*, *Utricularia cornuta*, *U. resupinata*, and *Lobelia dortmanna*. Where the bottom is mucky one is more likely to find *Spartanium americanum*, *S. minimum*, *Potamogeton spirillus*, *P. natans*, *P. epiphydrus*, *Najas flexilis*, *Dulichium arundinaceum*, *Scirpus subterminalis*, *Cladium mariscoides*, *Pontedaria cordata* (often dominant in this zone), *Polygonum amphibium*, *Nymphaea odorata*, *Nuphar variegatum*, *Ranunculus trichophyllus*, *Callitriche palustris*, *Proserpinaca palustris*, and *Utricularia gibba*.

Rivers support a more limited flora than ponds and lakes presumably due to the current; only a few plants like *Potamogeton nodosus* and *P. gramineus* are able to persist in moderately strong currents. In the quiet waters of small bays and oxbows, one is apt to see *Potamogeton bicupulatus*, *P. natans*, *P. robbinsii*, *P. zosteriformis*, *P. spirillus*, *P.*

gramineus, *P. alpinus*, *Najas flexilis*, *Vallisneria americana*, *Glyceria borealis*, *Zizania aquatica*, *Pontedaria cordata*, *Juncus militaris*, *Polygonum amphibium*, *Proserpinaca palustris*, *Callitriche palustris*, *Utricularia vulgaris*, *U. inflata*, and *U. geminiscapa*. Brooks and streams are further limited to only *Chrysosplenium americanum*, *Callitriche palustris*, and *Ranunculus trichophyllus*.

Shores

This habitat has abundant light and a water table which fluctuates with the condition of the body of water such as after a rain or drought or through the normal lowering that accompanies the passage of the summer. There are two basic types of shores: sandy to gravelly, and muddy. Characteristic of the first type are *Agropyron trachycaulum*, *Deschampsia cespitosa*, *Muhlenbergia uniflora*, *Panicum virgatum*, *P. rigidulum*, *Cyperus dentatus*, *Eleocharis obtusa*, *E. engelmannii*, *E. tuberculosa*, *E. tenuis*, *E. elliptica*, *Fimbristylis autumnalis*, *Hemicarpha micrantha*, *Rhynchospora capitellata*, *Carex torta* (confined to rocky shores of brooks and small rivers), *C. lenticularis*, *Xyris caroliniana*, *Juncus pelocarpus*, *Salix cordata*, *S. rigida*, *S. nigra*, *S. pellita*, *Polygonum careyi*, *P. hydropiper*, *P. coccineum*, *Ranunculus reptans*, *Hypericum canadense*, *Viola lanceolata*, *Rhexia virginica*, *Epilobium leptophyllum*, *Apocynum sibiricum*, *A. medium*, *Scutellaria epilobiifolia*, *S. lateriflora*, *Mimulus ringens*, *Gratiola aurea*, *Agalinis tenuifolia*, *Lindernia dubia*, *Utricularia cornuta*, *U. resupinata*, and *Solidago tenuifolia*.

Muddy shores are typified by *Sparganium chlorocarpum*, *Sagittaria graminea*, *S. latifolia*, *Glyceria borealis*, *G. grandis*, *Puccinellia fernaldii*, *Leersia oryzoides*, *Panicum boreale*, *P. tuckermanii*, *Cyperus rivularis*, *Eleocharis acicularis*, *E. obtusa*, *E. ovata*, *E. tenuis*, *Carex lenticularis*, *C. haydenii*, *C. vesicaria*, *Juncus filiformis*, *J. canadensis*, *Iris pseudoacorus*, *Salix nigra*, *S. pellita*, *Myrica gale*, *Polygonum amphibium*, *P. hydropiper*, *Ranunculus reptans*, *Rorippa islandica*, *Cardamine pensylvanica*, *Potentilla palustris*, *Rosa palustris*, *Hypericum boreale*, *H. mutilum*, *H. virginicum*, *Decodon verticillatus*, *Epilobium palustre*, *Ludwigia palustris*, *Sium suave*, *Lyonia ligustrina*, *Vaccinium macrocarpon*, *V. oxycoccus*, *Scutellaria epilobiifolia*, *S. lateriflora*, *Mentha arvensis*, *Lindernia dubia*, *Utricularia cornuta*, *U. gibba*, *Cephalanthus occidentalis*, *Aster tradescantii*, *Bidens cernua*, *B. frondosa*, *Cicuta bulbifera*, and *Tussilago farfara*. The aquatic and shore floras are very similar to those of nearby Ossipee Lake in New Hampshire [54].

Bogs

Around the ponds of Oxford County there often develops an acid or heath bog. The development of a bog is well-known [38]. At the edge of

the pond, mixed with *Sphagnum* spp. and forming a mat of vegetation barely or not at all capable of supporting a man's weight, are *Xyris montana*, *Sarracenia purpurea*, *Drosera rotundifolia*, *D. intermedia*, *Nuphar variegatum*, *Chamaedaphne calyculata*, *Vaccinium macrocarpon*, and *V. oxycoccus*. Behind these pioneering species, on a firmer base of incompletely decomposed organic matter, these same species are joined by *Scheuchzeria palustris*, *Eriophorum spissum*, *E. virginicum*, *Rhynchospora alba*, *Carex trisperma*, *C. leptalea*, *C. paupercula*, *C. pauciflora*, *Smilacina trifolia*, *Habenaria blephariglottis*, *Pogonia ophioglossoides*, *Calopogon tuberosus*, *Rubus hispidus*, *Kalmia angustifolia*, *K. polifolia*, *Andromeda glaucophylla*, and *Aster nemoralis*. Still farther from the water's edge *Picea mariana* and *Larix laricina* dominate a mostly shrubby transition zone to the surrounding forest which includes *Woodwardia virginica*, *Pinus strobus*, *Rosa nitida*, *Ilex verticillata*, *Nemopanthus mucronata*, *Ledum groenlandicum*, *Rhododendron canadense*, *Lyonia ligustrina*, *Vaccinium corymbosum*, *V. atrococcum*, *Gaylussacia baccata*, and *Viburnum cassinoides*. Eventually the open water becomes completely filled and once-open area becomes forest. Such is the case with the small bog along route 16 in Magalloway Pkt. where the shrubby transition zone covers most of the bog. Sometimes only a portion of a pond will have conditions sufficient for heath bog development. Mud Pond in Greenwood has mucky or rocky shores for the most part, but about 30 m bear a heath bog association like that described above.

Since the bedrock of the area is calcareous in only limited areas and the soil pH is generally low, calcareous bogs are uncommon. Although *Thuja occidentalis* is frequent on the margins of some lakes and rivers and often forms nearly pure stands on low, circumneutral ground, adequate conditions for a good bog are apparently absent. In adjacent Coos County, N.H., within 30 km of Oxford County, poorly drained areas underlain by limestone are frequent [86]. At this time we know of only two cedar bogs which contain a notable number of calciphytes (a third, the Jersey Bog in Buckfield, was largely destroyed by beaver). A low area between the center of the town of Hebron and Marshall Pond is filled with a mixture of cedar and oxylophytes like Black Spruce and Larch. Under the denser stands of cedar grow the following species: *Scirpus hudsonianus*, *Eriophorum viridi-carinatum*, *Carex interior*, *C. disperma*, *C. pedunculata*, *Cyrtopodium reginae*, *Habenaria obtusata*, *Listera cordata*, *Malaxis brachypoda*, *Mitella nuda*, *Potentilla fruticosa*, and *Menyanthes trifoliata*. There is a similar co-existence of oxylophytes and calciphytes in the bog in the region of exposed arenaceous limestone north-east of Parmachenee Lake. In addition to the above species (except the Orchidaceae and *Potentilla fruticosa*), and growing with acid-lovers like

Myrica gale and *Rosa nitida*, are *Carex castanea*, *Rhamnus alnifolia*, and *Moneses unifolia*.

In boggy depressions at higher elevation (above 900 m) such as on Goose Eye Mountain and Mount Baldpate, the acidic flora is reduced to *Eriophorum spissum*, *Smilacina trifolia*, *Drosera rotundifolia*, *Rubus chamaemorus*, *Ledum groenlandicum*, *Kalmia polifolia*, and *Chamaedaphne calyculata*.

Swales

Swales resemble bogs in their considerable light and soil moisture and in being transitions from wet, open conditions to forest. The two habitats differ in many ways, however [23]; most notably drainage is more blocked in bogs than in swales. The dominant plant family in bogs is the Ericaceae while the Poaceae and Cyperaceae are the most frequent components of swales. Swales are found bordering lakes, ponds, rivers, and in low ground such as abandoned beaver ponds. It is a large association with the following species being found here: *Lycopodium inundatum*, *L. clavatum*, *Ophioglossum vulgatum*, *Osmunda regalis*, *Onoclea sensibilis*, *Thelypteris palustris*, *T. simulata*, *Alisma plantago-aquatica*, *Sagittaria latifolia*, *S. graminea*, *Glyceria canadensis*, *Poa palustris*, *Calamagrostis canadensis* (often dominant in this association), *Alopecurus pratensis*, *Agrostis stolonifera*, *Muhlenbergia uniflora*, *Spartina pectinata*, *Phalaris arundinacea*, *Leersia oryzoides*, *Panicum tuckermanii*, *P. rigidulum*, *Dulichium arundinaceum*, *Eleocharis smallii*, *Scirpus microcarpus*, *S. atrovirens*, *S. cyperinus*, *S. pedicellatus*, *S. atrocinctus*, *Eriophorum viridi-carinatum*, *E. tenellum*, *E. virginicum*, *Rhynchospora fusca*, *Cladium mariscoides*, *Carex stipata*, *C. vulpinoidea*, *C. canescens*, *C. cephalantha*, *C. angustior*, *C. scoparia*, *C. bebbii*, *C. leptalea*, *C. aurea*, *C. crinita*, *C. lenticularis*, *C. stricta* (another dominant species), *C. haydenii*, *C. scabrata*, *C. lasiocarpa*, *C. flava*, *C. lacustris*, *C. pseudo-cyperus*, *C. comosa*, *C. hystericina*, *C. lurida*, *C. michauxiana*, *C. retrorsa*, *C. rostrata*, *C. oligosperma*, *C. vesicaria*, *C. folliculata*, *Juncus effusus*, *J. canadensis*, *J. brevicaudatus*, *Veratrum viride*, *Smilax herbacea*, *Iris versicolor*, *Habenaria clavellata*, *H. psychodes*, *H. fimbriata*, *Pogonia ophioglossoides*, *Liparis loeselii*, *Salix pedicellaris*, *Rumex orbiculatus*, *Polygonum pensylvanicum*, *P. lapathifolium*, *P. sagittatum*, *Thalictrum polygamum*, *Clematis virginiana*, *Cardamine pensylvanicum*, *Drosera rotundifolia*, *D. intermedia*, *Geum rivale*, *Rubus hispidus*, *Impatiens capensis*, *Hypericum ellipticum*, *H. boreale*, *H. virginicum*, *Viola cucullata*, *V. pallens*, *V. lanceolata*, *V. primulifolia*, *Lythrum salicaria*, *Rhexia virginica*, *Epilobium strictum*, *E. leptophyllum*, *E. palustre*, *Hydrocotyle americana*, *Sium suave*, *Lysimachia terrestris*, *L. hybrida*, *Gentiana linearis*, *Bartonia virginica*,



Figure 7. *Above*: Swale on a tributary of the Saco River, Denmark. Note low, rounded hills with open ledges on horizon. *Middle*: Sandy shoreline of Kimball Pond, Fryeburg. *Below*: Small pond, partially filled by acid bog, Stow.

Asclepias incarnata, *Scutellaria epilobiifolia*, *S. lateriflora*, *Lycopus americanus*, *L. uniflorus*, *Mentha arvensis*, *Chelone glabra*, *Veronica scutellata*, *Utricularia cornuta*, *Galium palustre*, *G. tinctorium*, *G. asprellum*, *Campanula aparinoides*, *Eupatorium maculatum*, *E. perfoliatum*, *E. rugosum*, *Aster puniceus*, *A. radula*, *A. simplex*, *Erigeron pulchellus*, *E. philadelphicus*, *Bidens frondosa*, *B. cernua*, *Helenum flexuosum*, and *Senecio schweinitzianus*. In addition to the above and often scattered amongst them, but more important as a transition to the surrounding bottomland forest, are the following shrubs and trees: *Salix lucida*, *S. discolor*, *S. humilis*, *S. gracilis*, *S. bebbiana*, *S. pellita*, *S. sericea*, *Myrica gale*, *Alnus incana*, *A. serrulata*, *Spiraea latifolia*, *S. tomentosa*, *Pyrus floribunda*, *P. melanocarpa*, *Cornus stolonifera*, *C. obliqua*, *Lyonia ligustrina*, *Chamaedaphne calyculata*, *Rosa palustris*, *Acer rubrum*, *Betula populifolia*, *Cephalanthus occidentalis*, *Lonicera villosa*, *Sambucus canadensis*, and *S. pubens*.

Bottomland Forest

This association includes all low, wooded areas around lakes and ponds, lining rivers and larger brooks, and taking over swales. At least along the larger rivers it is strongly affected by spring flooding and a high water table. In other areas it may be transitional from swales to a drier forest. This association might be called low or swampy woods. It is typified by the following species more or less prominent depending upon conditions of shade and moisture: *Equisetum pratense*, *E. sylvaticum*, *E. scirpoides*, *Osmunda regalis*, *O. claytoniana*, *O. cinnamomea*, *Matteucia struthiopteris*, *Onoclea sensibilis*, *Thelypteris palustris*, *T. simulata*, *T. hexagonoptera*, *Dryopteris cristata*, *D. boottii*, *Athyrium filix-femina*, *Taxus canadensis*, *Thuja occidentalis*, *Pinus strobus*, *Bromus latiglumis*, *Festuca obtusa*, *Schizachne purpurascens*, *Glyceria melicaria*, *Puccinellia pallida*, *Poa alsodes*, *P. nemoralis*, *P. saltuensis*, *Elymus virginicus*, *E. riparius*, *Cinna arundinacea*, *C. latifolia*, *Panicum clandestinum*, *Carex stipata*, *C. canescens*, *C. arcta*, *C. bromoides*, *C. projecta*, *C. crinita*, *C. stricta*, *C. scabrata*, *C. prasina*, *C. sprengelii*, *C. lurida*, *C. intumescens*, *C. lupulina*, *C. vesicaria*, *Arisaema atrorubens*, *A. stewardsonii*, *Symplocarpus foetidus*, *Juncus effusus*, *Luzula acuminata*, *Veratrum viride*, *Trillium cernuum*, *Habenaria fimbriata*, *Salix nigra*, *S. alba*, *Juglans cinerea*, *Carpinus caroliniana*, *Betula alleghaniensis*, *Alnus incana*, *A. serrulata*, *Ulmus americana*, *Laportea canadensis*, *Pilea pumila*, *Boehmeria cylindrica*, *Polygonum sagittatum*, *P. arifolium*, *Ranunculus abortivus*, *R. recurvatus*, *R. septentrionalis*, *R. pensylvanicus*, *Thalictrum polygamum*, *Anemone quinquefolius*, *Clematis virginiana*, *Coptis groenlandica*, *Cardamine pensylvanica*, *Tiarella cor-*

difolia, *Ribes triste*, *R. americanum*, *Hamamelis virginiana*, *Geum rivale*, *Rubus pubescens*, *Rosa nitida*, *Apios americana*, *Amphicarpa bracteata*, *Toxicodendron rydbergii*, *Ilex verticillata*, *Acer rubrum*, *Acer saccharinum*, *Vitis riparia*, *V. labrusca*, *V. novae-angliae*, *Tilia americana*, *Viola cucullata*, *V. incognita*, *V. renifolia*, *V. conspersa*, *Circaea alpina*, *C. quadrisulcata*, *Aralia nudicaulis*, *Panax trifolius*, *Hydrocotyle americana*, *Cicuta maculata*, *Sium suave*, *Conioselinum chinense*, *Cornus alterniflora*, *C. stolonifera*, *Lysimachia terrestris*, *L. thyriflora*, *L. ciliata*, *Fraxinus pennsylvanica*, *F. nigra*, *Cuscuta gronovii*, *Myosotis scorpioides*, *M. laxa*, *Teucrium canadense*, *Scutellaria epilobiifolia*, *S. lateriflora*, *Stachys palustris*, *Lycopus uniflorus*, *L. americanus*, *Chelone glabra*, *Mimulus ringens*, *Veronica americana*, *Galium triflorum*, *G. tinctorium*, *G. asprellum*, *Viburnum lantanoides*, *V. lentago*, *V. cassinoides*, *V. recognitum*, *Eupatorium maculatum*, *E. perfoliatum*, *Solidago gigantea*, *S. uliginosa*, *Aster macrophyllus*, *A. puniceus*, *A. radula*, *A. blakei*, *A. novi-belgii*, *Helianthus decapetalus*, *Senecio aureus*, *S. schweinitzianus*, and *Cirsium muticum*.

Upland Forest

Oxford County is 78.5% covered by forest of one sort or another [103]. With the continual abandonment of farmland over the past half century, there is undoubtedly more forested area now. The forest is not virgin except on the steepest slopes or very high in the mountains. The ax and saw of the lumberman have been everywhere and in most places more than once. It is difficult to be precise about the composition of the pre-Columbian forest. According to some early records [68] *Picea rubens* made up between 38 and 82% of the forest overstory going from lower to upper slopes in western Maine. On lower slopes codominant species were *Betula alleghaniensis* (17%), *Fagus grandifolia* (17%), *Acer saccharum* (12%) and *Tsuga canadensis* (9%). Apparently, white pine was the first to be cut from the woods followed by red spruce for building and paper. Gradually other softwoods and the hardwoods as well have been used.

On the colder and more exposed slopes, higher ridges, bluffs, and in the valleys in the north, a boreal forest dominated by *Picea rubens* and *Abies balsamea* is found. Vegetation in this spruce-fir woods is sparse with *Dryopteris americana*, *Oxalis montana*, and *Gaultheria hispidula* being the only species of regular occurrence. In somewhat more protected spots this forest, while remaining dominated by spruce and fir, is invaded by *Thelypteris phegopteris*, *Carex radiata*, *C. brunnescens*, *Clintonia borealis*, *Maianthemum canadense*, *Goodyera repens*, *Betula papyrifera*, and var. *cordifolia*, *Coptis groenlandica*, *Ribes lacustre*, *R. glandulosum*, *Pyrus americana*, *P. decora*, *Acer spicatum*, *A. pensylvanicum*,

Aralia nudicaulis, *Gaultheria procumbens*, *Vaccinium myrtilloides*, *Linnaea borealis*, *Viburnum lantanoides*, *Solidago macrophylla*, and *Aster acuminatus*.

On the warmer, more sheltered midslopes, this mixed growth forest passes into a predominantly hardwood growth. In the northern third of the county, north of the Longfellow Mountains, *Acer saccharum*, *Betula alleghaniensis*, and less importantly *Fraxinus americana*, *Tsuga canadensis*, and *Fagus grandifolia* provide canopy and a rich leaf mold for the growth of *Lycopodium lucidulum*, *L. annotinum*, *Botrychium virginianum*, *Thelypteris novae-boracensis*, *Gymnocarpium dryopteris*, *Dryopteris spinulosa*, *D. goldiana*, *Polystichum braunii*, *P. acrostichoides*, *Diplazium acrostichoides*, *Athyrium filix-femina*, *Adiantum pedatum*, *Cinna latifolia*, *Milium effusum*, *Carex pedunculata*, *C. arctata*, *C. debilis*, *C. plantaginea*, *C. laxiflora*, *C. intumescens*, *Arisaema atropurpureum*, *Luzula parviflora* (at higher elevations), *Uvularia sessilifolia*, *Erythronium americanum*, *Clintonia borealis*, *Smilicina racemosa*, *Streptopus amplexifolius*, *S. roseus*, *Medeola virginiana*, *Trillium erectum*, *T. undulatum*, *Habenaria viridis*, *H. hyperborea*, *H. orbiculata*, *H. macrophylla*, *Goodyera tessellata*, *Ranunculus abortivus*, *R. recurvatus*, *Actaea pachypoda*, *A. rubra*, *Caulophyllum thalictroides*, *Sanguinaria canadensis*, *Dicentra cucullaria*, *Dentaria diphylla*, *Claytonia caroliniana*, *Tiarella cordifolia*, *Mitella nuda*, *Ribes triste*, *Fragaria vesca*, *Viola selkirkii*, *V. blanda*, *V. eriocarpa*, *Circaea alpina*, *Aralia racemosa*, *Sanicula marilandica*, *Osmorhiza claytonii*, *O. chilensis*, *Galium triflorum*, *G. kamtschaticum*, and *Eupatorium rugosum*. To the south of the Longfellow Mountains, *Milium effusum*, *Osmorhiza chilensis*, and *Galium kamtschaticum* drop out of this hardwood growth. The following species become more or less prominent: *Botrychium dissectum*, *B. matricariaefolium*, *B. lanceolatum*, *Schizachne purpurascens*, *Poa alodes*, *Bromus pubescens*, *Hystrix patula*, *Agrostis perennans*, *Brachelytrum erectum*, *Oryzopsis racemosa*, *Carex convoluta*, *C. sparganioides*, *C. communis*, *C. peckii*, *C. platyphylla*, *C. novae-angliae*, *C. ormostachya*, *C. leptonevia*, *Polygonatum pubescens*, *Orchis spectabilis*, *Habenaria hookeri*, *Triphora trianthophora*, *Epipactis helleborine*, *Goodyera pubescens*, *Corallorhiza trifida*, *C. maculata*, *Ostrya virginiana*, *Quercus rubra*, *Laportea canadensis*, *Asarum canadense*, *Ribes cynosbati*, *Hamamelis virginiana*, *Desmodium glutinosum*, *D. nudiflorum*, *Geranium robertianum*, *G. bicknellii*, *Celastrus scandens*, *Parthenocissus inserta*, *Toxicodendron rydbergii*, *Tilia americana*, *Dirca palustris*, *Panax quinquefolius*, *Cornus rugosa*, *Epifagus virginiana*, *Conopholis americana*, *Orobanche uniflora*, *Galium circaezans*, *G. lanceolatum*, *Viburnum acerifolium*, *Solidago caesia*, *S. flexicaulis*, *S. squarrosa*, *S. arguta*, *Aster macrophyllus*, and *Prenanthes altissima*.

In extreme southern Oxford County, on hills like Frost Mountain (373 m) in Brownfield, Peaked Mountain (329 m) in Hiram, and Rattlesnake Mountain (359 m) in Porter, there are several species of primarily southern distribution. These are *Muhlenbergia sobolifera*, *Panicum latifolium*, *Carex cephalophora*, *C. virescens*, *Quercus alba*, *Vitis aestivalis*, *Ceanothus americanus*, *Chimaphila maculata*, *Phytolacca americana*, and *Aureolaria flava*.

To this point in the overview of upland forests, we have looked at boreal and hardwood growth undisturbed for many decades. Now we will consider the early stages of succession after the forest has been somewhat destroyed by lumbering operations, heavy winds, insect epidemics, or fire. The length of the cycle between major disturbances in the pre-Columbian forest is controversial. In some areas the disturbance cycle due to fire alone is very short (70 years in Algonquin Park according to Cwynar [22]). It appears that the cycle time for all major disturbances is considerably longer in northern New England [68] although the activity of man in lumbering and unintentionally set fires has certainly reduced the cycle time.

The first plants to occupy the gap created by disturbance are members of the genus *Rubus* (especially *R. idaeus* and *R. allegheniensis* and to a lesser extent *R. hispidus* and *R. canadensis*) and *Prunus pennsylvanica*. Other woody plants like *Sambucus pubens*, *Acer pennsylvanicum*, and *Betula alleghaniensis* may also be important in the early years after disturbance. The species composition following disturbance is variable and depends upon the magnitude and frequency of disturbance and the availability of seeds of early successional species like *Rubus* spp. and *Prunus pennsylvanica* [69].

Pteridium aquilinum, *Dennstaedtia punctilobula*, *Rumex acetosella*, *Epilobium angustifolium*, *Aralia hispida*, *Solidago canadensis*, and *Aster acuminatus* are the first herbs to establish themselves. These plants may soon be joined by *Salix discolor*, *S. humilis*, *S. bebbiana*, *Populus tremuloides*, *P. grandidentata*, *Betula populifolia*, *B. papyrifera*, and *Quercus rubra*. The initial growth of *Rubus* and *Prunus* is eventually overtopped and supplanted by shade-tolerant species (*Acer saccharum*, *Fagus grandifolia*, *Betula alleghaniensis*, and (in the northern and colder parts of the county) *Abies balsamea*). This replacement generally occurs within 25-30 years following disturbance [69]. The sparse understory of the *Prunus pennsylvanica* phase is replaced by a relatively rich one as space is made available for *Lycopodium obscurum*, *L. complanatum*, *Carex arctata*, *Uvularia sessilifolia*, *Viola septentrionalis*, *Aralia nudicaulis*, *Chimaphila umbellata*, *Gaultheria procumbens*, *Diervilla lonicera*, *Solidago caesia*, *S. juncea*, *Aster cordifolius*, *Schizachne purpurascens*, *Oryzopsis asperifolia*, and *Lilium philadelphicum*.

Ledges

This association intergrades with the last on the talus slopes at the base of ledges. The plants of the talus typically grow either in the rockier parts of upland woods or on gently sloping, shaded ledges. Moisture on a ledge naturally increases the number of species that can survive there. Also the flora of ledges varies with the nature of the bedrock and the amount of shade and is consequently divided into five types: northern calcareous, Berry Ledge formation, southern neutral, shaded acidic, and open acidic.

Northern calcareous ledge. This type is limited to Twin Peaks in Bowmantown (917 m) which bears two sets of ledges on its southeast-facing slope. The lower of the two sets is a band of wet, partially shaded, vertical walls broken by narrow shelves and crevices which are inhabited by northern calciphiles like *Woodsia glabella*, *W. alpina*, *Carex media*, *C. atratiformis*, and *C. capillaris* in addition to lime-lovers of a wider distribution like *Cystopteris bulbifera*, *Thuja occidentalis*, and *Stellaria calycantha*. The second set of ledges begins at about 750 m and rises nearly vertically for 60 m. In addition to the *Thuja*, *Woodsia glabella*, and *Cystopteris* of below, one may find here *Poa glauca*, *Carex eburnea*, *C. aurea*, *Saxifraga aizoon*, *Amelanchier sanguinea*, *Potentilla fruticosa*, *Solidago racemosa*, and *Antennaria rupicola*. Growing with these calciphytes are oxylophytes such as *Potentilla tridentata* and *Campanula rotundifolia* and the northern or alpine *Lycopodium selago*, *Dryopteris fragrans*, and *Juncus trifidus*. Clearly the northern latitude and exposure of the cliffs influence the composition of the flora although the calciphytes are dominant.

Berry Ledge Formation. This local formation (see page 9) was named after the low (280 m) hill in West Paris which has an east-facing cliff. The only plant of note on this cliff of decomposing marble [3] is *Cryptogramma stellerii* which is plentiful on the wetter shelves. Elsewhere on rock of the Berry Ledge formation on Bald Bluff in Greenwood, is another northern calciphyte, *Hackelia americana*, which is also rare in Maine and the only plant of note on its ledge. The ledges above Snow Falls in West Paris were floristically rich before being destroyed to make way for road improvements.

Southern neutral ledges. These are dry, more or less open ledges in Brownfield, Hiram, and Porter. The flora is predominantly southern, and several of the following reach the northern limit of their range here: *Asplenium platyneuron*, *A. trichomanes*, *Woodsia obtusa*, *Juniperus virginiana*, *Cerastium arvense*, *Silene antirrhina*, *Ranunculus fascicularis*, *Cardamine parviflora*, *Arabis missouriensis*, *Geranium bicknellii*, *G. robertianum*, *Toxicodendron rydbergii*, *Vitis aestivalis*,

Epilobium ciliatum, *Nepeta cataria*, *Satureja vulgaris*, *Specularia perfoliata*, *Antennaria plantaginifolia*, and *Helianthus divaricatus*.

Shaded acidic ledges. This type and the following are the commonest in the county. Growing in thin soil under the shade of *Pinus resinosa*, *Ostrya virginiana*, *Quercus alba*, *Q. rubra*, and *Rhus typhina* are *Woodsia ilvensis*, *Cystopteris fragilis*, *Polypodium virginianum*, *Poa compressa*, *Agrostis scabra*, *Deschampsia flexuosa*, *Carex radiata*, *C. argyrantha*, *Polygonum cilinode*, *Aquilegia canadensis*, *Arabis drummondii*, *Saxifraga virginensis*, *Epilobium glandulosum*, *Diervilla lonicera*, *Campanula rotundifolia*, *Antennaria fallax*, and *A. petaloidea*.

Open acidic ledges. This type differs from the last in being hotter and drier because of full sun. Characteristic of this habitat are *Selaginella rupestris*, *Woodsia ilvensis*, *Deschampsia flexuosa*, *Trisetum spicatum* var. *molle*, *Oryzopsis canadensis*, *Carex cumulata*, *Polygonum douglasii*, *Paronychia argyrocoma*, *Corydalis sempervirens*, *Pyrus floribunda*, *P. melanocarpa*, *Rubus odoratus*, *Alnus viridis*, *Potentilla arguta*, *P. tridentata*, *Prunus susquehanae*, *Arctostaphylos uva-ursi*, *Vaccinium angustifolium*, *Melampyrum lineare*, *Aureolaria pedicularia*, and *Solidago randii*.

Montane

Although the mountains of Oxford County do not rise high enough to support an alpine flora comparable to that of the White Mountains of New Hampshire or Mount Katahdin, there is a flora peculiar to the higher elevations in the Longfellow Mountains and the Boundary Mountains. Of the two dozen plants of the montane association, eleven are confined to this area (those followed by an asterisk), and the remainder are adapted to a variety of habitats at lower elevations. *Abies balsamea* is the dominant arborescent species of the wind-swept ridges while *Picea mariana*, *Betula papyrifera* var. *cordifolia*, and *Larix laricina* are frequent or, in the case of the last, occasional. In the exposed spots one finds *Lycopodium selago**, *Scirpus cespitosus**, *Carex brunnescens*, *C. bigelowii**, *Juncus trifidus**, *Arenaria groenlandica*, *Potentilla tridentata*, *Rubus chamaemorus**, *Empetrum atropurpureum*, *E. nigrum*, *Vaccinium uliginosum*, *V. vitis-idaea*, *V. oxycoccus*, *V. boreale**, *Diapensia lapponica**, *Prenanthes trifoliata**, and *Solidago cutlerii**. In more sheltered spots are *Lycopodium annotinum* var. *pungens**, *Geocalaon lividum**, *Ledum groenlandicum*, and *Gaultheria hispida*.

The low diversity of this montane association may be due to the fact that the highest regions of Oxford County are not permanent alpine tundra like those of the highest mountains of New England. The paucity of arborescent forms may represent merely slow recovery from forest fire or

the treelessness that characterizes many granitic mountains above 500 m in elevation in New England.

Sand Barrens

This association is found on the sandy valley trains of the Saco, Crooked, and Little Androscoggin Rivers (see page 10) and is most extensive in the Saco River valley. The salient feature of this association is the sandy soil which makes moisture retention minimal except where organic matter has accumulated. The forest that develops here is comprised of *Pinus rigida*, *P. strobus*, *P. resinosa*, *Populus tremuloides*, *Betula populifolia*, *Quercus alba*, *Q. rubra*, and *Q. ilicifolia*. Under these trees, but more especially in open areas, one may find the following: *Pteridium aquilinum*, *Oryzopsis asperifolia*, *O. pungens*, *Aristida basiramea*, *Panicum linearifolium*, *P. boreale*, *P. lanuginosum*, *P. depauperatum*, *Andropogon gerardii*, *Schizachyrium scoparium*, *Carex pensylvanica*, *C. umbellata*, *Juncus greenei*, *J. tenuis*, *Sisyrinchium montanum*, *Cypripedium acaule*, *Salix bebbiana*, *S. discolor*, *S. humilis*, *Comptonia peregrina*, *Myrica pensylvanica*, *Commandra umbellata*, *Rumex acetosella*, *Spergularia rubra*, *Pyrus floribunda*, *P. melanocarpa*, *Potentilla recta*, *P. norvegica*, *P. simplex*, *P. tridentata*, *Prunus susquehanae*, *P. serotina*, *Lespedeza capitata*, *Desmodium paniculatum*, *Hypericum perforatum*, *Helianthemum canadense*, *H. bicknellii*, *Hudsonia tomentosa*, *Lechea intermedia*, *L. maritima*, *Viola adunca*, *Aralia hispida*, *Kalmia angustifolia*, *Epigaea repens*, *Vaccinium angustifolium*, *Lysimachia quadrifolia*, *Apocynum androsaemifolium*, *Asclepias syriaca*, *Trichostema dichotoma*, *Physalis heterophylla*, *Melampyrum lineare*, *Linaria canadensis*, *Solidago bicolor*, *S. canadensis*, *Aster larniifolius*, *Antennaria canadensis*, *A. neodioica*, *Gnaphalium macounii*, *G. obtusifolium*, and *Erechtites hieracifolia*.

Old Fields

Old fields are open, relatively dry areas in transition from cleared, agricultural land to upland forest. P.L. Marks (personal communication) makes a clear distinction between natural secondary succession which follows disturbance of forest and old field succession. The former is a fast process involving fewer species (see Upland Forests). The latter may not have existed in presettlement times. The species which participate in the phenomenon of old field succession may have been members of either open or closed communities which were pre-adapted to conditions in old fields. Characteristic of this association are *Lycopodium sabinaefolium*, *Botrychium multifidum*, *Dennstaedtia punctilobula*, *Pteridium aquilinum*, *Juniperus communis* var. *depressa*, *J. virginiana*, *Bromus ciliatus*, *B. inermis*, *Festuca ovina*, *F. rubra*, *F.*

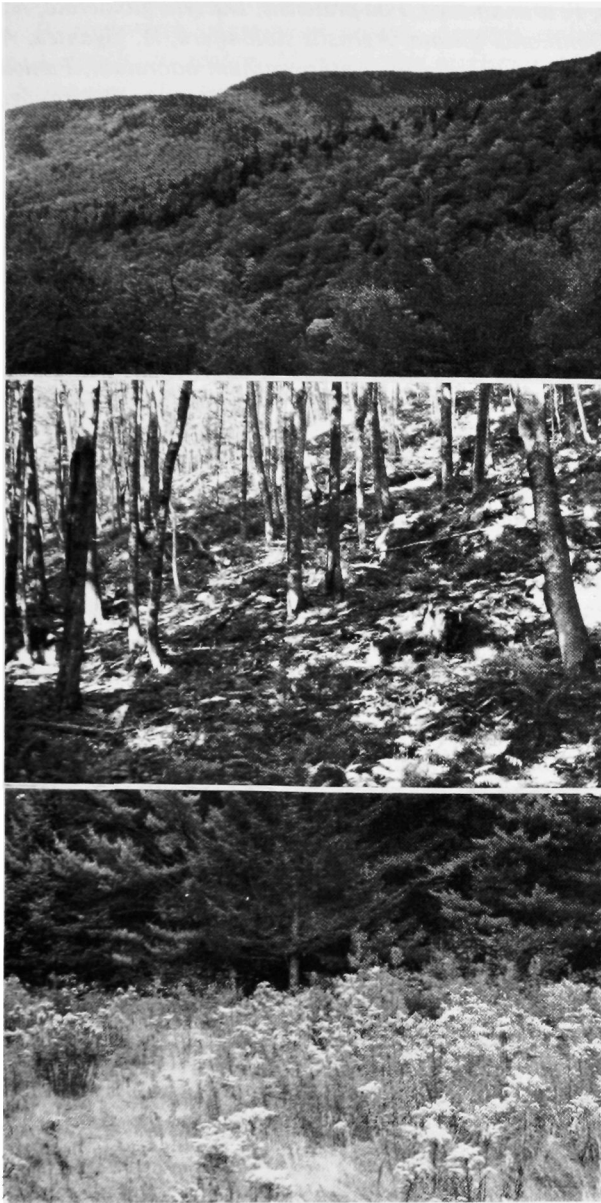


Figure 8. *Above*: Ridge of East Royce Mountain, Batchelders Grant. *Middle*: Rich, rocky hardwoods below cliffs in Evans Notch, Batchelders Grant. *Below*: Abandoned field colonized by *Solidago* spp. and *Pinus strobus*.

pratensis, *F. arundinacea*, *Poa pratensis*, *Dactylis glomerata*, *Agropyron repens*, *Danthonia spicata*, *Agrostis stolonifera*, *A. gigantea*, *A. tenuis*, *A. scabra*, *Phleum pratense*, *Anthoxanthum odoratum*, *Panicum capillare*, *P. depauperatum*, *P. boreale*, *P. lanuginosum*, *Andropogon gerardii*, *Schizachyrium scoparium* (often a dominant in this association), *Scirpus atrovirens*, *Carex vulpinoidea*, *C. scoparia*, *C. tincta*, *C. cumulata*, *C. merritt-fernaldii*, *C. argyrantha*, *C. pensylvanica*, *C. pallenscens*, *Juncus tenuis*, *J. greenei*, *Luzula multiflora*, *Lilium canadense*, *Sisyrinchium montanum*, *S. angustifolium*, *Cypripedium acaule*, *Habenaria lacera*, *Spiranthes lacera*, *S. romanzoffiana*, *Salix bebbiana*, *S. discolor*, *S. humilis*, *Populus tremuloides*, *P. grandidentata*, *Betula populifolia*, *Alnus incana*, *Urtica gracilis*, *U. procera*, *Comptonia peregrina*, *Rumex acetosella*, *Arenaria lateriflora*, *Stellaria graminea*, *Cerastium vulgatum*, *Lychnis alba*, *Dianthus deltoides*, *Ranunculus acris*, *Raphanus raphanistrum*, *Sedum purpureum*, *Spiraea latifolia*, *S. tomentosa*, *Fragaria virginiana*, *Potentilla recta*, *P. norvegica*, *P. simplex*, *Rubus idaeus*, *R. allegheniensis*, *R. hispidus*, *Trifolium* spp., *Lupinus polyphyllus*, *Vicia cracca*, *V. tetrasperma*, *Rhus typhina*, *Hypericum perforatum*, *Viola fimbriatula*, *Oenothera biennis*, *Daucus carota*, *Vaccinium angustifolium*, *Apocynum androsaemifolium*, *Asclepias syriaca*, *Hedeoma pulegeoides*, *Hyssopus officinalis*, *Veronica officinalis*, *V. chamaedrys*, *Melampyrum lineare*, *Verbascum thapsus*, *Penstemon tubaeformis*, *P. digitalis*, *P. hirsutus*, *Euphrasia americana*, *Rhinanthus crista-galli*, *Pedicularis canadensis*, *Galium erectum*, *G. mollugo*, *Lobelia spicata*, *Solidago bicolor*, *S. hispida*, *S. puberula*, *S. canadensis*, *S. graminifolia*, *Aster novae-angliae*, *A. umbellatus*, *Erigeron strigosus*, *E. canadensis*, *Antennaria canadensis*, *A. neglecta*, *A. neodioica*, *A. munda*, *Gnaphalium uliginosum*, *Ambrosia artemisiifolia*, *Achillea ptarmica*, *A. millefolium*, *Matricaria matricarioides*, *Chrysanthemum leucanthemum*, *Cirsium vulgare*, *C. pumilum*, *C. arvense*, *Leontodon autumnalis*, *Taraxacum officinale*, *Lactuca biennis*, *Cichorium intybus*, and *Hieracium* spp.

Roadsides, Waste Places, and Railroad Ballast

These three habitats are grouped as one association because of their coarse-grained soil, ample light, and origin and persistence due to civilization. Many exotic species grow here spontaneously after their seed is dropped from a truck, from a grain car of a train, or by someone at a dump. In recent years the use of sprays along roads and railroads has greatly reduced the diversity of this association. Of the following plants, those denoted by an asterisk are found primarily in railroad ballast while the remainder grow along roads or in waste places like alleys, vacant lots, and dumps: *Equisetum arvense*, *E. hyemale**, *Bromus ciliatus*, *B.*

secalinus, *B. commutatus*, *Festuca ovina*, *F. rubra*, *F. arundinacea*, *Poa pratensis*, *P. compressa*, *Agropyron repens*, *Agrostis stolonifera*, *A. gigantea*, *A. tenuis*, *A. scabra*, *Muhlenbergia mexicana*, *M. racemosa*, *Aristida basiramea*, *Hordeum jubatum**, *H. vulgare**, *Secale cereale*, *Avena sativa**, *Phalaris arundinacea*, *Anthoxanthum odoratum*, *Hierochlœ odorata*, *Digitaria ischaemum*, *D. sanguinalis*, *Panicum capillare*, *P. boreale*, *P. lanuginosum*, *P. miliaceum*, *Echinochloa frumentacca*, *E. crusgalli*, *E. pungens*, *Setaria* spp., *Andropogon gerardii*, *Schizachyrium scoparium*, *Bulbostylis capillaris* (prolific on road shoulders), *Carex umbellata*, *C. swanii*, *Juncus bufonius*, *J. tenuis*, *Hemerocallis fulva*, *Lillium philadelphicum*, *Asparagus officinalis*, *Smilacina racemosa*, *Sisyrinchium montanum*, *S. angustifolium*, *Epipactis helleborine*, *Salix alba*, *S. purpurea*, *Populus alba*, *P. deltoides*, *Rumex mexicanus*, *R. crispus*, *R. obtusifolius*, *R. acetosella*, *Polygonum aviculare*, *P. rurivagum*, *P. ramosissimum*, *P. persicaria*, *Polygonella articulata*, *Kochia scoparia**, *Chenopodium* spp., *Amaranthus* spp., *Mollugo verticillata*, *Silene cucubalus*, *S. cserei*, *S. noctiflora*, *Saponaria officinalis*, *Ranunculus acris*, *R. repens*, *Chelidonium majus*, *Berteroa incana*, *Thlaspi arvense*, *Lepidium* spp. *Capsella bursa-pastoris*, *Erucastrum gallicum*, *Camelina sativa*, *C. microcarpa*, *Raphanus raphanistrum*, *Brassica* spp., *Diplotaxis tenuifolia**, *Conringia orientalis*, *Sisymbrium officinale*, *S. altissimum*, *Descurainia sophia*, *Hesperis matronalis*, *Erysimum cheiranthoides**, *Barbarea vulgaris*, *Potentilla norvegica*, *P. simplex*, *Sorbaria sorbifolia*, *Trifolium* spp., *Melilotus alba*, *M. officinalis*, *Medicago lupulina*, *Robinia pseudo-acacia*, *Linum usitatissimum**, *Acer negundo*, *A. platanoides*, *Hypericum perforatum*, *Aralia hispida*, *Carum carvi*, *Pastinaca sativa*, *Daucus carota*, *Apocynum androsaemifolium*, *Asclepias syriaca*, *A. exaltata*, *Convolvulus sepium*, *Glechoma hederacea*, *Leonurus cardiaca*, *Verbascum thapsus*, *Linaria vulgaris*, *Datura stramonium**, *Chaenorrhinum minus**, *Plantago indica**, *P. major*, *P. rugellii*, *P. lanceolata*, *Galium verum*, *G. sylvaticum*, *Lonicera tatarica*, *Echinocystis lobata*, *Campanula rapunculoides*, *C. latifolia*, *Solidago juncea*, *S. canadensis*, *Erigeron strigosus*, *E. annuus*, *E. canadensis*, *Ambrosia artemisiifolia*, *A. psilostachya*, *Helianthus* spp., *Galinsoga ciliata*, *Tanacetum vulgare*, *Artemisia annua*, *A. vulgaris*, *A. ludoviciana*, *Centaurea* spp., *Cichorium intybus*, *Tragopogon pratensis*, *Taraxacum officinale*, *Sonchus arvensis*, *S. asper*, *Lactuca scariola**, and *Hieracium* spp.

TYPE LOCALITIES IN OXFORD COUNTY

Only one type locality is known for Oxford County: *Scirpus atrocinctus* Fern. collected by John Parlin in Rumford in 1899 and housed in the Gray Herbarium of Harvard University.

EXCLUDED SPECIES

The following species have been erroneously attributed to the Oxford County flora and are here excluded for the reason given:

Botrychium lunaria (L.) Sw. Misidentification.

Chamaecyparis thyoides (L.) BSP. Ambiguous label and probably north of its range by 30 miles.

Allium tricoccum Ait. Listed by Bean et al. [8] but no specimen has been seen.

Quercus prinus L. Misidentification.

Rosa carolina L. Misidentification (see [67]).

Sanguisorba canadensis L. Listed by Bean et al. [8] but no specimen has been seen.

Ilex laevigata (Pursh) Gray. Misidentification (should be looked for however).

Vaccinium vacillans Torr. Misidentification.

Lycopus virginicus L. Misidentification (see [56]).

CATALOGUE

Explanation

The taxa of the plants in the catalogue are species, subspecies (abbreviated spp.), variety (var.), form (f.), and hybrid (indicated by an X between the genus and specific epithet (e.g., in the genus *Salix*: *S. X myricoides*) or an X between the specific epithets of the two parents (e.g., *S. discolor X rigida*). For each of these taxa there is a scientific name followed by a common name (if one exists for the plant) and then a brief description of the habitat(s) where the plant is likely to be found and its frequency of occurrence in the habitat(s). Finally are the collection data for the herbarium specimens of the taxa. They include the town where the collection was made, the collector, a collector's reference number in parentheses (if one exists), and the year of the collection.

The nomenclature and taxonomy follow Fernald [34]. Some effort has been made to include changes in the scientific names at the rank of genus and below based on nomenclatural and taxonomic work since 1950. In cases where a name different from that of Fernald is used, the corresponding name of Fernald's follows in parentheses. The reference where in the name change was made is given in parentheses after the genus or family if all the name changes in that genus or family are found in one reference. When there are different references in the same genus or family, they are given parenthetically after the appropriate species name. For example, in the genus *Carex*, we have *C. atlantica* Bailey var. *incomperta* (Bickn.) F.J. Herm. (*C. incomperta* Bickn.) [57].

The common or colloquial names following the scientific names are taken from Fernald [34]. The habitat descriptions are defined in the section on Plant Associations (see pages 15-29). The terms used to describe the frequency of occurrence are meant to indicate the part the plant plays in the vascular vegetation of the county. The terms are not based on precise counts but on an estimation of the plant's prevalence based upon field experience and examination of the collections of previous collectors. The six terms are used approximately as follows:

Common: virtually always present and often abundant in its habitat; easily found. For example, *Onoclea sensibilis* is common in moist to wet, wooded, or open areas.

Frequent: usually present and likely to be found in its habitat but not a dominant element. *Lobelia cardinalis* is frequent on rocky shores of rivers and streams.

Occasional: sporadic or scattered and usually not found in its habitat. *Viola selkirkii* is occasional in rich, deciduous upland forests.

Infrequent: only known from several stations and not to be expected; intermediate between occasional and the last two terms. *Lechea maritima* is known from only a few stations in open sandy areas.

Local: of very limited occurrence but may be present in fairly large numbers where it is found. *Ceanothus americanus* is known from three localities and it is common in two of them. The third station has apparently been eradicated by roadside spraying.

Rare: both of limited occurrence and number where found. *Panax quinquefolius*, despite an intense search in the present work, has not been collected in the county since 1929.

Those taxa preceded by an asterisk in the catalogue are adventive, introduced by man and escaping from cultivation to become part of the flora, or spreading from other regions into the county since settlement by European man. Most adventive species disclose their origin by their proximity to man. They are characteristic of permanently open habitats (roadsides, dumps, pastures, old fields, and railroad tracks). But some may enter forests (*Epipactis helleborine*) or ledges (*Rumex acetosella*) far from man's constant influence.

The collection data are presented in the following form: Town: collector (collector's reference number) year of collection. When the occurrence of a taxon is based upon its report in the literature, the citation in the catalogue is author (report) and year of publication. The citation of specimens may be used to determine the range of the taxa. The towns are presented in an order from east to west and from north to south (see

Table III and Figure 1). The specimens making up the citations and the descriptions of Fernald [34] and the authors of the references cited in the catalogue are the basis for our concepts of the taxa.

Table II
STATISTICAL SUMMARY

	NATIVE				ADVENTIVE				TAXA TOTAL
	Species	Vari- eties	Forms & Hybrids	Total	Species	Vari- eties	Forms & Hybrids	Total	
Equisetaceae	4	3	3	10					10
Lycopodiaceae	9	9		18					18
Sellaginellaceae	1			1					1
Ophioglossaceae	5	5	4	14					14
Osmundaceae	3	1	5	9					9
Polypodiaceae	31	4	15	50					50
Taxaceae	1			1					1
Pinaceae	12	3		15	1			1	16
Typhaceae	2			2					2
Sparganiaceae	6		1	7					7
Potamogetonaceae	16	3	1	20					20
Najadaceae	1			1					1
Juncaginaceae	1			1					1
Alismataceae	4	3		7					7
Hydrocharitaceae	3			3					3
Poaceae	77	34	13	124	40	2	4	46	170
Cyperaceae	135	33	9	177	1			1	178
Araceae	5		3	8	1			1	9
Lemnaceae	2			2					2
Xyridaceae	2			2					2
Eriocaulaceae	1			1					1
Commelinaceae					1		1	2	2
Pontederiaceae	1		1	2					2
Juncaceae	10	13	3	26					26
Liliaceae	17	2	2	21	6			6	27
Iridaceae	3	1		4	3			3	7
Orchidaceae	33	8	5	46	1			1	47
Salicaceae	16	6	4	26	6	3		9	35
Myricaceae	5	1		6					6
Betulaceae	9	6	1	16					16
Fagaceae	7	1	1	9					9
Ulmaceae	1		3	4					4
Cannabinaceae					22				22
Urticaceae	5			5					5

Table II
STATISTICAL SUMMARY

	NATIVE				ADVENTIVE				TAXA TOTAL
	Species	Vari- eties	Forms & Hybrids	Total	Species	Vari- eties	Forms & Hybrids	Total	
Santalaceae	2			2					2
Loranthaceae	1			1					1
Aristolochiaceae	1			1					1
Polygonaceae	12	6	1	19	18		1	19	38
Chenopodiaceae	2	1		3	5	2	1	8	11
Amaranthaceae						4		4	4
Nyctaginaceae					1			1	1
Aizoaceae	2			2	1			1	3
Portulacaceae	1			1	1			1	2
Caryophyllaceae	7	4	1	12	24			24	36
Ceratophyllaceae	1			1					1
Nymphaeaceae	4		2	6					6
Ranunculaceae	19	7	1	27	4	2		6	33
Berberidaceae	1			1	2			2	3
Lauraceae		1		1					1
Papaveraceae	4			4	1			1	5
Brassicaceae	7	4		11	25	3	3	31	42
Sarracenaceae	1			1					1
Droseraceae	2		2	4					4
Crassulaceae					4			4	4
Saxifragaceae	10	1		11	1			1	12
Hamamelidaceae	1			1					1
Rosaceae	62	12	16	90	11			11	101
Fabaceae	11	1	1	13	24	1	1	26	39
Oxalidaceae	1		1	2	1		3	4	6
Geraniaceae	4			4	3			3	7
Polygalaceae	3	2		5					5
Euphorbiaceae	1			1	6			6	7
Callitrichaceae	3			3					3
Empetraceae	2			2					2
Anacardiaceae	4	1		5					5
Aquifoliaceae	2			2					2
Celastraceae	1			1	1			1	2
Aceraceae	5	1	1	7	1	1		2	9
Balsaminaceae	2		3	5					5
Rhamnaceae	2			2	1			1	3
Vitaceae	4	1	2	7					7
Tiliaceae	1			1					1
Malvaceae					5	2	1	8	8
Guttiferae	9	1		10					10
Elatinaceae	2			2					2

Table II
STATISTICAL SUMMARY

	NATIVE				ADVENTIVE				TAXA TOTAL
	Species	Vari- eties	Forms & Hybrids	Total	Species	Vari- eties	Forms & Hybrids	Total	
Cistaceae	5	2		7					7
Violaceae	12	4	3	19	2		1	3	22
Thymelaeaceae	1			1					1
Lythraceae	1	1		2	2	1		3	5
Melastomataceae	1			1					1
Onagraceae	12	4	1	17	3			3	20
Haloragaceae	5	1	1	7					7
Hippuridaceae	1			1					1
Araliaceae	5			5					5
Umbelliferae	12			12	4			4	16
Cornaceae	5			5					5
Pyrolaceae	9	5		14					14
Ericaceae	19	10		29					29
Diapensiaceae	1			1					1
Primulaceae	6		1	7	2			2	9
Oleaceae	3	1	1	5	1			1	6
Gentianaceae	6	1		7					7
Apocynaceae	2			2	1			1	3
Asclepiadaceae	2	1		3	1			1	4
Convolvulaceae	3			3	4		1	5	8
Polemoniaceae					3			3	3
Boraginaceae	2			2	7			7	9
Verbenaceae	1			1					1
Lamiaceae	11	2	1	14	15	4	1	20	34
Solanaceae	2	1		3	7		1	8	11
Scrophulariaceae	19	3	1	23	14	1		15	38
Orobanchaceae	4		1	5					5
Lentibulariaceae	7	1		8					8
Plantaginaceae					5	1	1	7	7
Rubiaceae	11	2		13	4			4	17
Caprifoliaceae	11	2	1	14	2	1		3	17
Valerianaceae					1			1	1
Cucurbitaceae					1			1	1
Campanulaceae	7	1		8	3			3	11
Asteraceae	80	42	10	132	42	12	5	59	191
TOTALS	891	263	126	1280	326	40	25	389	

GRAND TOTAL 1669

Table III

TOWNS OF OXFORD COUNTY, LISTED IN ORDER FROM EAST TO WEST AND NORTH TO SOUTH (SEE FIGURE 1)

1. Bowmantown	28. Milton
2. Oxbow	29. Hanover
3. Parmachenee	30. Bethel
4. Upper Cupsuptic	31. Gilead
5. Lynchtown	32. Hartford
6. Lower Cupsuptic	33. Sumner
7. Parkertown	34. Woodstock
8. Adamstown	35. Greenwood
9. Lincoln Plantation (Plt.)	36. Albany
10. Richardsontown	37. Stoneham
11. Magalloway Plt.	38. Mason
12. Byron	39. Batchelders Grant
13. Andover North Surplus	40. Buckfield
14. Township C	41. West Paris
15. C Surplus	42. Norway
16. Upton	43. Waterford
17. Roxbury	44. Sweden
18. Andover	45. Lovell
19. Andover West Surplus	46. Stow
20. Grafton	47. Hebron
21. Dixfield	48. Oxford
22. Mexico	49. Paris
23. Rumford	50. Fryeburg
24. Newry	51. Denmark
25. Riley	52. Brownfield
26. Canton	53. Hiram
27. Peru	54. Porter

EQUISETACEAE (HORSETAIL FAMILY)

EQUISETUM L. Horsetail.

E. arvense L. (No effort is made to segregate the multifarious sub-specific entities.) Roadsides, embankments, fields and woods; moist to dry. Common. Bowmantown: Campbell and Eastman (2237) 1974, Campbell, Conant, Eastman and Newman (2815) 1975; Lincoln Plt.: Campbell and Eastman (1129) 1974; Newry: Wheeler 1926; Bethel: Pease (23855) 1933; Gilead: Deane 1883, Furbish 1897, Campbell (442) 1973; Hartford: Parlin (808) 1887; Greenwood: Campbell and Eastman (885) 1974; Al-

bany: Campbell (951) 1974; Batchelders Grant: Campbell (52) 1973; Buckfield: Parlin (1436) 1901; Paris: Pease (28705) 1941; Brownfield: Perley 1885.

E. pratense Ehrh. Low, rich ground. Infrequent. Bethel: Wheeler 1926.

E. sylvaticum L. var. *pauciramosum* Milde. Woods. Infrequent. Oxford: Bean (2031) 1907.

E. sylvaticum var. *pauciramosum* f. *multiramosum* Fern. Moist woods. Common. Adamstown: Campbell and Eastman (1125) 1974; Grafton: Richards (6072) 1954; Bethel: Wheeler 1926; Gilead: Dean 1883; Woodstock: Campbell (2440) 1974; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Campbell (51) 1973; Sweden: Bean (20136) 1920; Oxford: Bean (2206) 1907; Brownfield: Perley 1885.

E. fluviatile L. In shallow water or wet ground. Frequent. Dixfield: Parlin (2350) 1908; Canton: Parlin (2351) 1908; Bethel: Wheeler 1929; Hartford: Parlin 1895; Stow: Campbell and Eastman (723) 1973; Fryeburg: Campbell (921) 1974.

E. fluviatile f. *linnaeanum* (Döll) Broun. Similar habitats. Frequent. Brownfield: Campbell and Eastman (2234) 1974; Adamstown: Campbell and Eastman (1124) 1974; Buckfield: Campbell (1802) 1974; Fryeburg: Bean (20185) 1920.

E. hyemale L. var. *affine* (Engelm.) A.A. Eat. Common Scouring-rush. Roadsides, embankments. Infrequent. Peru: Campbell (2706) 1975; Gilead: Dean 1883; Oxford: Campbell (2549) 1974; Hebron: Campbell (2926) 1974; Denmark: Merrill 1902.

E. hyemale var. *affine* f. *pumilum* (A.A. Eaton) Vict. Open woods. Infrequent. Dixfield: Campbell (1937) 1974.

E. hyemale var. *affine* f. *polystachyum* Prager. Grassy banks. Porter: Campbell (2700) 1975.

E. variegatum Schleich. Moist bank. Hebron: Wight and Eastman 1975.

E. scirpoides Michx. Alluvial woods and bogs. Occasional. Magalloway Pt.: Pease (10,500) 1907; Dixfield: Parlin 1895; Canton: Parlin (2287) 1906; Bethel: Wheeler 1926; Buckfield: Allen 1896, Parlin (953) 1897; Norway: Pease (24113) 1934; Oxford: Norton (2371) 1907.

LYCOPODIACEAE (CLUB-MOSS FAMILY)

LYCOPODIUM L. Club-moss. [58]

L. selago L. Exposed rocks on mountains. Very local. Bowmantown: Campbell and Eastman (2224) 1974; Riley: Gordon (2091) 1941.

L. selago var. *appressum* Desv. Mountain summits. Very local. Riley: C.S. Campbell and A.S. Campbell, Jr. (1224) 1974.

L. lucidulum Michx. Upland woods. Frequent. Bowmantown: Campbell and Eastman (2232) 1974; Lincoln Plt.: Williams 1903; Grafton: Richards (6038) 1954; Newry: Wheeler 1926; Riley: Norton (13322) 1919, Campbell (2910) 1975; Bethel: Wheeler 1931; Gilead: Furbish 1897; Hartford: Parlin 1885; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Bean 1938; Batchelders Grant: Campbell (690) 1973; Stow: Campbell (418) 1973; Hebron: Allen 1876; Paris: Neal 1935; Denmark: Moulton (6827) 1902; Hiram: Merrill 1911; Porter: Campbell (1551) 1974..

L. lucidulum var. *occidentale* (Clute) L.R. Wilson. Gilead: Furbish 1897.

L. inundatum L. Wet, open areas. Frequent. Lincoln Plt.: Campbell and Eastman (1867) 1974; Rumford: Norton (17061); Canton: Gordon (1187) 1933; Bethel: Wheeler 1928; Albany: Wheeler 1925, Campbell (2011) 1974; Stoneham: Bean 1925; Batchelders Grant: Eastman (354) 1973; Buckfield: Allen 1894, Dean 1894, Bicknell 1938; West Paris: Bean 1938; Waterford: Bean 1957; Lovell: Pease (26892) 1938; Fryeburg: Starbird 1920, Harris (26709) 1964; Brownfield: Neal 1935, Campbell (1340) 1974; Hiram: Perkins 1935; Porter: Campbell (1540) 1974.

L. annotinum L. Woods and clearings. Frequent. Parmachenee: Campbell and Eastman (1788) 1974; Bethel: Wheeler 1925; Gilead: Furbish 1897; Hartford: Parlin 1885; Woodstock: Gordon (1187) 1936.

L. annotinum var. *acrifolium* Fern. Similar habitats. Frequent. Grafton: Rossbach (5256) 1960, Campbell (3197) 1975; Bethel: Curtis 1913; Hartford: Rowell 1942; Albany: Bean 1938; Mason: Wheeler 1931; Norway: Cheever 1912.

L. annotinum var. *pungens* (LaPylaie) Desv. Exposed sites in the mountains. Grafton: Allen 1897.

L. clavatum L. Dry to wet woods and openings. Common. Rumford: Parlin 1888; Newry: Wheeler 1926; Riley: Deane 1925; Bethel: Curtis 1913, Wheeler 1927, Campbell (2170) 1974; Gilead: Furbish 1897, Eastman (235) 1973; Hartford: Rowell 1941; Greenwood: Bill, Eaton, Fer-

nald, Griscom, and Hunnewell 1931, Eastman and Wight (507) 1974; Mason: Campbell (664) 1973; Buckfield: Allen 1897; Stow: Eastman (298) 1973; Oxford: Bean 1907; Paris: Pringle (1403) 1892; Denmark: Merrill 1902; Hiram: Merrill 1917.

L. clavatum var. *megastachyon* Fern. & Bissell. Similar habitats. Common. Lincoln Plt.: Pease (25206) 1935; Grafton: Gordon (1035) 1934; Riley: Bean 1945; Bethel: Dean 1902, Weatherby 1906, Curtis 1913, Pease (25823) 1936, Hodgdon, Pease, and Pike 1957; Gilead: Furbish 1897; Hartford: Parlin (2503) 1908; Sumner: Parlin 1933; Woodstock: Gordon (1186) 1936; Stoneham: Bean 1925; Stow: Campbell (1532) 1974; Fryeburg: Bean (20172) 1920.

L. clavatum var. *monostachyon* Grev. and Hook. Oxford: Weatherby 1906, 1914.

L. obscurum L. Ground-Pine. Woods and fields. Frequent. Gilead: Furbish 1897; Hartford: Parlin (849) 1897; Buckfield: Bean 1938; Hiram: Merrill 1911.

L. obscurum var. *isophyllum* R.J. Hickey. Similar habitats. Grafton: Richards (6067) 1954; Rumford: Parlin 1888; Bethel: Wheeler 1925; Gilead: Furbish 1897, Campbell (834) 1974; Oxford: Weatherby 1914, Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Hiram: Merrill 1911.

L. dendroideum Michx. (*L. obscurum* var. *dendroideum* (Michx.) D.C. Eat.) Woods and fields. Frequent. Richardsontown: Campbell (2469) 1974; Township C: Williams 1903; Gilead: Furbish 1897; Hartford: Rowell 1941; Batchelders Grant: Campbell (639) 1973; Buckfield: Allen 1876; Hebron: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

L. sabinaefolium Willd. Old pastures and embankments. Occasional. Lincoln Plt.: Campbell and Eastman (1622) 1974; Bethel: Wheeler 1925; Hartford: Adams 1943; Sumner: Adams 1943; Grafton: Gordon (1054) 1934; Greenwood: Curtis 1913; Porter: Campbell and Eastman (1622) 1974, Campbell (1900) 1974.

L. sabinaefolium var. *sitchense* (Rupr.) Fern. Similar habitats. Infrequent. Sumner: Adams 1943.

L. complanatum L. Woods. Infrequent. Albany: Hodgdon, Lincoln, Pease, and Steele (10272) 1957; Stoneham: Pease (23946) 1933.

L. complanatum var. *flabelliforme* Fern. Similar habitats. Common. Bethel: Wheeler 1935; Gilead: Furbish 1897; Hartford: Parlin 1885; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Bean 1938, Hodgdon, Lincoln, Pease, and Steele (10273) 1957; Batchelders Grant: Pease 1938; Stow: Norton 1931, Eastman (297) 1973, Campbell (534) 1973; Paris: Thompson (11807) 1892; Denmark: Merrill 1902.

L. tristachyum Pursh. Dry woods and openings. Frequent. Canton: Parlin (2232) 1907; Bethel: Wheeler 1926; Gilead: Furbish 1897, Eastman (329) 1973, Campbell (775) 1974; Hartford: Parlin (898) 1897; Greenwood: Curtis 1913; Albany: Hodgdon, Lincoln, Pease, and Steele (10274) 1957; Stoneham: Eastman (669) 1970; Mason: Wheeler 1931, Campbell (789) 1974; Buckfield: Parlin (2544) 1908; Waterford: Pease (31719) 1945; Hebron: Chamberlain (102) 1900; Oxford: Weatherby 1914; Fryeburg: Rossbach (6144) 1964; Denmark: Bean 1964.

SELLAGINELLACEAE (SPIKEMOSS FAMILY)

SELAGINELLA Beauv. Spikemoss.

S. rupestris (L.) Spreng. Dry ledges and boulders. Frequent in the southern half of the County. Rumford: Parlin 1890; Bethel: Wheeler 1914; Gilead: Pease (17632) 1919; Greenwood: Campbell (1487) 1974; Stow: Campbell (367) 1973; Brownfield: Eastman (664) 1974; Hiram: Merrill 1910, Steinmetz 1933, Campbell (1536) 1974; Porter: Eastman and Campbell (481) 1974.

ISÖETACEAE (QUILLWORT FAMILY)

ISÖETES L. Quillwort.

I. muricata Dur. Shallow water or shores. Frequent. Canton: Pease (19636) 1925; Sumner: Bean 1947; Greenwood: Pease (19143) 1922; Buckfield: Allen 1894; Norway: Pease (28287) 1940; Oxford: Campbell (3109) 1975; Fryeburg: Harris (27600) 1964, Eastman and Josselyn Botanical Society (794) 1975; Hiram: Norton and Merrill 1923.

I. riparia Engelm. Similar habitats. Rare. Albany: Seymour (29520) 1970.

I. macrospora Dur. Similar habitats. Rare. Brownfield: Pease (28329) 1940, Campbell and Eastman (3310) 1975.

I. macrospora f. *hieroglyphica* (A.A. Eat.) N.E. Pfeiff. Similar habitats. Rare. Waterford: Pease (26925) 1934.

I. tuckermanii A. Br. Similar habitats. Infrequent. Canton: Bean 1935; Albany: Pease (23022) 1932; Stoneham: Pease (19867) 1920; Waterford: Hickler 1975.

OPHIOGLOSSACEAE (ADDER'S-TONGUE FAMILY)

BOTRYCHIUM Sw. Grape-fern.

B. multifidum (Gmel.) Rupr. Leathery Grape-fern. Old pastures and borders of woods. Occasional. Dixfield: Campbell (1946) 1974; Stow: Campbell and Frueh (597) 1973.

B. multifidum var. *intermedium* (D.C. Eat.) Farw. Similar habitats. Frequent. Bethel: Wheeler 1929; Gilead: Furbish 1897; Stoneham: Bean 1935; Batchelders Grant: Eastman (214) 1973; Buckfield: Allen 1894; Stow: Eastman and Campbell (233) 1973; Oxford: Weatherby (2272) 1907; Paris: Parlin 1885; Denmark: Merrill 1901; Hiram: Merrill 1908, Eastman (620) 1970.

B. dissectum Spreng. Woods, thickets or pastures. Occasional. Bethel: Wheeler 1920; Gilead: Campbell and Eastman (322) 1973; Woodstock: Parlin 1887; Batchelders Grant: Eastman (252) 1973; Buckfield: Parlin 1890, Gordon (739) 1925; Hebron: Allen 1897; Brownfield: Merrill 1907.

B. dissectum f. *obliquum* (Muhl.) Fern. Similar habitats. Infrequent. Bethel: Wheeler 1926; Albany: Wheeler 1919; Stoneham: Bean 1925; Buckfield: Allen 1877; Denmark: Moulton 1901; Hiram: Merrill 1907, Eastman (621) 1970.

B. dissectum f. *oneidense* (Gilbert) Clute. Woods. Infrequent. Batchelders Grant: Campbell and Eastman (575) 1973; Hiram: Merrill 1907.

B. simplex E. Hitch. Sterile pastures and roadsides. Occasional. Dixfield: Pease 1924; Sumner: Bean 1942, Gordon (2097) 1942; Buckfield: Parlin 1908; Hebron: Allen 1884; Oxford: Weatherby 1906.

B. simplex f. *laxifolium* (Clausen) Fern. Similar habitats. Hiram: Merrill 1907.

B. simplex var. *tenebrosum* (A.A. Eat.) Clausen. Similar habitats. Canton: Parlin (1996) 1906; Sumner: Bean 1942; Hebron: Stevens 1896; Hiram: Merrill 1907; Porter: Lowe 1929.

B. matricariaefolium A. Br. Rich, deciduous woods. Occasional. Milton: Pease (19320) 1924; Bethel: Wheeler 1926, Pease (27314) 1939; Gilead: Wheeler 1937; Hartford: Parlin (1433) 1901, 1945; Woodstock: Parlin (834) 1887, Campbell (1474) 1974; Albany: Hodgdon, Lincoln, Pease, and Steele (10432), Pease (38858) 1957; Batchelders Grant: Eastman (22) 1972; Buckfield: Allan 1880, Parlin (2143) 1907; Stow: Eastman and Campbell (136) 1973, Campbell (68) 1973; Hebron: Stevens 1896, Bean 1912; Oxford: Norton (2379) 1907; Paris: S. Eastman (2297) 1909; Hiram: Merrill, 1907, 1908.

B. matricariaefolium f. *palmatum* Milde. Hiram: Merrill 1906.

B. lanceolatum (Gmel.) Ångstr. var. *angustisegmentum* Pease & Moore. Mostly deciduous woods. Infrequent. Dixfield: Parlin 1907, (2115) 1908; Bethel: Pease (27313) 1939; Hartford: Parlin 1901, Gordon (707) 1947; Sumner: Bean 1942, Gordon (2098) 1943; Batchelders Grant: Campbell and Eastman (576) 1973; Stow: Eastman and Campbell (230) 1973.

B. virginianum (L.) Sw. Rich, deciduous woods. The commonest member of the genus. Parmachenee: Campbell and Eastman (2026) 1974; Rumford: Parlin 1888; Bethel: Anderson 1937; Hartford: Parlin 1885; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Campbell (1510) 1974; Stoneham: Campbell (2026) 1974; Mason: Hodgdon, Pease, and Steele (10430) 1958; Batchelders Grant: Campbell (28) 1973, (250) 1973; Buckfield: Bicknell 1938, Steinmetz 1938; Norway: Mann 1862; Hiram: Merrill 1906.

B. virginianum var. *europaeum* Ångstr. Bowmantown: Campbell, Conant, Eastman, and Newman (2830) 1975.

OPHIOGLOSSUM L. Adder's-tongue.

O. vulgatum L. var. *pseudopodum* (Blake) Farw. Generally moist, open areas. Canton: Gordon (1055) 1933; Bethel: Wheeler 1938; Hartford: Parlin 1890; Sumner: Bean 1936, Gordon (1166) 1936; West Paris: Bicknell 1938; Norway: Mann 1862, Chamberlain 1907; Hebron: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Brownfield: Merrill 1907; Hiram: Merrill 1907; Porter: Gordon (910) 1929.

OSMUNDACEAE (FLOWERING FERN FAMILY) [94]

OSMUNDA L. Flowering Fern.

O. regalis L. Royal Fern. (*O. regalis* var. *spectabilis* (Willd.) Gray). Swales, wet woods, and shores. Frequent. Upton: Brewster 1907; Bethel: Wheeler 1929; Gilead: Campbell and Eastman (352) 1973; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Paris: Thompson (13698) 1892; Hiram: Merrill 1906, 1909, Campbell (917) 1974.

O. claytoniana L. Interrupted Fern. Low woods and fields. Common. Newry: Wheeler 1926; Riley: Campbell (1215) 1974; Bethel: Campbell (850) 1974; Gilead: Campbell and Eastman (712) 1973; Hartford: Parlin 1895; Waterford: Morse 1957; Denmark: Richards (6188) 1954; Hiram: Merrill 1907.

O. cinnamomea L. Cinnamon Fern. Low, moist to wet ground. Common. Bowmantown: Campbell and Eastman (2229) 1974; Bethel:

Wheeler 1938; Woodstock: Parlin 1887; Albany: Campbell (914) 1974; Batchelders Grant: Campbell (735) 1973; Buckfield: Bean 1938; Oxford: Bean (2117) 1907; Fryeburg: Bean (20159) 1920; Brownfield: Merrill 1907; Hiram: Merrill 1907, 1911.

POLYPODIACEAE (FERN FAMILY) [94]

WOODSIA R. Br. Woodsia.

W. ilvensis (L.) R. Br. Rusty or Fragrant Woodsia. Dry cliffs, ledges, or boulders. Frequent. Bowmantown: Campbell and Eastman (2218) 1974; Andover North Surplus: Bean 1939; Rumford: Parlin 1890; Newry: Wheeler 1926; Bethel: Wheeler 1926; Hartford: Gordon 1920, Nylander 1932; Batchelders Grant: Eastman (201) 1973; Buckfield: Gordon (1077) 1935; West Paris: Bean 1938, Gordon (1195) 1938, Bean 1955, Richards (6289) 1955; Waterford: Blake 1885; Stow: Campbell and Eastman (122) 1973; Paris: Fuller (2284) 1904; Denmark: Blake (820) 1852, Campbell (1283) 1974; Hiram: Merrill 1907.

W. alpina (Bolton) S.F. Gray (Perhaps a hybrid) Wet cliff. Bowmantown: Campbell, Eastman, and Richards (3322) 1975.

W. glabella R. Br. Smooth Woodsia. Wet cliff on Twin Peaks, Bowmantown: Campbell and Eastman (2227) 1974.

W. obtusa (Spreng.) Torr. Blunt-lobed or Large Woodsia. Dry ledges. Local. Brownfield: Eastman (614) 1974; Porter: Eastman (567) and Campbell (1910) 1974.

CYSTOPTERIS Bernh. Bladder-Fern.

C. fragilis (L.) Bernh. Fragile Fern. Wooded cliffs. Occasional. Gilead: Furbish 1897; Buckfield: Allen 1877; Porter: Campbell (1541) 1974.

C. fragilis (L.) Bernh. var. *mackayii* Lawson. Similar habitats. Frequent. Grafton: Williams 1895; Bethel: Wheeler 1929; Gilead: Furbish 1897; Sumner: Bean 1942; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Buckfield: Allen 1877; West Paris: Bean 1938, Bicknell 1938, Gordon (1200) 1938, Bean 1955; Stow: Campbell and Eastman (155) 1973; Paris: Bicknell 1938, Gordon (1917) 1938, Steinmetz 1938; Fryeburg: Bean (20161) 1920; Denmark: Moulton 1902, Norton (17352) 1920; Hiram: Merrill 1907, Steinmetz 1933; Porter: Campbell and Eastman (983) 1974.

C. bulbifera (L.) Bernh. Bladder-fern. Calcareous ledges and soil. Infrequent. Bowmantown: Campbell and Eastman (2222) 1974; Lynch-

town: Campbell and Eastman (3282) 1975; Greenwood: Bean 1945, Eastman (645) 1970; Norway: Norton (12505) 1907; Paris: Bean 1938, Bicknell 1938, Gordon (724) 1938, Steinmetz 1938.

MATTEUCCIA Todaro. Ostrich-fern.

M. struthiopteris (L.) Todaro. (*Pteretis pennsylvanica* (Willd.) Fern.) Rich bottomlands. Locally abundant. Parmachenee: Campbell and Eastman (1422) 1974; Canton: Rowell 1939; Bethel: Wheeler 1926; Gilead: Furbish 1897, Campbell and Eastman (476) 1973; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; West Paris: Bean 1938; Stow: Campbell (415) 1973; Hiram: Merrill (no date).

ONOCLEA L. Sensitive Fern.

O. sensibilis L. Low ground, open or wooded. Common. Bethel: Kennedy 1863, Wheeler 1925; Gilead: Furbish 1897, Campbell and Eastman (476) 1973; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; West Paris: Bean 1938; Norway: Bean 1936; Waterford: Blake 1884; Denmark: Moulton 1902; Porter: Gordon (224) 1929.

THELYPTERIS Schmidel. Wood-fern.

T. palustris Schott. (*Dryopteris thelypteris* (L.) Gray var. *pubescens* (Lawson) Nakai). Marsh fern. Low ground. Frequent. Upton: Pease 1958; Canton: Bean 1935; Bethel: Wheeler 1926, Campbell (1051) 1974; Gilead: Furbish 1897, Eastman (242) 1973; Woodstock: Blankinship 1894, Campbell (1183) 1974; West Paris: Bean 1938, Gordon (1198) 1938; Norway: Bean (2263) 1907; Oxford: Bean (2116) 1907; Hiram: Merrill 1907.

T. simulata (Davenp.) Nieuwl. (*Dryopteris simulata* Davenp.). Massachusetts Fern. Wet woods. Infrequent. Canton: Parlin 1935, 1938; Bethel: Wheeler 1926; Brownfield: Merrill 1907; Oxford: Bean (2116) 1907; Hiram: Merrill 1907.

T. noveboracensis (L.) Nieuwl. (*Dryopteris noveboracensis* (L.) Gray) New York Fern. Woods, upland or lowland. Frequent. Lynchtown: 1926; Canton: Parlin (1980) 1906; Bethel: Wheeler 1926; Gilead: Furbish 1897, Campbell and Eastman (354) 1973; Woodstock: Parlin 1887; Stoneham: Campbell (2025) 1974; Stow: Campbell (417) 1973; Oxford: Bean 1907; Paris: Thompson (1827) 1892; Denmark: Moulton 1902.

T. phegopteris (L.) Slosson. (*Dryopteris phegopteris* (L.) Christens). Long Beech-Fern. Cool woods. Common. Upton: Brewster 1907; Riley: C.S. Campbell and A.S. Campbell, Jr. (1227) 1974; Gilead: Furbish 1897; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Blake 1853; Batchelders Grant: E. Ogden (1900) 1939, Campbell (298) 1973; Paris: Thompson 1892; Fryeburg: Bean (20165) 1920; Denmark: Moulton 1902; Hiram: Merrill 1907.

T. hexagonoptera (Michx.) Weath. (*Dryopteris hexagonoptera* (Michx.) Christens). Broad Beech-Fern. Rich woods. Local. Canton: Parlin (1981) 1906, 1908, Gordon (800) 1930; Hebron: Stevens 1894.

GYMNOCARPIUM Newm.

G. dryopteris (L.) Newm. (*Dryopteris disjuncta* (Ledeb.) C.V. Mort.). Oak-Fern. Cool woods. Frequent. Grafton: Richards (6078) 1954; Canton: Gordon (401) 1928, Bean 1931; Bethel: Wheeler 1926; Gilead: Furbish 1897; Woodstock: Parlin 1887; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Blake 1853; Batchelders Grant: E. Ogden (1900) 1939, Campbell (298) 1973; Paris: Thompson 1892; Fryeburg: Bean (20165) 1920; Denmark: Moulton 1902; Hiram: Merrill 1907.

DRYOPTERIS Adans. Shield-fern.

D. spinulosa (O. F. Muell.) Watt. Spinulose Wood-Fern. Woods. Occasional. Bethel: Wheeler 1925; Gilead: Furbish 1897; Hartford: Parlin (970) 1897; Hiram: Merrill 1908.

D. intermedia (Willd.) A. Gray. (*D. spinulosa* var. *intermedia* (Willd.) Underw.). Woods, mostly rich and deciduous. Common. Magalloway Plt.: Campbell (2132) 1975; Township C: Bean 1925; Andover West Surplus: Bean 1938; Canton: Parlin (2048) 1906; Bethel: Wheeler 1926, Campbell (1666) 1974; Gilead: Furbish 1897; Albany: Bean 1938; Batchelders Grant: Campbell (304) 1973; Buckfield: Steinmetz (604) 1938; Norway: Bean (2259) 1907; Fryeburg: Bean (20162) 1920; Brownfield: Merrill 1908; Hiram: Merrill 1908.

D. intermedia X *spinulosa* (*D. spinulosa* var. *fructuosa* (Gilbert) Trudell). Rich, moist woods. Bowmantown: Campbell, Eastman and Richards (3055) 1975; Parmachenee: Campbell and Eastman (1783) 1974; Dixfield: Campbell (1945) 1974; Gilead: Furbish 1897; Hartford: Parlin (890) 1897; Greenwood: Campbell (2063) 1974; Stoneham: Campbell (2020) 1974; Batchelders Grant: Campbell, Eastman, and Richards (1478) 1974; Buckfield: Steinmetz (641) 1938; West Paris: Bean 1938; Norway: Bean 1938; Brownfield: Merrill 1908; Hiram: Merrill 1908.

D. campyloptera (Kze.) Clarkson (*D. spinulosa* var. *americana* (Fisch.) Fern.). Mountain Wood-Fern. Woods, mostly in the mountains. Frequent. Bowmantown: Campbell and Eastman (2108) 1974; Lincoln Plt.: Bean 1938; Township C: Bean 1938; Andover West Surplus: Bean 1938; Grafton: Rossbach (5245) 1960; Riley: True (109) 1928; Albany: Bean 1938; Stoneham: Bean 1925; Hiram: Fellows (839) 1906.

D. X bootii (Tuckerm.) Underw. Moist woods. Occasional. Newry: Lowe 1926; Gilead: Furbish 1897; Hartford: Parlin (889) 1897, (1431) 1901; Batchelders Grant: Kozicky 1939; Buckfield: Bean 1938; Oxford: Fellows 1907; Paris: Bacon 1906; Brownfield: Merrill 1908; Hiram: Merrill (293) 1907, 1909.

D. clintoniana (D.C. Eaton) Dowell. (*D. cristata* var. *clintoniana* (D.C. Eaton) Underw.) Clinton's Wood-Fern. Andover: Fellows (398) 1905; Bethel: Wheeler 1926; Buckfield: Adams 1936, Bean 1938, Bicknell 1938; Oxford: Fellows 1907; Brownfield: Merrill 1908; Hiram: Merrill 1908.

D. clintoniana X *intermedia*. Hiram: Merrill 1910.

D. cristata (L.) Gray. Crested Wood-Fern. Wet soil. Frequent. Dixfield: Campbell (1638) 1974; Rumford: Leland 1885; Bethel: Wheeler 1926; Gilead: Furbish 1897, Eastman (243) 1973, Campbell and Eastman (355) 1973; Sumner: Bean 1942; Greenwood: Fellows 1914; Buckfield: Bean 1938; Stow: Eastman (345) 1973; Oxford: Bean (2006) 1907; Brownfield: Merrill (396) 1908; Hiram: Merrill 1908.

D. cristata X *marginalis*. Hiram: Merrill 1908.

D. goldiana (Hook.) Gray. Goldie's Fern. Rich deciduous woods. Rare. Bowmantown: Eastman and Campbell (999) 1975; West Paris: Heald (Report) 1945; Mason: Campbell (1477), Eastman (439), and Richards 1974.

D. marginalis (L.) Gray. Marginal Shield-Fern. Rocky woods. Frequent. Newry: Wheeler 1926; Bethel: Wheeler 1926; Gilead: Furbish 1897; Campbell and Eastman (321) 1973; Hartford: Parlin 1897; Greenwood: Campbell, Eastman, and White (2937) 1975; Albany: Bean 1938; Mason: Wheeler 1931; Batchelders Grant: Eastman and Campbell (124) 1973; Buckfield: Parlin (1908) 1905, Bean 1938; West Paris: Richards (6298) 1955; Waterford: Blake 1885; Stow: Eastman (125) 1973; Oxford: Bean 1907; Paris: Steinmetz (623) 1938; Fryeburg: Bean (20166) 1920; Brownfield: Merrill 1907, 1910, 1911; Hiram: Merrill 1908, 1909, 1911; Porter: Campbell and Eastman (982) 1974.

D. fragrans (L.) Schott. (*D. fragrans* (L.) Schott. var. *remotiuscula* Komarov). Fragrant Cliff-Fern. Dry cliffs in the north. Local. Bowman-town: Eastman, Campbell, and Richards (1000) 1975; Parmachenee: Campbell (1805) and Eastman (531) 1974; Andover North Surplus: Haven 1926, Pease (20461) 1937, Adams 1938; Bean (2012); Rumford: Leland 1885.

POLYSTICHUM Roth. Holly Fern.

P. braunii (Spenner) Fee (*P. braunii* (Spenner) Fee var. *purshii* Fern.) Braun's or Pursh's Holly Fern. Rich, deciduous woods. More frequent at higher elevations or in the north. Bowmantown: Campbell (2110) and Eastman (578) 1974; Parmachenee: Campbell (1795) and Eastman (532) 1974; Township C: Bean 1925; Greenwood: Eastman, Campbell, and White (1001) 1975; Stoneham: Campbell (2024) 1974; Mason: Eastman (269) 1973; Batchelders Grant: Eastman (19) 1971, Campbell (305) 1973.

P. acrostichoides (Michx.) Schott. Christmas Fern. Rocky, dark woods. Frequent. Grafton: Richards (6005) 1954; Canton: Gordon (571) 1928; Bethel: Wheeler 1914; Gilead: Furbish 1897; Sumner: Bean 1942; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Mason: Eastman (268) 1973; Batchelders Grant: E. Ogden (1902) 1939; Buckfield: Steinmetz (624) 1938; Stow: Campbell (65) 1973, Campbell and Frueh (585) 1973; Oxford: Bean 1907; Paris: S. Eastman (2283) 1909; Denmark: Moulton 1902; Hiram: Merrill 1906, 1908, and 1909.

DENNSTAEDTIA Bernh.

D. punctilobula (Michx.) Moore. Hay-scented Fern. Fields and open woods. Common. Bethel: Wheeler 1926; Gilead: Furbish 1897; Woodstock: Gordon (1156) 1936; Batchelders Grant: Campbell (299) 1973, Campbell and Myers (498) 1973; Stow: Campbell and Frueh (594) 1973; Hebron: Allen 1897; Paris: Thompson 1892; Denmark: Moulton 1902; Hiram: Merrill 1910.

DIPLAZIUM Presl. (ATHYRIUM Roth.)

D. acrostichoides (Sw.) Butters (*Athyrium thelypteroides* (Michx.) Desv.). Silvery Spleenwort. Rich woods. Occasional. Andover North Surplus: Campbell and Eastman (1107) 1974; Grafton: Rossbach (5242) 1960; Dixfield: Parlin 1895; Bethel: Wheeler 1932; Gilead: Furbish 1897; Albany: Hodgdon, Lincoln, Pease, and Steele (10264) 1957; Stoneham: Campbell (2022) 1974; Mason: Eastman (245) 1973; Batchelders Grant: Eastman (26) 1972, Campbell and Eastman (461) 1973; Hiram: Merrill 1907.

ATHYRIUM Roth.

A. filix-femina (L.) Roth. Lady-Fern. Woods and open places. Frequent. Bowmantown: Campbell and Eastman (2114) 1974; Andover North Surplus: Campbell and Eastman (1105) 1974; Upton: Brewster 1907; Canton: Parlin (2644) 1908; Peru: Bean 1936; Bethel: Wheeler 1929; Gilead: Eastman (281) 1973; Hartford: Parlin (2271) 1907; Woodstock: Parlin 1887; Albany: Wheeler 1914; Batchelders Grant: Eastman (283)

1973; West Paris: Bean, 1938, Gordon (1199) 1938; Oxford: Weatherby 1906, Pease (38878) 1950; Paris: Campbell (1398) 1974; Fryeburg: Bean 1920; Hiram: Merrill 1907, 1908, 1909.

ASPLENIUM L. Spleenwort.

A. trichomanes L. Maidenhair-Spleenwort. Wooded ledges and steep slopes. Infrequent. Rumford: Allen 1901, Parlin (1362) 1906; Bethel: Wheeler 1929; Albany: Hodgdon, Lincoln, Pease, and Steele (10260) 1957; West Paris: Parlin 1938; Brownfield: Harvey 1899, Eastman (539) 1974; Hiram: Merrill 1907, Campbell (2478) 1974; Porter: Eastman (396) 1974, Campbell (1051) 1974.

A. platyneuron (L.) Oakes. Ebony-Spleenwort. Ledges. Infrequent. Canton: Parlin 1917; Greenwood: Parlin 1887; Paris: S. Eastman (2280) 1909, Steinmetz 1938; Brownfield: Eastman (538) 1974; Hiram: Merrill 1910, Steinmetz 1933, Campbell (1537) 1974.

WOODWARDIA Sm. Chain-fern.

W. virginica (L.) Sm. Virginia Chain-Fern. Wet, open sites, frequently at the margins of sphagnum bogs surrounding ponds. Occasional. Greenwood: Wheeler 1932, Campbell and Cross (2190) 1974; Albany: Fellows (541) 1905; Buckfield: Adams 1936, Steinmetz 1939; Stow: Campbell (565) and Eastman (232) 1973; Hebron: Allen 1880; Oxford: Weatherby 1914; Fryeburg: Pease (34880) 1949, (36920) 1952; Denmark: Grant 1904, Rossbach (6155) 1964, Campbell (1329) 1974; Brownfield: Fellows (3420) 1905, Merrill 1907, 1909, True 1938; Porter: Eastman and Campbell (573) 1974.

W. areolata (L.) Moore. Netted Chain-Fern. Bogs and swamps. Rare. Reported from Brownfield: Goodale 1861, Fellows 1906, and Knowlton, Riley, and Weatherby 1920.

CRYPTOGRAMMA R. Br. Rock-brake.

C. stellerii (Gmel.) Prantl. Cliffs. Found only on Berry's Ledge in West Paris: Bacon 1907, Bean 1938, Baker 1938, Bicknell 1938, Gordon 1938, Perkins (699) 1938.

ADIANTUM L. Maidenhair Fern.

A. pedatum L. Rich, rocky woods. Occasional. Bowmantown: Campbell, Conant, Eastman, and Newman (2819) 1975; Canton: Parlin (2180) 1907; Peru: Kane 1930; Bethel: Campbell (1672) 1974; Hartford: Parlin 1893; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931, Eastman (622) 1970; Mason: Eastman (244) 1973; Batchelders Grant: Eastman (24) 1972; Buckfield: Bicknell 1938; West Paris: Bean

1955, Eastman (623) 1973; Stow: Campbell (150) and Eastman (126) 1973; Paris: Thompson (1358) 1892; Hiram: Merrill (no date).

PTERIDIUM Gleditsch. Brake.

P. aquilinum (L.) Kuhn. var. *latiusculum* (Desv.) Underw. Dry fields, roadsides, and borders of woods. Common. Bethel: Wheeler 1926; Greenwood: Curtis 1913; Stow: Campbell and Eastman (704) 1973; Paris: Thompson (1815) 1898; Hiram: Merrill 1907.

POLYPODIUM L. Polypody.

P. virginianum L. Thin soil on boulders and ledges. Common. Andover North Surplus: Bean 1938; Grafton: Gordon (2092) 1941, Bean 1945, Richards (6003) 1954; Newry: Wheeler 1926; Bethel: Wheeler 1926; Gilead: Furbish 1897, Eastman (355) 1973; Woodstock: Blankinship 1894; Buckfield: Bean 1938, Steinmetz (633) 1938; West Paris: Richards (6297) 1955; Waterford: Blake 1885, Campbell and Eastman (1133) 1974; Stow: Campbell and Eastman (93) 1973; Hiram: Merrill 1907.

TAXACEAE (YEW FAMILY)

TAXUS L. Yew.

T. canadensis Marsh. Cold, damp woods. Frequent. Gilead: Furbish 1897, Campbell (829) 1974; Greenwood: Campbell (1493) 1974; Stoneham: Campbell (929) 1974; Paris: Pease (28286) 1940; Denmark: DHM 1902; Brownfield: GCS.

PINACEAE (PINE FAMILY)

ABIES Mill. Balsam-Fir.

A. balsamea (L.) Mill. Dominant on ridges and higher elevations throughout. Oxbow: Eastman and Campbell (590) 1974; Grafton: Deane 1920, Rossbach (5258) 1960; Mason: Deane 1920; Batchelders Grant: Campbell (692) 1973; Oxford: Weatherby 1906.

A. balsamea var. *phanerolepis* Fern. A northern or higher-elevations variety. Occasional. Bowmantown: Campbell and Eastman (2099) 1974; Riley: C.S. Campbell and G.H. Campbell (2386) 1974; Mason: Morse 1920.

TSUGA (Endl.) Carr. Hemlock.

T. canadensis (L.) Carr. Rocky slopes, especially along watercourses. Frequent. Grafton: Deane 1920; Newry: Norton 1926; Sumner: Gordon

(2097) 1948; Woodstock: Blankinship 1894; Stow: Campbell and Frueh (618) 1973.

PICEA Dietr. Spruce.

P. glauca (Moench) A. Voss. White Spruce. Woods. Frequent. Lynchtown: Eastman and Campbell (800) 1974; Upton: Pease (37361) 1953; Grafton: Deane 1920; Bethel: Wheeler 1920; Batchelders Grant: Campbell (627) 1973; Norway: Norton 1907.

P. rubens Sarg. Red Spruce. Woods. Common. Lincoln Plt.: Campbell (2461) 1974; Riley: C.S. Campbell and A.S. Campbell, Jr. (1209) 1974; Hartford: Parlin (893) 1892; Greenwood: Campbell (2064) 1974; Stow: Campbell (527) 1973; Denmark: SMH 1904.

P. mariana (Mill.) BSP Black Spruce. Bogs and higher, exposed regions of the mountains. Common. Grafton: Bean 1940; Riley: Campbell (2909) 1975; Canton: Parlin 1921; Bethel: Wheeler 1914; Mason: Manter 1919; Stow: Campbell and Eastman (549) 1973; Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

LARIX Mill. Larch, Tamarack, or Hackmatack.

L. laricina (DuRoi) K. Koch. Bogs, swales, and damp meadows. Frequent. Magalloway Plt.: Campbell and Eastman (1152) 1974; Roxbury: Seymour 1900; Grafton: Richards (6015) 1954, Campbell (3200) 1975; Newry: Pease (17593) 1919; Riley: Pease (17241) 1918; Mason: Campbell (222) 1973.

PINUS L. Pine.

P. strobus L. White Pine. Woods. Common. Upton: Pease (10503) 1907; Bethel: Wheeler 1938; Gilead: Campbell (835) 1974; Batchelders Grant: Pease 1921; Stow: Campbell (530) 1973, Campbell and Frueh (615) 1973.

P. resinosa Ait. Red Pine. Dry, sandy soil. Common. Rumford: Norton 1926; Bethel: Wheeler 1938; Stow: Campbell (529) 1973, Campbell and Frueh (617) 1973; Hebron: Allen 1897; Oxford: Weatherby (882) 1906; Fryeburg: Bean (20174) 1920, Norton 1920.

**P. sylvestris* L. Scots Pine. Infrequently persistent and spreading from plantings. Fryeburg: Rossbach (6104) 1964; Brownfield: Eastman 1974.

P. banksiana Lamb. Jack-Pine. Sandy soil near water. Infrequent, locally common about Umbagog Lake in Upton. Magalloway Plt.: Norton (1328) 1899; Upton: Brewster 1896, Pease (10618) 1907, Eastman and Gray (480) 1974.

P. rigida Mill. Pitch-Pine. Sand plains. Frequent. Bethel: Wheeler 1938; Fryeburg: Bean (20138) 1920, Wheeler 1938, Rossbach (6142) 1964; Denmark: Campbell (2475) 1974.

THUJA L. Arbor Vitae.

T. occidentalis L. Northern White Cedar. Bogs, shores of rivers and lakes, and occasionally on ledges; an indicator of neutral soil or rock. Frequent. Upton: C.S. Campbell, A.S. Campbell Jr., and G.H. Campbell (2325) 1974; Newry: Pease (17510) 1919; Bethel: Wheeler 1926, Pease (27278) 1939; Gilead: Campbell and Eastman (537) 1973; Hartford: Parlin 1895; Sumner: Pease (23821) 1933; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Pease (31729) 1945; Mason: Hodgdon and Steele (10395) 1958, Eastman (317) 1973; Batchelders Grant: Eastman (234) 1973; West Paris: Pease (28823) 1933; Norway: Norton 1899, Weatherby and Howe 1907; Sweden: SMH 1904; Hebron: Eastman and Campbell (492) 1974.

JUNIPERUS L. Juniper.

J. communis L. Common Juniper. Fields. Infrequent. Gilead: Furbish 1897; Norway: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

J. communis var. *depressa*. Pursh. Ground Juniper. Old fields and thin, rocky woods. Frequent. Milton: Pease (17132) 1918; Batchelders Grant: Eastman (112) 1973; Buckfield: Campbell (1389) 1974; Oxford: Weatherby (506) 1906; Paris: Richards (6291) 1955.

J. virginiana L. var. *crebra* Fern. & Grisc. Fields. Occasional. Canton: Parlin (Report) 1908; Hartford: Adams 1936; Albany: Hodgdon, Lincoln, and Steele 1957, Steele (2487) 1957; Denmark: Norton 1927; Brownfield: Norton 1892; Porter: Gordon (909) 1929, Campbell and Eastman (999) 1974.

TYPHACEAE (CAT-TAIL FAMILY)

TYPHA L. Cat-tail.

T. latifolia L. Swales and ditches. Common. Batchelders Grant: Campbell (290) 1973.

T. angustifolia L. Ditches where road salt may have accumulated. Adventive from further south. West Paris: Eastman and Wight (517) 1974.

SPARGANIACEAE (BUR-REED FAMILY)

SPARGANIUM L. Bur-reed. [96]

S. androcladum (Engelm.) Morong. Fryeburg: Rossbach (6132) 1964.

S. americanum Nutt. Ponds. Common. Canton: Bean 1935; Peru: Campbell and Eastman (3081) 1975; Woodstock: Blankinship 1894; Greenwood: Pease (27555) 1939, Campbell and Cross (2185) 1974; Stoneham: Campbell (2044) 1974; Fryeburg: Rossbach (6169) 1964; Brownfield: Eastman (548) 1974.

S. chlorocarpum Rydb. Mucky shores. Frequent. Canton: Parlin (7065) 1921; Bethel: Wheeler 1926; Gilead: Campbell and Eastman (473) 1973; Woodstock: Blankinship 1894, Bean 1947; Greenwood: Campbell (3174) 1975; Waterford: Campbell (3179) 1975; Fryeburg: Bean 1964.

S. chlorocarpum f. *acaule* (Beeby) E.G. Voss. (*S. chlorocarpum* var. *acaule* (Beeby) Fern.) Similar habitats. Occasional. Bowmantown: Campbell and Eastman (2243) 1974; Lincoln Plt.: Campbell and Eastman (3241) 1975; Bethel: Wheeler 1926; Woodstock: Bean 1947; Buckfield: Campbell and Eastman (2355) 1974; Waterford: Pease (28788) 1941; Fryeburg: Norton 1920.

S. angustifolium Michx. Deep or shallow water. Occasional. Andover: L.O. Eaton 1898; Peru: Campbell and Eastman (3086) 1975; Woodstock: Eastman (701) 1974; Greenwood: Curtis 1913, Campbell and Cross (2193) 1974; Norway: Eames and Godfrey (9607) 1909; Fryeburg: Pease (25650) 1936, Campbell and Josselyn Botanical Society (3127) 1975.

S. fluctuans (Morong) Robins. Ponds. Occasional. Hartford: Parlin 1908; Woodstock: Pease (25304) 1940, Campbell (2444); West Paris: Campbell (3020) 1975; Norway: Eames and Godfrey 1914; Lovell: Pease (26887) 1938; Stow: Campbell and Eastman (456) 1973.

S. minimum (Hartm.) Fries. Ponds. Occasional. Canton: Gordon (1109) 1935; Woodstock: Campbell (2072) 1974; Greenwood: Pease (26939) 1938; Buckfield: Allen 1880; Norway: Norton 1907, Campbell and von Moschzisker (2981) 1975; Hebron: Allen 1880; Oxford: Bean (2226) 1907.

POTAMOGETONACEAE (PONDWEED FAMILY)

POTAMOGETON L. Pondweed.

P. robbinsii Oakes. Shallow or deep water. Occasional. Sumner: Pease (27580) 1939; Oxford: Campbell (3105) 1975.

P. confervoides Reichenb. Ponds. Local. Bethel: Campbell (2166) 1974.

P. zosteriformis Fern. Slow-flowing river. Fryeburg: Hellquist (4458) 1972.

P. pusillus L. var. *gemmiparus* Robbins. Fryeburg: Pease (25218) 1935, Hellquist (4457) 1972.

P. pusillus var. *tenuissimus* Mert. & Kock. (*P. berchtoldii* Fieber and vars.) [53] Ponds and rivers. Occasional. Gilead: Furbish 1897; Buckfield: Steinmetz (628) 1938; Lovell: Pease (26884) 1938; Stow: Pease (26870) 1938; Fryeburg: Pease (28470) 1940; Hiram: Eastman (773) 1975; Porter: Campbell and Eastman (1896) 1974.

P. obtusifolius Mert. & Koch. Bowmantown: Campbell and Eastman (2247) 1974.

P. spirillus Tuckerm. Ponds and quiet rivers. Frequent. Adamstown: Pease (26379) 1937; Rumford: Campbell (2176) 1974; Gilead: Furbish 1897; Hartford: Parlin 1892; Waterford: Pease (26932) 1938; Lovell: Pease (26883) 1938; Stow: Campbell and Eastman (465) 1973; Oxford: Campbell (3114) 1975; Fryeburg: Pease (25633) 1936, Rossbach (6129) 1964, Campbell and Eastman (2129) 1974; Hiram: Campbell and Frueh (3266) 1975, Eastman (775) 1975; Porter: Campbell and Eastman (1895) 1974.

P. bicupulatus Fern. (*P. capillaceus* Poir.) [88] Ponds. Occasional. Batchelders Grant: Eastman (286) 1973; Albany: Pease (29271) 1941; Peru: Campbell (2056) 1974; Waterford: Campbell (3183) 1975; Oxford: Campbell (3104) 1975.

P. epihydrus Raf. var. *ramosus* (Peck) House. Lakes, ponds, and streams. Common. Parmachenee: Campbell and Eastman (1765) 1974; Magalloway Pt.: Pease (25216) 1935, Rossbach (5259) 1960; Gilead: Furbish 1897, Eastman (256) 1973; Mason: Eastman (292) 1973; Lovell: Campbell and Eastman (1834) 1974; Stow: Campbell and Eastman (467) 1973, (719) 1973, Eastman (296) 1973; Paris: Furbish 1897; Fryeburg: Pease (25193) 1935, (27599) 1939, Harris (26678) 1964, Campbell and Eastman (1590) 1974; Porter: Eastman and Campbell (571) 1974.

P. alpinus Balbrs. Hellquist and Crow (Report) 1980 [55a].

P. amplifolius Tuckerm. Ponds and lakes. Occasional. Parmachenee: Campbell and Eastman (3279) 1975; Roxbury: Campbell (1691) 1974; Buckfield: Steinmetz (626) 1938; Oxford: Campbell (3110) 1975.

P. pulcher Tuckerm. Rivers. Porter: Hellquist and E.C. Ogden 1974.

P. nodosus Poir. Rivers. Infrequent. Lincoln Plt.: Campbell and Eastman (3236) 1975; Gilead: Furbish 1897, Campbell (2396) 1974; Fryeburg: Rossbach (6177) 1964.

P. gramineus L. Ponds, lakes, and rivers. Common. Parmachenee: Campbell and Eastman (3278) 1975; Lincoln Plt.: Campbell and Eastman (3235) 1975; Upton: C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2309) 1974; Bethel: Wheeler 1927; Woodstock: Pease (28314) 1940; Greenwood: Campbell and Cross (2195) 1974; Buckfield: Allen 1880, Steinmetz (627) 1938; Waterford: Campbell (3181, 3182) 1975.

P. gramineus var. *maximus* Morong. Gilead: Furbish 1897; Fryeburg: Campbell and Eastman (2130) 1974.

P. gramineus X *perfoliatus* var. *bupleuroides*. Lincoln Plt.: Campbell and Eastman (3239) 1975.

P. natans L. Lakes and ponds. Common. Magalloway Plt.: Pease (925217) 1935, Campbell and Eastman (2134) 1974; Upton: Brewster 1907; Bethel: Wheeler 1927; Gilead: Furbish 1897; Hartford: Parlin 1892; Albany: Campbell (2029) 1974; Buckfield: Steinmetz (630) 1939; Porter: Campbell and Eastman (1892) 1974, Campbell (2485) 1974.

P. oakesianus Robbins. Lower Cupsuptic: Campbell (2463) 1974; Gilead: Furbish 1897; Fryeburg: Campbell and Eastman (1592) 1974.

P. praelongus Wulfen. Ponds. Hebron: Campbell, A. and R. Bradford, and Eastman (1664) 1974.

P. perfoliatus L. var. *bupleuroides* (Fern.) Farw. Ponds and lakes. Occasional. Parmachenee: Campbell and Eastman (3281) 1974; Lincoln Plt.: Campbell and Eastman (3237) 1975; Paris: Furbish 1897; Brownfield: Norton 1920.

NAJADACEAE (NAIAD FAMILY)

NAJAS L. Naiad.

N. flexilis (Willd.) Rostk. & Schmidt. Shallow water of lakes and ponds. Frequent. Adamstown: Pease (26380) 1937; Canton: Steinmetz (680) 1938; Sumner: Parlin 1892; Waterford: Pease (26983) 1938, Campbell (2264) 1974; Lovell: Pease (26888) 1938; Fryeburg: Pease (25196) 1935, (25632) 1936, (27595) 1938; Hiram: Campbell and Frueh (3276) 1975, Eastman (776) 1975; Porter: Campbell and Eastman (1897) 1974.

JUNCAGINACEAE (ARROW-GRASS FAMILY)

SCHEUCHZERIA L.

S. palustris L. var. *americana* Fern. Sphagnous bogs. Local. Greenwood: Curtis 1913; Stow: Campbell and Josselyn Botanical Society (3132) 1975; Oxford: Weatherby 1904.

ALISMATACEAE (WATER-PLANTAIN FAMILY)

ALISMA L. Water-Plantain. [95]

A. plantago-aquatica L. (includes both *A. triviale* Pursh. and *A. subcordatum* Raf.) Shores and ditches. Infrequent. Dixfield: Campbell (2288) 1974; Canton: Rowell 1941; Fryeburg: Bean, Rossbach (6172) 1964; Denmark: V. Merrill 1913; Brownfield: Brower 1964, Campbell (1979) 1974.

SAGITTARIA L. Arrowhead.

S. graminea Michx. Shores and swales. Common. Canton: Pease (19635) 1925; Peru: Campbell and Eastman (3084) 1975; Gilead: Furbish 1897; Sumner: Bean 1936; Woodstock: Campbell (3090) 1975; Greenwood: Curtis 1913; Stoneham: Pease (17868) 1920, (23028) 1938; Norway: Pease (24117) 1934; Waterford: Pease (28771) 1941; Stow: Eastman and Campbell (288) 1973; Fryeburg: Pease (18099) 1921, (19413) 1924, Rossbach (6130) 1964; Brownfield: V. Merrill 1912, Harris (26721) 1964, Campbell (2970) 1975; Hiram: Campbell and Frueh (3252) 1975.

S. latifolia Willd. Shores. Infrequent. Fryeburg: Bean 1964.

S. latifolia f. *hastata* (Pursh) Robins. Shores. Occasional. Upton: C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2318) 1974; Bethel: Wheeler 1927; Woodstock: Blankinship 1894; Greenwood: Campbell and Cross (2186) 1974.

S. latifolia f. *gracilis* (Pursh) Robins. Shores. Frequent. Magalloway Pt.: Pease (25205) 1935; Bethel: Wheeler 1927; Gilead: Furbish 1897, Brown 1919, Eastman (321) 1973; Greenwood: Bean 1947; Albany: Pease (23033) 1932; Fryeburg: Pease (25666) 1936; Brownfield: Merrill 1934; Hiram: V. Merrill 1912.

S. latifolia f. *obtusa* (Muhl.) Wieg. Shores. Infrequent. Bethel: Wheeler 1928.

S. cuneata Sheldon. Shores. Infrequent. Upton: Brewster 1907.

HYDROCHARITACEAE (FROG'S-BIT FAMILY)

ELODEA Michx. Waterweed.

E. canadensis Michx. Lakes and ponds. Infrequent. Parmachenee: Campbell and Eastman (3276) 1975; Sumner: Campbell (2088) 1974 (sterile material only).

E. nuttallii (Planch) St. John. Shallow or deep water. Occasional. Upton: C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2311) 1974; Gilead: Eastman (369) 1973; Fryeburg: Harris (26701) 1964, Rossbach (6137) 1964, Campbell and Eastman (1589) 1974; Brownfield: Eastman (472) 1974.

VALLISNERIA L. Tapegrass. Eelgrass.

V. americana Michx. Shallow or deep water. Frequent. Upton: Brewster 1907, C.S. Campbell, A.S. Campbell, and G.H. Campbell (2312) 1974; Gilead: Eastman (290) 1973; Lovell: Campbell and Eastman (1827) 1974; Stow: Campbell and Eastman (469) 1973; Fryeburg: Pease (27596) 1939.

POACEAE (GRASS FAMILY)

(Unless indicated otherwise, generic limits and familial classification follow Gould, [43].)

BROMUS L. Brome-Grass [71]

B. latiglumis (Shear) Hitchc. Rich or alluvial woods. Infrequent. Newry: Wheeler 1926; Hartford: Parlin 1943.

B. pubescens Willd. (*B. purgans* L.) Rich, rocky woods. Local. Porter: Campbell and Eastman (1904) 1974.

B. ciliatus L. Fields and thickets. Frequent. Grafton: Bean 1931; Dixfield: Bean 1931; Canton: Bean 1932; Bethel: Wheeler 1925; Gilead: Eastman (202) 1973, Campbell and Eastman (484) 1973; Hebron: Bean 1936; Brownfield: Campbell and Eastman (3157) 1975.

B. ciliatus var. *intonsus* Fern. Similar habitats. Frequent. Bowman-town: Campbell and Eastman (2250) 1974; Andover North Surplus: Bean 1939; Bethel: Boott 1865; Gilead: Furbish 1897, Campbell and Eastman (344) 1973; Woodstock: Parlin 1887; Hebron: Allen 1887.

B. dudleyi Fern. Similar to the preceding species. Fields. Occasional. Lynchtown: Campbell and Eastman (1763) 1974, (1881) 1974; Rumford: Campbell (2299) 1974; Batchelders Grant: Campbell (278) 1973.

**B. inermis* Leys. Roadsides and fields. Frequent. Magalloway Plt.: Campbell and Eastman (2997) 1975; Gilead: Campbell and Eastman (483) 1973; Stoneham: Campbell (2019) 1974; Batchelders Grant: Eastman (238) 1973; Buckfield: Parlin (14590) 1941; Stow: Eastman and Keenan (740) 1975; Denmark: Richards (6114) 1954; Porter: Campbell and Eastman (1891) 1974.

**B. inermis* f. *aristatus* (Schur.) Fern. Dixfield: Campbell (1032) 1974; Hiram: Merrill 1923.

**B. inermis* f. *aristatus* f. *villosus* (Mert. & Koch) Fern. Hebron: Eastman (647) 1974.

B. kalmii Gray. Low, sandy woods. Oxford: Weatherby 1914.

**B. secalinus* L. Bethel: Wheeler 1938; Denmark: Merrill 1894; Hiram: Merrill 1910.

**B. secalinus* f. *hirsutus* (F. Shultes) F.C. Seymour. Bethel: Wheeler 1938.

**B. commutatus* Schrad. Bethel: Wheeler 1935.

VULPIA. K.C. Gmel.

V. myuros (L.) K.C. Gmel. Woolwaste. Oxford: Chamberlain 1907.

FESTUCA L. Fescue. [95]

**F. ovina* L. Fields and roadsides. Frequent. Gilead: Campbell and Eastman (361) 1973; Sumner: Merrill 1931; Albany: Campbell (954) 1974; Batchelders Grant: Campbell (285) 1973; Buckfield: Campbell (1078) 1974.

**F. tenuiflora* Sibth. (*F. capillata* Lam.). Dry, open sites. Infrequent. Canton: Campbell (3723) 1977; Bethel: Wheeler 1929; Albany: Pease (27849) 1940.

F. rubra L. Fields and roadsides. Frequent. Dixfield: Campbell (2954) 1975; Bethel: Wheeler 1929; Gilead: Eastman (170) 1973, Campbell and Eastman (360) 1973; Greenwood: Campbell and Eastman (1162) 1974; Albany: Pease (28709) 1941; Waterford: Bean 1946; Hiram: Merrill 1927, 1931, 1932, 1934.

F. rubra f. *squarrosa* (Fries) Holmb. Hiram: Merrill 1934.

F. rubra var. *mutica* Hartm. Dixfield: Campbell (2953) 1975.

F. rubra var. *arenaria* (Osbeck) Fries. Hiram: Merrill 1924.

**F. pratensis* Hudson. (*F. elatior* L.). Meadows and roadsides. Frequent. Dixfield: Parlin (2433) 1908, Campbell (1642) 1974; Bethel: Wheeler 1935; Woodstock: Parlin 1887; Stoneham: Campbell (1742) 1974; Batchelders Grant: Campbell (13) 1973, (45) 1973, (243) 1973; Oxford: Chamberlain 1907, Campbell (2879) 1975; Hiram: Merrill 1943.

**F. arundinacea* Schreber. Roadsides and fields. Paris: Campbell (1401) 1974; Fryeburg: Campbell (2976) 1975.

F. obtusa Biehler. Rich woods. Local. Canton: Parlin and MacGown (14567) 1941; Porter: Eastman (415) 1974.

LOLIUM L. Darnel.

**L. perenne* L. Persistent in lawns or sowed roadside bankings. Infrequent. Bethel: Wheeler 1938.

**L. multiflorum* Lam. Italian Rye-Grass. Similarly established. More frequent. Gilead: Campbell (386) 1973; Stow: Campbell (142) and Eastman (129) 1973; West Paris: Campbell (2561) 1974.

**L. multiflorum* var. *diminutum* Mutel. Bethel: Wheeler 1938.

PUCCINELLIA Parl.

P. pallida (Torr.) Clausen. (*Glyceria pallida* (Torr.) Trin.). [17] Low thickets. Fryeburg: Campbell and Hotchkiss (3124) 1975; Hiram: Merrill 1926.

P. fernaldii (Hitchc.) E.G. Voss. (*Glyceria fernaldii* (Hitchc.) St. John). [96] Shores and ditches. Occasional. Lincoln Plt.: Campbell and Eastman (3243) 1975; Grafton: Parlin 1888; Canton: Parlin (15920) 1943; Bethel: Wheeler 1927; Gilead: Campbell and Eastman (569) 1973; Hartford: Parlin 1893; Greenwood: Campbell (3172) 1975; Stow: Campbell and Eastman (464) 1973; Hebron: Allen 1897.

POA L. Meadow-Grass.

**P. annua* L. Low Speargrass. Cultivated or waste ground. Frequent. Batchelders Grant: Eastman (84) 1973; Stoneham: Campbell (2560) 1974; Paris: Campbell (2890) 1975; Hiram: Merrill 1921, 1931.

**P. compressa* L. Canada Bluegrass or wiregrass. Roadsides, dry fields, railroad ballast, and rocky woods. Common. Mexico: Campbell (2852) 1975; Bethel: Wheeler 1928, Campbell (1308) 1974, Campbell (1673) 1974; Gilead: Campbell (389) 1973; Greenwood: Campbell (1485) 1974; Batchelders Grant: Campbell (195) 1973; Oxford: Chamberlain 1907; Fryeburg: Richards (6119) 1954; Denmark: Richards (6163) 1954, Campbell (1295) 1974; Hiram: Merrill 1921, 1934.

P. pratensis L. Bluegrass. Fields and clearings. Both native and introduced from Eurasia. Abundant. Canton: Parlin (15913) 1943; Gilead: Furbish 1897; Hartford: Parlin (17183) 1945; Greenwood: Campbell and Eastman (1103) 1974; Batchelders Grant: Richards (6091) 1954; Stow: Campbell (36) 1973; Oxford: Chamberlain 1907; Paris: Campbell (2887) 1975; Fryeburg: Richards (6160) 1954; Denmark: Campbell (1293) 1974; Hiram: Merrill 1910, Campbell (2904) 1975.

P. angustifolia L. Perhaps best united with the preceding. Canton: Parlin 1893, (15913) 1943; Stoneham: Campbell (1725) 1974; Oxford: Campbell (2924) 1975.

P. trivialis L. Rough-stalked Meadow-grass. Swale. Bowmantown: Campbell and Eastman (2241) 1974.

P. saltuensis Fern. & Wieg. Woods. Frequent. Parmachenee: Campbell and Eastman (1417) 1974; Lynchtown: Campbell and Eastman (3002) 1975; Canton: Parlin (2062) 1906; Bethel: Wheeler 1928; Greenwood: Pease (31900) 1946; Hiram: Merrill 1926.

P. languida Hitchc. Bethel: Wheeler 1928.

P. alsodes Gray. Rich, rocky or alluvial woods. Occasional. Rumford: Campbell (2960) 1975; Canton: Parlin (Report) 1908; Andover: Pease (33461) 1948; Batchelders Grant: Campbell (83) and Eastman (95) 1973; Fryeburg: Campbell (3724) 1977.

P. nemoralis L. Dryish thickets and clearings. Occasional. Rumford: Campbell (2960) 1975; Newry: Pease 1937; Canton: Parlin (16665) 1944; Stow: Campbell (926) 1974; Paris: Campbell (1399) 1974; Oxford: Campbell (2880) 1975.

P. palustris L. Open wet to desiccated sites. Frequent. Bowmantown: Campbell and Eastman (2208) 1974; Lincoln Plt.: Pease (32836) 1947; Dixfield: Campbell (2955) 1975; Canton: Somers (36) 1969; Bethel: Wheeler 1928; Batchelders Grant: Campbell (193) 1973; Buckfield: Parlin (14586) 1941; West Paris: Campbell (2077) 1974; Hebron: Allen 1878; Oxford: Weatherby 1914; Fryeburg: Campbell (2977) 1975; Hiram: Merrill 1909.

P. glauca Vahl. Ledges. Bowmantown: Campbell, Conant, Eastman, and Newman (2825) 1975.

DACTYLIS L. Orchard-Grass.

**D. glomerata* L. Fields and roadsides. Common. Woodstock: Parlin 1887; Batchelders Grant: Eastman (91) 1973, Campbell (46) 1973; Paris: Campbell (1403) 1974; Hiram: Merrill 1910.

SPHENOPHOLIS Scribn. [95]

S. intermedia (Rydb.) Rydb. (*S. intermedia* Rydb.). Canton: Parlin 1906.

TRISSETUM L. [96]

T. spicatum (L.) Richter var. *molle* (Kunth) Beal (*T. spicatum* var. *molle* (Michx.) Beal). Ledges. Occasional. Rumford: Parlin 1889; Newry: Allen 1897; Canton: Parlin (14583) 1941; Milton: Pease (19325) 1924; Bethel: Wheeler 1934; Gilead: Furbish 1897; Oxford: Weatherby 1914; Denmark: Campbell (1286) 1974; Hiram: Merrill 1935.

T. spicatum var. *pilosiglume* Fern. Bowmantown: Campbell and Eastman (2226) 1974, Campbell, Conant, Eastman, and Newman (2835) 1975.

DESCHAMPSIA Beauv. Hairgrass. [95]

D. flexuosa (L.) Beauv. (*D. flexuosa* (L.) Trin.). Dry ledges and boulders. Frequent. Grafton: Norton, Fanning, and Rich (13325) 1919, St. John (17630) 1935, Rossbach (5255) 1960; Bethel: Wheeler 1938; Gilead: Furbish 1897, Campbell and Eastman (320) 1973; Hartford: Parlin 1895; Lovell: Norton (17342) 1920; Stow: Campbell (105 and 139) and Eastman (118) 1973; Hebron: Bean 1934; Fryeburg: Bean 1920, Richards (6125) 1954; Hiram: Merrill 1935.

D. flexuosa f. *flavescens* Sylven. Similar habitats. Batchelders Grant: Campbell (206) 1973; Denmark: Richards (6157) 1954.

D. cespitosa (L.) Beauv. Lake shore. Upton: C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2324) 1974.

D. cespitosa var. *glauca* (Hartm.) Lindm. f. Shores and river banks. Rumford: Parlin 1889; Gilead: Furbish 1897.

AVENA L. Oats.

**A. sativa* L. Waste places and railroad ballast. Infrequent. Bethel: Campbell (1575) 1974; Gilead: Eastman (270) 1973, Campbell (394) 1973.

ARRHENATHERUM Beauv. Oat-Grass.

**A. elatius* (L.) Presl. Bethel: Wheeler 1935.

CALAMAGROSTIS Adans. Reed-Bentgrass.

C. canadensis (Michx.) Nutt. Blue-joint. Moist ground. Common. Bowmantown: Campbell and Eastman (2249) 1974; Lynchtown: Camp-

bell and Eastman (1878) 1974; Upton: Brewster 1907; Roxbury: Campbell (1692) 1974; Peru: Allen 1896; Bethel: Wheeler 1938; Gilead: Furbish 1897; Hartford: Rowell 1943; Woodstock: Parlin 1887; Batchelders Grant: E.C. Ogden (1929) 1939, Campbell (191 and 288) and Eastman (172) 1973; West Paris: Palmer (44589) 1938; Hebron: Allen 1878; Oxford: Bean (2015) 1907; Fryeburg: Richards (6101) 1954; Hiram: Merrill 1910.

C. canadensis var. *robusta* Vasey. Andover West Surplus: Bean 1939; Stoneham: Bean 1925;

C. inexpansa Gray var. *novae-angliae* Stebbins. Peru: Allen 1876. Station not relocated in 1976 (C.W. Greene and C.S. Campbell).

AGROSTIS L. Bentgrass. [95]

**A. gigantea* Roth (*A. alba* L., in part) (occasionally with teratological florets). Roadsides and open places, moist to dry. Frequent. Lynchtown: Campbell and Eastman (1846) 1974; Dixfield: Campbell (1932) 1974; Gilead: Furbish 1897; Hartford: Parlin 1901; Batchelders Grant: Campbell (286) 1973; Stow: Campbell (688) 1973; Fryeburg: Richards (6113) 1954.

**A. stolonifera* L. (*A. alba* L., in part). Similar habitats. Frequent. Bethel: Wheeler 1935 (?); Hartford: Rowell 1943, 1946; Buckfield: Parlin (2554) 1908, (14631) 1941; Oxford: Chamberlain 1907; Fryeburg: Bean (20154) 1920.

**A. tenuis* Sibth. Rhode Island Bent. Roadsides and fields. Common. Lynchtown: Campbell and Eastman (1882) 1974; Lincoln Plt.: Williams 1903; Rumford: Campbell (2959) 1975; Canton: Parlin (17954) 1946; Bethel: Wheeler 1938; Stoneham: Campbell and Myers (487) 1973; Batchelders Grant: Eastman (179) and Campbell (264) 1973; Norway: Campbell (2904) 1975; Hebron: Allen 1878; Oxford: Chamberlain 1907; Denmark: Richards (6112) 1954; Porter: Campbell and Eastman (1910) 1974.

**A. tenuis* f. *aristata* (Sincl.) Wieg. Batchelders Grant: Campbell (287) 1973; Denmark: Richards (6168) 1954.

A. hyemalis (Walt.) BSP Ticklegrass. Hiram: Merrill 1931.

A. scabra Willd. Hairgrass. Roadsides and fields. Common. Parmachenee: Campbell and Eastman (1751) 1974; Lynchtown: Campbell and Eastman (1847) 1974; Upton: Campbell and Eastman (3231) 1975; Grafton: Bean 1934; Hartford: Parlin 1893; Bethel: Wheeler 1939, Campbell (2169 and 2398) 1974; Woodstock: Campbell (2053) 1974; Batchelders

Grant: Wheeler 1938, Campbell (651) 1973; Waterford: Campbell (2336) 1974; Stow: Campbell and Eastman (160) 1973; Oxford: Weatherby 1914; Paris: Steinmetz (690) 1938; Fryeburg: Rossbach (6116) 1964; Brownfield: Campbell (1524) 1974; Hiram: Campbell (2489) 1974.

A. perennans (Walt.) Tuckerm. Upland Bent. Rocky woods and slopes. Frequent. Lincoln Plt.: Campbell and Eastman (3246) 1975; Bethel: Wheeler 1938; Gilead: Furbish 1897; Albany: Steele (2483) 1957; Mason: Wheeler 1931; Batchelders Grant: Wheeler 1938; Stow: Campbell and Josselyn Botanical Society (3150) 1975; Lovell: Pease (29262) 1941; Fryeburg: Pease (25636) 1931; Denmark: Merrill 1891.

A. perennans var. *aestivalis* Vasey. Canton: Parlin (2026) 1906; Hartford: Parlin 1893; Greenwood: Curtis 1913; Mason: Hodgdon and Steele (10502) 1958; Batchelders Grant: Eastman (206) 1973; Buckfield: Parlin (899) 1895, (14634) 1941.

CINNA L. Wood Reedgrass. [95]

C. arundinacea L. Alluvial woods. Local. Newry: Wheeler 1936; Buckfield: Parlin 1895; Fryeburg: Campbell and von Moschzisker (3302) 1975, Moore 1975.

C. latifolia (Goepf.) Griseb. Woods. Common. Bowmantown: Campbell and Eastman (2106) 1974; Lincoln Plt.: Williams 1903; Grafton: Bean 1938; Newry: Bean 1934; Riley: Bean 1939; Canton: Parlin (2293) 1906; Bethel: Wheeler 1938; Gilead: Furbish 1897; Hartford: Parlin 1895, (2710) 1908; Albany: Bean 1938; Stoneham: Bean 1935, Campbell (2023) 1974; Batchelders Grant: Bean 1936, Campbell and Eastman (466) 1973; Hebron: Allen 1897; Oxford: Campbell (2545) 1974.

ANTHOXANTHUM L. Sweet Vernal Grass.

**A. odoratum* L. Roadsides and fields. Very common. Parmachenee: Campbell and Eastman (1812) 1974; Rumford: Parlin 1890; Newry: Richards (5982) 1954; Bethel: Wheeler 1928; Albany: Campbell (939) 1974; Batchelders Grant: Campbell (12) 1973; Hiram: Merrill 1910.

HIEROCHLÖE R. Br. Holy Grass.

H. odorata (L.) Beauv. Meadows and roadsides. Occasional. Andover: Pease (37347) 1953; Grafton: Campbell and Eastman (2769) 1975; Bethel: Anonymous 1866, Campbell and Eastman (2773) 1975; Gilead: Pease (26980) 1938.

H. alpina (Sw.) R. & S. Cold ravine near Mahoosuc Notch. Riley: Pease (17240) 1918, (19758) 1926.

PHALARIS L.

**P. canariensis* L. Canary Grass. Hiram: Merrill.

P. arundinacea L. Wet meadows, shores, and roadsides. Frequent. Bowmantown: Campbell and Eastman (2253) 1974; Bethel: Wheeler 1938; Gilead: Campbell (404) 1973; Buckfield: Allen 1878, Campbell (1384) 1974; Stow: Eastman (215) 1973; Fryeburg: Campbell (1266) 1974; Denmark: Richards (6110) 1954; Hiram: Merrill 1914.

ALOPECURUS L. Foxtail.

**A. pratensis* L. Wet meadows and ditches. Oxford: Campbell (2914) 1975; Paris: Campbell (2886) 1975.

A. aequalis Sobol. Wet ground. Canton: Parlin (2665) 1908, (17996) 1946.

PHLEUM L. Timothy.

**P. pratense* L. Fields and roadsides. Common. Parmachenee: Campbell and Eastman (1814) 1974; Canton: Parlin (2129) 1906; Bethel: Wheeler 1932; Gilead: Campbell (404) 1973; Batchelders Grant: Richards (6094) 1954, Eastman (40) 1973; Hebron: Allen 1878; Brownfield: Campbell (1326) 1974; Hiram: Merrill 1910.

**P. pratense* f. *viviparum* (S. F. Gray) Louis-Marie. Canton: Parlin (2058) 1906; Bethel: Wheeler 1932.

MILIUM L. Millet-grass.

M. effusum L. Rich woods. Becoming frequent in the north. Bowmantown: Campbell and Eastman (2111) 1974; Parmachenee: Campbell and Eastman (1799) 1974; Lynchtown: Campbell and Eastman (1428) 1974; Andover North Surplus: Campbell and Eastman (1106) 1974.

ELYMUS L. Wild Rye. [95]

E. virginicus L. Rich thickets. Frequent. Upton: Campbell, Eastman, and Richards (3049) 1975; Rumford: Campbell (2298) 1974; Canton: Bean 1935; Bethel: Wheeler 1928; Gilead: Furbish 1897; Woodstock: Parlin 1887; Batchelders Grant: Eastman (365) 1973; Lovell: Pease (29263) 1941.

E. virginicus var. *glabriflorus* (Vasey) Bush. Alluvial woods. Hiram: Eastman (781) 1975.

E. virginicus var. *glabriflorus* f. *australis* (Scribn. & Ball) Fern. Bethel: Wheeler 1928.

E. virginicus f. *jejunus* Ramaley. (*E. virginicus* var. *jejunus* (Ramaley) Bush). Alluvial woods. Lincoln Plt.: Campbell and Eastman (3247) 1975; Fryeburg: Campbell and Eastman (3136) 1975.

E. riparius Wieg. Buckfield: Parlin 1895; Fryeburg: Pease (25634) 1936; Fryeburg: Campbell and Eastman (3135) 1975.

E. wiegandii Fern. Alluvial thickets. Rumford: Parlin 1889, Campbell (2305) 1974; Canton: Parlin 1906.

E. canadensis L. Hiram: Merrill 1909.

HYSTRIX Moench. Bottle-brush Grass. [95]

H. patula Moench. Rich, rocky woods. Infrequent. Woodstock: Campbell (2067) 1974; Hiram: Campbell (2488) 1974; Porter: Campbell and Eastman (1920) 1974.

H. patula f. *bigeloviana* (Fern.) Gl. (*H. patula* var. *bigeloviana* (Fern.) Deam). Similar habitats. Less common. Porter: Merrill 1929.

HORDEUM L.

**H. jubatum* L. Squirrel-tail Grass. Waste places. Bethel: Campbell (1305) 1974.

**H. vulgare* L. Barley. Waste places. Gilead: Campbell (397) 1973.

AGROPYRON Gaertn.

A. trachycaulum (Link) Malte. Denmark: Richards (6134) 1954.

A. trachycaulum var. *majus* (Vasey) Fern. Rocky woods. Infrequent. Porter: Campbell and Eastman (1917) 1974.

A. trachycaulum var. *novae-angliae* (Scribn.) Fern. Woods and thickets. Occasional. Rumford: Pease (34651) 1949; Gilead: Furbish 1897; Albany: Pease (27289) 1939; Stow: Campbell and Eastman (172) 1973; Brownfield: Eastman (736) 1975.

A. trachycaulum var. *glaucum* (Pease & Moore) Malte. Gravelly shores. Infrequent. Lynchtown: Campbell and Eastman (1880) 1974; Hartford: Parlin (2584) 1908.

A. repens (L.) Beauv. Witch-Grass. Roadside and fields. Common. Newry: Richards (5996) 1954; Canton: Parlin 1906; Gilead: Furbish 1897; Woodstock: Parlin 1887; Batchelders Grant: Campbell (197) 1973; Hebron: Allen 1878; Oxford: Norton 1907; Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Fryeburg: Norton (17345) 1920; Hiram: Merrill.

A. repens f. *aristatum* (Schum.) Holmb. Open, gravelly or sandy spots. Frequent. Mason: Campbell (242) 1973; Batchelders Grant: Campbell (183) 1973, (279) 1973; Lovell: Pease (17284) 1918; Paris: Campbell (1378) 1974; Brownfield: Campbell (1525) 1974.

A. repens f. *trichorrhachis* Rohlena. Hebron: Allen 1878.

A. repens f. *pilosum* (Scribn.) Fern. Waterford: Bean 1940.

A. repens var. *subulatum* (Schreb.) Reichenb. f. *vaiillantianum* (Wulf. & Schreb.) Fern. Hartford: Parlin (2586) 1908.

TRITICUM

**T. aestivum* L. Railroad ballast. Infrequently adventive. Rumford: Campbell (2956) 1975; Paris: Campbell (1375) 1974.

SECALE L. Rye.

**S. cereale* L. Waste places. Infrequent. Magalloway Pt.: Campbell and Eastman (1144) 1974; Bethel: Wheeler 1938; West Paris: Campbell (2061) 1974.

GLYCERIA R. Br. Manna-Grass.

G. borealis (Nash) Batchelder. Shores. Frequent. Lynchtown: Campbell and Eastman (2987) 1975; Upton: Brewster 1907; Bethel: Wheeler 1938; Hartford: Parlin 1883, Dinsmore 1897; Batchelders Grant: Wheeler 1938, Campbell (276) 1973; Stow: Campbell (716) and Eastman (227) 1973; Oxford: Fellows (4293) 1907; Fryeburg: Norton 1920; Brownfield: Campbell (2969) 1975.

G. melicaria (Michx.) F.T. Hubbard. Wet woods. Frequent. Bowmantown: Campbell and Eastman (2248) 1974; Grafton: Deane 1917; Riley: Curtis 1913, Bean 1939; Gilead: Furbish 1897; Woodstock: Parlin 1887; Mason: Eastman (361) 1974; Batchelders Grant: Wheeler 1938, Campbell (244) 1973; Hebron: Allen 1897; Oxford: Bean (2017) 1907; Brownfield: Merrill 1934.

G. canadensis (Michx.) Trin. Swales and shores. Common. Lower Cupsuptic: Campbell, Eastman, and Richards (3041) 1975; Bethel: Wheeler 1929; Gilead: Furbish 1897, Campbell and Eastman (340) 1973, Eastman and Campbell (187) 1973; Woodstock: Blankinship 1894; Batchelders Grant: Campbell (314) 1973; Stow: Campbell (430) 1973; Hebron: Allen 1878; Fryeburg: Campbell (1568) 1974; Brownfield: Merrill 1934; Hiram: Merrill 1909, 1910.

G. striata (Lam.) Hitchc. Wet woods. Frequent. Bowmantown: Campbell and Eastman (2251) 1974; Parmachenee: Campbell and East-

man (1787) 1974; Canton: Parlin (1967) 1906; Woodstock: Parlin 1887; Batchelders Grant: Eastman (178) and Campbell (315) 1973, Richards (6093) 1954; Buckfield: Parlin (2618); Stow: Campbell and Eastman (146) 1973, Campbell (431) 1973; Fryeburg: Campbell (1568a) 1974; Norway: Chamberlain 1907; Denmark: Richards (6140) 1954, Campbell (1270) 1974.

G. striata var. *stricta* (Scribn.) Fern. Oxford: Campbell (2915) 1975.

G. grandis S. Wats. Shores and wet areas. Frequent. Oxbow: Campbell and Eastman (1864) 1974; Bethel: Pease (27320) 1939, Campbell (3097) 1975; Gilead: Furbish 1897, Campbell and Eastman (472) 1973; Woodstock: Parlin 1887; Hebron: Eastman and Wight (442) 1974; Oxford: Bean (2016) 1907; Fryeburg: Bean 1920; Hiram: Merrill 1910, 1927.

G. grandis f. *pallescens* Fern. Greenwood: Campbell (1502) 1974.

SCHIZACHNE Hack.

S. purpurascens (Torr.) Swallen. Rich woods and alluvial thickets. Occasional. Parmachenee: Campbell and Eastman (1421) 1974; Canton: Parlin (17799) 1946; Bethel: Wheeler 1938; Woodstock: Parlin 1887, Campbell (1465) 1974; Greenwood: Campbell and Eastman (1007) 1974; Mason: Campbell, Eastman, and Richards (1482) 1974; Porter: Campbell and Eastman (1358) 1974.

S. purpurascens f. *albicans* Fern. Greenwood: Campbell and Eastman (1159) 1974.

ORYZOPSIS Michx. Mountain-Rice.

O. asperifolia Michx. Woods and clearings. Frequent. Andover: Pease (33469) 1948; Newry: Norton (17065) 1920; Bethel: Curtis 1913, Wheeler 1925; Woodstock: Parlin 1887; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Campbell and Eastman (82) 1973; Stow: Campbell and Eastman (145) 1973; Oxford: Weatherby 1914; Denmark: Pease (19628) 1925.

O. racemosa (Sm.) Ricker. Rich, rocky woods. Occasional. Albany: Hodgdon, Lincoln, and Steele 1957; Stow: Campbell and Josselyn Botanical Society (3151) 1975; Hiram: Merrill 1910; Porter: Campbell and Eastman (1905) and Campbell (2535) 1974.

O. pungens (Sprengel) Hitchc. Dry, open areas. Frequent. Canton: Parlin (2033) 1906, (2418) 1908; Bethel: Wheeler 1930; Hartford: Parlin (1937) 1906; Waterford: Pease (28607) 1941; Oxford: Allen 1897,

Weatherby 1914; Fryeburg: Norton (17344) 1920; Brownfield: Campbell and Eastman (997) 1974; Porter: Campbell (912) 1974, (2760) 1975.

O. canadensis (Poir.) Torr. Ledges and mountain slopes. Local. Rumford: Parlin (975) 1889, Pease (19294) 1924; Denmark: Fellows (no date), Richards (6152) 1954.

BRACHYELYTRUM Beauv.

B. erectum (Roth) Beauv. var. *septentrionale* Babel. Woods. Common. Bethel: Curtis 1913, Wheeler 1938; Woodstock: Parlin 1887; Batchelders Grant: Campbell (205 and 310), Eastman (171) 1973; West Paris: Palmer (44571) 1938; Oxford: Weatherby 1914.

DIGITARIA Heist. Crab-Grass.

**D. ischaemum* (Schreb.) Muhl. Waste ground. Frequent. Canton: Parlin (2661) 1908, Bean 1935; Fryeburg: Rossbach (5240) 1960; Peru: Parlin 1886.

**D. sanguinalis* (L.) Scop. Waste places. Frequent. Rumford: Campbell (1699) 1974; Bethel: Wheeler 1938; Fryeburg: Campbell (1710) 1974.

PANICUM L. Panic-Grass. (The last 10 species probably better placed in the genus *Dichanthelium* [43a])

P. dichotomiflorum Michx. Perhaps adventive from southward. Waste ground and shores. Bethel: Campbell (2047 and 2382) 1974; Hiram: Campbell and Frueh (3250) 1975.

P. dichotomiflorum var. *geniculatum* (Wood) Fern. Bethel: Campbell (2382) 1974.

P. capillare L. Roadsides and fields. Common. Bethel: Wheeler 1930; Gilead: Eastman (300) 1973; Hebron: Campbell (1957) 1974; Hiram: Merrill 1910.

P. tuckermanii Fern. Beaches and road shoulders. Canton: Parlin (1935) 1906; Milton: Pease (39592) 1959; Gilead: Eastman (248) 1973; Sumner: Pease (27581) 1939, Campbell (2089) 1974; Fryeburg: Pease (17899) 1920.

**P. miliaceum* L. Proso. Broom corn. Millet. Waste places. Magalloway Plt.: Eastman and Campbell (783) 1975; Bethel: Campbell (3033) 1975; Fryeburg: Harris (26705) 1964.

P. virgatum L. var. *spissum* Linder. Sandy shores. Occasional. Lovell: Pease (17288) 1918; Fryeburg: Pease (17882) 1918, Eastman (656) 1971, 1972.

P. rigidulum Nees (*P. agrostoides* Spreng.) [96] Pond margins, river shores, and low meadows. Occasional. Waterford: Pease (26905) 1938; Fryeburg: Pease (17881) 1920, (19623) 1925, Rossbach (6148) 1964; Denmark: Merrill 1894; Brownfield: Merrill (1240) 1896, Campbell (1980) 1974; Hiram: Campbell and Frueh (3258) 1975.

P. depauperatum Muhl. Dry woods and shaded ledges. Occasional. Rumford: Knowlton 1893; Gilead: Furbish 1897; Stow: Campbell and Eastman (182) 1973; Hebron: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Fryeburg: Campbell (1336) 1974.

P. depauperatum var. *involutum* (Torr.) Wood. (*P. depauperatum* var. *psilophyllum* Fern.) [96]. Woods. Similar habitats. Common. Canton: Parlin 1906; Bethel: Curtis 1913, Pease (27319) 1939; Gilead: Furbish 1897; Buckfield: Campbell (1079) 1974; West Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Norway: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Stow: Eastman and Campbell (142) 1973, Campbell (1263) 1974; Oxford: Eastman and Campbell (649) 1974; Denmark: Campbell (1294) 1974; Porter: Campbell (1052) 1974.

P. linearifolium Britt. Dry, sandy soil. Occasional. Canton: Parlin (1956 and 1971) 1906, 1919; Buckfield: Parlin (2154) 1907; Norway: Chamberlain 1907; Oxford: Weatherby 1914, Campbell (2922) 1975; Brownfield: Campbell (1336) 1974; Hiram: Merrill 1924.

P. linearifolium var. *wernerii* (Britt.) Fern. (*P. linearifolium* var. *wernerii* (Scribn.) Fern.) [95] Rumford: Pease (32867) 1947; Waterford: Bean 1946; Fryeburg: Pease (36654) 1952; Hiram: Campbell (1530) 1974.

P. boreale Nash. Roadsides, meadows, and shores. Common. Town-ship C: Robinson 1903; Dixfield: Campbell (2951) 1975; Rumford: Campbell (2957) 1975; Canton: Parlin (2013) 1906; Bethel: Campbell (2401) 1974; Gilead: Furbish 1897; Hartford: Parlin (1423) 1901, Perkins 1938; Greenwood: Campbell and Eastman (1173) 1974; Albany: Pease (28128) 1940; Batchelders Grant: Eastman and Campbell (197) 1973; Norway: Fellows (4254) 1907; Sweden: Pease (17139) 1918; Stow: Eastman and Campbell (137) 1973; Oxford: Weatherby 1914; Paris: Hunnewell (11994) 1931; Fryeburg: Campbell and Eastman (3064) 1975; Denmark: Merrill 1894, Steinmetz (1249) 1946.

P. spretum Schultes. Shores and meadows. Infrequent. Waterford: Pease (26883) 1938; Fryeburg: Farlow 1912, Pease (19624) 1925.

P. languinosum Ell. var. *fasciculatum* (Torr.) Fern. Dry, sandy soil. Common. Canton: Parlin (2074) 1906, (2680) 1908, (24570) 1941, and MacGown 1946; Bethel: Campbell (1304) 1974; Gilead: Furbish 1897,

Campbell (445) 1973; Hartford: Parlin (2016) 1906; Greenwood: Campbell and Eastman (1161) 1974; Batchelders Grant: E.C. Ogden (1891) 1939; West Paris: Eastman (649) 1972; Stow: Eastman (650) 1974; Oxford: Weatherby 1917; Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Fryeburg: Bean 1920.

P. languinosum var. *implicatum* (Scribn.) Fern. Similar habitats. Common. Canton: Parlin (2000) 1906, (2679) 1908; Bethel: Wheeler 1928; Hartford: Parlin (2491) 1908, (14792) 1942; Albany: Pease (27854) 1940; Mason: Hodgdon and Steele (10548) 1958; Stow: Campbell (410 and 427) 1973; Brownfield: Campbell (1316) 1974; Hiram: Merrill 1934.

P. languinosum var. *lindheimerii* (Nash) Fern. Similar habitats. Infrequent. Oxford: Chamberlain 1907.

P. languinosum var. *septentrionale* Fern. Similar habitats. Occasional. Parmachenee: Campbell and Eastman (1768) 1974; Canton: Parlin (1958) 1906, (15862 and 15887) 1943; Bethel: Hodgdon and Steele (10546) 1958; Stoneham: Eastman (646) 1970; Stow: Eastman (651) 1974; Hebron: Eastman and Campbell (488) 1974; Brownfield: Merrill 1909, Campbell (2973) 1975.

P. subvillosum Ashe. Dry soil. Occasional. Canton: Parlin (2001) 1906, (2421) 1908, (15937 and 15976) 1943; Gilead: Eastman (333) 1973; Batchelders Grant: Eastman and Campbell (213) 1973; Norway: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Oxford: Weatherby 1914; Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Oxford: Campbell (2881) 1975.

P. columbianum Scribn. Canton: Parlin (2014) 1906; Oxford: Weatherby 1914.

P. xanthophysum Gray. Dry soil of woods and roadsides. Frequent. Rumford: Parlin 1939; Canton: Parlin (2034 and 2289) 1906, (2428) 1908, 1946; Bethel: Pease (27318) 1939; Gilead: Furbish 1897, Pease (17417) 1919; Albany: Pease (23034) 1932, Hodgdon, Lincoln and Steele 1957, Campbell (1526) 1974; Buckfield: Allen 1878; Norway: Richards (6264) 1955; Waterford: Pease (28706) 1941; Sweden: Pease (17141) 1919; Lovell: Pease (26896) 1938; Hebron: Chamberlain (101) 1900; Oxford: Weatherby 1914; Denmark: Pease (19632) 1925; Porter: Campbell (1566) and Eastman (648) 1974.

P. clandestinum L. Thickets, woods, and sandy roadsides, often damp. Common. Rumford: Parlin 1889; Bethel: Wheeler 1928; Gilead: Furbish 1897, Campbell (390) 1973; Stow: Campbell (429) 1973; Hebron: Eastman and Campbell (494) 1974; Oxford: Weatherby 1914;

Fryeburg: Fellows (3737) 1905, Pease (33192) 1958, Richards (6103) 1954, Rossback (6107) 1964; Brownfield: Fellows (230) 1905, Campbell (1526) 1974; Hiram: Campbell (1530) 1974.

P. latifolium L. Dry woods. Infrequent. Stoneham: Pease (17885) 1920; Stow: Eastman (144) 1973; Oxford: Chamberlain 1907; Brownfield: Campbell (2962) 1975.

ECHINOCHLOA Beauv. [96]

**E. crusgalli* (L.) Beauv. Waste places. Frequent. Rumford: Parlin 1890; Bethel: Campbell (700) 1973, (1747) 1974; Fryeburg: Campbell (1992 and 2499) 1974; Hiram: Merrill 1910.

**E. crusgalli* var. *frumentacea* (Link) W.F. Wight. (*E. frumentacea* (Roxb.) Link) Japanese Millet. Waste places. Canton: Bean 1935.

**E. crusgalli* var. *longiseta* (Trin.) Farw. Gilead: Furbish 1897, Eastman (254) 1973; Oxford: Campbell (1976) 1974.

E. muricata (Beauv.) Fern. (*E. pungens* (Poir.) Rydb.) Moist, often alluvial soil. Occasional. Rumford: Campbell (2301) 1974; Gilead: Eastman (326) 1973; Oxford: Campbell (2546) 1974; Hiram: Campbell and Frueh (3257) 1975.

SETARIA Beauv. Bristly Foxtail.

**S. glauca* (L.) Beauv. Waste places. Frequent. Dixfield: Campbell (1935) 1974; Gilead: Furbish 1897, Campbell (387) 1973; Hiram: Merrill 1910, 1921, and 1934; Porter: Campbell (1991) 1974.

**S. verticillata* (L.) Beauv. Waste places. Occasional. Canton: Parlin 1939; Bethel: Wheeler 1925; Gilead: Eastman (253) 1973.

**S. viridis* (L.) Beauv. Waste places. Infrequent. Bethel: Campbell (2384) 1974; Hiram: Merrill 1910, Campbell (3290) 1975.

**S. italica* (L.) Beauv. Waste places. Frequent. Rumford: Parlin 1889; Bethel: Wheeler 1925; Gilead: Furbish 1897, Eastman (287) 1973; Paris: Thompson (1028) 1892.

ANDROPOGON L. Beardgrass.

A. gerardii Vitman. Big Bluestem. Gravelly or sandy soil. Frequent. Grafton: Pease (37335) 1955; Dixfield: Parlin 1895, Bean 1934, Campbell (1925) 1974; Mexico: Knowlton 1937; Canton: Parlin (2292) 1906, (2692) 1908, Bean 1934, Campbell (1925) 1974; Bethel: Furbish 1897, Pease (23856) 1933, Wheeler 1938; Gilead: Furbish 1897; Brownfield: Eastman (606) 1974; Hiram: Merrill 1910, Campbell (2526) 1974.

SCHIZACHYRIUM Nees. [42]

S. scoparium (Michx.) Nash. (*Andropogon scoparius* Michx.). Little Bluestem. Roadsides and sterile fields. Common. Dixfield: Campbell (1940) 1974; Rumford: Parlin 1886; Canton: Rossbach (5241) 1960; Bethel: Pease (23858) 1933; Gilead: Furbish 1897; Lovell: Pease (17294) 1918; Fryeburg: Rossbach (6141) 1964.

ERAGROSTIS Beauv. Love-grass. [63]

**E. cilianensis* (All.) Mosher (*E. megastachya* (Koel.) Link.) Waste places. Occasional. Canton: Parlin (7016) 1920, (15995) 1943; Bethel: Wheeler 1921; Sumner: Merrill 1920; Buckfield: Allen 1894, Parlin 1938; Fryeburg: Merrill 1910; Hiram: Merrill 1931.

**E. minor* Host (*E. poaeoides* Beauv.) Railroad ballast. Rumford: Campbell (2274) 1974; Bethel: Campbell (2362) 1974; Gilead: Eastman (291) 1973.

**E. neomexicana* Vasey. Waste places. Oxford: Campbell (3112, 3119) 1975.

**E. pectinacea* (Michx.) Nees. Mostly in railroad ballast. Frequent. Mexico: Campbell (2455) 1974; Woodstock: Campbell (3088) 1975; Greenwood: Campbell and Cross (2204) 1974; Hebron: Campbell (2365) 1974; Hiram: Campbell and Frueh (3256) 1975.

**E. pilosa* (L.) Beauv. Gilead: Eastman (362) 1973.

**E. multicaulis* Steud. Buckfield: Parlin (14639) 1941; Oxford: Campbell (3121) 1975.

E. capillaris (L.) Nees. Dry, open areas. Infrequent. Canton: Parlin (2037) 1906, (2701) 1908, (15997) 1943.

E. spectabilis (Pursh) Steud. var. *sparsihirsuta* Farw. Hiram: Pease (28272) 1940.

MUHLENBERGIA Schreb.

M. sobolifera (Muhl.) Trin. Rich, rocky woods. Local. Hiram: Campbell (2487) 1974.

M. sylvatica Torr. Woods and thickets. Occasional. Hartford: Bean 1945; Bethel: Wheeler 1938, Campbell (2172) 1974; Woodstock: Campbell (2433) 1974; Albany: Steele (2526) 1957; Waterford: Campbell (2345) 1974; Hiram: Merrill 1910; Porter: Campbell and Eastman (1907) 1974.

M. mexicana (L.) Trin. Roadsides, woods, and clearings. Frequent. Rumford: Campbell (2300 and 2533) 1974; Riley: Bean 1945; Bethel: Wheeler 1938; Gilead: Furbish 1897, Eastman (711) 1973; Woodstock: Parlin 1887; Greenwood: Campbell and Cross (2197) 1974; Albany: Hodgdon, Lincoln and Steele 1957; Stow: Pease (35052) 1952; Hebron: Campbell (2366) 1974; Fryeburg: Harris (26707), Rossbach (6139) 1964; Brownfield: Eastman (617) 1974; Hiram: Campbell and Frueh (3259) 1975.

M. mexicana f. *setiglumis* (S. Wats.) Fern. Hartford: Parlin 1893.

M. mexicana f. *ambigua* (Torr.) Fern. Waterford: Campbell (2342) 1974.

M. frondosa (Poir.) Fern. f. *commutata* (Scribn.) Fern. Rumford: Parlin 1889; Stow: Eastman (310) 1973.

**M. racemosa* (Michx.) BSP. Hiram: Merrill 1910.

M. glomerata (Willd.) Trin. Meadows and shores. Occasional. Greenwood: Campbell and Cross (2206) 1974; Albany: Campbell and Eastman (2267) 1974; Hebron: Campbell and Eastman (2367) 1974; Brownfield: Eastman (612) 1974.

M. glomerata f. *cinnoides* (Link) F.J. Herm. Bethel: Wheeler 1928; Gilead: Eastman (366) 1973; Batchelders Grant: Campbell and Myers (500) 1973.

M. uniflora (Muhl.) Fern. Moist, open ground. Frequent. Bethel: Parlin 1889, Wheeler 1929; Sumner: Parlin 1890; Greenwood: Curtis 1913, Pease (19086) 1922; Buckfield: Allen 1877, Campbell and Eastman (2358) 1974; West Paris: Bean 1947; Waterford: Pease (31717) 1945; Lovell: Pease (17289) 1918; Hebron: Campbell (2374) 1974; Oxford: Campbell (1975) 1975; Fryeburg: Pease (25641) 1936; Denmark: Campbell and Eastman (3156) 1975.

SPOROBOLUS R. Br. Dropseed.

S. vaginiflorus (Torr.) Wood var. *inaequalis* Fern. Railroad ballast. Bethel: Campbell (3286) 1975; Brownfield: Campbell (3305) 1975.

SPARTINA Schreb. Cord- or Marsh-Grass.

S. pectinata Link. Swales and marshy shores. Infrequent. Lovell: Campbell and Eastman (1830) 1974; Fryeburg: Farlow 1902, Pease (17298) 1918, (17880) 1920, (19622) 1925, Eastman (558) 1974; Brownfield: Eastman (607) 1974.

S. pectinata var. *suttiei* (Farw.) Fern. Similar habitats. Fryeburg: Farlow 1911.

ARISTIDA L. Triple-awned Grass.

A. basiramea Vasey. Poverty Grass. Roadsides and sterile fields. Occasional. Canton: Parlin (16066) 1943; Bethel: Campbell (3285) 1975; Gilead: Wheeler 1938; Buckfield: Parlin (13714) 1938; Waterford: Campbell (3178) 1975; Fryeburg: Pease (35660) 1950; Brownfield: Campbell (3209 and 3306) 1975.

LEERSIA Sw. Cutgrass.

L. virginica Willd. var. *ovata* (Poir.) Fern. White Grass. Alluvial woods. Fryeburg: Campbell and Eastman (3157) 1975.

L. oryzoides (L.) Sw. Wet shores. Occasional. Rumford: Pease (33226) 1947; Bethel: Wheeler 1928; Gilead: Campbell (2425) 1974; Sumner: Pease (27579) 1939; Greenwood: Campbell and Cross (2414) 1974; Lovell: Pease (17283) 1918; Stow: Campbell (715) and Eastman (241) 1973; Hiram: Merrill 1910; Porter: Campbell and Eastman (3163) 1975.

ZIZANIA L. Wild Rice.

Z. aquatica L. Shores and water of lakes and ponds up to a few feet in depth. Occasional. Fryeburg: Pease (25674) 1936, Campbell and Eastman (2121) 1974; Porter: Campbell and Eastman (1898) 1974.

Z. aquatica var. *angustifolia* Hitchc. Similar habitats. Parmachenee: Campbell and Eastman (3277) 1975; Upton: Pease (20695) 1930, C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2319) 1974; Fryeburg: Bean 1964.

PHRAGMITES Trin. Reed. [46]

P. australis (Cav.) Steud. (*P. communis* Trin.) Canton: Parlin (2022) 1906.

DANTHONIA DC. Wild Oat-Grass.

D. spicata (L.) Beauv. Dry soil. Common. Parmachenee: Campbell and Eastman (1806) 1974; Hartford: Harris and Bean (29501) 1966; Batchelders Grant: Campbell (200 and 215) 1973; Stow: Campbell and Eastman (118) 1973; Fryeburg: Norton (17348) 1920; Brownfield: Fellows (3442) 1905.

D. spicata var. *pinetorum* Piper. Gilead: Campbell (388) 1973; Stoneham: Campbell and Myers (494) 1973.

D. allenii Aust. Rocky woods and gravelly openings. Infrequent. Oxford: Weatherby 1914; Denmark: Pease (19628) 1925; Porter: Campbell (1567) 1974.

D. compressa Aust. Sandy or gravelly soil. Occasional. Gilead: Furbish 1897, Pease (17418) 1919, Eastman and Campbell (193) 1973; Greenwood: Campbell (1960) 1974; Batchelders Grant: Eastman (36) 1973; Fryeburg: Norton (17347) 1920; Denmark: Campbell, F. and R. Bucknell, and Eastman (3024) 1975.

CYPERACEAE (SEDGE FAMILY)

CYPERUS L. Galingale.

C. filiculmis Vahl. var. *macilentus* Fern. Dry, sandy, open areas. Frequent. Greenwood: Campbell and Cross (2203) 1974; Albany: Campbell (1746) 1974; Norway: Blake 1887, 1911; Oxford: Campbell (2251) 1974; Paris: Neal 1935; Denmark: Eastman and Wells (561) 1974.

C. diandrus Torr. Wet shores and swales. Occasional. Bethel: Wheeler 1937; Gilead: Furbish 1897; Hartford: Gordon (1061) 1933; Sumner: Pease (27582) 1939; Hebron: Campbell and Eastman (3293) 1975.

C. rivularis Kunth. Similar habitats. Infrequent. Dixfield: Campbell (2292) 1974; Hartford: Parlin 1890, 1897; Buckfield: Allen 1876; Norway: Neal 1935; Fryeburg: Harris (26685) 1964.

C. esculentus L. Open, sandy spots, especially cultivated ground. Infrequent. Hanover: Campbell (3292) 1975; Stow: Eastman (528) 1974; Fryeburg: Blanchard 1940, C. Eastman 1939; Brownfield: Bean 1964.

C. dentatus Torr. Sandy pond and lake shores. Common. Canton: Parlin (2716) 1908; Peru: Pease (23805) 1933; Bethel: Wheeler 1935, Campbell (2405) 1974; Gilead: Eastman (246) 1973; Woodstock: Parlin 1887, Blankinship 1894; Greenwood: Wheeler 1932; Waterford: Pease (28759) 1941, Bean 1957, Campbell and Eastman (2263), Campbell (2331) 1974; Lovell: Pease (17297) 1918, Campbell and Eastman (2519) 1974; Fryeburg: Pease (17902) 1920, Bean 1964, Rossbach (6117) 1964, Eastman (655) 1973; Brownfield: Pease (38060) 1955.

DULICHIMUM Pers.

D. arundinaceum (L.) Britt. Three-way Sedge. Wet ground. Frequent. Bethel: Wheeler 1927, 1938; Gilead: Furbish 1897, Campbell and Eastman (332) 1973; Hartford: Parlin 1895; Albany: Wheeler 1929, Campbell (2035) 1974; Waterford: Pease (28770) 1941; Stow: Campbell and Eastman (457 and 546) 1973.

ELEOCHARIS R. Br. Spike-Rush.

E. robbinsii Oakes. Shallow water of ponds and lakes. Occasional. Byron: Campbell (3219) 1975; Peru: Campbell and Eastman (3082) 1975; Albany: Pease (31713) 1945; Porter: Campbell and Josselyn Botanical Society (3139) 1975.

E. pauciflora (Lightf.) Link var. *fernaldii* Svenson. Shores. Sumner: Pease 1933, Svenson and Gager (6338) 1934.

E. acicularis (L.) R. & S. Shores of ponds and lakes. Frequent. Bowmantown: Campbell and Eastman (2244) 1974; Gilead: Eastman (250) 1973; Hartford: Parlin 1890, Bean 1933; Greenwood: Bean 1949; Stoneham: Campbell (2043) 1974; Waterford: Campbell (3180) 1975; Stow: Campbell and Eastman (724) 1973.

E. olivacea Torr. Wet ground. Local. Sumner: Pease (23804) 1933, (27586) 1939.

E. engelmannii Steud. f. *detonsa* (Gray) Svenson. Sandy shores. Fryeburg: Campbell and Josselyn Botanical Society (3126) 1975.

E. obtusa (Willd.) Schultes. Wet ground. Frequent. Bethel: Wheeler 1938; Gilead: Eastman (251) 1973; Albany: Campbell (2012) 1974; Stoneham: Campbell (2042) 1974; Norway: Pease (24118) 1934; Stow: Eastman (211) 1973; Oxford: Bean (2045) 1907; Fryeburg: Harris (26663) 1964.

E. obtusa var. *jejuna* Fern. Pond shores. Dixfield: Campbell (2293) 1974.

E. obtusa var. *peasei* Svenson. Similar habitats. Infrequent. Fryeburg: Pease (17901) 1920.

E. ovata (Roth) R. & S. Wet ground. Occasional. Lincoln Plt.: Campbell and Eastman (3240) 1975; Upton: Pease (37350) 1953; Albany: Pease 1922; Waterford: Pease (31712) 1945; Stow: Eastman (316) 1973.

E. smallii Britt. (includes *E. palustris* (L.) R. & S.) Wet, open areas. Frequent. Lynchtown: Campbell and Eastman (1879) 1974; Upton: Brewster 1907; Canton: Bean 1935; Bethel: Wheeler 1929; Gilead: Eastman (330) 1973; Woodstock: Campbell (2052) 1974; Albany: Wheeler 1925; Stoneham: Campbell (1736) 1974; Stow: Campbell and Eastman (458) 1973; Fryeburg: Farlow 1911, Harris (26697) 1964, Rossbach (6149) 1964, Eastman (651) 1971.

E. tenuis (Willd.) Schultes. Wet, open ground. Hartford: Parlin (2498) 1908; Bethel: Wheeler 1929; Gilead: Campbell (424) 1973; Stoneham: Pease (17903) 1920; Oxford: Bean 1907; Fryeburg: Coburn 1920; Sumner: Svenson and Gager (6339) 1934.

E. elliptica Kunth. Swales and wet meadows. Bethel: Wheeler 1923; Greenwood: Campbell (2148) 1974; Hebron: Campbell (2930) 1975; Oxford: Campbell (2916) 1975.

E. tuberculosa (Michx.) R. & S. Swales. Fryeburg: Campbell and Josselyn Botanical Society (3125) 1975.

BULBOSTYLIS (Kunth.) C.B. Clarke.

B. capillaris (L.) C.B. Clarke. Dry, open areas, especially roadsides and railroads. Occasional. Bethel: Campbell (2361) 1974; Gilead: Brower 1956; Lovell: Pease (17302) 1918.

B. capillaris var. *crebra* Fern. Similar situations. Common. Canton: Bean 1938; Gilead: Campbell (444) 1973; Hartford: Adams 1943; Sumner: Campbell (2087) 1974; Fryeburg: Bean 1964, Rossbach (6127) 1964, Campbell (1993) 1974; Brownfield: Pease (17871) 1919.

FIMBRISTYLIS Vahl.

F. autumnalis (L.) R. & S. Sandy shores. Infrequent. Waterford: Campbell (2338) 1974; Fryeburg: Pease (19251) 1923, Campbell and Josselyn Botanical Society (3287) 1975; Hiram: Campbell and Frueh (3251) 1975.

SCIRPUS L. Bulrush [91]

S. cespitosus L. var. *callosus* Bigel. Alpine zone of the Mahoosuc Range. Frequent. Grafton: Allen 1897; Riley: C.S. Campbell and A.S. Campbell, Jr. (1210) 1974.

S. hudsonianus (Michx.) Fern. Bogs and swamps, usually calcareous. Occasional. Lynchtown: Campbell and Eastman (3005) 1975; Bethel: Pease (28116) 1940; Hartford: Chamberlain 1900; Norway: Norton 1907; Waterford: Chute 1850; Hebron: Allen 1897, Chamberlain 1900, Campbell, Bradford, and Eastman (1654) 1974.

S. purshianus Fern. Low ground. Occasional. Sumner: Pease (27587) 1939; Fryeburg: Pease (19415) 1924, Rossbach (6138) 1964; Brownfield: Harris (26715) 1964; Hiram: Campbell and Frueh (3249) 1975.

S. subterminalis Torr. Shallow water of ponds and lakes. Frequent. Woodstock: Pease (28315) 1940, Campbell (2442) 1974; Albany: Pease (31728) 1945; Buckfield: Allen 1877; Lovell: Campbell and Eastman (1828) 1974; Fryeburg: Pease (25192) 1935, Campbell and Eastman (3061) 1975.

S. torreyi Olney. Borders of ponds. Occasional. Byron: Campbell and von Moschzisker (3218) 1975; Peru: Campbell and Eastman (3083) 1975; Woodstock: Campbell (2068) 1974; Greenwood: Curtis 1913, Pease (25575) 1939; Fryeburg: Pease (19414) 1924, Harris (26662) 1964, Campbell and Eastman (3065) 1975; Brownfield: Pease (18101) 1921.

S. validus Vahl. var. *crebra* Fern. Shallow water. Occasional. Dixfield: Campbell (2283) 1974; Canton: Ogden and Marston (475) 1937; Sumner: Parlin 1890, Pease (23799) 1933, Campbell (2090) 1974; Greenwood: Campbell and Cross (2182) 1974; Norway: Campbell and Cross (2414), Campbell (2557) 1974; Hiram: Campbell and von Moschzisker (3211) 1975.

S. georgianus Harp. (*S. atrovirens* Willd. var. *georgianus* (Harp.) Fern.) Roadside ditch. Parmachenee: Campbell and Eastman (1749) 1974.

S. hattorianus Mak. (*S. atrovirens* Willd. var. *georgianus* in part). Wet places. Bethel: Wheeler 1915; Hartford: Parlin 1895.

S. atrovirens Willd. Ditches and meadows, dry or moist. Frequent. Dixfield: Parlin (2431), 1908; Bethel: Campbell (1579) 1974; Gilead: Campbell (376) 1973; Hartford: Parlin 1895; Batchelders Grant: Campbell (328), Campbell and Myers (507) 1974; Paris: Steinmetz (688) 1938.

S. microcarpus Presl. (*S. rubrotinctus* Fern.) Low ground. Common. Upper Cupsuptic: Campbell and Eastman (1851) 1974; Canton: Parlin 1946; Bethel: Wheeler 1923; Batchelders Grant: Campbell (281) 1973; West Paris: Furbish 1904; Oxford: Hunnewell (11986) 1931.

S. longii Fern. Swamp. Lovell: Johnson (217) in New York State Museum (cited by Schuyler [91]).

S. atrocinctus Fern. (includes *S. atrocinctus* f. *brachypodus* (Fern.) S.F. Blake). Shores and wet meadows. Frequent. Upton: Brewster 1907; Rumford: Parlin 1890 (TYPE in Gray Herbarium); Bethel: Campbell (1678) 1974; Gilead: Campbell (375) 1973; Hartford: Parlin 1893; Sumner: Bean 1938; Greenwood: Curtis 1913, Campbell (2151) 1974; Stoneham: Campbell (1735) 1974; Batchelders Grant: Campbell (316) 1973; Oxford: Weatherby 1914; Fryeburg: Campbell and Eastman (3057) 1975.

S. pedicellatus Fern. (includes *S. pedicellatus* var. *pullus* Fern.) Low ground. Frequent. Canton: Bean 1935; Gilead: Campbell and Eastman (471) 1973; Buckfield: Parlin (14614) 1941; Oxford: Weatherby (4184) 1917 (cited by Schuyler [91]), Pease (25649) 1936; Fryeburg: Campbell (1995) 1974.

S. cyperinus (L.) Kunth (includes *S. cyperinus* var. *pelius* Fern.) Low ground. Frequent. Bethel: Wheeler 1928, Campbell (2171) 1974; Gilead: Campbell (2399) 1974; Buckfield: Parlin (2633) 1908, (14615) 1941; Lovell: Pease (17282) 1918; Fryeburg: Campbell (3301) 1975; Porter: Campbell and Eastman (1890) 1974.

S. atrocinctus X *hattorianus* (similar to *S. peckii*, see Schuyler [91]). Canton: Parlin (17144) 1945; Woodstock: Campbell (2049) 1974; Albany: Wheeler 1929.

ERIOPHORUM L. Cotton-Grass.

E. spissum Fern. Acid bogs. Frequent. Magalloway Plt.: Campbell and Eastman (1148) 1974; Grafton: Wheldon 1927, Attwood 1941; Rumford: Parlin 1890, Gordon (708) 1926; Riley: C.S. Campbell and A.S. Campbell, Jr. (1229) 1974; Hartford: Rowell 1943; Mason: Ware 1919, Campbell (232) 1973; Buckfield: Allen (65) 1877; West Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

E. gracile W.D.J. Koch. Wet ground. Infrequent. Albany: Pease (27582) 1940.

E. tenellum Nutt. Peaty soil. Frequent. Rumford: Parlin 1890; Canton: Parlin (2035) 1906; Bethel: Wheeler 1927; Gilead: Eastman (290) 1973; Hartford: Parlin (2493) 1908; Woodstock: Campbell (2069) 1974; Albany: Pease (28605) 1941; Buckfield: Allen 1878; West Paris: Pease (23786) 1933; Norway: Chamberlain 1907; Lovell: Campbell and Eastman (1832) 1974; Oxford: Weatherby 1914.

E. viridi-carinatum (Engelm.) Fern. Wet meadows and bogs. Occasional. Lynchtown: Campbell and Eastman (3009) 1975; Canton: Parlin (2406) 1908; Bethel: Wheeler 1923; Greenwood: Curtis 1913, Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Norway: Chamberlain 1907, Bean 1907.

E. viridi-carinatum f. *fellowsii* Fern. Norway: Chamberlain 1907.

E. virginicum L. Bogs and swales. Frequent. Rumford: Pease (33231) 1947; Bethel: Curtis 1913; Hartford: Parlin 1895; Sumner: Parlin 1890; Greenwood: Campbell (2149) 1974; Albany: Pease (27262) 1939; Mason: Wheeler 1931; Buckfield: Allen (66) 1876; West Paris: Pease (23785) 1933; Stow: Campbell and Eastman (564) 1973; Hebron: Bean 1931; Denmark: Harris (26690) 1964, Campbell (2204) 1974.

HEMICARPHA Nees.

H. micrantha (Vahl.) Pax. Sandy pond shores. Very local. Fryeburg: Pease (17898) 1920, Varney (171) 1935, Pease (25643) 1936.

RHYNCHOSPORA Vahl. Beak-Rush.

R. capitellata (Michx.) Vahl. Low ground. Occasional. Canton: Bean 1935; Peru: Campbell and Eastman (3085) 1975; Sumner: Parlin 1890; Greenwood: Pease (19118) 1922; Lovell: Pease (17301) 1918; Hebron: Campbell and von Moschzisker (3212) 1975; Fryeburg: Bean 1964; Brownfield: Campbell and Josselyn Botanical Society (3148) 1975.

R. capitellata f. *discutiens* (Britt.) Gale. [95] Fryeburg: Pease (17883) 1920, Eastman (656) 1971.

R. alba (L.) Vahl. Bogs and swales. Frequent. Sumner: Parlin 1890, Pease (27593) 1939; Greenwood: Campbell and Cross (2183) 1974; Albany: Wheeler 1925; Fryeburg: Bean (20182) 1920; Denmark: Campbell (2003) 1974.

R. fusca (L.) Ait. f. Similar habitats. Frequent. Lynchtown: Campbell and Eastman (3001) 1975; Bethel: Curtis 1913; Hartford: Parlin (2494) 1908; Sumner: Bean 1936; Albany: Pease (23024) 1932; Buckfield: Allen 1877; Waterford: Pease (26882) 1938; Lovell: Pease (17306) 1918; Fryeburg: Bean (20183), Coburn 1920, Rossbach (6161) 1964; Hiram: Campbell (2514) 1974; Porter: Campbell and Eastman (3161) 1975.

CLADIUM P. Br. Twig-Rush.

C. mariscoides (Muhl.) Torr. Shores of ponds. Frequent. Canton: Bean 1935; Hartford: Parlin 1895, (2505) 1908; Sumner: Pease (28803) 1933, Bean 1942, Gordon (2099) 1943; Greenwood: Campbell and Cross (2181) 1974; Albany: Pease (19122) 1922; Buckfield: Allen 1876; Waterford: Pease (28772) 1941, Campbell (2334) 1974; Lovell: Pease (17287) 1918; Fryeburg: Pease (17893) 1920.

CAREX L. Sedge.

C. foenea Willd. Canton: Parlin (2306) 1908, (15871) 1943.

C. convoluta Mackenz. Dry, rich woods. Local. Bethel: Curtis 1913; Stow: Campbell and Eastman (156) 1973; Brownfield: Campbell (2967) 1975; Hiram: Campbell (1592) 1974.

C. rosea Schkuhr. Rich woods. Occasional. Grafton: Pease (39873) 1961; Canton: Parlin (1944a) 1906; Bethel: Wheeler 1929; West Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell (14688) 1931; Norway: Chamberlain 1907; Lovell: Campbell and Eastman (1106) 1974; Stow: Campbell and Eastman (125) 1973.

C. radiata (Wahlenb.) Dew. Dry, rocky woods and ledges. Frequent. Roxbury: Campbell (1694) 1974; Grafton: Pease (38873) 1961;

Canton: Parlin 1906; Bethel: Curtis 1913, Wheeler 1929, Campbell (1665) 1974; Woodstock: Campbell (1469) 1974; Greenwood: Campbell (1468) 1974, Campbell and Eastman (2947) 1975; Buckfield: Campbell (2892) 1975; West Paris: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Norway: Chamberlain 1907; Fryeburg: Campbell (1914) 1974.

C. cephalophora Muhl. Dry woods. Local. Brownfield: Campbell (2965) 1975; Hiram: Campbell (1527) 1974.

C. cephaloidea Dew. Dry woods. Local. Dixfield: Parlin (2113) 1907, (2455) 1908.

C. sparganioides Muhl. Rich, rocky woods. Local. Woodstock: Campbell (1475) 1974.

C. vulpinoidea Michx. Low ground. Occasional. Dixfield: Campbell (2282) 1974; Rumford: Campbell (1928) 1974; Gilead: Campbell and Eastman (330) 1973; Norway: Campbell and Cross (2421) 1974; Hebron: Allen 1878.

C. annectens Bickn. Wet or dry fields. Infrequent. Canton: Campbell (2059) 1974; Oxford: Campbell (2918) 1975.

C. alopecoidea Tuckerm. Wet, grassy bank. Local. Parmachenee: Campbell and Eastman (1767) 1974.

C. stipata Muhl. Low ground. Common. Lincoln Plt.: Campbell and Eastman (1134) 1974; Byron: Campbell and Eastman (1122) 1974; Grafton: Richards (6098) 1954; Peru: Rowell 1946; Bethel: Wheeler 1923; Gilead: Campbell and Eastman (350) 1973; Batchelders Grant: Campbell (289) 1973; West Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Stow: Campbell (77) 1973; Oxford: Chamberlain 1907; Paris: Steinmetz (692) 1938.

C. disperma Dew. Moist, often mossy woods. Frequent. Richardson-town: Campbell (2468) 1974; Byron: Campbell and Eastman (1117) 1974; Roxbury: Pease (33460) 1948; Andover: Campbell (2848) 1975; Bethel: Wheeler 1929; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931, Campbell and Eastman (889) 1974; Buckfield: Allen 1878; West Paris: Hunnewell, Bill, Eaton, Fernald, and Griscom (11988) 1931; Hebron: Campbell and Eastman (2792) 1975; Oxford: Chamberlain 1907.

C. trisperma Dew. Wet ground. Frequent. Byron: Campbell and Eastman (1114) 1974; Roxbury: Parlin 1940; Bethel: Curtis 1913; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Mason: Ware 1919, Campbell (235) 1973; Batchelders Grant: Eastman (39) 1973; Buck-

field: Allen 1878; Norway: Chamberlain 1907; Sweden: Campbell (1249) 1974; Stow: Campbell and Eastman (557) 1973; Oxford: Weatherby 1914; Fryeburg: Bean 1920.

C. trisperma var. *billingsii* Knight. West Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

C. canescens L. Wet ground. Frequent. Magalloway Plt.: Campbell and Eastman (1155) 1974; Stoneham: Campbell (930) 1974; Norway: Chamberlain 1907; Lovell: Campbell (935) 1974.

C. canescens var. *disjuncta* Fern. Similar habitats. Common. Rumford: Parlin 1890; Bethel: Curtis 1913; Gilead: Furbish 1897, Campbell and Eastman (333) 1973; Hartford: Parlin (2500) 1908; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Pease (27581) 1940, (38706) 1958; Buckfield: Allen 1876; Sweden: Campbell (1251) 1974; Oxford: Weatherby 1914; Fryeburg: Bean 1920, Norton 1920.

C. canescens var. *subloliacea* Laestad. Canton: Parlin (2465) 1908; Albany: Pease (28771) 1941.

C. brunnescens (Pers.) Poir. Higher elevations. Infrequent. Grafton: Rossbach (5251) 1960.

C. brunnescens var. *sphaerostachya* (Tuckerm.) Kükenth. Woods. Frequent. Parmachenee: Campbell and Eastman (1786) 1974; Andover North Surplus: Campbell and Eastman (1110) 1974; Grafton: Rossbach (5250) 1960; Rumford: Parlin 1890; Canton: Parlin (2054) 1906; Hartford: Parlin (1942) 1906; Woodstock: Campbell (1188) 1974; Greenwood: Campbell and Eastman (2513) 1974; Batchelders Grant: Eastman (30) 1972, Campbell (216 and 258) 1973; Buckfield: Allen 1878; Sweden: Campbell (1250) 1974; Oxford: Weatherby 1914; Denmark: Campbell (1297) 1974; Hiram: Campbell (2905) 1975.

C. arcta Boott. Wet woods. Occasional. Magalloway Plt.: Pease (20098) 1927, Campbell, Eastman, and Richards (3048) 1975; Canton: Parlin (2041) 1906, (18041) 1946; Gilead: Furbish 1897, Pease (17416) 1919; Oxford: Fellows (4303) 1907, Weatherby 1907.

C. bromoides Schkuhr. Alluvial woods. Infrequent. Parmachenee: Campbell and Eastman (1423) 1974; Bethel: Campbell (1667) 1974; Sumner: Bean 1942.

C. deweyana Schwein. Rocky woods. Common. Lynchtown: Campbell and Eastman (1845) 1974; Gilead: Campbell and Eastman (371) 1973; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931, Campbell, Eastman, and White (2938) 1975; Batchelders Grant: Eastman

(29) 1972, Campbell (265) 1973; Norway: Bean 1907; Oxford: Weatherby 1914; Brownfield: Campbell and Eastman (1357) 1974; Porter: Campbell and Eastman (985 and 1059) 1974.

C. interior Bailey. Circum-neutral swamps. Infrequent, but locally common. Lynchtown: Campbell and Eastman (3007) 1975; Greenwood: Eaton, Bill, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Eastman (90) 1973; Norway: Chamberlain 1907; Hebron: Campbell (3439) 1976; Oxford: Campbell (2929) 1975; Fryeburg: Bean 1920; Hiram: Campbell (1606) 1974.

C. howei Mackenz. Hartford: Rowell 1946.

C. echinata Murr. Damp soil. Adamstown: Campbell and Eastman (1130) 1974.

C. wiegandii Mackenz. Circum-neutral swale. Dixfield: Campbell (2860) 1975.

C. atlantica Bailey var. *incomperta* (Bickn.) F.J. Herm. (*C. incomperata* Bickn.) [57] Swale. Porter: Campbell, Eastman, and White (2961) 1975.

C. cephalantha (Bailey) Bickn. Wet soil. Frequent. Parmachenee: Campbell and Eastman (1415) 1974; Canton: Parlin (2095) 1907, (2483) 1908; Bethel: Campbell (1063) 1974; Gilead: Furbish 1897; Greenwood: Curtis 1913, Campbell and Eastman (1177) 1974; Albany: Campbell (955) 1974; Buckfield: Campbell (1073 and 1364) 1974; West Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Norway: Chamberlain 1907; Oxford: Chamberlain 1907, Weatherby 1914.

C. angustior Mackenz. Wet soil. Frequent. Lynchtown: Campbell and Eastman (1877) 1974; Canton: Parlin (1946, 1947, and 1878) 1906; Bethel: Wheeler; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Stoneham: Campbell and Myers (489) 1973; Batchelders Grant: Campbell (272), Campbell and Eastman (132) 1973; Oxford: Bean 1907, Campbell (2917) 1975; Denmark: Norton (6879) 1901; Brownfield: Hodgdon (4130) 1946.

C. scoparia Schkuhr. Dry or damp, generally open ground. Common. Lynchtown: Campbell and Eastman (1849) 1974; Grafton: Richards (6095) 1954; Canton: Parlin (1993) 1906, (15983) 1943; Bethel: Wheeler 1929; Gilead: Furbish 1897, Campbell (406), Campbell (362) and Eastman (194) 1973; Hartford: Parlin (2557) 1908, Rowell 1941, 1946; Stoneham: Pease (39200) 1958; Buckfield: Parlin (2220) 1907; West Paris: Campbell (2078) 1974; Stow: Campbell (134), Campbell and Eastman

(178) 1973; Hebron: Allen 1878; Paris: Norton (2283) 1909, Steinmetz (682 and 691) 1938; Brownfield: Fellows 1905.

C. scoparia f. *condensa* (Fern.) Kükenth. Canton: Parlin (1976) 1906; Bethel: Curtis 1913, Wheeler 1929.

C. scoparia f. *moniliformis* (Tuckerm.) Kükenth. Canton: Parlin (1975) 1906; Mason: Ware 1919.

C. scoparia f. *subturbinata* (Fern. & Wieg.) Fern. Albany: Campbell (2015) 1974.

C. tribuloides Wahlenb. Wet woods. Infrequent. Bowmantown: Campbell and Eastman (2101) 1974; Lincoln Plt.: Campbell and Eastman (2131) 1974; Canton: Parlin 1908; Hiram: Campbell (1607) 1974.

C. projecta Mackenz. Moist woods and clearings. Frequent. Lynchtown: Campbell and Eastman (1848) 1974; Roxbury: Campbell (1681) 1974; Rumford: Parlin 1890; Canton: Parlin (1949 and 1985) 1906; Bethel: Curtis 1913, Wheeler 1929; Gilead: Furbish 1897, Campbell (407), Campbell and Eastman (363) 1973; Hartford: Parlin 1892; Mason: Ware 1919; Batchelders Grant: Campbell (199), Campbell and Myers (499) 1973; Buckfield: Steinmetz (686) 1938; West Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Oxford: Chamberlain 1907, Weatherby 1914; Hiram: Campbell (1605) 1974.

C. crawfordii Fern. Open, gravelly soil. Frequent. Bowmantown: Campbell and Eastman (2105) 1974; Parmachenee: Campbell and Eastman (1811) 1974; Newry: Bean 1934; Canton: Parlin (1991) 1906, (2413) 1908; Bethel: Campbell (701) 1973, (1573 and 1578) 1974, Furbish 1897; Hartford: Parlin (2221) 1907; Woodstock: Campbell (2051) 1974; Albany: Pease (35309) 1950, Campbell (1512) 1974; Batchelders Grant: Eastman (177) 1973; Buckfield: Canton (2029) 1906; Fryeburg: Norton 1920.

C. bebbii (Bailey) Fern. (*C. bebbii* Olney.) [96] Swales, meadows, and open woods. Infrequent. Dixfield: Parlin 1908, Campbell (2952) 1975; Albany: Campbell (2036) 1974.

C. tinctoria Fern. Clearings and fields. Infrequent. Canton: Parlin (1950 and 1953) 1906; Hartford: Parlin (2021) 1906; Batchelders Grant: Campbell (262) 1973.

C. normalis Mackenz. Woods. Infrequent. Bowmantown: Campbell and Eastman (2104) 1974; Dixfield: Parlin (2454) 1908; Canton: Parlin 1906; Oxford: Chamberlain 1907.

C. normalis f. *perlonga* Fern. Hartford: Rowell 1946; Mason: Campbell (259) 1973; Batchelders Grant: Campbell (260) 1973.

C. tenera Dew. Dry woods and clearings. Occasional. Dixfield: Campbell (1644) 1974; Canton: Parlin (2354 and 2732) 1908; Buckfield: Parlin (2140) 1907; Oxford: Weatherby 1914; Brownfield: Campbell (2968) 1975.

C. abolutescens Schwein. Bethel: Curtis 1913.

C. cumulata (Bailey) Bickn. Dry, open fields and ledges. Occasional. Norway: Campbell (2899) 1975; Lovell: Pease (17307) 1918; Stow: Campbell (173), Campbell and Eastman (127) 1973; Oxford: Campbell (2920) 1975; Denmark: Campbell (2002) 1974; Brownfield: Harris (26725) 1964, Campbell (2494) 1975.

C. brevior (Dew.) Mackenz. Dry, open ground. Infrequent. Canton: Parlin (2419 and 2488) 1908; Bethel: Campbell (1577) 1974; Albany: Campbell (1511) 1974; Oxford: Weatherby 1914.

C. merritt-fernaldii Mackenz. Dry roadsides and fields. Occasional. Dixfield: Parlin (2461) 1908; Rumford: Parlin 1890; Canton: Parlin (1963 and 1972) 1906; Bethel: Wheeler 1929; Gilead: Campbell (372 and 440) 1973; Woodstock: Pease (17126) 1918; Greenwood: Pease (31896) 1948; Stow: Campbell (141), Eastman (103) 1973; Hebron: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Oxford: Chamberlain 1907.

**C. leporina* L. Old fields. Infrequent. Canton: Parlin (2306) 1908; Oxford: Chamberlain 1907.

C. aenea Fern. Dixfield: Parlin (2460) 1908; Canton: Parlin (2092) 1907; Hartford: Parlin (1939) 1906.

C. argyrantha Tuckerm. Dry fields and ledges. Occasional. Andover: Campbell (2046) 1974; Canton: Parlin (1965) 1906, (17853) 1946; Bethel: Campbell (1671) 1974; Gilead: Furbish 1897; Albany: Pease (28708) 1941, Hodgdon and Steele (10449) 1958; Stow: Campbell and Eastman (536) 1974; Hebron: Campbell, Bradford, and Eastman (1647) 1974.

C. leptalea Wahlenb. Bogs. Common. Andover: Campbell (2847) 1975; Dixfield: Campbell (2859) 1975; Rumford: Parlin 1890; Bethel: Curtis 1913; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; West Paris: Hunnewell, Bill, Eaton, Fernald, and Griscom (11974) 1931; Oxford: Weatherby 1914; Hebron: Campbell and Eastman (2791) 1975; Porter: Campbell (2753) 1975.

C. backii Boott. Shaded ledges. Infrequent. Bethel: Wheeler 1929; Greenwood: Hodgdon and Clapp (9391) 1955; Waterford: Blake 1885.

C. pennsylvanica Lam. Dry, sandy soil. Common. Canton: Parlin (17792) 1946; Milton: Curtis 1913; Gilead: Campbell (774) 1974; Greenwood: Bean 1942; West Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Fryeburg: Campbell and Eastman (1020) 1974.

C. pennsylvanica var. *distans* Peck. Similar habitats. Occasional. Fryeburg: Campbell and Eastman (1000) 1974; Porter: Campbell (911), Campbell and Eastman (1005) 1974.

C. pennsylvanica var. *digyna* Boeckl. Hiram: Campbell (2903) 1975.

C. communis Bailey. Rocky woods. Common. Bowmantown: Campbell, Conant, Eastman, and Newman (2828) 1975; Andover: Rand 1889; Andover North Surplus: Campbell and Eastman (1109) 1974; Newry: Campbell and Eastman (899) 1974; Woodstock: Campbell (1468) 1974; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931, Campbell and Eastman (1160) 1974; Batchelders Grant: Campbell (257), Eastman (42) 1973; Norway: Norton 1927; Stow: Campbell and Eastman (123) 1973; Oxford: Chamberlain 1907; Porter: Campbell and Eastman (986) 1974.

C. peckii Howe. Rich, upland woods. Occasional. Bowmantown: Campbell, Eastman, and Richards (3056) 1975; Andover: Pease (33462) 1948; Canton: Campbell (3437) 1976; Woodstock: Campbell (2733) 1975; Bethel: Campbell and Eastman (2770) 1975; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

C. artitecta Mackenz. Dry, open woods and clearings. Porter: Campbell (2804 and 2842) 1975.

C. novae-angliae Schwein. Dryish woods. Occasional. Lincoln Plt.: Pease (26729) 1938; Magalloway Plt.: Pease (20095) 1927; Dixfield: Campbell (1637) 1974; Canton: Parlin (1934) 1906, (2323) 1908; Bethel: Curtis 1913; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Eastman (28) 1972; Oxford: Eaton 1931.

C. deflexa Hornem. Dry soil. Infrequent. Andover: Rand 1889; Canton: Parlin (1932) 1906, (2342) 1908; Porter: Campbell (2759) 1975.

C. umbellata Schkuhr. Sandy roadsides and open areas. Common. Rumford: Parlin 1890; Canton: Parlin (1929) 1906; Bethel: Wheeler 1929; Gilead: Furbish 1897; Hartford: Parlin (1916) 1906; Albany: Campbell and Eastman (901) 1974; Buckfield: Allen 1878, Campbell (1080) 1974; Hebron: Allen 1897; Oxford: Chamberlain 1907, Weatherby 1914, Campbell and Eastman (2788) 1975.

C. abdita Bickn. Similar habitats. Occasional. Bowmantown: Campbell, Conant, Eastman, and Newman (2810) 1975; Lincoln Plt.: Camp-

bell and Eastman (1123) 1974; Andover: Campbell (2871) 1975; Canton: Parlin (15817) 1943; Albany: Campbell (937) 1974.

C. tonsa (Fern.) Bickn. Similar habitats. Infrequent. Hebron: Allen 1897; Fryeburg: Richards (6123) 1954.

C. pedunculata Muhl. Rich, rocky woods. Frequent. Bowmantown: Campbell, Conant, Eastman, and Newman (2816) 1975; Andover: Campbell and Eastman (898) 1974; Bethel: Campbell (2729) 1975; Woodstock: Campbell (2734) 1975; Greenwood: Campbell and Eastman (2799) 1975; Mason: Campbell and Eastman (816) 1974; Buckfield: Allen 1877; Hebron: Campbell and Eastman (2800) 1975.

C. eburnea Boott. Calcareous ledge. Bowmantown: Campbell, Conant, Eastman, and Newman (2812) 1975.

C. aurea Nutt. Open, moist areas. Occasional. Bowmantown: Campbell, Eastman, and Richards (3054) 1975; Dixfield: Campbell (2856) 1975; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Buckfield: Parlin (14349) 1940; Norway: Pease (24119) 1934; Hebron: Campbell (2931) 1975.

C. crinita Lam. Low ground. Occasional. Upton: Brewster 1907; Dixfield: Parlin (1890) 1908; Newry: Richards (5491) 1954; Norway: Richards (6262) 1955; Fryeburg: Bean 1920.

C. crinita var. *brevicrinis* Fern. Hartford: Rowell 1946.

C. crinita var. *minor* Boott. Oxford: Weatherby (4185) 1917.

C. crinita var. *gynandra* (Schwein.) Schwein. & Torr. Our commonest variety. Bowmantown: Campbell, Eastman, and Conant (3042) 1975; Oxbow: Campbell and Eastman (1863) 1974; Lynchtown: Eastman and Campbell (435) 1974; Hartford: Rowell 1946; Greenwood: Eaton, Bill, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Campbell (184), Campbell and Myers (512) 1973; Buckfield: Allen 1878; West Paris: Svenson 1934; Waterford: Campbell (2348) 1974; Hebron: Allen 1878; Oxford: Weatherby 1914; Fryeburg: Bean 1920.

C. bigelowii Torr. Infrequent above treeline in the Mahoosucs. Grafton: Campbell (3201) 1975; Riley: C.S. Campbell and A.S. Campbell, Jr. (1241) 1974.

C. nigra (L.) Reichard. Buckfield: Allen 1893.

C. lenticularis Michx. Shores and meadows. Occasional. Parmachenee: Campbell and Eastman (1466) 1974; Lynchtown: Campbell and Eastman (1873) 1974; Richardsontown: Campbell (2462) 1974; Rumford: Parlin 1890; Norway: Bean 1907; Fryeburg: Bean 1920.

C. lenticularis var. *blakei* Dew. Shores. Upton: Campbell, Eastman, and Richards (3051) 1975; West Andover Surplus: Campbell (2870) 1975; Gilead: Furbish 1897.

C. stricta Lam. Swales, swamps, and low woods. Common. Magalloway Plt.: Campbell and Eastman (1154) 1974; Grafton: Richards (6069) 1954; Canton: Parlin (1946) 1906; Bethel: Campbell (1064) 1974; Gilead: Campbell (403) 1973; Batchelders Grant: Campbell (88 and 128) and Eastman (92) 1973; Buckfield: Campbell (1371) 1974; West Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Stow: Campbell (129) 1973; Oxford: Chamberlain 1907; Fryeburg: Eastman (652) 1972.

C. stricta var. *strictior* (Dew.) Carey. West Paris: Hunnewell, Bill, Eaton, Fernald, and Griscom (14690) 1931.

C. haydenii Dew. Swales and shores. Occasional. Magalloway Plt.: Campbell and Eastman (2991) 1975; Upton: C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2316) 1974, Campbell, Eastman, and Richards (3050) 1975; Hartford: Parlin (2284) 1906; Hebron: Hunnewell, Bill, Eaton, Fernald, and Griscom (14659) 1931; Fryeburg: Bean 1920.

C. torta Boott. Rocky or gravelly stream banks. Frequent. Lynchtown: Campbell and Eastman (1449) 1974; Andover: Campbell (2865) 1975; Bethel: Wheeler 1929; Batchelders Grant: Eastman (48) 1973; West Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Norway: Neal 1935; Stow: Campbell (44) 1973; Brownfield: Parlin 1905.

C. media R. Br. Wet cliffs. Bowmantown: Campbell and Eastman (2228) 1974.

C. atratiformis Britt. Wet cliffs. Bowmantown: Campbell, Eastman and Richards (3044) 1975.

C. buxbaumii Wahlenb. West Paris: Pease (37076) 1953.

C. limosa L. Hebron: Allen 1877.

C. paupercula Michx. Boggy woods. Infrequent. Magalloway Plt.: Campbell and Eastman (2992) 1975; Rumford: Pease (19306) 1924; Canton: Parlin (2008) 1906; Buckfield: Parlin 1895.

C. paupercula var. *irrigua* (Wahlenb.) Fern. Similar habitats. Occasional. Lower Cupsuptic: Campbell, Eastman, and Richards (3039) 1975; Rumford: Parlin 1890; Riley: Adams 1941; Canton: Parlin (2480) 1908; Bethel: Wheeler 1929; Greenwood: Curtis 1913; Buckfield: Allen 1878; Norway: Bean 1907.

C. paupercula var. *pallens* Fern. Similar habitats. Occasional. Buckfield: Campbell (1365) 1974; Norway: Chamberlain 1907, Pease (24116) 1934; Hebron: Campbell, Bradford, and Eastman (1661) 1974, Campbell and Eastman (3021) 1975.

C. scabrata Schwein. Wet woods and thickets. Common. Bowman-town: Campbell and Eastman (2207) 1974; Lincoln Plt.: Campbell and Eastman (1126) 1974; Andover: Rand 1889; Andover West Surplus: Bean 1938; Rumford: Parlin 1890; Canton: Parlin (2331) 1908; Bethel: Kennedy 1863, Wheeler 1929; Hartford: Parlin 1892; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Wheeler 1914, Steinmetz (685) 1938; Batchelders Grant: Campbell (76 and 185), Campbell and Eastman (574) 1973; Buckfield: Bean 1933; Hebron: Allen 1876; Oxford: Weatherby 1914; Fryeburg: Fellows (3721) 1905; Porter: Campbell and Eastman (1345) 1974.

C. houghtoniana Dewey. (*C. houghtonii* Torr.) [96] Oxford: Allen 1897, Campbell (2921) 1975.

C. lasiocarpa Ehrh. var. *americana* Fern. Wet, open ground. Frequent. Bethel: Curtis 1913, Campbell (1066) 1974; Hartford: Parlin 1895, (2107) 1907, (2504) 1908; Woodstock: Campbell (1180) 1974; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931, Campbell and Eastman (1168 and 1176) 1974; Buckfield: Allen 1878; Lovell: Campbell (931) 1974; Brownfield: Harris (26710) 1964; Hiram: Campbell (1520) 1974.

C. pallescens L. var. *neogaea* Fern. Fields. Common. Rumford: Parlin 1890; Bethel: Campbell (956) 1974; Batchelders Grant: Eastman (175) 1973; Stow: Campbell (135) 1973; Hebron: Eastman and Wight (440) 1974; Oxford: Weatherby 1914, Richards (6268) 1955; Fryeburg: Rossbach (6176) 1954; Porter: Campbell and Eastman (992) 1974.

C. virescens Muhl. Rocky woods. Local. Stow: Campbell and Eastman (124) 1973; Brownfield: Campbell (2963) 1975; Hiram: Campbell (2901) 1975; Porter: Campbell and Eastman (1351) 1974.

C. swanii (Fern.) Mackenz. Sandy, open ground. Infrequent. Dixfield: Parlin (2135) 1907, (2457) 1908, Campbell (1639) 1974; Greenwood: Campbell (2066) 1974; Batchelders Grant: Eastman (176) 1973; Brownfield: Campbell (2964) 1975.

C. prasina Wahlenb. Rich bottomlands. Infrequent. Canton: Parlin (1944) 1906, (2328) 1908; Gilead: Eastman (181) 1973; Oxford: Weatherby 1914.

C. gracillima Schwein. Woods and wet meadows. Frequent. Andover North Surplus: Campbell and Eastman (1102) 1974; Dixfield: Camp-

bell (2861) 1975; Canton: Parlin 1908; Hartford: Rowell 1946; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Stow: Campbell (130) 1973; Hebron: Allen 1878; Oxford: Weatherby 1914; Denmark: Rowell 1946; Porter: Campbell and Eastman (978) 1974.

C. castanea Wahlenb. Rich woods or cedar bogs. Rare. Lynchtown: Campbell and Eastman (3012) 1975; West Paris: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931.

C. arctata Boott. Woods. Common. Parmachenee: Campbell and Eastman (1420) 1974; Canton: Parlin (2313) 1908; Buckfield: Allen 1878; Norway: Richards (6269) 1955; Sweden: Campbell (1253) 1975; Hebron: Allen 1878; Oxford: Weatherby 1914; Fryeburg: Norton 1920; Denmark: Steinmetz (1255) 1946.

C. debilis Michx. var. *rudgei* Bailey. Woods. Frequent. Parmachenee: Campbell and Eastman (1807) 1974; Bethel: Curtis 1913; Gilead: Furbish 1897; Stow: Campbell (133) 1973; Oxford: Weatherby 1914; Fryeburg: Bean 1920; Hiram: Campbell (1608) 1974.

C. debilis var. *strictior* Bailey. Similar habitats. Occasional. Grafton: Rossbach (5244) 1960; Batchelders Grant: Campbell (196 and 214) 1973.

C. capillaris L. Exposed cliff. Bowmantown: Campbell, Conant, Eastman, and Newman (2829) 1975.

C. capillaris var. *major* Blytt. Calcareous ledge. Bowmantown: Campbell and Eastman (2220) 1974.

C. sprengelii Dew. Rich, alluvial thickets and woods. Infrequent. Canton: Parlin (Report) 1908; Dixfield: Campbell (1034) 1974; Mexico: Campbell (2735) 1975; Rumford: Parlin 1890; Canton: Parlin (1926) 1907, Campbell (1035) 1974; Albany: Norton (16266) 1907.

C. granularis Muhl. var. *haleana* (Olney) Porter. Moist meadow. Dixfield: Campbell (1941) 1974.

C. conoidea Schkuhr. Moist, grassy areas. Infrequent. Lynchtown: Campbell and Eastman (2516) 1974; Dixfield: Parlin (2426) 1908; Buckfield: Allen 1878; Norway: Chamberlain 1907; Hebron: Eastman and Wight (443) 1974.

**C. panicea* L. Canton: Rowell 1946.

C. plantaginea Lam. Rich woods. Infrequent. Parmachenee: Campbell and Eastman (2775) 1975; Canton: Parlin (2264) 1907; Woodstock: Campbell (1472) 1974; Batchelders Grant: Campbell (300) 1973, Eastman (9) 1972.

C. platyphylla Carey. Rich woods. Occasional. Greenwood: Norton 1930, Hodgdon and Clapp (9392) 1955, Campbell and Eastman (1012) 1974; West Paris: Hodgdon and Clapp (9392) 1955, Eastman (651) 1973; Waterford: Eastman (422) 1974; Porter: Campbell and Eastman (977 and 1053) 1974.

C. digitalis Willd. Greenwood: Eaton, Bill, Fernald, Griscom, and Hunnewell 1931; Paris: Campbell (2891) 1975.

C. laxiflora Lam. Rich uplands. Frequent. Newry: Campbell and Eastman (900) 1974; Hartford: Harris and Bean (29513) 1966; Woodstock: Campbell (1471) 1974; Greenwood: Campbell and Eastman (1011) 1974; Albany: Hodgdon, Lincoln, Pease, and Steele (38860) 1957; West Paris: Campbell and Eastman (897) 1974; Lovell: Campbell and Eastman (1201) 1974; Stow: Eastman (117) 1973; Oxford: Bean 1907.

C. ormostachya Wieg. Rocky woods. Infrequent. Rumford: Parlin 1890; Batchelders Grant: Eastman (27) 1972; Stow: Campbell and Eastman (126) 1973; Oxford: Chamberlain 1907, Weatherby 1914.

C. leptonervia Fern. Rich woods. Occasional. Andover: Campbell (2851 and 2868) 1975; Riley: C.S. Campbell and A.S. Campbell, Jr. (1231) 1974; Canton: Parlin (2325) 1908; Hartford: Parlin (1938) 1906, (2090) 1907; Norway: Campbell (2896) 1975; Stow: Campbell (370) 1973; Oxford: Bean 1907.

C. flava L. Wet pastures and slopes. Frequent. Bowmantown: Campbell and Eastman (2238) 1974; Lynchtown: Campbell and Eastman (1874) 1974; Sumner: Bean 1936; Greenwood: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Buckfield: Campbell (1074 and 1382) 1974; West Paris: Eaton, Bill, Fernald, Griscom, and Hunnewell 1931; Norway: Chamberlain 1907.

C. flava var. *fertilis* Peck. Similar habitats. Less common. Upton: C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2327) 1974; Canton: Bean 1932; Hartford: Parlin 1892; Sumner: Pease (23749) 1933; Waterford: Pease (28789) 1941, Campbell (2339) 1974; Hebron: Campbell (1956) 1974; Brownfield: Pease (28382) 1940.

C. viridula Michx. Calcareous, boggy ground. Infrequent. Buckfield: Allen 1897, Parlin (2536) 1908; Norway: Weatherby (2261) 1907.

C. pauciflora Lightf. Acid bogs. Occasional. Lynchtown: Campbell and Eastman (3003) 1975; Magalloway Plt.: Pease (37948) 1955; West Paris: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Norway: Chamberlain 1907; Stow: Campbell and Eastman (544) 1973.

C. lacustris Willd. Swales. Occasional. Canton: Parlin 1906; Bethel: Campbell (2511) 1974; Greenwood: Hunnewell, Bill, Eaton, Fernald, and Griscom, 1931; Buckfield: Campbell (1083 and 1370) 1974; Hebron: Allen 1878.

C. pseudo-cyperus L. Swales and swamps. Frequent. Greenwood: Campbell (3173) 1975; Buckfield: Parlin 1895, (2536) 1908, Campbell (1376) 1974; West Paris: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Norway: Weatherby 1907; Hebron: Allen 1878, Chamberlain 1907, Campbell, Bradford, and Eastman (1662) 1974, Campbell and Eastman (3022) 1975; Oxford: Coburn 1907, Campbell (1977) 1974.

C. comosa Boott. Swamps and swales. Occasional. Dixfield: Parlin 1908; Canton: Parlin (2667) 1908; Hartford: Parlin (2019) 1906; Buckfield: Parlin 1895; Hebron: Allen 1878; Oxford: Bean 1907.

C. hystericina Willd. (*C. hystericina* Muhl.) [96] Swales and swamps. Infrequent. West Paris: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Hebron: Campbell (3438) 1976; Fryeburg: Bean 1920, Norton (17376) 1920.

C. lurida Wahlenb. Moist to wet ground. Common. Grafton: Deane 1920; Riley: Bean 1939; Canton: Parlin (1998) 1906; Peru: Rowell 1946; Albany: Campbell (2016) 1974; Batchelders Grant: Richards (6088 and 6089) 1954, Campbell and Myers (502), Eastman (180) 1973; Stow: Campbell and Frueh (590) 1973; Oxford: Parlin (1924) 1906, Bean 1907, Weatherby 1914, Richards (6276) 1955; Paris: Steinmetz (683) 1938.

C. michauxiana Boekl. Swales and bogs. Infrequent. Lynchtown: Campbell and Eastman (3283) 1975; Albany: Pease (28313) 1940; Fryeburg: Campbell and Eastman (3058) 1975.

C. folliculata L. Low ground. Occasional. Rumford: Pease (33256) 1947; Bethel: Kennedy 1863, Campbell (1580) 1974; Hartford: Parlin 1892; Albany: Pease (19097) 1922, Campbell (3034) 1975; Buckfield: Allen 1878; Waterford: Campbell (3177) 1975; Fryeburg: Bean 1920, Coburn 1920.

C. intumescens Rudge. Bottomlands and moist woods. Common. Lincoln Plt.: Williams 1903; Gilead: Furbish 1897; Hartford: Parlin 1893; Greenwood: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Mason: Ware 1919; Batchelders Grant: Eastman (31) 1973; Buckfield: Allen 1878, Campbell (1084) 1974; West Paris: Eaton, Bill, Fernald, Griscom, and Hunnewell 1931; Oxford: Weatherby 1914.

C. intumescens var. *fernaldii* Bailey. Similar habitats. Frequent. Lincoln Plt.: Robinson 1903; Batchelders Grant: Campbell (204 and 306)

1973; Norway: Richards (6263) 1955; Hebron: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Oxford: Bean 1907, Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

C. lupulina Muhl. Moist woods and swamps. Frequent. Dixfield: Campbell (2287) 1974; Gilead: Furbish 1897, Campbell and Eastman (337) 1973; Hartford: Rowell 1940; Buckfield: Allen 1878; Norway: Chamberlain 1907; Stow: Campbell and Eastman (450) 1973; Oxford: Coburn 1907, Campbell (2919) 1975; Fryeburg: Harris (26657) 1964, Eastman and Josselyn Botanical Society (820) 1975; Denmark: Campbell (2009) 1974.

C. lupulina var. *pedunculata* Gray. Canton: Parlin (1996) 1906, (2674) 1908; Denmark: Parlin 1906.

C. retrorsa Schwein. Swamps and grassy pond margins. Infrequent. Dixfield: Campbell (2281) 1974; Albany: Parlin (2540) 1908; Buckfield: Parlin 1895, (2540) 1908, Campbell and Eastman (2357) 1974.

C. rostrata Stokes. Shores and swamps. Frequent. Parmachenee: Campbell and Eastman (1755) 1974; Canton: Parlin (1977) 1906; Bethel: Wheeler 1929; Hartford: Parlin 1895; Sumner: Bean 1936; Greenwood: Campbell and Eastman (1167) 1974; Oxford: Josselyn Botanical Society 1907.

C. rostrata var. *utriculata* (Boott) Bailey. Similar habitats. Frequent. Lynchtown: Campbell and Eastman (3006) 1975; Bethel: Wheeler 1929; Woodstock: Campbell (1187) 1974; West Paris: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Sweden: Campbell (1255) 1974; Hebron: Allen 1878; Oxford: Chamberlain 1907, Fellows 1907.

C. tuckermanii Boott. Wet ground. Bethel: Wheeler 1929; Gilead: Pease (21149) 1929.

C. oligosperma Michx. Acid bogs and swales. Occasional. Magalloway Plt.: Pease (37947) 1955, Campbell and Eastman (2993) 1975; Hartford: Parlin 1895, (2495) 1908; Woodstock: Neal 1935; Fryeburg: Bean 1920, Norton (17369) 1920, Campbell and Eastman (3059) 1975.

C. bullata Schkuhr. Fryeburg: Bean 1920.

C. vesicaria L. Swales and shores. Frequent. Roxbury: Turesson and Alm (112) 1938; Grafton: Pease (20090) 1927; Newry: Richards (5986) 1954; Bethel: Wheeler 1929; Buckfield: Allen 1878; West Paris: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Hebron: Allen 1877; Oxford: Weatherby 1914, Steinmetz (684) 1938; Fryeburg: Bean 1920, Norton 1920.

C. vesicaria var. *monile* (Tuckerm.) Fern. Lynchtown: Campbell and Eastman (1883) 1974; Magalloway Plt.: Campbell and Eastman (2135) 1974; Bethel: Wheeler 1929; Gilead: Campbell and Eastman (335) 1973; Buckfield: Campbell (1085) 1974; Hebron: Allen 1877; Oxford: Allen 1897; Brownfield: Campbell (1315) 1974; Porter: Campbell (2803) 1975.

C. vesicaria var. *jejuna* Fern. Hartford: Parlin (2597) 1908; Sumner: Bean 1938; Buckfield: Campbell (1387) 1974; West Paris: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Fryeburg: Bean 1920.

C. vesicaria var. *laurentiana* Fern. Magalloway Plt.: Campbell and Eastman (1143) 1974.

C. vesicaria var. *raeana* (Boott) Fern. Township C: Williams 1903.

ARACEAE (ARUM FAMILY)

ARISAEMA Mart. Indian-Turnip.

A. atrorubens (Ait.) Blume. Jack-in-the-Pulpit. Rich woods and moist thickets. Common. Bethel: Wilson 1919, Wheeler 1929; Greenwood: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Batchelders Grant: Wheeler 1930, Campbell (26) and Eastman (55) 1973; Stow: Campbell (927) 1974.

A. atrorubens f. *zebrinum* (Sims) Fern. Bethel: Campbell (1194) 1974; Porter: Campbell and Eastman (993) 1974.

A. stewardsonii Britt. Jack-in-the-Pulpit. Wet woods and swamps. Frequent. Andover: Campbell (2846) 1975; Andover West Surplus: Campbell (2875) 1975; Bethel: Wheeler 1929; Greenwood: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Hebron: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Hiram: Campbell (2748) 1975.

PELTANDRA Raf. Arrow-Arum.

P. virginica (L.) Schott & Endl. Bottomlands. Infrequent. Fryeburg: Coburn 1920.

P. virginica f. *latifolia* (Raf.) Blake. Fryeburg: Harris (26694) 1964.

P. virginica f. *hastifolia* Blake. Fryeburg: Rossbach (6147) 1964.

CALLA L. Water-Arum.

C. palustris L. Wild Calla. Swampy ground. Occasional. Dixfield: Gordon (650) 1922; Bethel: Wheeler 1928, Campbell (1067) 1974; Hartford: Allen 1897; Greenwood: Wheeler 1932; Albany: Pease (27864) 1940;

Buckfield: Campbell (1367) 1974; Stow: Eastman and Campbell (401) 1974; Oxford: Chamberlain 1907.

SYMPLOCARPUS Salisb. Skunk-Cabbage.

S. foetidus (L.) Nutt. (Nutt.) Swampy woods and thickets. Infrequent. Bethel: Wheeler 1923, Pease (27932) 1940; Albany: Pease (28037) 1940; Porter: Campbell (2763) 1975.

ACORUS L. Sweetflag.

**A. calamus* L. Wet ground. Infrequent. Canton: Parlin (2344) 1908; Bethel: Wheeler 1929; West Paris: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Fryeburg: Perley 1885; Porter: Whelden 1929.

LEMNACEAE (DUCKWEED FAMILY)

SPIRODELA Schleid.

S. polyrhiza (L.) Schleid. Ponds and lakes. Infrequent. Woodstock: Eastman and Wight (512) 1974; Buckfield: Campbell (1369) 1974; Hebron: Campbell (2378) 1974; Porter: Campbell and Eastman (1093) 1974.

LEMNA L. Duckweed.

L. minor L. Ponds, lakes, and marshes. Occasional. Buckfield: Campbell (1368) 1974; Norway: Eastman and Wight (462) 1974; Stow: Eastman and Campbell (303) 1973; Hebron: Campbell, Bradford, and Eastman (1652) 1974; Oxford: Campbell (1974) 1974; Fryeburg: Campbell (1296) 1974; Brownfield: Eastman (471) 1974.

XYRIDACEAE (YELLOW-EYED GRASS FAMILY)

XYRIS L. Yellow-eyed Grass. [64]

X. difformis Chapman (*X. caroliniana* Walt.) Sandy pond shore. Local. Fryeburg: Pease (19252), Eastman (654) 1971, Campbell and Eastman (3168) 1975.

X. montana Ries. Sphagnous pond margins. Local. Denmark: Harris (26692), Rossbach (6154) 1964, Campbell (2000) 1974.

ERIOCAULACEAE (PIPEWORT FAMILY)

ERIOCAULON L. Pipewort.

E. septangulare With. Shallow water of ponds and lakes. Frequent. Upton: Gordon (1054) 1934; Peru: Parlin 1884; Stoneham: Pease

(23027) 1932; Buckfield: Allen 1897; Stow: Campbell and Eastman (452) 1973; Brownfield: Merrill 1912, Campbell (1595) 1974.

COMMELINACEAE (SPIDERWORT FAMILY)

TRADESCANTIA L. Spiderwort.

**T. virginiana* L. Albany: Campbell (1508) 1974.

**T. ohioensis* X *virginiana* Raf. Norway: Chamberlain 1907.

PONTEDARIACEAE (PICKERELWEED FAMILY)

*PONTEDARIA L. Pickerelweed.

P. cordata L. Shallow water of ponds and lakes. Frequent. Woodstock: Blankinship 1894; Sumner: Bean 1942; Albany: Wheeler 1929; Norway: Campbell and von Moschzisker (2983) 1975; Hiram: V. Merrill 1912; Porter: Eastman and Campbell (572) 1974.

P. cordata f. *hastifolia* (Raf.) House. Similar habitats. Gilead: Furbish 1897; Stow: Campbell and Eastman (720) 1973.

JUNCEAE (RUSH FAMILY)

JUNCUS L. Rush.

J. bufonius L. Roadsides and open gravelly ground. Frequent. Parmachenee: Campbell and Eastman (1820) 1974; Lincoln Plt.: Campbell and Eastman (1709) 1974; Roxbury: Campbell (1693) 1974; Canton: Bean 1935; Woodstock: Blankinship 1894; Bethel: Wheeler 1915; Gilead: Furbish 1897; Stoneham: Campbell (1723) 1974; Paris: Neal 1935.

J. trifidus L. Exposed mountain slopes. Infrequent. Bowmantown: Campbell, Conant, Eastman, and Newman (2827) 1975; Grafton: Allen 1897, Campbell (3192) 1975; Newry: Wheeler 1936; Riley: C.S. Campbell and A.S. Campbell, Jr. (1211) 1974.

J. secundus Beauv. Shaded ledge. Local. Porter: Campbell and Eastman (1629) 1974.

J. tenuis Willd. Roadsides, fields. Common. Bowmantown: Campbell and Eastman (2103) 1974; Parmachenee: Campbell and Eastman (1817) 1974; Dixfield: Parlin (2429) 1908; Canton: Parlin (2010) 1906; Batchelders Grant: Campbell (282), Campbell and Myers (495) 1973;

Buckfield: Parlin (2513) 1908; Waterford: Rowell 1946; Stow: Eastman (324) 1973; Fryeburg: Bean 1920.

J. tenuis f. *discretiflorus* (F.J. Herm.) Fern. Bethel: Kennedy 1863; Gilead: Furbish 1897.

J. tenuis var. *anthelatus* Wieg. Frequent. Gilead: Pease (20968) 1929; Hartford: Parlin 1892; Batchelders Grant: Wheeler 1938, Campbell (283) 1973; Waterford: Pease (19259) 1923.

J. tenuis var. *williamsii* Fern. Infrequent. Gilead: Campbell (1748) 1974; Oxford: Weatherby 1914.

J. greenei Oakes & Tuckerm. Dry, open, often sandy ground. Common. Dixfield: Campbell (1931) 1974; Newry: Williams 1906; Canton: Parlin (2012) 1906; Bethel: Wheeler 1911; Gilead: Furbish 1897; Albany: Wheeler 1929; Mason: Hodgdon and Steele (10417) 1958; Batchelders Grant: Wheeler 1928, Campbell (284), Campbell and Myers (493) 1973; Buckfield: Parlin 1892; Fryeburg: Bean, Coburn 1920, Bean 1964; Denmark: Furbish 1897; Porter: Campbell (2515) 1974.

J. filiformis L. Bogs and pond and lake shores. Common. Lynchtown: Campbell and Eastman (1884) 1974; Bethel: Wheeler 1938, Campbell (1676) 1974; Gilead: Furbish 1897; Stoneham: Campbell (1737) 1974; Batchelders Grant: Ogden (1928) 1939; Buckfield: Allen 1880; Oxford: Weatherby (4186) 1917; Fryeburg: Bean 1920.

J. effusus L. var. *compactus* Lej. & Court. Damp, open ground, Gilead: Furbish 1897.

J. effusus var. *decipiens* Buchenau. Oxford: Weatherby 1914.

J. effusus var. *pylaii* (Laharpe) Fern. & Wieg. Bowmantown: Campbell and Eastman (2107) 1974; Gilead: Furbish 1897.

J. effusus var. *costulatus* Fern. West Paris: Campbell (2080) 1974.

J. effusus var. *solutus* Fern. & Wieg. The commonest variety. Bethel: Wheeler 1914; Gilead: Furbish 1897; Albany: Wheeler 1929; Mason: Ware 1919; Batchelders Grant: Campbell (208) 1973; Stow: Campbell and Eastman (563) 1973.

J. marginatus Rostk. Buckfield: Allen 1880.

J. canadensis J. Gay. Swales and shores. Frequent. Bethel: Wheeler 1927; Sumner: Parlin 1890; Greenwood: Pease (25574) 1939, Campbell (3176) 1975; Albany: Pease (23020) 1932; Waterford: Pease (26931) 1938, (31721) 1945, Campbell and Eastman (2262) 1974; Lovell: Pease (17303) 1918; Stow: Campbell and Eastman (722) 1973.

J. canadensis f. *apertus* Fern. Sumner: Parlin 1890.

J. canadensis f. *conglobatus* Fern. Greenwood: Pease (27573) 1939.

J. canadensis var. *sparsiflorus* Fern. Woodstock: Campbell (2071) 1974.

J. brevicaudatus (Engelm.) Fern. Wet or moist, open areas. Common. Parmachenee: Campbell and Eastman (1816) 1974; Byron: Campbell and von Moschzisker (3217) 1975; Dixfield: Parlin (2428) 1908; Rumford: Parlin 1890; Canton: Bean 1931; Bethel: Wheeler 1929; Gilead: Furbish 1897, Eastman (325) 1973; Hartford: Parlin (2593) 1908; Sumner: Parlin 1890; Woodstock: Campbell (2050) 1974; Greenwood: Campbell (3175) 1975; Albany: Pease (19123) 1922; Stoneham: Bean 1935; Mason: Ware 1919; Stow: Campbell and Eastman (581) 1973; Paris: Neal 1935; Fryeburg: Rossbach (6176) 1964.

J. militaris Bigel. Shallow water. Local. Waterford: Pease (26895) 1938; Porter: Gagnon and Ogden (311) 1975.

J. articulatus L. Wet, calcareous open sites. Local. Lynchtown: Campbell and Eastman (3010) 1975; Grafton: Bean 1934; Hebron: Campbell and Eastman (3023) 1975.

J. pelocarpus Mey. Sandy shores. Frequent. Upton: C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2313) 1974; Canton: Parlin (2711) 1908, Bean 1935; Hartford: Parlin 1890; Sumner: Parlin 1890, Pease (27585) 1939; Woodstock: Blankinship 1894; Greenwood: Wheeler 1932, Pease (27578) 1939; Albany: Wheeler 1925; Waterford: Campbell (2335), Campbell and Eastman (2261) 1974; Lovell: Campbell and Eastman (1843) 1974; Stow: Campbell and Eastman (717) 1973; Fryeburg: Eastman (652) 1972.

LUZULA DC. Woodrush.

L. acuminata Raf. Moist woods. Probably more common than two collections indicate. Gilead: Campbell (2911) 1975; Oxford: Chamberlain 1907.

L. parviflora (Erhr.) Desv. var. *melanocarpa* (Michx.) Buchenau. Cold, upland woods. Bowmantown: Campbell, Eastman, and Richards (3053) 1975; Township C: Campbell and Eastman (1100) 1974; Grafton: Rossbach (5246) 1960; Riley: Pease (12711½) 1910, C.S. Campbell and G.H. Campbell (2388) 1974; Batchelders Grant: Campbell (733) 1973.

L. multiflora (Retz.) Lejeune. Old fields. Common. Gilead: Furbish 1897; Hartford: Rowell 1946; Albany: Campbell (942) 1974; Batchelders Grant: Campbell (23), Eastman (80) 1973; Stow: Campbell (19) 1973;

Porter: Campbell and Eastman (991) 1974; Greenwood: Campbell, Eastman, and White (2943) 1975.

LILIACEAE (LILY FAMILY)

VERATRUM L. False Hellebore.

V. viride Ait. Low ground. Common. Parmachenee: Campbell and Eastman (1416) 1974; Newry: Richards (5981) 1954; Batchelders Grant: Campbell (27) 1973; Norway: Richards (6265) 1955.

UVULARIA L. Bellwort.

U. sessilifolia L. Woods, thickets, and clearings. Common. Bethel: Wheeler 1921; Gilead: Campbell (765) 1974; Hartford: Parlin 1885; Greenwood: Furbish 1897; Batchelders Grant: Campbell (24), Eastman (79) 1973; Oxford: Weatherby 1914; Porter: Campbell (1564) 1974.

ALLIUM L. Onion. Garlic. Leek.

**A. cepa* L. Old field. Brownfield: Eastman (741) 1975.

**A. schoenoprasum* L. Garden escape. Bethel: Campbell (1049) 1974.

HEMEROCALLIS L. Day-Lily. [96]

**H. fulva* L. Roadsides. Frequent. Lynchtown: Eastman and Campbell (578) 1974; Bethel: Campbell (1582) 1974; Gilead: Campbell (437) 1973; Oxford: Deane 1919.

**H. lilio-asphodelus* L. (*H. flava* L.) Persistent near habitation. Stoneham: Eastman (715) 1975; Fryeburg: Campbell (1055) 1974.

LILIUM L. Lily.

L. philadelphicum L. Dry woods, clearings and banks. Occasional. Gilead: Pease (17727) 1919, Eastman (162) 1973; Albany: Pease (28713) 1941; Waterford: Pease (27343) 1939; Stow: Campbell and Eastman (169) 1973; Oxford: Corning 1920; Denmark: Moulton 1902; Hiram: Campbell (1546) 1974; Porter: Eastman and Campbell (483) 1974.

L. philadelphicum f. *flaviflorum* E.F. Williams. Oxford: Corning 1920; Porter: Campbell (1556) 1974.

L. canadense L. Wild Yellow or Canada Lily. Moist fields and thickets. Occasional. Andover: Campbell (1689) 1974; Bethel: Kennedy 1863; Gilead: Furbish 1897, Campbell and Eastman (331) Eastman (164)

1973; Hebron: Allen 1876; Paris: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Hiram: V. Merrill 1912.

**L. tigrinum* L. Tiger-Lily. Peru: Campbell (2158) 1974; Porter: Campbell (1559) 1974.

ERYTHRONIUM L. Dog's-tooth Violet.

E. americanum Ker. Trout Lily. Meadows and open, moist woods. Frequent. Parkertown: Campbell and Eastman (2780) 1975; Mexico: Allen 1897; Bethel: Campbell (853) 1974; Gilead: Campbell and Eastman (815) 1974; Mason: Campbell and Eastman (822) 1974; Buckfield: Allen 1896; Fryeburg: Campbell (2736) 1975.

ASPARAGUS L. Asparagus.

**A. officinalis* L. Garden Asparagus. Roadsides. Occasional. Gilead: Campbell and Eastman (325) 1973; Paris: Campbell (958) 1974.

CLINTONIA Raf.

C. borealis (Ait.) Raf. Woods. Common. Andover West Surplus: Attwood 1941; Grafton: Rossbach (5253) 1960; Riley: C.S. Campbell and A.S. Campbell, Jr. (1246) 1974; Hartford: Parlin 1886, 1895; Greenwood: Norton 1916, Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Campbell (21), Eastman (81) 1973; West Paris: Pringle (1028) 1892; Oxford: Weatherby 1906; Fryeburg: Bull 1914; Hiram: V. Merrill 1911.

SMILACINA Desf. False Solomon's-seal.

S. racemosa (L.) Desf. Woods, thickets, and roadsides. Common. Bowmantown: Campbell and Eastman (2213) 1974; Batchelders Grant: Campbell (20) 1973; Hiram: V. Merrill 1912; Porter: Campbell and Eastman (1343) 1974.

S. stellata (L.) Desf. Sandy alluvial woods, thickets, and fields. Frequent. Rumford: Parlin 1889, Campbell (2302) 1974; Canton: Campbell (1036) 1974; Bethel: Parlin 1889, Wheeler 1938; Gilead: Pease (17429) 1919; Buckfield: W. Allen 1896; Norway: Mann 1862; Lovell: Pease (17308) 1918; Oxford: Bean 1907; Fryeburg: Larrabee, Campbell (2738) 1975; Hiram: V. Merrill 1912.

S. trifolia (L.) Desf. Acidic bogs, extending high onto mountains. Frequent. Magalloway Plt.: Campbell and Eastman (1147) 1974; Rumford: Pease (19438) 1924; Riley: C.S. Campbell and G.H. Campbell (2391) 1974; Canton: Gordon (1096) 1935; Bethel: Wheeler 1931, Pease (27266) 1939; Greenwood: Wheeler 1932; Albany: Campbell and Eastman

(876) 1974; Mason: Bull 1914, Campbell (231) 1973; Norway: Chamberlain 1907; Stow: Campbell and Eastman (543) 1973; Denmark: V. Merrill 1923.

MAIANTHEMUM Weber. Canada Mayflower.

M. canadense Desf. Woods. Common. Grafton: Richards (6073) 1955; Gilead: Furbish 1897; Hartford: Parlin 1886; Greenwood: Hunnewell, Griscom, Bill, Eaton, and Fernald 1931; Batchelders Grant: Ogden (1908) 1939, Campbell (22), Eastman (61) 1973; Fryeburg: Campbell (923) 1974; Hiram: V. Merrill 1914.

STREPTOPUS Michx. Twisted-stalk.

S. amplexifolius (L.) DC. var. *americanus* Schultes. Upland woods. Frequent. Township C: Campbell and Eastman (1097) 1974; Grafton: Rossbach (5243) 1960; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Campbell (207), Campbell and Myers (497) 1973; Buckfield: W. Allen 1896; Paris: Gordon (1143) 1937; Hiram: V. Merrill 1913.

S. roseus Michx. var. *perspectus* Fassett. Woods. Frequent. Bowman-town: Campbell and Eastman (2109) 1974; Township C.: Campbell and Eastman (1098) 1974; Bethel: Campbell (855) 1974; Gilead: Deane 1883; Hartford: Parlin 1886; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Campbell and Frueh (8), Eastman (78) 1973; Buckfield: Bicknell 1938; Oxford: Weatherby 1914; Hiram: V. Merrill 1911.

POLYGONATUM Mill. Solomon's-seal.

P. pubescens (Willd.) Pursh. Rocky woods. Frequent. Bowman-town: Campbell, Conant, Eastman, and Newman (2826) 1975; Andover North Surplus: Campbell and Eastman (1108) 1974; Bethel: Wheeler 1929; Gilead: Furbish 1897; Mason: Eastman (271) 1973; Buckfield: Steinmetz (635a) 1938; Norway: Mann 1862; Denmark: Steinmetz (1245) 1946.

CONVALLARIA L. Lily-of-the-Valley.

**C. majalis* L. Roadside. Newry: Campbell and Eastman (895) 1974; Porter: Campbell (2761) 1975.

MEDEOLA L. Indian Cucumber-root.

M. virginiana L. Rich, upland woods. Frequent. Andover: Hodgdon (15812) 1967; Grafton: Richards (6037) 1954; Dixfield: Parlin 1884; Bethel: Wheeler 1936; Greenwood: Bill, Eaton, Fernald, Griscom, and

Hunnewell 1931; Batchelders Grant: Campbell (25), Eastman (96) 1973; Buckfield: Steinmetz (635) 1938; Hiram: V. Merrill 1912.

TRILLIUM L. Wakerobin. Trillium.

T. cernuum L. Nodding Trillium. Moist thickets. Local. Norway: Verrill 1858, a second specimen from Norway with no additional collection data; Oxford: Campbell (2789) and Eastman (710) 1975; Hiram: Eastman (713) 1975.

T. erectum L. Stinking Benjamin. Purple Trillium. Woods. Common. Andover West Surplus: Bean 1938; Gilead: Campbell (760) 1974; Hartford: Parlin 1886; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Campbell and Frueh (7), Eastman (67) 1973; Buckfield: Gordon (693) 1925; Norway: Mann 1862; Hiram: V. Merrill 1912.

T. erectum f. *albiflorum* R. Hoffm. Bowmantown: Eastman, Campbell, Conant, and Newman (1222) 1975; Bethel: Campbell (2732) 1975.

T. undulatum Willd. Woods. Common. Bowmantown: Eastman, Campbell, Conant, and Newman (712) 1975; Lincoln Plt.: William 1903; Riley: C.S. Campbell and A.S. Campbell, Jr. (1218) 1974; Hartford: Parlin 1885 and 1897, Rowell 1946; Norway: Mann 1862; Hebron: Bill, Eaton, Fernald, Griscom, and Hunnewell (14621) 1931.

SMILAX L. Carrion-flower.

S. herbacea L. Thickets and meadows. Frequent. Dixfield: Campbell (1042) 1974; Rumford: Kimball 1922; Bethel: Campbell (2394) 1974; Gilead: Eastman (166) 1973; Albany: Pease (28283) 1940; Hebron: Eastman and Wight (466) 1974; Oxford: Chamberlain 1907, Campbell (2556) 1974; Fryeburg: Norton 1920; Brownfield: Merrill 1896; Porter: Eastman and Campbell (485) 1974.

IRIDACEAE (IRIS FAMILY)

SISYRINCHIUM L. Blue-eyed Grass.

S. montanum Greene var. *crebrum* Fern. Open areas. Common. Bethel: Campbell (937) 1974; Gilead: Campbell (398) 1973; Greenwood: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931, Eastman (683) 1974; Albany: Pease (28127) 1940, Campbell (938) 1974; Batchelders Grant: Eastman (91) 1973; Oxford: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931.

S. angustifolium Miller. Similar habitats. Occasional. Parkertown: Campbell and Eastman (1413) 1974; Newry: Pease (28376) 1940; Buckfield: Campbell (1081) 1974; Stow: Campbell (55) 1973.

IRIS L. Iris.

I. versicolor L. Wet, open sites. Common. Bowmantown: Eastman and Campbell (582) 1974; Parmachenee: Eastman and Campbell (437) 1974; Bethel: Wheeler 1923; Gilead: Campbell and Eastman (348) 1973; Greenwood: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Buckfield: Campbell (1380) 1974; Sweden: Campbell (1254) 1974; Stow: Campbell and Eastman (116) 1973; Oxford: Hunnewell, Bill, Eaton, Griscom, and Fernald 1931.

**I. pseudoacorus* L. Yellow Iris. Ditches and pond shores. Infrequent. Sumner: Eastman (427) 1974; Woodstock: Campbell (1491) 1974; Stoneham: Eastman (714) 1975.

**I. germanica* L. Grassy banks. Waterford: Eastman and Campbell (724) 1975.

**I. sibirica* L. Old field. Brownfield: Eastman (719) 1975.

ORCHIDACEAE (ORCHID FAMILY)

CYPRIPEDIUM L. Lady's-slipper.

C. arietinum L. Ram's Head Lady's-slipper. Rich woods. Local. Greenwood: Adams 1945, Bean 1945, Hyland 1945; Paris: Adams 1945.

C. calceolus L. var. *parviflorum* (Salisb.) Fern. Small Yellow Lady's-slipper. Local. Canton: Parlin 1906, (2290) 1908; Norway: Verrill 1858.

C. calceolus var. *pubescens* (Willd.) Correll. Large Yellow Lady's-slipper. Rich woods. Infrequent. Roxbury: Farrar 1890; Canton: Allen 1877; Hartford: Gordon (159) 1910; Greenwood: Hunnewell, Bill, Fernald, Eaton, and Griscom 1931; Buckfield: Allen 1877; Paris: Pease 1941; Hiram: V. Merrill 1912.

C. reginae Walt. Showy Lady's-slipper. Boggy or mossy, rich woods. Infrequent. Buckfield: Parlin (2138) 1901; West Paris: Pease (28285) 1940; Norway: Coburn 1907; Hebron: Chamberlain 1903, Gordon (936) 1930; Hiram: Merrill 1912.

C. acaule Ait. Pink Lady's-slipper. Dry or moist open areas or woods. Common. Lynchtown: Eastman and Campbell (745) 1975; Graf-ton: Richards (5997) 1954; Riley: C.S. Campbell and A.S. Campbell (1243) 1974; Bethel: Wheeler 1925; Greenwood: Hunnewell, Bill, Eaton,

Fernald, and Griscom 1931; Batchelders Grant: Eastman (57) 1973; Stow: Campbell (63) 1973; Hebron: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Oxford: Weatherby 1914; Brownfield: Campbell (907) 1974.

C. acaule f. *albiflorum* Rand & Redfield. Similar habitats. The commoner form northward. Parmachenee: Child 1911; Township C: Campbell and Eastman (1101) 1974; Andover West Surplus: Attwood 1941; Riley: C.S. Campbell and A.S. Campbell, Jr. (1247) 1974; Bethel: Wheeler 1926; Batchelders Grant: Eastman (58) 1973.

ORCHIS L. Orchis.

O. spectabilis L. Rich woods. Local. Roxbury: Campbell (1683) 1974; Canton: Parlin (1927) 1906, (2315) 1908, Nelson 1916.

HABENARIA Willd. Rein-Orchis.

H. viridis (L.) R. Br. var. *bracteata* (Muhl.) Gray. Bracted Green Orchid. Rich woods. Occasional. Bowmantown: Campbell and Eastman (3226) 1975; Rumford: Parlin (2337) 1908, Gordon (949) 1930; Sumner: Bean 1942; Greenwood: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Batchelders Grant: Campbell (294), Eastman (23) 1973; Stow: Campbell and Eastman (95) 1973.

H. clavellata (Michx.) Spreng. var. *ophioglossoides* Fern. Wet, open areas. Frequent. Parmachenee: Campbell and Eastman (1781) 1974; Upper Cupsuptic: Eastman and Campbell (582) 1974; Lincoln Plt.: Eastman and Campbell (593) 1974; Bethel: Boott 1865; Hartford: Parlin 1896; Sumner: Bean 1933; Batchelders Grant: Eastman (712) 1972; Stow: Campbell (412) 1973; Denmark: Leonard 1910.

H. flava (L.) R. Br. var. *herbiola* (R. Br.) Ames & Correll. Bogs and moist woods. Occasional. Lynchtown: Eastman and Campbell (749) 1975; Grafton: Ogden 1934; Dixfield: Parlin (658) 1895; Canton: Parlin (2288) 1906, Gordon (1123) 1931; Hartford: Parlin 1886; Greenwood: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Norway: Chamberlain 1907; Waterford: Pease (31819) 1945; Hebron: Allen 1878; Hiram: V. Merrill 1915.

H. hyperborea (L.) R. Br. var. *huronensis* (Nutt.) Farw. Northern or Leafy Northern Green Orchis. Bogs and moist woods. Occasional. Grafton: E. Ogden 1934; Dixfield: Parlin (658) 1895; Canton: Parlin (2288) 1906, Gordon (1123) 1931; Hartford: Parlin 1886; Greenwood: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Norway: Chamberlain 1907; Waterford: Pease (31819) 1945; Hebron: Allen 1878; Hiram: V. Merrill 1915.

H. dilatata (Pursh) Hook. Leafy White Orchis. Bogs and wet woods. Occasional. Parmachenee: Campbell and Eastman (1432) 1974; Grafton: Campbell (1205) 1974; Gilead: Deane 1883; Mason: Rushmore and Ware 1920; Stow: Campbell and Eastman (556) 1973; Hebron: Allen 1878, Chamberlain 1900.

H. hookeri Torr. Woods. Occasional. Bethel: Curtis 1913, Wheeler 1935; Gilead: Furbish 1897; Hartford: Parlin 1895; Greenwood: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Buckfield: Allen 1902; Norway: Coburn 1907; Hebron: V. Merrill 1912, 1913; Oxford: Lee 1907, Chamberlain 1907.

H. orbiculata (Pursh) Torr. Round-leaved Orchis. Rich woods. Infrequent. Grafton: Fellows 1906; Newry: Wheeler 1926; Bethel: Wheeler 1914; Greenwood: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Batchelders Grant: Campbell (297), Eastman (139) 1973; Oxford: Chamberlain 1907, Lee 1907.

H. macrophylla Goldie. Rich woods. Local. Bethel: Wheeler 1930; Batchelders Grant: Eastman (160) 1973; Hiram: V. Merrill 1913.

H. obtusata (Pursh) Richards. Mossy, coniferous woods. Infrequent. Dixfield (Report) [97]; Bethel: Wheeler 1932; Norway (Report) [97]; Hebron: Campbell and Eastman (3314) 1975.

H. blephariglottis (Willd.) Hook. White Fringed Orchis. Bogs. Occasional. Magalloway Pt.: Pease (38042) 1955; Stow: Eastman and Campbell (570) 1973; Hebron: Fuller 1895; Fryeburg: Pease (17931) 1920; Denmark: Campbell (2001) 1974; Brownfield: Moulton (998) 1896.

H. lacera (Michx.) Lodd. Ragged Orchis. Old meadows. Occasional. Dixfield: Campbell (1939) 1974; Bethel: Wheeler 1937; Hartford: Parlin 1893; Greenwood: Campbell (1968) 1974; Norway: Kirk 1920; Hebron: Allen 1876, Campbell (1955) 1974; Brownfield: Eastman (561) 1974; Porter: Eastman (566) 1974.

H. X andrewsii M. White. Hartford: Adams 1945.

H. psychodes (L.) Spreng. Small Purple Fringed Orchis. Rich, low woods. Frequent. Lynchtown: Eastman and Campbell (1854) 1974; Dixfield: Campbell (1938) 1974; Bethel: Williams 1895; Norway: Pease (24167) 1934; Hebron: Campbell (1973) 1974, Wiggins 1975.

H. psychodes f. *albispicata* House. Grafton: Deane 1920; Canton: Parlin (Report) 1908; Woodstock: Nylander (Report) 1932.

H. fimbriata (Ait.) R. Br. Purple Fringed Orchis. Rich, low woods. Frequent. Lynchtown: Eastman and Campbell (746) 1975; Lincoln Pt.:

Campbell and Eastman (1854) 1974; Magalloway Pt.: Pease (20058) 1927; Grafton: Deane 1883, Campbell and Eastman (342) 1973; Hartford: Parlin 1895; Greenwood: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Mason: Deane 1920; Batchelders Grant: Campbell (309), Eastman (713) 1973; Hebron: Allen 1878; Oxford: Weatherby 1914; Paris: Campbell (2079) 1974.

H. fimbriata f. *albiflora* Rand & Redfield. Gilead: Eastman and Campbell (211) 1973.

POGONIA Juss. Pogonia.

P. ophioglossoides (L.) Ker. Boggy pond margins and swales. Frequent. Hartford: Parlin 1886; Sumner: Bean 1936; Greenwood: Chamberlain 1923, Campbell and Cross (2188) 1974; Albany: Pease (28766) 1942, Campbell (1516) 1974; Norway: Bean 1907; Hebron: Chamberlain 1900; Oxford: Weatherby 1914; Fryeburg: Pease (17896) 1920; Brownfield: Campbell (1339) 1974; Hiram: V. Merrill 1912, Campbell (1547) 1974; Porter: Gordon (902) 1929.

P. ophioglossoides f. *albiflora* Rand & Redfield. Hebron: Campbell, Bradford, and Eastman (1657) 1974.

ISOTRIA Raf. Whorled Pogonia.

I. verticillata (Willd.) Raf. Waterford: Eastman and Campbell (610) 1974.

I. medeoloides (Pursh) Raf. Small Whorled Pogonia. Well-drained, open hardwoods. Norway: Eames and Godfrey (Report) 1926.

TRIPHORA Nutt.

T. trianthophora (Sw.) Rydb. Nodding Pogonia. Rich beech woods. Occasional. Batchelders Grant: Eastman and Wight (21) 1971; Stow: Eastman 1970, Campbell and Josselyn Botanical Society (3154) 1975; Brownfield: Harvey (Report) 1899; Hiram: Eastman and Wight (766) 1975.

CALOPOGON R. Br. Grass-pink. [96]

C. tuberosus (L.) BSP (*C. pulchellus* (Salisb.) R. Br.) Sphagnous bogs. Occasional. Hartford: Parlin 1895; Buckfield: Parlin (2496) 1908; Stow: Campbell (1602) 1974; Hebron: Chamberlain 1900, Campbell, Bradford, and Eastman (1656) 1974; Brownfield: Merrill 1912.

ARETHUSA L. Arethusa.

A. bulbosa L. Swamp-pink. Boggy ground. Local. Peru: Gordon (1039) 1933.

EPIPACTIS Sw. Helleborine.

**E. helleborine* (L.) Crantz. Rich woods. Becoming frequent. Upton: Eastman, Campbell, and Richards (821) 1975; Bethel: Eastman and Campbell (754) 1975; Woodstock: Campbell (3094) 1975; Greenwood: Eastman and Campbell (726) 1975; Mason: Eastman (295) 1973; West Paris: Eastman (657) 1973; Batchelders Grant: Wiggin 1973; Stow: Campbell and Eastman (459) 1973.

SPIRANTHES Richard. Ladies'-Tresses. [96]

S. lacera Raf. Northern Slender Ladies'-Tresses. Dry fields. Occasional. Bethel: Wheeler 1921; Gilead: Pease 1920; Hartford: Parlin 1895; Mason: Wheeler 1931; Stow: Campbell (535), Campbell and Eastman (447) 1973.

S. gracilis (Bigel.) Beck. Southern Slender Ladies'-Tresses. Similar habitats. Local. Sumner: Bean 1954.

S. cernua (L.) Richard. Nodding Ladies'-Tresses. Moist soil. Occasional. Bethel: Wheeler 1932; Hartford: Parlin 1885; Greenwood: Pease (38175) 1955; Albany: Pease (29332) 1941; Batchelders Grant: Eastman (353) 1973; Buckfield: Eastman (602) 1974; Waterford: Pease (31820) 1945; Stow: Eastman (312) 1973; Hebron: Campbell and von Moschzisker (3213) 1975; Fryeburg: Harris (26704) 1964.

S. lucida (H.H. Eat.) Ames. Hartford: Parlin 1940; Stow: EWR 1941.

S. romanzoffiana Chapm. Hooded Ladies'-Tresses. Lynchtown: Eastman and Campbell (579) 1974; Lincoln Plt.: Williams 1903, Campbell (2138) and Eastman (594) 1974; Upton: Deane 1897; Riley: Bean 1948; Canton: Parlin (2006) 1906; Bethel: Wheeler 1936; Gilead: Eastman (267) 1973; Hartford: Parlin 1885; Sumner: Bean 1942; Stow: Eastman (220) 1973.

GOODYERA R. Br. Rattlesnake-plantain.

G. repens (L.) R. Br. var *ophioides* Fern. Damp woods. Occasional. Lincoln Plt.: Williams 1903; Dixfield: Bean 1935; Newry: Wheeler 1931; Riley: C.S. Campbell and A.S. Campbell, Jr. (1240) 1974; Bethel: Wheeler 1914; Gilead: Eastman and Campbell (183) 1973; Greenwood: Bean 1972.

G. tessellata Lodd. Damp woods. Occasional. Bowmantown: Eastman and Campbell (589) 1974; Upton: Deane 1897; Andover: L. Eaton 1888; Andover West Surplus: Bean 1942; Bethel: Kennedy 1883; Gilead: Campbell and Eastman (324) 1973; Hartford: Parlin 1895; Woodstock:

Bean 1936; Stoneham: Bean 1935; Batchelders Grant: Eastman (712) 1970, Campbell (246) 1973; Norway: Bean 1936; Porter: Campbell (1986), Eastman (570) 1974.

G. pubescens (Willd.) R. Br. Downy Rattlesnake-plantain. Woods. Infrequent. Albany: Eastman and Campbell (593) 1974; Stow: Eastman and Campbell (148) 1973; Brownfield: Moulton (3067) 1896; Porter: Campbell (994) and Eastman (392) 1974.

LISTERA R. Br. Twayblade.

L. cordata L.) R. Br. Heartleaf Twayblade. Mossy woods. Local. Bethel: Wheeler 1932; Norway: Chamberlain 1907; Canton: Parlin (Report) 1908.

L. auriculata Wieg. Auricled Twayblade. Low, rich woods. Local. Woodstock: Parlin 1887; Norway: Mann 1862.

L. convallarioides (Sw.) Nutt. Broad-lipped Twayblade. Rich woods. Local. Canton: Parlin (Report) 1908; Batchelders Grant: Campbell (1479), Eastman (185), and Richards 1974.

CORALLORHIZA Chatelain. Coral-root.

C. trifida Chatelain. var. *verna* (Nutt.) Fern. Damp, rich woods. Occasional. Bethel: Wheeler 1923; Greenwood: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Mason: Eastman (343) 1973; Batchelders Grant: Eastman and Newman (417) 1974; Norway: Mann 1862, Campbell (2897) 1975; Hebron: Hunnewell, Bill, Eaton, Fernald, and Griscom 1931; Hiram: Merrill 1929; Porter: Eastman and Campbell (418) 1974.

C. maculata Raf. Spotted Coral-root. Woods. Frequent. Newry: Wheeler 1926; Peru: Pease (25768) 1935; Bethel: Wheeler 1926; Gilead: Campbell (323) 1973; Batchelders Grant: Campbell (221), Eastman (159) 1973; Hiram: V. Merrill 1912, Campbell (2477) 1974; Porter: Merrill 1929, Campbell and Eastman (1912) 1974.

C. odontorhiza (Willd.) Nutt. Fall Coral-root. Beech woods. Hiram: Eastman and Wight (900) 1976.

MALAXIS Sw. Adder's-mouth.

M. brachypoda (Gray) Fern. Hebron: Fuller 1895.

M. unifolia Michx. Lincoln Plt.: Eastman and Campbell (572) 1974; Bethel: Wheeler 1919; Gilead: Furbish 1897; Mason: Wheeler 1931; Buckfield: Allen 1878; Denmark: Allen 1879.

LIPARIS Richard. Twayblade.

L. loeselii (L.) Richard. Low pastures. Infrequent. Canton: Parlin (2482) 1908; Hartford: Parlin 1895; Sumner: Bean 1936, Gordon (1185) 1936; Hebron: Fuller 1895; Oxford: Coburn 1907.

SALICACEAE (WILLOW FAMILY)

SALIX L. Willow.

S. nigra Marsh. Black Willow. Shores of rivers, ponds, and lakes. Frequent. Canton: Parlin (7065) 1921; Bethel: Campbell (2397) 1974; Gilead: Furbish 1897; Sumner: Parlin 1890; Greenwood: Hyland (160) 1934; Fryeburg: Hyland (463) 1933, Bean 1964, Rossbach (6112) 1964, Campbell and Eastman (1594 and 2119) 1974; Denmark: Campbell (1325) 1974.

S. lucida Muhl. Shining Willow. Wet to moist open sites. Frequent. Bowmantown: Campbell and Conant (2837) 1975; Adamstown: Campbell and Eastman (1135) 1974; Upton: Brewster 1907; Roxbury: Hyland and Steinmetz (191) 1934; Canton: Parlin (2338) 1908; Greenwood: Hyland (517) 1933; Batchelders Grant: Campbell (220) 1973; Fryeburg: Norton (17355) 1920, Rossbach (6109) 1964; Oxford: Chamberlain 1907.

S. lucida var. *angustifolia* Anderss. Similar habitats. Infrequent. Lynchtown: Campbell and Eastman (1430) 1974; Gilead: Furbish 1897; Woodstock: Campbell (1185) 1974.

S. lucida var. *intonsa* Fern. Lynchtown: Campbell and Eastman (1442) 1974.

**S. fragilis* L. Crack Willow. Fryeburg: Rossbach (6135) 1964.

**S. alba* L. Established near habitation. Norway: Campbell (2714) 1975.

**S. alba* var. *calva* G.F.W. Mey. White Willow. Gilead: Furbish 1897, Campbell (752) 1974.

**S. alba* var. *vitellina* (L.) Stokes. The commonest variety. Gilead: Campbell (757) 1974.

S. pyrifolia Anderss. Balsam Willow. Low ground. Frequent, especially northward. Bowmantown: Campbell and Conant (2838) 1975; Adamstown: Campbell and Eastman (1128) 1974; Lincoln Plt.: Williams 1903; Upton: Pease (20067) 1930; Andover: Campbell and Eastman (881) 1974; Peru: Allen 1896; Bethel: Pease (27317) 1939; Stow: Camp-

bell and Eastman (708) 1973; Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

S. cordata Michx. Sandy, open sites. Fryeburg: Hyland (464) 1933, Campbell (2739) 1975, Campbell and Eastman (3063) 1975.

S. cordata var. *abrasa* Fern. Oxford: Chamberlain 1907.

S. rigida Muhl. Shores and thickets. Frequent. Upper Cupsuptic: Campbell and Eastman (2783) 1975; Township C: Campbell and Eastman (1095) 1974; Riley: Bean 1945; Bethel: Wheeler 1929, 1937, Campbell (860) 1974; Gilead: Furbish 1897; Greenwood: Hyland (152 and 153) 1934; Stoneham: Campbell and Myers (491) 1973; Mason: Campbell (783) 1974; Batchelders Grant: Campbell (224 and 311) 1973; Buckfield: Parlin (2028) 1906; Stow: Campbell and Eastman (89) 1973; Fryeburg: Norton: (17399) 1920, Rossbach (6111) 1964.

S. rigida f. *mollis* (Palmer & Steyerem.) Fern. Riley: C.S. Campbell and A.S. Campbell, Jr. (1216) 1974; Gilead: Furbish 1897; Fryeburg: Bean 1964; Brownfield: Campbell and Josselyn Botanical Society (3146) 1975.

S. X myricoides (Muhl.) Carey. Upton: Brewster 1907; Gilead: Campbell (836) 1974.

S. bebbiana Sarg. Open, dry or moist ground. Common. Grafton: Hyland (198) 1934; Bethel: Wheeler 1936; Gilead: Furbish 1897; Greenwood: Hyland (151) 1934; Stoneham: Bean 1935; Mason: Campbell (668) 1973; Batchelders Grant: Campbell (249) 1973; Stow: Campbell (57) 1973; Paris: Norton (19112) 1938; Fryeburg: Hyland (560) 1933, Rossbach (6160) 1964; Brownfield: Hyland (560) 1933.

S. pedicellaris Pursh. Swales. Infrequent. Upton: Brewster 1907; Buckfield: Campbell (1071) 1974.

S. pedicellaris var. *hypoglauca* Fern. Swales. Occasional. Upton: Brower 1951; Canton: Parlin (2408) 1908; Sumner: Bean 1938; Woodstock: Campbell (1182) 1974; Albany: Pease (28115) 1940; West Paris: Bean 1935; Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931, Hyland and Steinmetz (535) 1933, Norton 1938; Fryeburg: Norton (17400) 1920, Campbell and Eastman (3060) 1975.

S. discolor Muhl. Pussy Willow. Open, wet to dry areas. Common. Riley: C.S. Campbell and A.S. Campbell, Jr. (1217) 1974; Bethel: Campbell (744 and 1299) 1974; Gilead: Furbish 1897; Greenwood: Hyland (154, 156, and 157) 1934; Albany: Pease (36738) 1952, Campbell (2033) 1974; Batchelders Grant: Campbell (292 and 295) 1973, Eastman

(41) 1973; Stow: Campbell (72) 1973; Brownfield: Hyland (546) 1933, Bean 1964.

S. discolor var. *latifolia* Anderss. Greenwood: Hyland (158) 1934.

S. discolor X *rigida* With the parents. Township C: Campbell and Eastman (1096) 1974.

S. humilis Marsh. Generally dry soil. Common. Lincoln Plt.: Williams 1903; Newry: Wheeler 1936; Riley: C.S. Campbell and A.S. Campbell, Jr. (1122) 1974; Peru: Allen 1896; Gilead: Furbish 1897; Sumner: Campbell and Eastman (879) 1974; Greenwood: Hyland (159) 1934, Bicknell 1955; Mason: Campbell (669) 1973; Batchelders Grant: Campbell (645 and 683) 1973; Stow: Campbell and Eastman (114) 1973; Hebron: Campbell and Eastman (3299) 1975; Oxford: Chamberlain 1907; Fryeburg: Hyland (561) 1933, Rossbach (6160) 1964; Brownfield: Hyland (554) 1933, Eastman (660) 1970; Porter: Campbell (2762) 1975.

S. gracilis Anderss. (Treated as *S. petiolaris* J.E. Smith by some, see Argus, [2], Boivin, [10]). Fields. Occasional. Gilead: Campbell (798) 1974; Stow: Campbell (136) 1973; Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Hebron: Campbell and Eastman (3299) 1975.

S. gracilis var. *textoris* Fern. Gilead: Furbish 1897; West Paris: Bean 1935; Fryeburg: Norton (17398) 1920; Brownfield: Bean 1964.

S. sericea Marsh. Silky Willow. Low ground. Frequent. Upton: C.S. Campbell, A.S. Campbell, Jr. and G.H. Campbell (2517) 1974; Roxbury: Hyland (190) 1934; Riley: Bean 1945; Gilead: Furbish 1897; Sumner: Bean 1938; Mason: Campbell (670) 1973, (784) 1974; Batchelders Grant: Campbell (48) and Eastman (59) 1973; Paris: Norton (19113) 1938; Fryeburg: Norton (17402) 1920, Rossbach (6110) 1964; Brownfield: Parlin (7073) 1921, Hyland (547) 1933; Hiram: Campbell (918) 1974.

S. coactilis Fern. Riverbanks. Local. Fryeburg: Bean and Rossbach (6108) 1964.

S. pellita Anderss. Swales and shores. Infrequent. Lynchtown: Campbell and Eastman (1875) 1974; Upton: Brewster 1907, Pease (35879) 1950, (39871) 1961, C.S. Campbell, A.S. Campbell, and G.H. Campbell (2320) 1974.

S. pellita f. *psila* Schneid. Similar habitats. Infrequent. Lynchtown: Campbell and Eastman (1762) 1974; Magalloway Plt.: Campbell and Eastman (1461) 1974.

**S. purpurea* L. Purple Osier. Spreading from cultivation. Canton: Campbell and Eastman (3071) 1975.

POPULUS L. Poplar. Aspen.

P. tremuloides Michx. Quaking Aspen. Trembling Aspen. Woods and fields. Common. Peru: Campbell (2707) 1975; Gilead: Furbish 1897; Mason: Campbell (672) 1973.

P. grandidentata Michx. Big-toothed Aspen. Similar habitats. Common. Upton: Purdie 1897; Bethel: Campbell (856) 1974; Gilead: Furbish 1897; Stow: Campbell and Eastman (162) 1973.

**P. alba* L. White Poplar. Spreading from cultivation. Infrequent. Oxford: Campbell (2540) 1974; Paris: Campbell (968) 1974; Brownfield: Harvey 1900.

**P. deltoides* Marsh. Cottonwood. Fryeburg: Campbell (2503) 1974.

P. balsamifera L. Balsam-Poplar. Clearings and roadsides. Frequent in the north. Magalloway Pt.: Campbell and Eastman (1452) 1974; Andover: Campbell (2855) 1975; Gilead: Eastman (1630) 1973.

**P. nigra* L. var. *italica* Muenchh. Lombardy Poplar. Field. Fryeburg: Campbell (2742) 1975.

P. X gileadensis Rouleau. Balm-of-Gilead. Roadside. Peru: Campbell (2163) 1975.

MYRICACEAE (WAX-MYRTLE FAMILY)

MYRICA L.

M. gale L. Sweet Gale. Swamps and shores. Common. Greenwood: Blankinship 1894; West Paris: Campbell (2073) 1974; Stow: Campbell and Eastman (106) 1973.

M. gale var. *subglabra* (Clev.) Fern. Similar habitats. Common. Greenwood: Campbell and Eastman (1165) 1974; Albany: Pease (28319) 1940; Waterford: Campbell (2332) 1974; Oxford: Weatherby 1914.

M. pensylvanica Loisel. Bayberry. Sandy, open ground. Rare. Brownfield: Eastman (571) 1974.

COMPTONIA L'Her. Sweet-fern.

C. peregrina (L.) Coult. Dry, open, sterile ground. Common. Bethel: Wheeler 1915; Gilead: Pease (18636) 1919; Stoneham: Campbell (531) 1973; Stow: Campbell and Eastman (113) 1973; Oxford: Weatherby 1914; Denmark: Campbell (1281) 1974.

JUGLANDACEAE (WALNUT FAMILY)

JUGLANS L. Walnut.

J. cinerea L. Butternut, White Walnut. Rich, low woods. Occasional. Dixfield: Parlin 1895; Gilead: Campbell (828) 1974; Stow: Eastman (10) 1970.

CARYA Nutt. Hickory.

C. ovata (Mill.) K. Koch. Shagbark Hickory. Brownfield: Hyland (549) 1933.

BETULACEAE (BIRCH FAMILY)

CORYLUS L. Hazel.

C. americana Walt. American Hazel. Alluvial thickets. Occasional in the south. Oxford: Chamberlain 1907; Fryeburg: Hyland (542) 1944, Campbell (1990) 1974; Denmark: Campbell and Eastman (3155) 1975; Hiram: Campbell (2747) 1975.

C. cornuta Marsh. Beaked Hazel. Thin woods. Common. Parmachenee: Campbell and Eastman (2144) 1974; Bethel: Wheeler 1938, Campbell (1675) 1974; Gilead: Furbish 1897, Campbell and Eastman (346) 1974; Hartford: Parlin 1895; Batchelders Grant: Campbell (201) 1973; West Paris: Furbish 1904; Paris: Bean 1919; Oxford: Bean 1907.

OSTRYA Scop. Hop-Hornbeam. Ironwood.

O. virginiana (Mill.) K. Koch. Rich, rocky woods. Frequent. Rumford: Pease 1938; Bethel: Wheeler 1927; Mason: Campbell and Eastman (814) 1974; Stow: Eastman and Campbell (98) 1973; Paris: Pease (24112) 1934; Brownfield: Campbell and Eastman (1347) 1974.

O. virginiana f. *glandulosa* (Spach.) Macbr. Porter: Campbell (1552) 1974.

CARPINUS L. Hornbeam. Ironwood.

C. caroliniana Walt. var. *virginiana* (Marsh.) Fern. Alluvial soil. Local. Oxford: Campbell (2541) 1974; Hiram: Campbell and Frueh (3262), Eastman (782) 1975.

BETULA L. Birch. [12]

B. lenta L. Cherry, Sweet, or Black Birch. Woods. Rare. Hartford: Adams 1936; Denmark: Campbell, F. Bucknell, R. Bucknell, and Eastman (3028) 1975.

B. alleghaniensis Britt. (*B. lutea* Michx. f.) Yellow Birch. Rich woods. Common. Bowmantown: Campbell and Eastman (2115) 1974; Bethel: Williams 1895; Gilead: Furbish 1897, Campbell (650) 1973; Porter: Campbell and Eastman (1344) 1974.

B. alleghaniensis var. *macrolepis* (Fern.) Brayshaw. Norway: Campbell and Eastman (3298) 1975.

B. populifolia Marsh. Gray Birch. Old fields and open woods. Frequent. Gilead: Furbish 1897; Fryeburg: Campbell and Eastman (2126) 1974.

B. caerulea-grandis Blanch. Blue Birch. Rare. Northern or at higher elevation in the south. Parmachenee: Campbell and Eastman (1819) 1974; Stoneham: Hyland (489) 1933.

B. papyrifera Marsh. Paper, Canoe, or White birch. Woods. Common. Upton: Pease (35877) 1950; Gilead: Furbish 1897; Hartford: Furbish 1896; Greenwood: Bean 1942; Fryeburg: Rossbach (6156) 1964.

B. papyrifera var. *commutata* (Regel) Fern. Riley: Bean 1945.

B. papyrifera var. *cordifolia* (Regel) Fern. Lynchtown: Campbell and Eastman (2143) 1974; Lincoln Plt.: Williams 1903; Grafton: Hyland (485) 1933, (197) 1934, Rossbach (5257) 1960; Stoneham: Bean 1925; Mason: Manter 1919; Batchelders Grant: Campbell (695) 1973.

ALNUS B. Ehrh. Alder. [37]

A. viridis (Vill.) Lam. & DC. subsp. *crispa* (Ait.) Turrill. (*A. crispa* var. *mollis* Fern.) Ledges and clearings. Common. Rumford: Pease (33254) 1947; Milton: Pease (33477) 1948; Gilead: Furbish 1897; Hartford: Gordon (715) 1925; Woodstock: Parlin 1887; Stoneham: Bean 1945, Campbell (682) 1973; Mason: Hyland (480) 1933, Hodgdon and Steele (10547) 1958; Buckfield: Allen 1878; Waterford: Pease (27302) 1939; Lovell: Pease (17134) 1918; Stow: Campbell and Eastman (170) 1973; Oxford: Weatherby (2384) 1906; Fryeburg: Bean 1920; Denmark: Campbell (1269) 1974.

A. incana (L.) Moench subsp. *rugosa* (DuRoi) Clausen. (*A. rugosa* (DuRoi) Spreng.) Speckled Alder. Low ground. Common. Upper Cup-suptic: Campbell and Eastman (1852) 1974; Upton: Brewster 1907; Bethel: Wheeler 1914; Hartford: Parlin 1892; Woodstock: Bean 1917; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Hodgdon, Lincoln, Pease, and Steele (10249) 1957; Batchelders Grant: Campbell (629) 1973; Oxford: Weatherby 1914.

A. serrulata (Ait.) Willd. Common Alder. Low ground. Frequent southward. Woodstock: Campbell (3089) 1975; Albany: Hodgdon, Lincoln, Pease, and Steele (10247) 1957; Norway: Pease (24100) 1934; Stow: Campbell and Eastman (742) 1973; Fryeburg: Campbell (1268) 1974; Hiram: Campbell (2907) 1975.

FAGACEAE (BEECH FAMILY)

FAGUS L. Beech.

F. grandifolia Ehrh. Well-drained woods. More common southward. Lynchtown: Eastman and Campbell (790) 1975; Newry: Bean 1934; Stoneham: Campbell (2027) 1974; Batchelders Grant: Richards (6083) 1954, Campbell (685) 1973; Brownfield: Eastman and Cronin (617) 1974; Hiram: Eastman and Cronin (618) 1974.

CASTANEA Mill. Chestnut.

C. dentata (Marsh.) Borkh. Woods. Rare. Bethel: Wheeler 1931; Waterford: Eastman (664) 1970; Porter: Eastman (616) 1974.

QUERCUS L. Oak.

Q. alba L. White Oak. Dry woods. Frequent in the south. Hiram: Norton and Merrill (18206) 1923, Campbell (2520) 1974; Porter: Campbell (3319) 1976.

**Q. macrocarpa* Michx. Albany: Pease (26917) 1938.

Q. bicolor Willd. Albany: Pease (26917) 1938.

Q. rubra L. Dry woods and ledges. Common in the south. Rumford: Norton (17089) 1926; Bethel: Campbell (852) 1974; Gilead: Furbish 1897, Pease (17631) 1919, Campbell (385) 1973; Stow: Campbell and Frueh (616) 1973; Hiram: Eastman and Cronin (619) 1974.

Q. rubra var. *borealis* (Michx. f.) Farw. Exposed ledge. Stow: Campbell (532) 1973.

Q. velutina Lam. Woods. Rare. Denmark: Campbell, F. Bucknell, R. Bucknell, and Eastman (3027) 1975; Porter: Norton 1929.

Q. ilicifolia Wang. Dry, sandy flat ground. A common plant of the sand plains from Fryeburg southward. Waterford: Wheeler 1936, Campbell and Eastman (2259) 1974; Oxford: Bean (2209 and 2274) 1907; Fryeburg: Coburn, Norton (17390) 1920, Wheeler 1938, Rossbach (6143) 1964, Eastman (661) 1971, Campbell and Eastman (1017) 1974; Den-

mark: Campbell (2474) 1974); Brownfield: Fellows (1714) 1905, Norton and Wheldon (19927) 1927; Porter: Gordon (908) 1929.

Q. X fernaldii Trel. With the parents. Waterford: Campbell and Eastman (2258) 1974).

ULMACEAE (ELM FAMILY)

ULMUS L. Elm.

U. americana L. American White Elm. Low, rich ground. Common. Gilead: Campbell and Eastman (359) 1973.

U. americana f. *pendula* (Ait.) Fern. Fryeburg: Bean 1964.

U. americana f. *alba* (Ait.) Fern. Fryeburg: Bean 1964.

U. americana f. *intercedens* Fern. Gilead: Furbish 1897.

CANNABINACEAE (HEMP FAMILY)

CANNABIS L. Hemp. Marijuana.

**C. sativa* L. Roadside and on cow manure. Porter: Eastman (1666) 1976; Mason: Smith (verbal report) 1973.

HUMULUS L. Hop.

**H. lupulus* L. Near habitation. Infrequent. Bethel: Wheeler 1935; Gilead: Furbish 1897; Waterford: Eastman (598) 1974; Brownfield: Campbell (3032) 1975.

URTICACEAE (NETTLE FAMILY)

URTICA L. Nettle.

U. gracilis Ait. Fields and roadsides. Infrequent. Upper Cupsuptic: Campbell and Eastman (1885) 1974); Bethel: Parlin 1889; Hiram: V. Merrill 1915, Merrill 1929.

U. procera Muhl. Fields and roadsides. Occasional. Bowmantown: Campbell and Eastman (2097) 1974; Upton: C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2306) 1974; Bethel: Parlin 1889; Hiram: Eastman (595) 1974.

LAPORTEA Gaud. Wood-Nettle.

L. canadensis (L.) Wedd. Bottomlands and rich woods. Occasional. Newry: Hodgdon and Steele (19908) 1973; Canton: Gordon (935) 1928;

Gilead: Deane 1883, Furbish 1897; Mason: Hodgdon and Steele (10459) 1958; Buckfield: Parlin 1889; Batchelders Grant: Eastman (32) 1972, Campbell (301) 1973; Stow: Campbell (414) 1973.

PLIEA Lindl. Richweed.

P. pumila (L.) Gray. Moist woods. Infrequent. Bethel: Wheeler 1938; Gilead: Deane 1883; Hartford: Rowell 1940; Buckfield: Parlin 1893; Stow: Eastman (666) 1970.

BOEHMERIA Jacq. False Nettle.

B. cylindrica (L.) Sw. Sandy, alluvial soil. Occasional. Oxford: Campbell (2548) 1974; Fryeburg: Campbell and Eastman (2124) 1974; Porter: Campbell (1989) 1974.

SANTALACEAE (SANDALWOOD FAMILY)

COMMANDRA Nutt. Bastard-Toadflax.

C. umbellata (L.) Nutt. Dry, sandy soil. Frequent in the south. Waterford: Wheeler 1936; Lovell: Campbell and Eastman (1022) 1974; Oxford: Bean, Chamberlain 1907; Fryeburg: Bean, Rossbach (6151) 1964; Denmark: Campbell (1276) 1974; Brownfield: Campbell (904) 1974.

GEOCAULON Fern. Northern Commandra.

G. lividum (Richards.) Fern. Under spruce and fir at high elevations of Mahosuc Range. Riley: Adams 1941, Brower 1957, Harris (26803) 1964, Campbell (2908) 1975.

LORANTHACEAE (MISTLETOE FAMILY)

ARCEUTHOBIUM Bieb. Dwarf Mistletoe.

A. pusillum Peck. Parasitic on branches of *Picea* sp., and less often, if ever, in our area, on *Larix*. Occasional. Adamstown: Pease (27960) 1940; Norway: Chamberlain, Norton (6091) 1907; Hebron: Campbell, A. Bradford, R. Bradford, and Eastman (1650) 1974; Oxford: Chamberlain (Report) 1907.

ARISTILOCHIACEAE (BIRTHWORT FAMILY)

ASARUM L. Wild Ginger.

A. canadense L. Rich woods. Rare. Paris: Verrill 1857, Pease (28284) 1940, Eastman and Mills (1114) 1976.

POLYGONACEAE (BUCKWHEAT FAMILY)

RUMEX L. Dock. Sorrel.

**R. mexicanus* Meisn. Waste places. Infrequent. Gilead: Eastman (713) 1973; Batchelders Grant: E.C. Ogden (1982) 1939.

**R. altissimus* Wood. Pale Dock. Rare. Bethel: Wheeler 1934.

**R. domesticus* Hartm. Rare. Oxbow: Campbell and Eastman (1860) 1974.

**R. alpinus* L. Rare. Bethel: Wheeler 1925, 1929, and 1934.

R. orbiculatus Gray. Wet ground. Batchelders Grant: Eastman (203) 1973.

**R. crispus* L. Yellow Dock. Waste places. Frequent. Bethel: Campbell (1928) 1974; Batchelders Grant: Campbell (186) 1973.

**R. obtusifolius* L. Bitter Dock. Waste places. Frequent. Bethel: Campbell (1581) 1974; Stow: Campbell (413) 1973; Denmark: Moulton 1902.

**R. acetosella* L. Sheep-Sorrel. Dry, open areas. Common. Lynchtown: Campbell and Eastman (1431) 1974; Gilead: Furbish 1897, Campbell (438) 1973; Buckfield: Campbell (1077) 1974; Stow: Campbell (41) 1973; Hiram: V. Merrill.

RHEUM L. Rhubarb.

**R. rhaponticum* L. Persistent after cultivation. Occasional. Fryeburg: Campbell (1294) 1974.

POLYGONUM L. Knotweed.

**P. ramosissimum* Michx f. *atlanticum* Robins. Waste places. West Paris: Campbell (2076) 1974.

**P. aviculare* L. Waste places. Frequent. Mexico: Campbell (2457) 1974; Gilead: Furbish 1897, Eastman (367) 1973; Buckfield: Parlin (14638 and 14624) 1941.

**P. rurivagum* Jordan ex. Bor. Bethel: Wheeler 1934; Fryeburg: Campbell (1707 and 1719) 1974.

P. tenue Michx. Bethel: Wheeler 1939.

P. douglasii Greene. Open ledges. Occasional. Albany: Steele (2485) 1957; Stow: Campbell (366) 1973; Brownfield: Moulton (838) 1891, Eastman (541) 1974; Hiram: Steinmetz 1933.

P. amphibium L. var. *stipulaceum* (Coleman) Fern. Shallow water. Occasional. Upton: Pease (35881) 1951; Canton: Parlin (1992) 1906; Waterford: Campbell (3207) 1975; Brownfield: Campbell and Josselyn Botanical Society (3145) 1975.

P. amphibium var. *stipulaceum* f. *fluitans* (Eat.) Fern. Similar habitats. Occasional. Upton: Brewster 1907, Curtis 1913, Pease (20696) 1930, C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2317) 1974; Oxford: Weatherby 1907; Brownfield: Pease (28330) 1940, Campbell and Eastman (1599) 1974.

P. coccineum Muhl. Similar habitats. Infrequent. Rumford: Parlin 1889; Woodstock: Parlin 1887; Hebron: Campbell and von Moschzisker (3210) 1975.

P. pensylvanicum L. var. *laevigatum* Fern. Damp to moist, open areas. Occasional. Rumford: Pease (33225) 1947; Bethel: Wheeler 1936; Gilead: Eastman (319) 1973; Greenwood: Campbell and Cross (2198) 1974; Waterford: Campbell (3187) 1975; Stow: Eastman (369) 1973; Fryeburg: Harris (26654) 1964; Hiram: Campbell and Frueh (3263) 1975.

P. lapathifolium L. Open, often low ground. Occasional. Canton: Parlin (2663) 1908; Bethel: Wheeler 1927; Oxford: Neal 1935; Fryeburg: Bean 1964.

P. lapathifolium var. *salicifolium* Sibth. Hartford: Parlin (1424) 1901; Buckfield: Parlin (14621) 1941.

**P. scabrum* Moench. Oxford: Weatherby (1936) 1906.

P. careyi Olney. Open, wet to dry ground. Occasional. Rumford: Parlin 1890, Pease (33223) 1947; Bethel: Wheeler 1925; Buckfield: Allen 1880; Hiram: Campbell and Frueh (3273) 1975, Eastman and Wight (761) 1975; Fryeburg: Bean 1964; Brownfield: Harris (26720) 1964, Campbell (2495) 1974; Hiram: V. Merrill 1913.

**P. orientale* L. Norway: Furbish 1897.

P. hydropiper L. Wet ground. Common. Bowmantown: Campbell, Eastman, and Richards (3228) 1975; Dixfield: Campbell (2290) 1974; Rumford: Campbell (2179) 1974; Bethel: Wheeler 1936, Campbell (2402) 1974; Hartford: Parlin 1893; Buckfield: Campbell and Eastman (2353) 1974; Stow: Campbell and Eastman (710) 1973; Oxford: Campbell (2547) 1974; Fryeburg: Harris (26653) 1964.

**P. persicaria* L. Lady's-thumb. Waste places. Common. Lynchtown: Campbell and Eastman (1887) 1974; Bethel: Campbell (1570) 1974;

Gilead: Furbish 1897; Stoneham: Campbell (1721) 1974; Mason: Campbell (671) 1973; Denmark: Moulton 1902.

P. puritanorum Fern. Lake shore. Waterford: Pease (28761) 1941.

P. punctatum Ell. Wet ground. Occasional. Gilead: Eastman (369) 1973; Waterford: Pease 1941; Brownfield: Bean 1964.

P. punctatum var. *leptostachyum* (Meisn.) Small. Similar habitats. Occasional. Bethel: Campbell (3100) 1975; Gilead: Eastman (320) 1973; Buckfield: Parlin 1895; Stow: Campbell and Eastman (739) 1973; Hiram: Campbell and Frueh (3255) 1975.

P. hydropiperoides Michx. Wet places. Occasional. Gilead: Furbish 1897; Norway: Verrill 1855; Fryeburg: Harris (26695), Rossbach (6170) 1964; Hiram: V. Merrill 1914.

P. sagittatum L. Low ground. Common. Gilead: Campbell (374) 1973; Hartford: Parlin 1893; Buckfield: Allen 1878; Stow: Eastman (307) 1973; Hiram: V. Merrill 1924, Merrill 1929, Eastman and Wight (760) 1975.

P. arifolium L. var. *pubescens* (Keller) Fern. Wet places. Infrequent. Gilead: Wheeler 1939; Albany: Pease (27300) 1939; Buckfield: Parlin 1893; West Paris: Pease (23795) 1933.

P. cilinode Michx. Dry, mostly open areas. Common. Bethel: Curtis 1913; Woodstock: Blankinship 1894; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Pease (27853) 1940; Hebron: Allen 1877; Hiram: V. Merrill 1913.

P. cilinode f. *erectum* (Peck) Fern. Brownfield: Perley 1890.

**P. convulvulus* L. Waste ground. Occasional. Bethel: Wheeler 1935; Gilead: Campbell (392) 1973; Norway: Richards (6281) 1955; Fryeburg: Campbell (1706) 1974.

**P. cuspidatum* Sieb. & Zucc. Japanese Knotweed. Waste places. Common. Peru: Campbell (2164) 1974; Bethel: Burbank (8178) 1914, Wheeler 1938.

FAGOPYRUM Mill. Buckwheat.

**F. sagittatum* Gilib. Persistent after cultivation. Bethel: Wheeler 1927, 1936; Gilead: Campbell (327) and Eastman (184) 1973; Denmark: Evans 1902.

**F. tataricum* (L.) Gaertn. Similarly persistent. Bethel: Wheeler 1927; Gilead: Furbish 1897.

POLYGONELLA Michx. Jointweed.

P. articulata (L.) Meisn. Dry, sandy ground. Common. Bethel: Wheeler 1939, George 1964; Gilead: Eastman (255) 1973; Greenwood: Campbell (2424) 1974; Sweden: Eastman (599) 1974; Hebron: Campbell (2380) 1974; Fryeburg: Norton (17406) 1920, Harris (26668) 1964; Brownfield: Bearse (7914) 1902, Campbell (2498) 1974.

CHENOPODIACEAE (GOOSEFOOT FAMILY)

KOCHIA Roth.

**K. scoparia* (L.) Summer-cypress. Railroad ballast. Rumford: Campbell (2278) 1974.

CHENOPODIUM L. Goosefoot. Pigweed.

C. hybridum L. var. *gigantospermum* (Aellen) Rouleau. Maple-leaved Goosefoot. Greenwood: Bean 1945; Hiram: V. Merrill 1914.

C. boscianum Moq. Ledges. Local. Brownfield: Eastman (543) 1974.

**C. album* L. Pigweed. Waste places. Common. Dixfield: Campbell (1952) 1974; Gilead: Campbell (377), Eastman (238) 1973; Buckfield: Parlin (14620) 1941; Denmark: Moulton 1902.

**C. paganum* Reichenb. Lincoln Plt.: Campbell and Eastman (1868) 1974.

**C. botrys* L. Woodstock: Blankinship 1894.

**C. glaucum* L. Canton: Parlin (17997) 1946.

C. capitatum (L.) Aschers. Rumford: Parlin 1889.

SALSOLA L. Saltwort.

**S. kali* L. var. *tenuifolia* Rausch. Railroad ballast. Occasional. Rumford: Campbell (2279) 1974; Bethel: Wheeler 1929; Paris: Campbell (2060) 1974.

AMARANTHACEAE (AMARANTH FAMILY)

AMARANTHUS L. Amaranth.

**A. cruentus* L. Waste places. Infrequent. Fryeburg: Harris (26703) 1964.

**A. hybridus* L. Similarly. Bethel: Wheeler 1927; Hiram: V. Merrill 1926.

**A. retroflexus* L. Similarly. Common. Canton: Bean 1935; Hanover: Campbell (3318) 1975; Gilead: Campbell (2152) 1974; Norway: Furbish 1897; Stow: Eastman (294) 1974; Oxford: Campbell (3117) 1975; Fryeburg: Campbell (1998) 1974.

**A. albus* L. Similar. Occasional. Rumford: Campbell (2278) 1974; Bethel: Wheeler 1919; Hiram: V. Merrill 1922.

NYCTAGINACEAE (FOUR-O'CLOCK FAMILY)

MIRABILIS L. Four o'clock. Umbrella-wort.

**M. hirsuta* (Pursh) MacM. Dry, open site. Rare. Woodstock: Eastman and Wight (1116) 1976.

AIZOACEAE (CARPET-WEED FAMILY)

MOLLUGO L. Indian Chickweed.

M. verticillata L. Roadsides and railroad ballast. Frequent. Mexico: Campbell (2456) 1974; Gilead: Furbish 1897; Greenwood: Campbell and Cross (2202) 1974; Buckfield: Gordon (696) 1925; Norway: Furbish 1897; Oxford: Eastman and Wight (495) 1974; Fryeburg: Campbell and Eastman (2128) 1974; Brownfield: Campbell (1523) 1974; Hiram: V. Merrill 1913.

PORTULACACEAE (PURSLANE FAMILY)

PORTULACA L. Purslane

**P. oleracea* L. Common Purslane. Garden weed. Occasional. Gilead: Furbish: 1897; Stow: Eastman and Hall (529) 1974.

CLAYTONIA L. Spring-beauty.

C. caroliniana Michx. Rich woods. frequent. Bowmantown: Campbell, Conant, Eastman, and Newman (2820) 1975; Parkertown: Campbell and Eastman (2778) 1975; Hartford: Parlin 1884; Woodstock: Parlin 1887, Campbell (2728) 1975; Mason: Campbell and Eastman (813) 1974; Batchelders Grant: Campbell (804) 1974; Buckfield: Gordon (17045) 1925; Norway: Mann 1862; Paris: Chute (no date), Gordon (1142) 1937.

CARYOPHYLLACEAE (PINK FAMILY)

PARONYCHIA Mill. Whitlow-wort.

P. argyrocoma (Michx.) Nutt. var. *albimontana* Fern. Exposed ledges of lower mountains and sand plains. Occasional. Grafton: Campbell and Ver Steeg (3320) 1975; Rumford: Parlin 1889, Pease (19292) 1924, Gordon (703) 1926, Norton (17090) 1926, Pease (27348) 1939; Mason: Kirk 1914, Campbell (229) 1974; Stow: Campbell (174) and Eastman (150) 1973; Fryeburg: Bean, Kimball 1920.

SPERGULARIA J. & C. Presl. Sand-spurrey.

**S. rubra* (L.) J. & C. Presl. Dry, open ground. Occasional. Lynchtown: Campbell and Eastman (2989) 1975; Bethel: Wheeler 1928; Lovell: Eastman (56) 1974; Fryeburg: Campbell (2744) 1975; Denmark: Eastman and Wells (595) 1974; Hiram: V Merrill, 1913, Merrill 1934.

SPERGULA L. Spurrey.

**S. arvensis* L. Cultivated ground. Occasional. Lincoln Plt.: Campbell and Eastman (1771) 1974; Bethel: Wheeler 1925, Campbell (1574) 1974; Denmark: Moulton 1902; Hiram: V. Merrill 1918.

SAGINA L. Pearlwort.

S. procumbens L. (doubtfully indigenous, see Crow [21]). Damp, open areas and shores. Infrequent. Summer: Bean, Gordon (2100) 1942; Oxford: Chamberlain, Coburn 1907; Hiram: Campbell and Frueh (3273) 1975, Eastman and Wight (761) 1975.

ARENARIA L. Sandwort.

A. lateriflora L. Meadows and grassy banks. Frequent. Magalloway Plt.: Campbell and Eastman (1778) 1974; Bethel: Wheeler 1926; Gilead: Furbish 1897; Hartford: Rowell 1940; Albany: Campbell (952) 1974; Buckfield: Campbell (1091) 1974; Lovell: Campbell (933) 1974; Hiram: V. Merrill 1913.

A. groenlandica (Retz.) Spreng. Mountain-Sandwort. Exposed mountain ledges and (infrequently) at lower elevations. Occasional. Parmachenee: Campbell and Eastman (1808) 1974; Lynchtown: Campbell and Eastman (1825) 1974; Grafton: Pease (10507) 1907, Campbell (3191) 1975; Riley: Brower 1957; Mason: Manter 1919, Campbell (230) 1973.

A. groenlandica var. *glabra* (Michx.) Fern. Lower mountains. Infrequent. Rumford: Parlin 1889, Pease (19293) 1924, Gordon (702) 1926; Paris: Thompson 1892; Hebron: Bean 1934.

STELLARIA L. Chickweed.

**S. media* (L.) Cyrillo. Common Chickweed. Waste places. Frequent. Stoneham: Campbell (1728) 1974; West Paris: Campbell (902) 1974; Paris: Campbell (963) 1974.

**S. graminea* L. Common Stitchwort. Grassy places. Common. Magalloway Plt.: Campbell and Eastman (1779) 1974; Bethel: Wheeler 1923; Batchelders Grant: Campbell (79), Eastman (97) 1973; Norway: Bean 1955; Stow: Campbell (40) 1973; Oxford: Bean 1907; Fryeburg: Campbell (2840) 1975; Brownfield: Campbell and Eastman (998) 1974; Hiram: Merrill 1934.

**S. longifolia* Muhl. Grassy places. Infrequent. Oxford: Norton (2503) 1908, Weatherby 1914, Neal 1935.

S. alsine Grimm. Wet places. Infrequent. Porter: Pease (18102) 1921.

S. calycantha (Ledeb.) Bong. Wet ledge. Twin Peaks. Bowman-town: Campbell, Eastman, and Richards (3287) 1975.

S. calycantha var. *isophylla* Fern. Wet places. Infrequent. Gilead: Furbish 1897; Hartford: Parlin 1886, 1893; Oxford: Chamberlain 1907.

S. calycantha var. *floribunda* Fern. Similar habitats. Infrequent. Oxford: Josselyn Botanical Society 1907.

CERASTIUM L. Mouse-ear Chickweed.

**C. vulgatum* L. Roadsides, fields, and waste places; often far from habitation. Common. Lynchtown: Campbell and Eastman (1439) 1974; Andover: Pease (33470) 1948; Bethel: Wheeler 1938; Gilead: Furbish 1897; Greenwood: Campbell and Eastman (1010) 1974; Batchelders Grant: Campbell (54) 1973; West Paris: Campbell and Eastman (891) 1974; Paris: Campbell (967) 1974.

C. arvense L. Shaded ledges or adventive in lawns. Infrequent. Bethel: Campbell (1043) 1974; Brownfield: Eastman (535) 1974; Porter: Eastman (397) 1974.

AGROSTEMA L. Corn-Cockle.

**A. githago* L. Waste places. Infrequent. Bethel: Curtis 1913; Gilead: Deane 1883; Hartford: Parlin 1941; Hiram: V. Merrill 1918.

LYCHNIS L. Campion.

**L. coronaria* (L.) Desr. Old field. Bethel: Eastman and Campbell (755) 1975; Brownfield: Eastman and Wight (738) 1975.

**L. dioica* L. Red Campion. Roadsides and fields. Hebron: Eastman and Campbell (491) 1974.

**L. alba* Mill. White Campion. Similar habitats. Frequent. Bethel: Campbell (1191) 1974; Batchelders Grant: Campbell (251) 1973; Fryeburg: Campbell (1205) 1974.

**L. chalconica* L. Scarlet Lynchis. Persistent near old house sites. Albany: Campbell (1505) 1974.

**L. flos-cuculi* L. Ragged-Robin. Waste places. Infrequent. Rumford: Parlin 1891; Paris: Campbell (1069) 1974.

SILENE L. Catchfly.

**S. cucubalus* Wibel. Bladder-Campion. Waste places. Common. Canton: Parlin (2105) 1906; Milton: Pease (38871) 1961; Bethel: Furbish 1897; Gilead: Furbish 1897, Campbell (381) 1973; Woodstock: Parlin 1887; Batchelders Grant: Eastman (212) 1973; Oxford: Chamberlain, Norton (2488) 1907; Hiram: V Merrill 1911.

**S. cserei* Baumg. Waste places. Infrequent. Gilead: Campbell and Eastman (2045) 1974; Woodstock: Brower (verbal report) 1970; Greenwood: Eastman and Wight (505) 1974; West Paris: Eastman and Wight (518) 1974; Norway: Eastman and Campbell (804) 1975.

S. antirrhina L. Sleepy Catchfly. Shaded ledges. Infrequent. Albany: Hodgdon, Lincoln, and Steele (10355) 1957; Brownfield: Eastman (542) 1974; Hiram: Campbell (1553) 1974.

S. antirrhina f. *deaneana* Fern. Porter: Campbell and Eastman (1630) 1974.

**S. armeria* L. Norway: Furbish 1897.

**S. noctiflora* L. Cultivated or waste ground. Occasional. Gilead: Furbish 1897; Woodstock: Parlin 1887; Norway: Verrill 1858; Hiram: V. Merrill 1914.

SAPONARIA L.

**S. officinalis* L. Bouncing-Bet. Roadsides and waste places. Frequent. Rumford: Campbell (1929) 1974; Bethel: Curtis 1913, Pease (33903) 1961; Gilead: Campbell (399) 1973; Porter: Campbell and Eastman (1903) 1974.

**S. vaccaria* L. Cow Herb. Buckfield: Parlin (2590) 1908.

GYPSOPHILA L.

**G. paniculata* L. Sandy roadsides. Infrequent. Canton: Parlin (7053) 1921.

**G. muralis* L. Waste places. Infrequent. Paris: Furbish 1897.

DIANTHUS L. Pink.

**D. armeria* L. Deptford Pink. Field. Stow: Campbell and Josselyn Botanical Society (3129) 1975.

**D. barbatus* L. Sweet William. Persistent about old housesites. Bethel: Wheeler 1923; Albany: Campbell (1507) 1974; Fryeburg: Campbell (1558) 1974.

**D. deltoides* L. Maiden-Pink. Fields and roadsides. Frequent. Newry: Dean 1921; Riley: Curtis 1913, Deane 1925; Bethel: Deane 1925, Wheeler 1936; Gilead: Eastman (158) 1973; Albany: Pease (28712) 1941; Batchelders Grant: Campbell (281) 1973; Buckfield: Campbell (1372) 1974; Hebron: Eastman and Wight (465) 1974.

**D. plumarius* L. Grass-Pink. Gravelly roadside. Woodstock: Campbell and Eastman (1174) 1974.

CERATOPHYLLACEAE (HORNWORT FAMILY)

CERATOPHYLLUM L. Hornwort.

C. demersum L. Ponds and rivers. Infrequent. Oxford: Campbell (3106) 1975; Porter: Gagnon and Ogden (310) 1975.

NYMPHAEACEAE (WATER-LILY FAMILY)

NUPHAR Sm. Pond-lily.

N. microphyllum (Pers.) Fern. Ponds. Infrequent. Parmachenee: Norton and Dr. and Mrs. Jamieson (1177) 1941; Peru: Campbell (2057) 1974; Bethel: Curtis 1913; Norway: Verrill 1858.

N. X rubrodiscum Morong. Ponds. Infrequent. Upton: Brewster 1907; Greenwood: Curtis, Lunt 1913.

N. variegatum Engelm. Ponds and lakes. Common. Lynchtown: Eastman and Campbell (668) 1974; Upton: Brewster 1907; Gilead: Brown 1917; Greenwood: Curtis 1913, Campbell and Eastman (1178) 1974; Norway: Eastman and Wight (448) 1974; Lovell: Eastman and Campbell

(550) 1974; Stow: Campbell and Eastman (562) 1973; Hiram: V. Merrill 1911; Porter: Eastman and Campbell (710) 1974.

NYMPHAEA L. Water-lily.

N. odorata Ait. Ponds and lakes. Common. Greenwood: Campbell (1497) 1974; Brownfield: Eastman and Campbell (473) 1974; Porter: Eastman and Josselyn Botanical Society (784) 1975.

N. odorata f. *rubra* Guillon. Similar habitats. Less common. Woodstock: Eastman and Gray (476) 1974; Greenwood: Bean 1945; Buckfield: Allen 1894; Norway: Richards (6283) 1955; Hiram: Campbell (1604) 1974.

BRASENIA Schreb. Water-shield.

B. schreberii Gmel. Ponds. Frequent. Township C: Morss 1895; Woodstock: Campbell (2445) 1974; Greenwood: Curtis 1913; Paris: Parlin 1890.

RANUNCULACEAE (CROWFOOT FAMILY)

RANUNCULUS L. Crowfoot. Buttercup.

R. trichophyllus Chaix. White Water-Crowfoot. Ponds. Infrequent. Brownfield: Campbell and Eastman (1600) 1974.

R. trichophyllus var. *calvescens* W.B. Drew. Ponds and brooks. More common. Bethel: Curtis 1913; Woodstock: Parlin 1887; Fryeburg: Pease 1933; Brownfield: Eastman (547) 1974; Hiram: Campbell and Frueh (3271) 1975.

R. reptans L. Creeping Spearwort. Sandy shores. Common. Lower Cupsuptic: Campbell and Eastman (2464) 1974; Upton: C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2314) 1974; Bethel: Wheeler 1920; Sumner: Pease (23798) 1933; Albany: Wheeler 1920; Waterford: Campbell (2272 and 2337), Eastman (565) 1974; Lovell: Campbell and Eastman (1838) 1974; Fryeburg: Bean 1920, Eastman (667) 1971 and (564) 1974.

R. reptans var. *ovalis* (Bigel.) T. & G. Gilead: Furbish 1897.

R. abortivus L. Kidneyleaf-Buttercup. Rich woods. Infrequent. Stow: Campbell and Eastman (112) 1973.

R. abortivus var. *acrolasius* Fern. Similar habitats. Frequent. Riley: C.S. Campbell and A.S. Campbell, Jr. (1223) 1974; Gilead: Campbell and Eastman (809) 1974; Mason: Campbell and Eastman (823) 1974; Batchelders Grant: Campbell and Eastman (87) 1973.

R. abortivus var. *eucyclus* Fern. Similar habitats. Frequent. Lincoln Plt.: Robinson 1903; Andover: Pease (33476) 1948; Canton: Gordon (200) 1917 and (1176) 1936; Gilead: Furbish 1897; Oxford: Chamberlain 1907.

R. recurvatus Poir. Rich, moist woods. Occasional. Parmachenee: Campbell and Eastman (1792) 1974; Roxbury: Campbell (1682) 1974; Canton: Parlin (2330) 1908; Bethel: Wheeler 1928; Gilead: Furbish 1897; Mason: Hodgdon and Steele (10608) 1958; Campbell, Eastman, and Richards (1476) 1974; Batchelders Grant: Campbell (86) and Eastman (87) 1973; Buckfield: Bean 1952.

R. pensylvanicus L. f. Bristly Crowfoot. Low ground. Occasional. Township C: Morss 1915; Rumford: Anonymous 1851; Canton: Parlin (2671) 1908; Bethel: Boott 1865, Curtis 1913, Wheeler 1915; Gilead: Furbish 1897; Greenwood: Eastman, C. King, V. King, and Wight (511) 1974, Campbell (3170) 1975; Lovell: Evans 1902; Fryeburg: V. Merrill 1913.

R. fascicularis Muhl. Shaded ledge. Local. Porter: Eastman and Wight (398) 1974, Campbell and Eastman (2711) 1975.

R. septentrionalis Poir. Swamp-Buttercup. Alluvial woods. Infrequent. Lynchtown: Campbell and Eastman (2986) 1975; Magalloway Plt.: E. and C.E. Faxon 1888; Bethel: Parlin 1895; Buckfield: Parlin 1895.

**R. repens* L. Creeping Buttercup. Moist ground. Infrequent. Lynchtown: Campbell and Eastman (1427) 1974; Bethel: Wheeler 1926; Fryeburg: Norton (17408) 1920.

**R. repens* var. *villosus* Lamotte. Moist, open ground. Bowman-town: Eastman and Campbell (586) 1974; Oxbow: Eastman and Campbell (585) 1974.

**R. repens* var. *pleniflorus* Fern. Oxford: Bean (2284) 1907.

**R. acris* L. Common Buttercup. Fields, lawns, thin woods. Common often far from habitation. Mason: Campbell (241) 1973; Batchelders Grant: Eastman (87) 1973; Denmark: Campbell (1292) 1974; Hiram: V. Merrill 1911.

THALICTRUM L. Meadow-Rue.

T. polygamum Muhl. Tall Meadow-Rue. Low ground. Common. Township C: Williams 1903; Dixfield: Campbell (1944) 1974; Bethel: Wheeler 1935; Sumner: Bean 1942; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grants: Campbell (50) 1974; Hebron: Eastman and Wight (445) 1974; Hiram: V. Merrill 1912.

T. polygamum var. *hebecarpum* Fern. Similar habitats. Occasional. Bowmantown: Campbell and Eastman (2256) 1974; Gilead: Deane 1883; Furbish 1897; Hartford: Parlin 1885.

HEPATICA Mill. Liverwort.

H. americana (DC.) Ker. Dry woods. Local. Oxford: Chamberlain 1907; Denmark: Campbell and Eastman (1014) 1974; Brownfield: Eastman (540) 1974; Hiram: V. Merrill 1914, Campbell (2479) 1974; Porter: Eastman (410) 1974.

ANEMONE L. Anemone.

A. cylindrica Gray. Thimbleweed. Long-headed Anemone. Canton: Parlin (Report) 1908.

A. riparia Fern. Thimbleweed. Open woods. Local. Hebron: Eastman and Campbell (710) 1974.

A. virginiana L. Thimbleweed. Dry woods and thickets. Frequent. Canton: Campbell and Eastman (3076) 1975; Albany: Campbell and Eastman (2269) 1974; Buckfield: Parlin 1895; Norway: Evans 1884; Hebron: Campbell (2373) 1974; Hiram: Pease (37147) 1953; Porter: V. Merrill 1912, Gordon (907) 1929, Eastman (413) 1973.

A. canadensis L. Meadows and shores. Occasional. Sumner: Eastman (425) 1974; Buckfield: Bicknell 1938; Oxford: Campbell (2877) 1975; Brownfield: Eastman (407) 1974; Hiram: Eastman (408) 1974.

A. quinquefolia L. Wood-Anemone. Woods. Common. Bethel: Wheeler 1921; Gilead: Campbell (761) 1974; Mason: Campbell (792) 1974; Batchelders Grant: Campbell (202) Eastman (63) 1973.

CLEMATIS L. Clematis.

C. virginiana L. Virgin's-Bower. Thickets. Common. Bethel: Curtis 1913; Gilead: Furbish 1897; Hartford: Parlin 1893; Mason: Wheeler 1921; Batchelders Grant: Campbell (626) 1973; Stow: Campbell (516) Eastman and Campbell (99) 1973; Paris: Anonymous (1801) 1892; Denmark: Moulton 1902; Hiram: V. Merrill 1914, Merrill 1934.

C. verticillaris DC. Purple Clematis. Sterile populations of *Clematis* sp. of rich rocky woods may belong to this species. Albany: Campbell (944) 1974.

CALTHA L. Marsh-Marigold

C. palustris L. Streambanks and low thickets. Infrequent. Woodstock: Eastman (708) 1975; Greenwood: Eastman (707) 1975; Oxford: Campbell (2722) 1975.

COPTIS Salisb. Goldthread.

C. groenlandica (Oeder) Fern. Moist woods. Common. Riley: C.S. Campbell and A.S. Campbell, Jr. (1237) 1974; Bethel: Wheeler 1927, Campbell (865) 1974; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Eastman (65) 1973; Oxford: Weathery 1914; Hiram: V. Merrill 1914.

AQUILEGIA L. Columbine.

A. canadensis L. Rocky woods and ledges. Occasional. Canton: Knowlton 1910; Batchelders Grant: Eastman (7) 1970; Stow: Campbell (69) 1973; Denmark: Campbell (1287) 1974; Hiram: V. Merrill 1914.

**A. vulgaris* L. Persistent near old housesites. Albany: Campbell (1058) 1974; Stow: Campbell (930) 1974.

DELPHINIUM L. Larkspur.

**D. exaltatum* L. Vacant lot. Bethel: Eastman and Campbell (756) 1975.

ACONITUM L. Monkshood.

**A. napellus* L. Magalloway Plt.: Pease (20077) 1927; Canton: Eastman and Campbell (769) 1975.

ACTAEA L. Baneberry.

A. rubra (Ait.) Willd. Red Baneberry. Rich woods. Frequent. Parmachenee: Campbell and Eastman (1791 and 1824) 1974; Andover North Surplus: Bean 1939; Dixfield: Parlin 1895; Bethel: Curtis 1913, Wheeler 1925; Gilead: Furbish 1897, Eastman (174) 1973; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Mason: Manter 1919; Buckfield: Swallow (no date).

A. rubra f. *neglecta* (Gillman) Robins. Similar habitats. Occasional. Bowmantown: Eastman and Campbell (580) 1974; Parmachenee: Campbell and Eastman (1824a) 1974; Lincoln Plt.: Pease (26756) 1938; Bethel: Wheeler 1933; Albany: Campbell (1513) 1974; Batchelders Grant: Campbell (302) 1974.

A. pachypoda Ell. White Baneberry. Rich woods. Frequent. Dixfield: Campbell (1936) 1974; Bethel: Curtis 1913; Hartford: Parlin 1895; Mason: Campbell (660) 1973; Buckfield: Bicknell 1938; Stow: Campbell (420) 1973; Hiram: V. Merrill (no date).

BERBERIDACEAE (BARBERRY FAMILY)

CAULOPHYLLUM Michx. Blue Cohosh.

C. thalictroides (L.) Michx. Rich woods. Occasional. Parmachenee: Campbell and Eastman (2776) 1975; Canton: Bean 1931, Gordon (1029) 1933; Bethel: Pease (27276) 1939; Gilead: Furbish 1897; Woodstock: Campbell (1473) 1974; Mason: Hodgdon and Steele (10611) 1958; Batchelders Grants: Eastman and Campbell (141) 1973; Buckfield: Allen 1878, Steinmetz (638) 1948; West Paris: Eastman and Wight (514) 1974; Stow: Campbell and Eastman (151) 1973; Paris: Verrill 1855.

BERBERIS L. Barberry.

**B. vulgaris* L. Common Barberry. Thickets and fields. Infrequent. Andover: Campbell (2913) 1975; Woodstock: Bean 1949; West Paris: Campbell and Eastman (886) 1974.

**B. thunbergii* DC. Japanese Barberry. Thickets and borders of woods. Infrequent. Gilead: Campbell (839) 1974; Stow: Campbell (42) 1973.

LAURACEAE (LAUREL FAMILY)

SASSAFRAS Nees. Sassafras.

S. albidum (Nutt.) Nees var. *molle* (Raf.) Fern. Borders of woods. Rare. Denmark: Hyland (454) 1933, Eastman and Tyler (1111) 1976.

PAPAVERACEAE (POPPY FAMILY)

SANGUINARIA L. Bloodroot.

S. canadensis L. Rich woods and low thickets. Occasional. Bethel: Wheeler 1926, Campbell (971) 1974; Gilead: Eastman (157) 1973; West Paris: Eastman (515) 1974; Stow: Campbell and Eastman (96) 1973.

CHELIDONIUM L. Celandine.

**C. majus* L. Waste places. Common. Bethel: Wheeler 1938; Gilead: Campbell (378) 1973; Stow: Campbell (925) 1974.

ADLUMIA Raf. Climbing Fumitory.

A. fungosa (Ait.) Greene. Low woods and waste places. Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; West Paris: Eastman and Wight (526) 1974; Fryeburg: Campbell (1585) and Eastman (474) 1974.

DICENTRA Bernh. Bleeding-heart.

D. cucullaria (L.) Bernh. Rich woods. Occasional. Andover North Surplus: Campbell and Eastman (1104) 1974; Bethel: Wheeler 1926; Hartford: Gordon (97) 1915; Mason: Campbell and Eastman (817) 1974; Batchelders Grant: Eastman (1) 1970; Buckfield: Gordon (694) 1925.

CORYDALIS Medic. Corydalis.

C. sempervirens (L.) Pers. Ledges, boulders, and sandy ground. Frequent. Newry: Wheeler 1919; Bethel: Wheeler 1930; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931, Campbell (1495), Eastman and Campbell (670) 1974, Campbell (165) and Eastman (122) 1973; Denmark: Campbell (1328) 1974; Porter: Campbell (2845) 1975.

BRASSICACEAE (MUSTARD FAMILY)

BERTEROA DC.

**B. incana* (L.) DC. Hoary Alyssum. Lawns and waste places. Occasional; locally common in Hiram. Hartford: Campbell and Eastman (3030) 1975; Norway: Chamberlain 1907; Oxford: Weatherby 1907; Fryeburg: Prince 1946; Hiram: V. Merrill 1912, Norton and Merrill (17204) 1923, Perkins 1936, Campbell (2472) 1974, Eastman and Wells (560) 1974; Porter: Campbell (1984) 1974.

THLASPI L. Penny-Cress.

**T. arvense* L. Waste places. Occasional. Bethel: Campbell (1045) 1974; Gilead: Campbell (767) 1974; Hartford: Adams 1937; Buckfield: Adams 1937; Hiram: V. Merrill 1914; Porter: Campbell (2756) 1975.

LEPIDIUM L. Peppergrass.

**L. campestre* (L.) R. Br. Waste places. Bethel: Wheeler 1932; Hartford: Allen 1896; West Paris: Bean 1955.

**L. virginicum* L. Rumford: Campbell (1698) 1974; Fryeburg: Campbell (1720) 1974; Brownfield: Eastman (720) 1975; Hiram: V. Merrill 1913.

**L. densiflorum* Schrad. Waste places. Bethel: Curtis 1913, Wheeler 1930, Campbell (1576) 1974; Greenwood: Campbell (1490) 1974; Fryeburg: Norton (17410) 1920.

**L. hirtum* (L.) DC. Bethel: Wheeler 1936.

**L. sativum* L. Cultivated ground. Hiram: Eastman (824) 1975.

SUBULARIA L. Awlwort.

S. aquatica L. var. *americana* Mulligan & Calder (*S. aquatica* L.). Shores. Infrequent. Canton: Pease (19637) 1925; reported as having been collected by Thomas Nuttall in Waterford in 1824.

CAPSELLA Medic. Shepherd's-purse.

**C. bursa-pastoris* (L.) Medic. Waste places. Common. Stoneham: Campbell (1727) 1974; Stow: Campbell (38) 1973, (924) 1974; Brownfield: Bean 1964; Hiram: V. Merrill 1921.

CAMELINA Crantz. False Flax.

**C. sativa* (L.) Crantz. Waste places. Rumford: Parlin 1889; Bethel: Wheeler 1932.

**C. microcarpa* Andrz. Waste places. Bethel: Campbell (1302) 1974; Hiram: V. Merrill 1913, 1922.

RAPHANUS L. Radish.

**R. raphanistrum* L. Fields and roadsides. Common. Bethel: Wheeler 1937, Campbell and Eastman (1162) 1974; Gilead: Furbish 1897, Eastman (169) 1973; Hartford: Parlin 1893, Rowell 1942; Fryeburg: Campbell (1333) 1974; Hiram: Campbell and Eastman (1619) 1974.

**R. raphanistrum* f. *albus* (Schuebler & Martens) Hayek. West Paris: Eastman and Wight (516) 1974; Fryeburg: Campbell (1711) 1974; Hiram: Campbell, Eastman, and White (2940) 1975.

**R. raphanistrum* f. *purpureus* (Reichenb.) Domin. Hebron: Eastman and Campbell (753) 1975.

BRASSICA L. Mustard.

**B. hirta*. Moench. Denmark: Norton (6019) 1912.

**B. kaber* (DC) L.C. Wheeler var. *pinnatifida* (Stokes) L.C. Wheeler. Waste places. Infrequent. Bethel: Wheeler 1937, Campbell (1046) 1974; Gilead: Eastman (335) 1973.

**B. juncea* (L.) Coss. Waste places. Gilead: Furbish 1897, Eastman (336) 1973; Buckfield: Parlin 1897.

**B. rapa* L. Waste places. Canton: Parlin (2123) 1906; Oxford: Eastman (454) 1974; Brownfield: Harris (26712) 1964; Hiram: Campbell (2900) 1975.

ERUCASTRUM Presl.

**E. gallicum* (Willd.) O.E. Schulz. Waste places. Canton: Parlin (16063) 1943; Paris: Campbell (1408) 1974.

DIPLLOTAXIS DC.

**D. tenuifolia* (L.) DC. Railroad ballast. Gilead: Eastman and Wight (337) 1973.

CONRINGIA Link. Hare's-ear-Mustard.

**C. orientalis* (L.) Dumort. Waste places. Gilead: Campbell (383) 1973; Paris: Campbell (965) 1974.

SISYMBRIUM L.

**S. officinale* (L.) Scop. Waste places. Oxford: Weatherby (4813) 1917; Denmark: Moulton 1902.

**S. officinale* var. *leiocarpum* DC. Similar habitats. More common. Dixfield: Campbell (1643) 1974; Rumford: Campbell (1696) 1974; Stoneham: Campbell (1729) 1974; Waterford: Campbell (3206) 1975.

**S. altissimum* L. Waste places. Canton: Parlin (1968) 1906; Bethel: Wheeler 1926; Greenwood: Campbell (1488) 1974; Oxford: Weatherby 1914, Eastman and Wight (497) 1974; Paris: Campbell (1362) 1974.

DESCURAINIA Webb and Berthelot. Tansy-Mustard.

**D. sophia* (L.) Webb. Waste places. Canton: Parlin (17802) 1946; Bethel: Wheeler 1933, Campbell (1048) 1974.

HESPERIS L. Rocket.

**H. matronalis* L. Waste places. Andover: Pease (33478) 1948; Bethel: Campbell (975) 1974; Paris: Parlin 1891, Campbell (2885) 1975; Hiram: Merrill 1938; Porter: Campbell and Eastman (1002) 1974.

ERYSIMUM L. Treacle-Mustard.

**E. cheiranthoides* L. Fields and waste places. Occasional. Upton: Campbell and Eastman (2996) 1975; Bethel: Wheeler 1923; Gilead: Campbell and Eastman (481) 1973; Batchelders Grant: Campbell (188), Eastman (199) 1973; Fryeburg: Rossbach (6136) 1964; Porter: Campbell and Eastman (1617) 1974, Campbell (2766) 1975.

**E. inconspicuum* (S. Wats.) MacM. Railroad ballast. Canton: Parlin 1906, (2351) 1908.

RORIPPA Scop. Yellow Cress. [45a]

R. islandica (Oeder) Borbas var. *fernaldiana* Butt. & Abbe. Shores and wet places. Occasional. Gilead: Furbish 1897; Hartford: Rowell 1938; Buckfield: Parlin (14511) 1940, (14641) 1941; Norway: Gordon (22) 1933; Stow: Eastman (364) 1973; Oxford: Weatherby 1914; Brownfield: Harris (26719) 1964.

R. islandica var. *hispidica* (Desv.) Butt. & Abbe. Hiram: Merrill 1915.

R. nasturtium-aquaticum (L.) Hayek. (*Nasturtium officinale* R. Br.) True Watercress. Brooks. Infrequent. Bethel: Wheeler 1929; Hiram: Campbell (919) 1974; Porter: Eastman (398) 1974.

R. microphylla (Boenn.) Hyland. (*Nasturtium microphyllum* (Boenn.) Thell. in part) Small Watercress. Brooks. Oxford: Bean 1907.

ARMORACIA Gaertn., Mey. and Scherb.

**A. lapathifolia* Gilib. Horseradish. Grassy spots. Occasional. Upton: Campbell and Eastman (1455) 1974; Lovell: Campbell (1057) 1974.

BARBAREA R. Br. Winter-Cress.

**B. vulgaris* R. Br. Open areas. Common. Rumford: Parlin 1890; Bethel: Wheeler 1920, Campbell (851) 1974; West Paris: Eastman (669) 1974.

**B. vulgaris* var. *arcuata* (Opiz.) Fries. Similar habitats. Bowman-town: Campbell and Eastman (2096) 1974; Porter: Campbell (2764) 1975.

DENTARIA L. Toothwort.

D. diphylla Michx. Rich woods. Occasional. Parmachenee: Campbell and Eastman (1793) 1974; Andover: Campbell and Eastman (894) 1974; Bethel: Wheeler 1926; Gilead: Furbish 1897; Mason: Campbell and Eastman (843) 1974; Batchelders Grant: Campbell (303), Eastman (38) 1973.

CARDAMINE L. Bitter Cress.

C. pensylvanica Muhl. Moist or wet ground. Common. Lynchtown: Campbell and Eastman (1434) 1974; Adamstown: Campbell and Eastman (1141) 1974; Upton: Pease (35892) 1950; Andover West Surplus: Norton (17094) 1926, Bean 1938; Grafton: Rich (13346) 1919; Rumford: Parlin (3638) 1917, Pease (38246) 1952; Riley: C.S. Campbell and A.S. Campbell, Jr. (1208) 1974; Canton: Parlin (2695) 1908, Gordon (1110) 1935; Bethel: Wheeler 1938; Gilead: Furbish 1897; Hartford: Bean 1940; Sumner: Bean 1936; Woodstock: Parlin 1887; Greenwood: Campbell (1531) 1974; Stoneham: Eastman (668) 1970; Mason: Pease (27299) 1939; Batch-

elders Grant: Campbell (81) 1973; West Paris: Campbell (2363) 1974; Oxford: Campbell (2543) 1974; Paris: Bill, Eaton, Fernald, Griscom and Hunnewell 1931; Denmark: Moulton 1902; Hiram: V. Merrill 1915, Campbell (908) 1974.

C. parviflora L. var. *arenicola* (Britt.) O.E. Schulz. Shaded or open ledges. Frequent. Woodstock: Parlin 1887; Greenwood: Campbell and Eastman (1009) 1974, Campbell and Eastman (2796) 1975; West Paris: Bean 1955; Stow: Eastman (130) 1973; Denmark: Pease (19633) 1920; Hiram: Campbell (2705) 1975; Porter: Campbell and Eastman (1349) 1974.

ARABIS L. Rock-Cress.

A. glabra (L.) Bernh. Tower-Mustard. Dry open ground. Infrequent. Bethel: Wheeler 1923; Paris: Campbell (2885) 1975; Hiram: V. Merrill 1913; Eastman (690) 1974.

A. hirsuta (L.) Scop. var. *pyncocarpa* (M. Hopkins) Rollins. Oxford: Verrill 1858.

A. drummondii Gray. Dry, open gravelly areas, grassy banks and ledges. Common. Parmachenee: Campbell and Eastman (1753) 1974; Andover North Surplus: Campbell and Eastman (1094) 1974; Andover: Gordon (721), Norton (17095) 1926, Pease (33475) 1948; Dixfield: Parlin 1884; Rumford: Parlin 1887; Canton: Parlin (2040 and 2088) 1907, (2305) 1908, Gordon (199) 1917, Campbell (1041) 1974; Milton: Eastman and Campbell (685) 1974; Bethel: Wheeler 1926 and 1928, Campbell (858 and 1668) 1974; Gilead: Moore 1903; Greenwood: Hodgdon (94201) 1955, Campbell (1498), Campbell and Eastman (1006) 1974; Albany: Hodgdon, Lincoln, and Steele (10259) 1957; Batchelders Grant: Campbell (194) 1973; Stow: Campbell and Eastman (101) 1973; Hiram: V. Merrill 1915; Porter: Campbell (987) and Eastman (684) 1974.

A. missouriensis Greene. Dry, shaded ledge. Porter: Campbell and Eastman (1624) 1974.

SARRACENIACEAE (PITCHER-PLANT FAMILY)

SARRACENIA L. Pitcher-plant.

S. purpurea L. Sphagnous bogs. Frequent. Rumford: Pease (19225) 1924; Gilead: Eastman 1973; Hartford: Parlin 1895; Sumner: Pease (23817) 1933; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Norway: Bean 1907; Stow: Campbell and Eastman (599) 1973; Fryeburg: Bean 1920; Hiram: V. Merrill 1921.

DROSERACEAE (SUNDEW FAMILY)

DROSERA L. Sundew.

D. intermedia Hayne. Wet ground. Common. Canton: Gordon (1104) 1935; Bethel: Curtis 1913, Wheeler 1927; Sumner: Pease (27588) 1939; Greenwood: Pease (34960) 1949, Campbell and Eastman (1169) 1974; Albany: Pease (23025) 1932; Stoneham: Pease (35678) 1950; Mason: Eastman (296) 1974; Lovell: Pease (17305) 1918; Fryeburg: Eastman (554) 1974; Brownfield: V. Merrill 1913, Eastman (563) 1974; Hiram: Campbell (913 and 1512) 1974.

D. intermedia f. *corymbosa* (DC.) Fern. Greenwood: Pease (34960) 1949.

D. intermedia f. *natans* Heuser. Hartford: Parlin 1885.

D. rotundifolia L. Moist to wet, open, often sphagnum ground. Common. Parmachenee: Campbell and Eastman (1822) 1974; Bethel: Pease (36204) 1951; Gilead: Furbish 1897; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Pease (33853) 1948; Mason: Wheeler 1931; Batchelders Grant: Campbell and Myers (504), Eastman (352) 1973; Norway: Richards (6281) 1955; Fryeburg: Pease (34884) 1949; Brownfield: Campbell (1345) 1974.

CRASSULACEAE (ORPINE FAMILY)

SEDUM L. Stonecrop.

**S. acre* L. Lawns. Buckfield: Campbell (1396) 1974; Paris: Campbell (1395) 1974.

**S. sarmentosum* Bunge. Norway: Eastman and Wight (451) 1974.

**S. spurium* Bieb. Garden escape. Stoneham: Campbell (1730) 1974.

**S. purpureum* (L.) Link. Live-forever. Roadsides, thickets and waste places. Common. Gilead: Campbell (703), Eastman (288) 1973; Norway: Campbell (2328) 1974; Fryeburg: Barton (no date); Hiram: V. Merrill 1912.

SEMPERVIVUM L. Houseleek.

**S. tectorum* L. Hens-and-chickens. Bethel: Wheeler 1924.

SAXIFRAGACEAE (SAXIFRAGE FAMILY)

SAXIFRAGA L. Saxifrage.

S. virginiensis Michx. Early Saxifrage. Shaded ledges. Frequent. Gilead: Campbell (766) 1974; Hartford: Parlin 1886; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Eastman (75) 1973; Stow: Campbell and Eastman (121) 1973; Paris: Gordon (1139) 1937.

S. arizoñ Jacq. var. *neogaea* Butters. Ledges of Twin Peaks. Bowmantown: Campbell (2225) and Eastman (588) 1974.

TIARELLA L. False Miterwort.

T. cordifolia L. Moist woods. Common, especially northward. Lynchtown: Campbell and Eastman (1436) 1974; Adamstown: Campbell and Eastman (1142) 1974; Bethel: Campbell (854) 1974; Hartford: Parlin 1886, Rowell 1948; Batchelders Grant: Eastman 1973; West Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Norway: Mann 1862; Hiram: Campbell (908) 1974.

MITELLA L. Miterwort.

M. nuda L. Mossy woods, especially under *Thuja*. Frequent. Bowmantown: Campbell, Conant, Eastman, and Newman (2818) 1975; Parmachenee: Campbell and Eastman (1804) 1974; Lower Cupsuptic: Pease 1927; Andover: Campbell (2850) 1975; Dixfield: Campbell (1636) 1974; Hartford: Allen 1886, Parlin 1895; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Eastman and Newman (416) 1974; Norway: Chamberlain, Norton (4473) 1907; Hebron: Campbell, R. and A. Bradford, and Eastman (1651) 1974.

CHRYSOSPLENIUM L. Golden Saxifrage.

C. americanum Schwein. Rills. Frequent. Andover: Norton (17096) 1926; Grafton: Gordon (1969) 1934; Bethel: Campbell (667) 1973; Gilead: Campbell (762) 1974; Hartford: Parlin 1888; Batchelders Grant: Campbell (308) 1973.

RIBES L. Currant. Gooseberry.

R. cynosbati L. Prickly Gooseberry. Rocky woods. Frequent. Gilead: Furbish 1897; Mason: Hodgdon, Pease, and Steele (10636) 1958; West Paris: Campbell and Eastman (2949) 1975; Norway: Verrill 1858, Richards (6260) 1955; Stow: Campbell and Eastman (97) 1973; Brownfield: Campbell and Eastman (1359) 1974; Porter: Campbell and Eastman (988) 1974.

R. hirtellum Michx. Open areas. Occasional. Magalloway Pt.: Campbell and Eastman (1451) 1974; Andover: Campbell (2866) 1975; Gilead: Campbell and Eastman (351) 1974; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Mason: Pease (28796) 1941; Batchelders Grant: Eastman (196) 1973.

R. hirtellum var. *calcicola* Fern. Buckfield: Hyland (146) 1934; Stow: Hyland (502) 1933.

R. lacustre (Pers.) Poir. Bristly Black Currant. Moist woods. Common. Grafton: Norton (13349) 1919; Riley: C.S. Campbell and A.S. Campbell, Jr. (1221) 1974; Bethel: Goodale (no date); Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grants: Hyland (515) 1933, Campbell (640), Eastman (56) 1973.

R. glandulosum Grauer. Skunk-Currant. Wet or dry woods or clearings. Common. Riley: C.S. Campbell and A.S. Campbell, Jr. (1233) 1974; Gilead: Deane 1909; Woodstock: Hyland (524) 1933; Greenwood: Furbish 1904, Bicknell 1955; Norway: Godfrey (9676) 1920; Porter: Campbell and Eastman (981) 1974.

R. triste Pall. Red Currant. Moist woods and banks. Frequent. Bowmantown: Campbell, Conant, Eastman, and Newman (2814) 1975; Lynchtown: Campbell and Eastman (3013) 1975; Magalloway Pt.: Campbell and Eastman (2936) 1974; Bethel: Campbell (2409) 1974; Gilead: Furbish 1897; Norway: Campbell (2713) 1975; Hiram: Campbell (2748) 1975.

**R. sativum* Syme. Garden-Currant. Woodstock: Campbell (1184) 1974; Buckfield: Allen 1894; Norway: Verrill 1858; Stow: Campbell and Eastman (847) 1974.

R. americanum Mill. Wild Black Currant. Thickets. Infrequent. Hartford: Parlin 1895; West Paris: Campbell (2075) 1974; Waterford: Swallow (no date); Paris: Blake 1856.

HAMAMELIDACEAE (WITCH-HAZEL FAMILY)

HAMAMELIS L. Witch-hazel.

H. virginiana L. Dry or moist woods and thickets. Frequent. Rumford: Pease (38250) 1955; Bethel: Wheeler 1938; Gilead: Furbish 1897; Woodstock: Campbell (2439) 1974; Greenwood: Pease (19119) 1926; Mason: Pease (27316) 1939; Lovell: Pease (29284) 1941; Stow: Campbell (73) 1973.

ROSACEAE (ROSE FAMILY)

PHYSOCARPUS Maxim. Ninebark.

P. opulifolius (L.) Maxim. Thickets near habitation. Oxford: Campbell (2550) 1974; Brownfield: Eastman (409) 1974.

SPIRAEA L. Spiraea.

S. latifolia (Ait.) Borkh. Meadow-sweet. Fields and swales. Common. Lynchtown: Campbell and Eastman (1888) 1974; Bethel: Wheeler 1938; Gilead: Campbell and Eastman (475) 1973; Hartford: Parlin 1893; Stow: Campbell and Eastman (153 and 515) 1973; Denmark: Moulton 1902.

S. tomentosa L. Hardhack. Steeple-bush. Low ground. Common. Bethel: Wheeler 1914; Hartford: Parlin 1893; Albany: Wheeler 1929, Campbell (2032) 1974; Stow: Campbell and Eastman (460 and 545) 1973; Denmark: Moulton 1902.

**S. japonica* L. f. Hartford: Gordon (385) 1910.

SORBARIA A. Br. False Spiraea.

**S. sorbifolia* (L.) A. Br. Roadsides and near habitation. Frequent. Upton: Pease (35887) 1950; Bethel: Pease (27315) 1935; Gilead: Campbell (432) 1973; Greenwood: Campbell (1500) 1974.

PYRUS L.

**P. malus* L. Apple. Persistent and spreading after cultivation. Gilead: Furbish 1897; Batchelders Grant: Eastman (43) 1973.

P. floribunda Lindl. Purple Chokeberry. Wet to dry open areas. Frequent. Gilead: Furbish 1897; Woodstock: Campbell (2443) 1974; Mason: Campbell (681) 1973; Oxford: Hyland (553) 1933, Bean 1934; Fryeburg: Bean 1920; Denmark: Campbell (1272) 1974; Brownfield: Hyland (551) 1933.

P. melanocarpa (Michx.) Willd. Black Chokeberry. Similar habitats. Frequent. Magalloway Pkt.: Campbell and Eastman (1146) 1974; Rumford: Pease (19303) 1924; Bethel: Wheeler 1938; Gilead: Furbish 1897; Albany: Campbell and Eastman (875) 1974; Lovell: Hyland (559) 1933; Stow: Campbell and Eastman (550) 1973; Oxford: Weatherby 1914; Fryeburg: Hyland (467) 1933, Rossbach and Hand (6167) 1964.

P. americana (Marsh.) DC. Mountain Ash. Cool woods. Frequent. Bowmantown: Campbell and Eastman (2216) 1974; Parmachenee: Campbell and Eastman (1441) 1974; Lincoln Pkt.: Campbell and Eastman

(1156) 1974; Magalloway Plt.: Campbell (2451) 1974; Newry: Wheeler 1926; Bethel: Wheeler 1938; Woodstock: Bean 1947; Mason: Campbell (684) 1973; Batchelders Grant: Hyland (513) 1933; Denmark: Campbell (1271) 1974.

P. decora (Sarg.) Hyland. Mountain Ash. Cool woods. Frequent. Bowmantown: Campbell and Eastman (2100) 1974; Byron: Hyland (189) 1934; Grafton: Deane 1920, Hyland (199) 1934; Riley: C.S. Campbell and G.H. Campbell (2387) 1974; Mason: Hyland (539) 1933.

AMELANCHIER Medic. Shadbush. Sugarplum.

A. sanguinea (Pursh) DC. Woods and open rocky ground. Infrequent. Bowmantown: Campbell and Eastman (2831) 1975; Byron: Hyland (1149) 1938; Gilead: Furbish 1897; Lovell: Hyland (504) 1933; Fryeburg: Hyland (537 and 448) 1933.

A. stolonifera Wieg. Dry, open areas. Frequent. Rumford: Norton (17105) 1926; Bethel: Wheeler 1931; Gilead: Furbish 1897; Stoneham: Hyland (477) 1933; Stow: Eastman and Campbell (146) 1973; Fryeburg: Bean, Norton (17413) 1920, Campbell and Eastman (1019) 1974; Brownfield: Hyland (556) 1933; Porter: Campbell and Eastman (980) 1974.

A. canadensis (L.) Medic. Swamps and thickets. Occasional. Bethel: Campbell (791) 1974; Sumner: Campbell and Eastman (884) 1974; Lovell: Hyland (557) 1933; Oxford: Bean (2111) 1907; Porter: Campbell (2807) 1975.

A. canadensis X *stolonifera*. Roxbury: Hyland (192) 1934.

A. intermedia Spach. Dry to wet open areas. Occasional. Gilead: Campbell (772) 1974; Mason: Campbell (780) 1974.

A. arborea (Michx. f.) Fern. Rich woods and thickets. Infrequent. Bethel: Wheeler 1921; Gilead: Furbish 1897, Campbell (833) 1974.

A. leavis Wieg. Woods and clearings. The common arborescent species. Adamstown: Campbell and Eastman (1127) 1974; Grafton: Deane 1920; Riley: Deane 1925, C.S. Campbell and A.S. Campbell, Jr. (1242) 1974; Bethel: Wheeler 1926; Gilead: Campbell (772) 1974; Hartford: Parlin 1901; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Stoneham: Hyland (459) 1933; Mason: Pease (27304) 1939, Campbell (780) 1974; Stow: Eastman (6) 1970; Fryeburg: Hyland (509) 1933; Oxford: Bean 1907.

A. bartramiana (Tausch) Roemer. Cool woods, ascending to near treeline in the Mahoosucs. Common. Lincoln Plt.: Pease (27793) 1940; Grafton: Norton (17146) 1926, Hyland (203) 1934; Rumford: Norton

(17098) 1926; Newry: Wheeler 1926; Riley: C.S. Campbell and A.S. Campbell, Jr. (1214) 1974; Gilead: Campbell (771) 1974; Stoneham: Hyland (487) 1933; Mason: Campbell (779) 1974; Batchelders Grant: Hyland (511) 1933, Campbell and Frueh (2) 1973, Eastman (52) 1973; Lovell: Norton (17414) 1920; Stow: Eastman and Campbell (127) 1973; Oxford: Weatherby 1914; Fryeburg: Hyland (459 and 508) 1933.

A. bartramiana X *laevis*. Occasional. Gilead: Furbish 1897; Batchelders Grant: Campbell and Eastman (91), Campbell and Frueh (12) 1973; Oxford: Bean 1907; Brownfield: Hyland (407) 1933.

CRATAEGUS L. Hawthorn.

C. macracantha Loddiges. Gilead: Furbish 1897, Eastman (702) 1973; Brownfield: Campbell (3289) 1975; Porter: Campbell (2757) 1975.

C. chrysocarpa Ashe. Gilead: Furbish 1897.

C. macrosperma Ashe. Canton: Parlin (1930) 1906; Bethel: Campbell (2564) 1974; Greenwood: Pease (38244) 1955; Buckfield: Allen 1894.

C. macrosperma var. *matura* (Sarg.) Eggleston. Bethel: Wheeler 1938.

C. macrosperma var. *pentandra* (Sarg.) Eggleston. Canton: Parlin 1906.

C. pruinosa (Wendl.) K. Koch. Canton: Parlin 1907.

C. arnoldiana Sarg. Fryeburg: Seymour (22029) 1964.

C. compta Sarg. Thicket. Porter: Eastman, Campbell, and White (723) 1975.

C. anomala Sarg. Ledge above Route 2, Mexico: Campbell (2740) 1975.

FRAGARIA L. Strawberry.

F. virginiana Duchesne. Dry fields and thin woods. Common. Dixfield: Campbell (1050) 1974; Newry: Norton (19101) 1926; Riley: C.S. Campbell and A.S. Campbell, Jr. (1207) 1974; Bethel: Campbell (862) 1974; Gilead: Furbish 1897; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Eastman (60) 1973; Oxford: Bean (2032) 1907; Fryeburg: Norton (17415) 1920.

F. virginiana var. *terrae-novae* (Rydb.) Fern. & Wieg. Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

F. vesca L. Woodland Strawberry. Rich woods. Infrequent. Andover North Surplus: Campbell and Eastman (1112) 1974; Greenwood: Campbell, Eastman, and White (2936) 1975; Albany: Hodgdon, Lincoln, and Steele (10271) 1957; Mason: Hodgdon and Steele (10670) 1958; Batchelders Grant: Eastman (44) 1973.

F. vesca var. *americana* Porter. Bethel: Wheeler 1938; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

POTENTILLA L. Cinquefoil.

P. fruticosa L. Shrubby Cinquefoil. Wet or dry, neutral soil. Rare. Bowmantown: Campbell and Eastman (2217) 1974; Hebron: Allen 1876.

P. tridentata Ait. Three-toothed Cinquefoil. Dry open ledges and sandy soil. Common. Bowmantown: Eastman and Campbell (587) 1974; Grafton: Norton (13351) 1919; Dixfield: Parlin 1884; Newry: Wheeler 1926; Riley: Quinn 1927; Peru: Pease (25821) 1936; Bethel: Wheeler 1926, Pease (25824) 1936; Gilead: Furbish 1897; Hartford: Gordon (13686) 1920; Stoneham: Bean 1925; Mason: Manter 1919, Campbell (228) 1973; Batchelders Grant: Campbell (213) 1973; Buckfield: Parlin (905) 1897; Lovell: Pease (17285) 1918; Stow: Campbell (58), Eastman and Campbell (108) 1973; Paris: Thompson (291) 1892; Denmark: Blake (no date), Campbell (1277) 1974; Hiram: V. Merrill 1911.

P. tridentata f. *hirsutifolia* Pease. Denmark: Steinmetz (1251) 1946.

P. palustris (L.) Scop. Marsh-Cinquefoil. Wet margins of ponds and lakes. Occasional. Upton: Brewster 1907, C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2322) 1974; Canton: Bean, Gordon (1098) 1935; Bethel: Wheeler 1929.

P. palustris f. *subsericea* (Becker) Wolf. Similar habitats. Lynchtown: Campbell and Eastman (1760) 1974.

P. palustris var. *villosa* (Pers.) Wolf. Brownfield: Eastman, Campbell, and White (1555) 1975.

P. arguta Pursh. Tall Cinquefoil. Dry, open fields or ledges. Infrequent. Woodstock: Bean 1949; Buckfield: Parlin 1895; Denmark: Campbell (1290) 1974.

**P. argentea* L. Silvery Cinquefoil. Dry, open areas. Common. Bethel: Wheeler 1914; Stow: Campbell (35), Eastman (106) 1973; Oxford: Weatherby 1914; Paris: Campbell (962) 1974.

**P. recta* L. Dry, sandy soil. Common. Bethel: Wheeler 1934; Hartford: Norton (19123), Rowell 1938; Albany: Pease (27850) 1940; Batch-

elders Grant: Campbell (187), Eastman (155) 1973; Buckfield: Campbell (1377) 1974; West Paris: Furbish 1904; Norway: Eastman (464) 1974; Brownfield: Campbell (1314) 1974; Hiram: Campbell (1543) 1974.

**P. norvegica* L. Dry, open areas. Common. Lynchtown: Campbell and Eastman (1438) 1974; Bethel: Curtis 1913, Campbell (1301) 1974; Batchelders Grant: Campbell (293), Eastman (123) 1973; Buckfield: Campbell (1402) 1974; Stow: Campbell and Eastman (159) 1973; Hiram: V. Merrill 1912.

P. canadensis L. Hartford: Norton (19122) 1938; Greenwood: Campbell and Eastman (2795) 1975.

P. simplex Michx. Old-field-Cinquefoil. Dry to moist fields. Common. Bethel: Campbell (1189) 1974; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Eastman (45) 1973; Stow: Campbell (43) 1973; Porter: Campbell (2844) 1975.

P. simplex var. *calvescens* Fern. Oxford: Bean 1907; Fryeburg: Bean 1920.

FILLIPENDULA Mill.

**F. rubra* (Hill) Robins. Garden escape. Fryeburg: Campbell (1715) 1974.

**F. ulmaria* (L.) Maxim. Upton: Eastman and Campbell (743) 1975; Paris: Bicknell, Norton (19120) 1938.

GEUM L. Avens.

G. canadense Jacq. Woods and thickets. Canton: Gordon: (1174) 1933.

G. canadense f. *glandulosum* Fern. & Weath. Similar habitats. Woodstock: Parlin 1890; Stow: Eastman and Campbell (134) 1973.

G. canadense var. *camporum* (Rydb.) Fern. & Weath. Similar habitats. Stow: Campbell and Eastman (147) 1973; Hebron: Campbell (1953) 1974.

G. laciniatum Murr. var. *trichocarpum* Fern. Gilead: Eastman (182) 1973; Hebron: Campbell (2562) 1974.

G. aleppicum Jacq. var. *strictum* (Ait.) Fern. Thickets and woods. Occasional. Canton: Campbell and Eastman (3078) 1975; Batchelders Grant: Campbell (271) 1973; West Paris: Palmer (44573) 1938; Hebron: Chamberlain 1900; Denmark: V. Merrill 1912; Porter: Campbell and Eastman (1923) 1974.

G. macrophyllum Willd. Moist woods. Frequent in the north. Bowmantown: Campbell, Eastman and Richards (3046) 1975; Lynchtown: Campbell (1437) and Eastman (434) 1974; Riley: C.S. Campbell and A.S. Campbell, Jr. (1204 and 1228) 1974.

G. rivale L. Purple Avens. Wet meadows and low woods. Frequent. Dixfield: Campbell (1942) 1974; Bethel: Wheeler 1936; Hartford: Rowell 1940; Sumner: Campbell and Eastman (878) 1974; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931, Eastman and Campbell (403) 1974; Buckfield: Campbell (1972) 1974; Hiram: V. Merrill 1914.

RUBUS L. Bramble. [59].

R. chamaemorus L. Baked-apple-berry. High-elevation bogs. Locally common. Grafton: Allen 1897, Pease (16829) 1916, Norton (17148) 1926; Riley: Pease (16654) 1916, Brower 1957, C.S. Campbell and A.S. Campbell, Jr. (1236) 1974.

R. pubescens Raf. Moist woods, tickets, and fields. Common. Gilead: Furbish 1897; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Ogden (1892) 1939, Campbell (49), Eastman (54) 1973; Norway: Bacon 1947; Oxford: Weatherby 1914.

R. odoratus L. Purple-flowering Raspberry. Rocky woods and thickets. Common. Rumford: Parlin 1888; Bethel: Curtis 1913, Wheeler 1929; Gilead: Eastman (153) 1973; Hartford: Parlin 1885; Greenwood: Brewster 1882, Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Pease (37990) 1955; Stoneham: Pease (23026) 1932; Mason: Manter 1919; Batchelders Grant: Pease (18140) 1921, Campbell (296), Campbell and Myers (508) 1973; Norway: Bean, Richards (6278) 1955; Waterford: Pease (27279) 1939; Oxford: Bean (2276), Norton (4510) 1907; Stow: Campbell and Eastman (148), Eastman (153) 1973; Paris: Parlin 1880, Norton 1899; Fryeburg: Starbird (17148) 1920; Denmark: Moulton 1902; Hiram: V. Merrill 1912.

R. idaeus L. Batchelders Grant: Eastman and Campbell (94) 1973.

R. idaeus var. *canadensis* Richardson. Mason: Wheeler 1919.

R. idaeus var. *strigosus* (Michx.) Maxim. Woods and clearings. Common. Woodstock: Campbell (1181) 1974; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Buckfield: Campbell (1090) 1974; Porter: Campbell and Eastman (1354) 1974.

R. occidentalis L. Clearings and thickets. Infrequent. West Paris: Campbell and Eastman (2946) 1975; Oxford: Chamberlain 1907; Fryeburg: Hyland (543) 1933, Campbell (1718) 1974.

R. occidentalis f. *pallidus* (Bailey) Robinson. Porter: Campbell and Eastman (1906) 1974.

R. flagellaris Willd. Bethel: Wheeler 1932; Stow: Eastman and Campbell (149) 1973.

R. enslenii Tratt. Brownfield: Hyland (505) 1933.

R. recurvicaulis Blanch. Thickets and fields. Occasional. Roxbury: Campbell (1687) 1974; Rumford: Fernald and Pease (25161) 1922; Woodstock: Campbell (3087) 1975; Greenwood: Campbell and von Moschzisker (2985) 1975; Brownfield: Campbell (2966) 1975.

R. arenicola Blanch. Sandy, open areas. Occasional. Sweden: Campbell (1259) 1974; Denmark: Campbell (1309) 1974; Porter: Campbell and Eastman (1352) 1974.

R. hispidus L. Moist soil. Frequent. Greenwood: Pease (34719) 1949; Sweden: Pease (17138) 1918; Stow: Campbell and Frueh (588) 1973, Eastman (525) 1974; Fryeburg: Hyland (545) 1933.

R. hispidus X *setosus*. Bethel: Wheeler 1929; Oxford: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

R. setosus Bigelow. Thickets and fields. Common. Roxbury: Campbell (1687) 1974; Grafton: Deane 1920; Bethel: Wheeler 1929; Woodstock: Pease (17137) 1918; Greenwood: Campbell (1572) 1974; Albany: Campbell (3035) 1975; Buckfield: Hyland (1174) 1938; Stow: Hyland (498) 1933; Hebron: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Oxford: Weatherby 1914; Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Fryeburg: Hyland (490 and 577) 1933; Brownfield: Campbell (1313) 1974.

R. setotus X *vermontanus*. Canton: Parlin (2003) 1906; Gilead: Furbish: 1897.

R. vermontanus Blanch. Newry: Deane 1920; Gilead: Furbish 1897; Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

R. canadensis L. Woods, ascending to higher elevations than other members of the genus. Frequent. Riley: C.S. Campbell and A.S. Campbell, Jr. (1203) 1974; Gilead: Furbish 1897; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Campbell, Eastman, and Richards (1480) 1974.

R. elegantulus Blanch. Roxbury: Hyland (196) 1934; Gilead: Furbish 1897; Hebron: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Fryeburg: Hyland (566) 1933.

R. allegheniensis Porter. Fields, thickets, and woods. A common, early successional species. Milton: Campbell and Eastman (1171) 1974; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Eastman (89) 1973; Buckfield: Campbell (1089) 1974; Oxford: Weatherby 1914; Denmark: Campbell (1275) 1974; Brownfield: Campbell and Eastman (1003) 1974.

R. allegheniensis X *setosus*. Canton: Parlin (17904) 1946.

R. pensylvanicus Poir. Bethel: Wheeler 1938, Pease (36595) 1954; Gilead: Deane 1921; Oxford: Chamberlain 1907.

DALIBARDA Kalm. False Violet.

D. repens L. Moist woods. Common. Bethel: Curtis 1913, Wheeler 1927; Gilead: Campbell and Eastman (343) 1973; Hartford: Parlin 1893; Sumner: Pease (23800) 1933; Albany: Pease (27620) 1939; Batchelders Grant: Campbell (643) 1973; Oxford: Weatherby 1914; Denmark: Evans (no date); Brownfield: Perley 1892.

AGRIMONIA L. Agrimony.

A. gryposepala Wallr. Thickets and borders of woods. Infrequent. West Paris: Palmer (44583) 1938; Hebron: Campbell (1954) 1974, Campbell and Eastman (3019) 1975; Hiram: V. Merrill 1912, Perkins 1940.

A. striata Michx. Moist, thin woods. Occasional. Upton: Brewster 1907; Roxbury: Campbell (1684) 1974; Andover North Surplus: Bean 1948; Dixfield: Campbell (1930) 1974; Riley: Curtis 1913; Canton: Campbell and Eastman (3072) 1975; Gilead: Furbish: 1897; Stow: Campbell (369) 1973.

ROSA L. Rose [67]

**R. multiflora* Thunb. Garden escape. Woodstock: Campbell (2055) 1974.

**R. eglantheria* L. Sweet-brier. Gilead: Deane 1920.

R. nitida Willd. Swales and bogs. Occasional. Lynchtown: Campbell and Eastman (3014) 1975; Upton: Pease (10620) 1907; Norway: Weatherby (2263) 1907, Godfrey 1919; Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Fryeburg: Bean 1920; Porter: Campbell (2801) 1975.

R. virginiana Mill. Moist or dry ground. Occasional. Canton: Parlin (1959) 1906; Gilead: Furbish 1897; Bethel: Wheeler 1914; Hartford:

Parlin 1886; Buckfield: Parlin (2528) 1908, Bean 1938; Paris: Furbish 1897; Fryeburg: Bean 1920, Norton (17421) 1920, Hyland (497) 1933; Brownfield: Campbell (1542) 1974.

R. palustris Marsh. Shores and swales. The commonest native rose. Canton: Parlin (2056) 1906; Gilead: Furbish 1897; Sumner: Hyland (147) 1934, Campbell and Eastman (882) 1974; Greenwood: Campbell and Eastman (1164) 1974; Buckfield: Bean 1938; West Paris: Hyland (523) 1933; Waterford: Hyland (478) 1933; Stow: Campbell and Eastman (454) 1973; Hebron: Campbell, A. and R. Bradford, and Eastman (1649) 1974, Eastman and Wight (441) 1974; Brownfield: Campbell and Eastman (1596) 1974.

R. spinosissima L. Scotch Rose. Spreading from cultivation. Magalloway Plt.: Campbell and Eastman (1463) 1974; Richardsontown: Campbell (2466) 1974.

**R. rugosa* Thunb. Canton: Campbell and Eastman (3018) 1975; Lovell: Eastman (717) 1975.

**R. cinnamomea* L. Cinnamon-Rose. Persistent and spreading near habitation. Frequent. Sweden: Campbell (1258) 1974; Fryeburg: Campbell (1056) 1974, Campbell and Eastman (1001) 1974.

PRUNUS L. Plum, Cherry.

P. nigra Ait. Canada Plum. Fields and thickets, mostly as an escape from cultivation. Occasional. Upton: Campbell and Eastman (877) 1974; Gilead: Campbell (769) 1974; Woodstock: Bean 1949; Mason: Campbell (777) 1974; Oxford: Hyland (83) 1934, Campbell (2724) 1975; Fryeburg: Hyland (512) 1933.

P. susquehanae Willd. Sand-Cherry. Sand plains and dry ledges. Frequent. Lovell: Coburn 1920; Fryeburg: Blake 1885, Farlow 1910, Bean 1920, Pease (17921) 1921, Hyland (465) 1933, Rossbach (6150) 1964, Campbell and Eastman (1018) 1974; Denmark: Campbell (1285) 1974.

P. depressa Pursh. Sand-Cherry. Gravelly river shores. Occasional. Bethel: Wheeler 1933 and 1935; Gilead: Furbish 1897, Campbell and Eastman (478) 1974; Fryeburg: Pease (25678) 1936.

P. pensylvanica L. f. Bird-, Pin-, or Fire-Cherry. Thickets, fields, hedge-rows. Common. Upton: Brewster 1909; Dixfield: Parlin 1884; Gilead: Pease (17836) 1920; Mason: Campbell and Eastman (825) 1974; Batchelders Grant: Eastman (111) 1973.

P. serotina Ehrh. Black Cherry. Woods and clearings. Common. Bethel: Wheeler 1938; Hartford: Parlin 1885; Mason: Campbell (661) 1973; Batchelders Grant: Campbell (628) 1973; Oxford: Bean (2201) 1907; Campbell (2882) 1975; Brownfield: Campbell (905) 1974.

P. virginiana L. Choke-Cherry. Thickets, clearings, ledges, and open woods. Common. Bethel: Wheeler 1938; Gilead: Furbish 1897, Campbell (379) 1973; Batchelders Grant: Eastman (37) 1973; Fryeburg: Campbell (2743) 1975; Denmark: Campbell (1280) 1974.

FABACEAE (PULSE FAMILY)

THERMOPSIS R. Br.

**T. mollis* (Michx.) M.A. Curtis. Garden escape. Greenwood: Eastman and Campbell (402) 1974.

LUPINUS L. Lupine.

L. perennis L. Wild Lupine. Dry, open areas. Oxford: Bean (2054), Chamberlain, Coburn, Fellows 1907, Weatherby 1914.

**L. polyphyllus* Lindl. Open, grassy spots. Occasional. Upton: Campbell and Eastman (1459) 1974; Bethel: Campbell (976) 1974; Brownfield: Eastman (406) 1974.

TRIFOLIUM L. Clover.

**T. arvense* L. Rabbit-foot-clover. Dry, open areas. Common. Andover: L.O. Eaton 1897; Gilead: Campbell (401) 1974; Paris: Campbell (1406) 1974.

**T. incarnatum* L. var. *elatius* Gibelli & Belli. Crimson Clover. Canton: Parlin 1920; Bethel: Curtis 1913; Hartford: Parlin (874) 1897.

**T. pratense* L. Red Clover. Roadsides and waste places. Common. Dixfield: Campbell (1038) 1974; Gilead: Furbish 1897, Campbell (435) 1973; Stow: Campbell (70 and 137) 1973.

**T. repens* L. White Clover. Oxbow: Eastman and Campbell (591) 1974; Canton: Parlin 1906; Batchelders Grant: Eastman (83) 1973; Stow: Campbell (37) 1973; Denmark: Campbell (1260) 1974.

**T. repens* f. *phyllanthum* (Ser.) Fior & Reguinot. Bethel: Wheeler 1926.

**T. agrarium* L. Hop-clover. Waste ground. Frequent. Bethel: Wheeler 1914; Batchelders Grant: Campbell (256) 1973; Buckfield:

Campbell (1093) 1974; Norway: Evans 1884; Stow: Campbell (138) 1973; Hiram: V. Merrill 1911.

**T. procumbens* L. Low Hop-Clover. Roadsides and waste places. Frequent. Canton: Parlin (1995) 1906; Bethel: Wheeler 1937; Gilead: Campbell (400 and 434) 1973.

MELILOTUS Mill. Sweet Clover.

**M. officinalis* (L.) Lam. Yellow Sweet Clover. Roadsides and waste places. Frequent. Grafton: Richards (6675) 1954; Bethel: Wheeler 1926; Gilead: Eastman (393) 1973; Woodstock: Eastman and Gray (475) 1974; Greenwood: Eastman and Wight (506) 1974; West Paris: Campbell (2062) 1974; Oxford: Eastman and Wight (499) 1974; Paris: Campbell (1361) 1974; Hiram: V. Merrill 1914.

**M. alba* Desr. White Sweet Clover. Roadsides and waste places. More common than the last. Parmachenee: Campbell and Eastman (1754) 1974; Bethel: Wheeler 1928; Greenwood: Campbell (1489) 1974; Hiram: V. Merrill 1914.

MEDICAGO L. Medick.

**M. sativa* L. Alfalfa. Roadsides and fields. Occasional. Bethel: Wheeler 1928; Stow: Eastman (216) 1973; Oxford: Campbell (1963) 1974; Fryeburg: Bean, Norton (17426) 1920, Campbell (1999) 1974; Denmark: Eastman (467) 1974; Hiram: V. Merrill 1921.

**M. lupulina* L. Black Medick. Mostly on railroad ballast. Infrequent. Rumford: Campbell (2518) 1974; Bethel: Wheeler 1930, Campbell (2381) 1974; Norway: Bean (2232) 1907; Paris: Campbell (1363) 1974.

ROBINIA L. Locust.

**R. pseudo-acacia* L. Black Locust. Roadsides and waste places. Frequent. Fryeburg: Norton (17428) 1928, Harris (26706) 1964; Denmark: Campbell (1327) 1974.

**R. viscosa* Vent. Clammy Locust. Paris: Campbell (1393) 1974.

**R. hispida* L. Bristly Locust. Dixfield: Ferrand 1974; Porter: Campbell (910), Eastman (400) 1974.

CORONILLA L. Crown-Vetch.

**C. varia* L. Rumford: Campbell (1925) 1974; Waterford: Eastman and Wight (522) 1974; Hebron: Parlin 1901, Eastman and Wight (455) 1974.

DESMODIUM Desv. Tick-Trefoil.

D. nudiflorum (L.) DC. Woods. Infrequent. Waterford: Eastman and Wight (521) 1974; Paris: Adams 1938; Denmark: Moulton 1902; Hiram: V. Merrill 1912.

D. nudiflorum f. *foliolatum*. (Farwell) Fassett. Denmark: Pease 1920.

D. glutinosum (Muhl.) Wood. Rich woods and clearings. Occasional. Bethel: Curtis 1913; Greenwood: Campbell (1962) 1974; Lovell: Pease (29281) 1941; Stow: Campbell (416) 1973; Oxford: Weatherby (1931) 1906, Norton (2775) 1907; Paris: Bean 1938; Denmark: Moulton 1902; Hiram: V. Merrill 1912, Campbell (1538) 1974; Porter: Pease (17907) 1920, Campbell and Eastman (1634) 1974.

D. canadense (L.) DC. Roadsides, thickets, and fields. Frequent. Dixfield: Campbell (1700) 1974; Gilead: Campbell (428) 1973; Hartford: Parlin 1886, Rowell 1940; Norway: Verrill 1858; Waterford: Eastman and Wight (523) 1974; Stow: Campbell (364) 1973; Oxford: Weatherby 1914; Hiram: V. Merrill 1912.

D. paniculatum (L.) DC. Sandy soil in open woods and clearings. Occasional. Denmark: Campbell and Eastman (3159) 1975; Hiram: Steinmetz 1933, Campbell (2522) 1974.

D. perplexum Schub. Sandy soil. Lovell: Pease (26898) 1938; Brownfield: Pease (17874) 1920.

LESPEDEZA Michx. Bush-Clover.

L. intermedia (S. Wats.) Britt. Denmark: Moulton 1902.

L. capitata Michx. Dry, open areas. Occasional. Hartford: Norton (19125) 1938; Fryeburg; Norton (17427) 1920; Brownfield: Norton (19921) 1927; Hiram: V. Merrill 1918, Campbell (2482) 1974.

L. capitata var. *velutina* (Bickn.) Fern. Rumford: Parlin 1889.

VICIA L. Vetch.

**V. angustifolia* Reichard. Hiram: V. Merrill 1915, Merrill 1927.

**V. tetrasperma* (L.) Moench. Buckfield: Parlin (14581) 1941.

**V. cracca* L. Grassy spots. Common. Riley: C.S. Campbell and A.S. Campbell, Jr. (1244) 1974; Bethel: Curtis 1913; Albany: Campbell (950) 1974; Batchelders Grant: Campbell (189) 1973; Norway: Evans 1884, Bean 1907; Oxford: Weatherby 1914; Fryeburg: Norton (17427) 1920; Hiram: V. Merrill 1911.

**V. villosa* Roth. Bethel: Wheeler 1933.

LATHYRUS L. Vetchling.

L. palustris L. Hartford: Rowell 1940.

**L. pratensis* L. Yellow Vetchling. Norway: Richards (6272) 1955.

**L. tuberosus* L. Tuberous Vetchling. Grassy bank. Rumford: Campbell (1927) 1974.

**L. latifolius* L. Everlasting Pea. Garden escape. Woodstock: Eastman and Wight (524) 1974; Fryeburg: Campbell (1714) 1974.

PISUM L. Garden-Pea.

**P. sativum* L. Bethel: Wheeler 1938; Fryeburg: Norton (17426) 1920.

APIOS Medic. Groundnut.

A. americana Medic. Rich thickets. Frequent. Rumford: Pease (33253) 1947; Gilead: Furbish 1897; Oxford: Neal 1935; Fryeburg: Moulton 1902; Hiram: V. Merrill 1918; Porter: Pease (28341) 1940.

AMPHICARPA Ell. Hog-Peanut.

A. bracteata (L.) Fern. Moist woods. Frequent. Bethel: Wheeler 1938; Gilead: Furbish 1897; Hartford: Parlin 1895; Buckfield: Allen 1877; Waterford: Campbell (2343) 1974; Stow: Campbell and Eastman (711) 1973, Campbell and Josselyn Botanical Society (3153) 1975; Denmark: Moulton 1902; Brownfield: Pease (17872) 1929; Hiram: V. Merrill 1918.

LINACEAE (FLAX FAMILY)

LINUM L. Flax.

**L. usitatissimum* L. Railroad ballast. Hartford: Parlin 1905; Gilead: Eastman (363) 1973.

OXALIDACEAE (WOOD-SORREL FAMILY)

OXALIS L. Wood-Sorrel.

O. montana Raf. Common Wood-Sorrel. Damp woods. Common. Parmachenee: Campbell and Eastman (1801) 1974; Grafton: Richards (6001) 1954; Newry: Wilson (no date); Bethel: Campbell (1571) 1974; Hartford: Parlin 1885, 1886, Allen 1895; Batchelders Grant: Wheeler 1937, Richards (6079) 1954, Campbell (208), Eastman (121) 1973; Norway: Mann 1862; Hebron: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

O. europaea Jord. Lawns and roadsides. Common. Bethel: Wheeler 1936; Hebron: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Fryeburg: Bean 1964.

O. europaea f. *pilosella* Wieg. Stow: Campbell (39) 1973.

O. europaea f. *cymosa* (Small) Wieg. Buckfield: Bicknell 1938.

O. europaea f. *villicaulis* Wieg. Gilead: Campbell (380) 1973; Stow: Campbell (71) 1973; Paris: Campbell (1409) 1974; Fryeburg: Campbell (1335) 1974.

GERANIACEAE (GERANIUM FAMILY)

GERANIUM L. Cranesbill.

G. maculatum L. Grassy banks. Infrequent. Buckfield: Campbell (1070) 1974; Paris: Campbell (961) 1974.

**G. sanguineum* L. Norway: Eastman (718) 1975.

G. bicknellii Britt. Open woods. Occasional. Rumford: Parlin 1888; Hartford: Gordon (454) 1909; Stoneham: Pease (17886) 1920; Stow: Campbell (177) and Eastman (135) 1973; Fryeburg: Pease (35679) 1950; Denmark: Blake (no date); Brownfield: Eastman (533) 1974; Hiram: Campbell (1534) 1974; Porter: Campbell and Eastman (1626) 1974.

G. carolinianum L. Rocky woods. Porter: Campbell and Eastman (3312) 1974.

**G. molle* L. Dovesfoot-Cranesbill. Brownfield: Eastman (534) 1974.

G. robertianum L. Herb-Robert. Rocky woods. Frequent. Canton: Parlin (2265) 1907; Woodstock: Parlin 1887, Campbell (2423) 1974; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; West Paris: Bean 1938, Pease (31937) 1946, Richards (6290) 1955; Waterford: Eastman (421) 1970, (693) 1974; Stow: Campbell and Eastman (176) 1973; Brownfield: Merrill 1896; Hiram: V. Merrill 1914; Porter: Campbell and Eastman (984), Eastman (399) 1974.

ERODIUM L'Her. Storksbill.

**E. cicutarium* (L.) L.'Her. Oxford: Chamberlain 1907.

POLYGALACEAE (MILKWORT FAMILY)

POLYGALA L. Milkwort.

P. paucifolia Willd. Fringed polygala. Bird-on-the-wing. Woods, especially those of *Pinus strobus*. Infrequent. Bethel: Wheeler 1930; Lovell: Campbell and Eastman (1199) 1974; Stow: Eastman (691) 1974; Brownfield: Perley 1885.

P. polygama Walt. var. *obtusata* Chodat. Dry, open areas. Occasional. Canton: Parlin (3687) 1917, Pease (19634) 1925; Bethel: Curtis 1913; Albany: Campbell (1519) 1974; Buckfield: Bicknell 1938; Waterford: Pease (27288) 1939, Parks (140) (no date); Oxford: Weatherby: (1933) 1906; Paris: Eastman and Wight (503) 1974; Hiram: Merrill 1927.

P. sanguinea L. Moist grassy spots. Infrequent. Dixfield: Gordon (295) 1908; Hartford: Parlin 1885; Stow: Campbell (422 and 524) 1973; Brownfield: V. Merrill 1914.

P. verticillata L. Open areas. Infrequent. Hartford: Parlin 1885, 1897, and 1919; Denmark: Evans 1902.

P. verticillata var. *ambigua* (Nutt.) Wood. Bethel: Wheeler 1933.

EUPHORBIACEAE (SPURGE FAMILY)

ACALYPHA L. Three-seeded Mercury.

A. rhomboidea Raf. Gravelly or sandy, open areas. Infrequent. Hartford: Parlin 1890; Buckfield: Parlin 1893; Fryeburg: Rossbach (6134) 1964; Brownfield: Campbell (2492) 1974.

EUPHORBIA L. Spurge.

**E. helioscopia* L. Woodstock: Parlin (no date).

**E. cyparissias* L. Cypress Spurge. Roadsides and waste places. Occasional. Bethel: Wheeler 1937, Campbell (1068) 1974; Gilead: Eastman (265) 1973; Albany: Wheeler 1914; Paris: Steinmetz (624) 1938.

**E. corollata* L. Flowering Spurge. Newry: Campbell (3291) 1975; Canton: Parlin (3636) 1917, (15959) 1943.

**E. supina* Raf. Railroad ballast and waste ground. Frequent. Canton: Bean 1938; Bethel: Campbell (2154) 1974; Gilead: Campbell (396) 1973; Greenwood: Campbell and Cross (2201) 1974; Buckfield: Parlin (14652) 1941; Hebron: Campbell (686) 1974.

**E. vermiculata* Raf. Dry soil. Occasional. Bethel: Furbish 1897; Gilead: Furbish 1897; Woodstock: Parlin 1890; Stow: Eastman and Hall (530) 1974; Paris: S. Eastman 1921.

**E. glyptosperma* Engelm. Dry open areas. Occasional. Rumford: Parlin (2276) 1890; Canton: Parlin 1939; Buckfield: Parlin (14642) 1941.

CALLITRICHACEAE (WATER-STARWORT FAMILY)

CALLITRICHE L. Water-Starwort. [30 b]

C. verna L. (*C. palustris* L.) Shallow water and muddy shores. Frequent. Bowmantown: Campbell and Eastman (2093) 1974; Canton: Parlin (2011) 1906, Gordon (1101) 1935; Bethel: Wheeler (no date); Gilead: Furbish 1897; Buckfield: Campbell and Eastman (2356) 1974; Paris: Furbish 1897; Fryeburg: Bean 1920; Hiram: Campbell and Frueh (3268) 1975.

C. heterophylla Pursh. Bethel: Wheeler 1928.

C. anceps Fern. Lincoln Plt.: Campbell and Eastman (3238) 1975; Gilead: Furbish 1897; Hiram: V. Merrill 1913.

EMPETRACEAE (CROWBERRY FAMILY)

EMPETRUM L. Crowberry.

E. nigrum L. Black Crowberry. Exposed mountain summits. Occasional. Grafton: Allen 1897, Norton (17149) 1926, St. John (17635) 1935, Campbell (3199) 1975; Rumford: Pease (19437) 1924, Gordon (705) 1926; Riley: C.S. Campbell and A.S. Campbell, Jr. (1230) 1974; Stoneham: Bean 1935.

E. atropurpureum Fern. & Wieg. Purple Crowberry. Similar habitats. Occasional. Andover: L. Eaton 1898; Grafton: Norton (17150) 1926, Pease (23849) 1933, Hyland (200) 1934, Campbell (3193) 1975; Rumford: Parlin 1898, Pease (12303) 1924; Riley: Brower 1957, C.S. Campbell and A.S. Campbell, Jr. (1225) 1974; Peru: Allen 1896; Stoneham: Bean 1925, Hyland (488) 1933.

ANACARDIACEAE (CASHEW FAMILY)

RHUS L. Sumac.

R. typhina L. Staghorn-Sumac. Dry, open sites. Common. Bethel: Wheeler 1938; Gilead: Campbell (433) 1973; Stow: Campbell (521) 1973; Denmark: Moulton (7259) 1902.

R. glabra L. Smooth Sumac. Similar habitats. Infrequent. Buckfield: Bicknell 1938; Oxford: Campbell (2539) 1974; Hiram: Merrill 1932, Campbell (3307) 1975.

R. copallina L. var. *latifolia* Engler. Dry, open sites. Infrequent. Brownfield: Hyland (468) 1933; Hiram: Merrill 1929, Campbell (2481) 1974.

TOXICODENDRON. Miller. [39]

T. vernix (L.) Ktze. (*Rhus vernix* L.). Posion Sumac. Albany: Verrill 1855.

T. rydbergii (Small) Greene (*R. radicans* L. var. *rydbergii* (Small) Rehd.) Poison Ivy. Rich soil, reaching its greatest size and prominence in rocky woods and alluvium. Common. Sumner: Bean 1942; Albany: Hodgdon, Lincoln, and Steele (10257) 1957; Stow: Eastman and Campbell (115) 1973; Hiram: Eastman and Wight (770) 1975.

AQUIFOLIACEAE (HOLLY FAMILY)

ILEX L. Holly.

I. verticillata (L.) Gray. Black Alder. Low ground. Common. Upton: Brewster, Pease (10505) 1907, C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2308) 1974; Bethel: Pease (23867) 1933, (36739) 1952; Gilead: Campbell and Eastman (347) 1973; Hartford: Rowell 1948; Greenwood: Pease (19078) 1922; Albany: Pease (27301) 1939; Mason: Wheeler 1931; West Paris: Pease (23815) 1933, Campbell (2074) 1974; Waterford: Hyland (476) 1933; Hebron: Chamberlain 1907, Eastman and Wight (463) 1974; Oxford: Weatherby 1914; Paris: Neal 1935; Fryeburg: Campbell (1550) 1974; Brownfield: Pease (17905) 1920; Hiram: Norton and Merrill (18209) 1923.

NEMOPANTHUS Raf. Mountain-Holly.

N. mucronata (L.) Trel. Moist to wet woods and wooded ledges. Common. Byron: Hyland (1153) 1938; Upton: Brewster 1907; Andover West Surplus: Pease (35576) 1950; Grafton: Norton (13350) 1919, Richards (6013) 1954; Riley: C.S. Campbell and A.S. Campbell, Jr. (1212) 1974; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Hodgdon and Steele (10711) 1958; Stoneham: Campbell and Frueh (725) 1973; Mason: Morse 1920, Campbell (239) 1973; Batchelders Grant: Pease (35576) 1950; Gilead: Greenough 1885; Stow: Campbell (525) 1973; Hebron: Campbell, A. and R. Bradford, and Eastman (1663) 1974; Oxford: Weatherby 1914.

CELASTRACEAE (STAFF-TREE FAMILY)

CELASTRUS L. Bittersweet.

C. scandens L. Rocky woods. Occasional. Bethel: Parlin 1889; Gilead: Furbish 1897; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931, Campbell, Eastman, and White (2944) 1975; Albany: Campbell (1518) 1974; Stow: Campbell and Eastman (94) 1973; Porter: Campbell and Eastman (1353) 1974.

**C. orbiculatus* Thunb. Locally spread from cultivation. Fryeburg: Campbell (2500) 1974.

ACERACEAE (MAPLE FAMILY)

ACER L. Maple.

A. spicatum Lam. Mountain-Maple. Upland woods. Common. Byron: Campbell and Eastman (1119) 1974; Gilead: Campbell and Eastman (538) 1973; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Mason: Campbell (686) 1973; Hartford: Parlin 1886; Norway: Smith (no date); Stow: Campbell and Eastman (743) 1973; Fryeburg: Norton (17431) 1920; Denmark: Steinmetz (1244) 1946; Hiram: V. Merrill 1922.

A. pensylvanicum L. Striped Maple. Moosewood. Woods. Common. Bethel: Wheeler 1938, Campbell (1190) 1974; Gilead: Furbish 1897; Hartford: Parlin 1895; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Wheeler 1929; Stoneham: Pease (17922) 1920; Batchelders Grant: Eastman (77) 1973; Norway: Mann 1862; Stow: Campbell and Frueh (602) 1973.

**A. platanoides* L. Norway Maple. Spread from cultivation. Norway: Campbell (2712) 1975.

A. saccharum Marsh. Rock- or Sugar-Maple. Upland woods. Common. Lynchtown: Eastman and Campbell (791) 1975; Bethel: Wheeler 1926; Gilead: Campbell (832) 1974; Stow: Campbell and Eastman (743) 1973.

A. rubrum L. Red Maple. Low woods and clearings. Common. Dixfield: Campbell (2710) 1975; Gilead: Furbish 1897, Campbell (770) 1974; Hiram: Merrill (no date).

A. saccharinum L. Silver Maple. Alluvial woods. Common. Upton: C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2321) 1974; Bethel: Wheeler 1938; Gilead: Furbish 1897, Campbell (477) and Eastman (225)

1973; Buckfield: Parlin 1895; Oxford: Norton 1907; Fryeburg: Norton 1920, Hyland (494) 1933.

A. rubrum X *saccharinum*. Upton: Pease (16538) 1915.

**A. negundo* L. Box-Elder. Ash-leaved Maple. Fields and roadsides, spread from cultivation. Frequent. Gilead: Campbell and Eastman (474) 1973; Norway: Norton (2768) 1907.

**A. negundo* var. *violaceum* (Kirsch.) Jaeg. Bethel: Campbell (861) 1974; Paris: Campbell (1397) 1974.

BALSAMINACEAE (TOUCH-ME-NOT FAMILY)

IMPATIENS L. Touch-me-not. Jewelweed.

I. pallida Nutt. Pale Touch-me-not. Moist, rich woods. Limited to the far north or higher elevations southward. Bowmantown: Campbell (2116) and Eastman (577) 1974; Mason: Eastman and Campbell (583) 1974.

I. capensis Meerb. Spotted Touch-me-not. Moist woods and clearings. Common. Gilead: Campbell (539) 1973; Hartford: Rowell 1940; Stoneham: Bean 1925; Batchelders Grant: Wheeler 1938, Eastman (217) 1973; Stow: Campbell (411) 1973; Hiram: V Merrill 1912.

I. capensis f. *immaculata* (Weath.) Fern. & Schub. Bowmantown: Eastman and Campbell (585) 1974; Dixfield: Campbell (2295) 1974.

I. capensis f. *citrina* (Weath.) Fern. & Schub. Lynchtown: Eastman and Campbell (789) 1975; Stoneham: Bean 1925.

I. capensis f. *peasei* (A.H. Moore) Fern. & Schub. Magalloway Plt.: Eastman and Campbell (573) 1974.

RHAMNACEAE (BUCKTHORN FAMILY)

RHAMNUS L. Buckthorn.

R. alnifolia L'Her. Low woods. Occasional. Lynchtown: Campbell and Eastman (3011) 1975; Sumner: Hyland (145) 1934, Bean 1942; Buckfield: Parlin 1895, (2527) 1908, Bean 1947, Steinmetz (632) 1938; Norway: Weatherby, Norton (2518) 1907; Hebron: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

**R. cathartica* L. Canton: Parlin 1905.

CEANOTHUS L. Redroot.

C. americanus L. New Jersey Tea. Dry, rocky or sandy woods. Local. Waterford: Hyland (1253) 1939, Parlin (17855), Perkins, Sylvester 1946 (station eradicated by roadside spraying in 1972); Oxford: Bean 1907, Starbird (7991) 1913, Campbell (3115) 1975; Porter: Campbell and Eastman (1632) 1974.

VITACEAE (VINE FAMILY)

PARTHENOCISSUS Planch. Virginia Creeper. Woodbine.

P. inserta (Kerner) K. Fritsch. Woods and thickets. Hartford: Harris and Bean (29504) 1966; Albany: Wheeler 1941; Waterford: Campbell (2341) 1974; Fryeburg: Rossbach (6105) 1964.

P. inserta f. *dubia* Rehd. Peru: Campbell (2162) 1974.

P. inserta f. *macrophylla* (Launche) Rehd. Hebron: Campbell and Eastman (3020) 1975.

VITIS L. Grape.

V. labrusca L. Fox Grape. Thickets. Frequent. Lovell: Pease 1918; Brownfield: Hyland (555) 1933; Porter: Campbell and Eastman (1312) 1974.

V. aestivalis Michx. var. *argentifolia* (Munson) Fern. Summer- or Silverleaf-Grape. Rocky woods. Brownfield: Eastman (735) 1975; Porter: Campbell (2536) 1974.

V. riparia Michx. River-bank-Grape. Thickets and river banks. Frequent. Bethel: Wheeler 1939; Gilead: Furbish 1897; Hebron: Campbell (2372) 1974.

V. novae-angliae Fern. New England Grape. Alluvial banks and thickets. Frequent. Bethel: Campbell (2412) 1974; Gilead: Furbish 1897; Oxford: Hyland (82) 1934; Paris: Hyland (1175) 1938.

TILIACEAE (LINDEN FAMILY)

TILIA L. Linden. Basswood.

T. americana L. Rich woods and river banks. Common. Rumford: Norton (17106) 1926; Bethel: Campbell (2527) 1974; Gilead: Furbish 1897, Campbell (384) 1973; Hartford: Parlin 1895; Stow: Eastman (17) 1970.

MALVACEAE (MALLOW FAMILY)

MALVA L. Mallow.

**M. sylvestris* L. var. *mauritiana* (L.) Boiss. Norway: Verrill 1858.

**M. neglecta* Wallr. Waste places, lawns. Occasional. Bethel: Wheeler 1936; Buckfield: Campbell and Eastman (2359) 1974; Stow: Eastman (305) 1973; Hiram: V. Merrill 1914 and 1927.

**M. verticillata* L. var. *crispa* L. Rumford: Parlin 1889.

**M. moschata* f. *laciniata* (Desr.) Hayek. Roadsides and fields. Fre-Hope 1919.

**M. moschata* f. *laciniata* (Desr.) Hayek. Roadsides and fields. Frequent. Magalloway Plt.: Campbell and Eastman (1775) 1974; Dixfield: Campbell (1947) 1974; Stow: Eastman (13) 1970; Hebron: Eastman and Wight (461) 1974; Hiram: Campbell (1544) 1974.

SIDA L.

**S. spinosa* L. Prickly Mallow. Canton: Parlin (15994) 1943.

ABUTILON Mill. Indian Mallow.

**A. theophrasti* Medic. Sand plains. Brownfield: Eastman (792) 1975.

HIBISCUS L. Rose-Mallow.

**H. trionum* L. Flower-of-an-hour. Bethel: Wheeler 1932.

GUTTIFERAE (ST. JOHN'S-WORT FAMILY)

HYPERICUM L. St. John's-wort.

**H. perforatum* L. Common St. John's-wort. Dry fields and roadsides. Common. Parmachenee: Campbell and Eastman (1757) 1974; Batchelders Grant: Campbell and Eastman (328) 1973; Stow: Campbell and Frueh (619) 1973; Hiram: V. Merrill 1912.

H. punctatum Lam. Thickets. Infrequent. Hartford: Rowell 1938; Buckfield: Parlin 1895.

H. ellipticum Hook. Wet ground. Common. Lynchtown: Campbell and Eastman (1738) 1974; Lincoln Plt.: Williams 1903; Township C: Robinson 1903; Upton: Brewster 1907; Bethel: Wheeler 1938, Campbell (2406) 1974; Gilead: Furbish 1897, Campbell and Eastman (338) 1973; Hartford: Parlin 1893; Stoneham: Campbell (1738) 1974; Buckfield:

Bean 1945; Norway: Evans 1894; Waterford: Pease (31722) 1945; Fryeburg: Harris (26655) 1964; Brownfield: Campbell and Josselyn Botanical Society (3147) 1975; Porter: Campbell (1539) 1974.

H. boreale (Britt.) Bickn. Wet ground. Frequent. Canton: Bean 1935; Gilead: Furbish 1897; Sumner: Pease (27571) 1939; Lovell: Campbell and Eastman (1839) 1974; Stow: Campbell and Eastman (714) 1973; Fryeburg: Pease (25634) 1936; Brownfield: Bean 1964; Hiram: Campbell (1603) 1974; Porter: Campbell and Eastman (1899) 1974.

H. mutilum L. Low ground. Infrequent. Rumford: Campbell (2178) 1974; Stow: Eastman (357) 1973.

H. majus (Gray) Britt. Wet or dry, open areas. Infrequent. Dixfield: Campbell (1934) 1974; Gilead: Furbish 1897.

H. canadense L. Open, wet or dry places. Common. Grafton: Williams 1895; Bethel: Curtis 1913; Gilead: Furbish 1897, Eastman (285) 1973; Hartford: Parlin 1893, Rowell 1940; Batchelders Grant: Campbell and Myers (503) 1973; Waterford: Bean 1957; Lovell: Campbell and Eastman (1837) 1974; Stow: Campbell and Eastman (166), Eastman (141) 1973; Fryeburg: Harris (26771) 1964.

H. dissimulatum Bickn. Fryeburg: Harris (26770) 1964.

H. virginicum L. Marsh St. John's-wort. Swales and borders of ponds. Frequent. Lincoln Plt.: Williams 1903; Bethel: Wheeler 1938; Gilead: Campbell and Eastman (339) 1973; Albany: Campbell (2034) 1974; West Paris: Palmer (44593) 1938; Hebron: Allen 1877; Fryeburg: Pease (25646) 1936.

H. virginicum var. *fraseri* (Spach) Fern. Gilead: Furbish 1897; Hartford: Bean 1946; Fryeburg: Harris (26658) 1964; Hiram: V. Merrill 1912.

ELATINACEAE (WATERWORT FAMILY)

ELATINE L. Waterwort.

E. minima (Nutt.) Fisch. & Mey. Shores of lakes and ponds, usually submersed. Occasional. Mexico: Furbish: 1894; Sumner: Pease (27577) 1939; Greenwood: Pease (19089) 1922; Albany: Pease (20798) 1930; Stoneham: Pease (35671) 1950; Lovell: Pease (20893) 1938, Campbell and Eastman (1842) 1974; Oxford: Campbell (3107) 1975; Fryeburg: Pease (25631) 1936; Brownfield: Campbell and Eastman (3309) 1975.

E. americana (Pursh) Arn. Similar habitats. Rare. Albany: Pease (29269) 1941.

CISTACEAE (ROCKROSE FAMILY)

HELIANTHEMUM Mill. Rockrose.

H. canadense (L.) Michx. Frostweed. Open, sandy areas. Occasional. Canton: Parlin (7067) 1921; Oxford: Bean (2120), Chamberlain 1907, Weatherby 1914, Hyland 1939; Fryeburg: Bean, Coburn 1920, Rossbach (6153) 1964; Denmark: Campbell and Eastman (3160) 1975; Brownfield: Norton (19972) 1927; Porter: Campbell and Josselyn Botanical Society (3141) 1975.

H. bicknellii Fern. Frostweed. Similar habitats. Less common. Rumford: Kennedy 1904; Canton: Parlin 1889; Brownfield: Campbell (1311) 1974; Hiram: Campbell (2521) 1974.

HUDSONIA L. Hudsonia.

H. tomentosa Nutt. Beach-heath, Poverty-grass. Open, sandy areas. Occasional. Lovell: Pease (17299) 1918; Fryeburg: Hyland (493) 1933, Campbell (1337) 1974; Brownfield: Eastman and Wells (563) 1974.

H. tomentosa var. *intermedia* Peck. Similar spots. Waterford: Pease (31735) 1945; Fryeburg: Faxon 1875, Norton 1920, Rossbach (6119) 1964; Brownfield: Norton (19953) 1920.

LECHEA L. Pinweed.

L. maritima Leggett. Open, sandy areas. Infrequent. Fryeburg: Bean 1964; Denmark: Bean 1964; Brownfield: Pease (17873) 1920, Campbell (1978) 1974, Campbell and Eastman (3308) 1975.

L. intermedia Leggett. Dry, sterile soil. Common. Andover West Surplus: Pease (37346) 1950; Newry: Bean 1931; Canton: Bean 1931, Parlin 1940; Bethel: Wheeler 1927; Gilead: Eastman (256) 1973; Albany: Wheeler 1914; Lovell: Pease (29286) 1941; Fryeburg: Pease (25642) 1936; Brownfield: Eastman (546) 1974.

L. intermedia var. *juniperina* (Bickn.) Robins. Similar habitats. Common. Grafton: Pease (16895) 1916, Campbell and Eastman (1853) 1974; Riley: Bean 1945; Bethel: Wheeler 1914, Pease (23861) 1933; Gilead: Furbish 1897; Albany: Wheeler 1917; Lovell: Pease (17286) 1918; Hebron: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Oxford: Hyland 1939; Hiram: V. Merrill 1913.

VIOLACEAE (VIOLET FAMILY)

VIOLA L. Violet. [66a]

V. cucullata Ait. Low ground. Common. Lynchtown: Campbell and Eastman (2786) 1975; Byron: Campbell and Eastman (1115) 1974; Riley: C.S. Campbell and A.S. Campbell, Jr. (1202) 1974; Gilead: Furbish 1897; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931, Campbell (899) 1974; Batchelders Grant: Campbell (29), Eastman (113) 1973; Stow: Campbell (67) 1973; Paris: Furbish 1897; Denmark: Steinmetz (1252) 1946; Hiram: Campbell (2755) 1975.

**V. papilionacea* Pursh. Stow: Eastman (377) 1974; Paris: Campbell (2721) 1975; Oxford: Weatherby (2882) 1907.

**V. papilionacea* f. *albiflora* Grover. Lawn. Lovell: Campbell (2745) 1975.

V. septentrionalis Greene. Woods, clearings, sterile fields and ledges. Common. Bowmantown: Campbell, Conant, Eastman, and Newman (2824) 1975; Canton: Parlin (2348) 1906; Bethel: Hunnewell 1912, Wheeler 1938; Gilead: Furbish 1897, Campbell (764) 1974; Hartford: Parlin 1886; Woodstock: Campbell (2727) 1975; Greenwood: Furbish 1904; Mason: Campbell and Eastman (824) 1974; Batchelders Grant: Eastman (4) 1973; Norway: Eames and Godfrey (9644) 1919, Campbell (2902) 1975; Stow: Campbell and Eastman (844) 1974; Oxford: Chamberlain 1907, Weatherby 1914; Fryeburg: Bean, Norton (17435) 1920; Hiram: V. Merrill 1913, Campbell (2902) 1975.

V. fimbriatula Sm. Dry, open woods and fields. Frequent. Canton: Bean, Gordon (1050) 1938; Gilead: Furbish 1897; Buckfield: Parlin (2152) 1907; West Paris: Gordon (2045) 1938; Lovell: Campbell and Eastman (1844) 1974; Stow: Campbell and Eastman (570) 1973; Hebron: Campbell (2717) 1975; Oxford: Chamberlain 1907; Denmark: Steinmetz (1248) 1946; Porter: Campbell and Eastman (1342) 1974.

V. selkirkii Pursh. Rich, deciduous, upland woods. Frequent. Bowmantown: Campbell, Conant, Eastman, and Newman (2822) 1975; Lincoln Plt.: Williams 1903; Riley: Pease (16534) 1917, C.S. Campbell and A.S. Campbell, Jr. (1238) 1974; Bethel: Campbell (2731) 1975; Woodstock: Parlin 1887; Greenwood: Campbell and Eastman (2798) 1975; Mason: Campbell and Eastman (819) 1974; Batchelders Grant: Hodgdon and Steele 1970.

V. pallens (Banks) Brainerd. Wet ground. Common. Bowmantown: Campbell, Conant, Eastman, and Newman (2813) 1975; Andover: Campbell and Eastman (893) 1974; Grafton: Parlin 1931; Canton: Parlin

(1970) 1906; Gilead: Furbish 1897; Sumner: Bean 1942; Woodstock: Campbell (2726) 1975; Batchelders Grant: Campbell (31), Eastman (71) 1973; Stow: Campbell (66) 1973; Oxford: Chamberlain 1907; Hiram: V. Merrill 1913.

V. incognita Brainerd. Moist woods. Frequent. Canton: Parlin (1921) 1906; Hartford: Parlin (2165) 1905; Woodstock: Bean 1947; Mason: Campbell and Eastman (818) 1974; Batchelders Grant: Campbell (80), Campbell and Frueh (5), Eastman (47) 1973, Campbell (805) 1974.

V. incognita var. *forbesii* Brainerd. Similar habitats. Parmachenee: Campbell and Eastman (1444) 1974; Gilead: Campbell and Eastman (810) 1974; Mason: Campbell and Eastman (820) 1974.

V. blanda Willd. Rich woods. Infrequent. Bowmantown: Campbell, Conant, Eastman, and Newman (2823) 1975; Parmachenee: Campbell and Eastman (2774) 1975; Oxford: Weatherby (2368) 1906, 1908.

V. renifolia Gray. Deciduous woods. Frequent. Byron: Campbell and Eastman (1115) 1974; Bethel: Wheeler 1938; Hartford: W. Allen 1896; Greenwood: Hunnewell, Bill, Eaton, Fernald, and Griscom (11995) 1931; Batchelders Grant: Campbell and Frueh (9) 1973, Campbell (806) 1974; Hebron: Neal 1916; Oxford: Chamberlain 1907; Hiram: V. Merrill 1914.

V. renifolia var. *brainerdii* (Greene) Fern. Similar habitats. Occasional. Adamstown: Campbell and Eastman (1137) 1974; Andover North Surplus: Bean 1939; Rumford: Parlin 1890; Riley: Bean 1939; Buckfield: Allen 1897; Oxford: Weatherby 1906, Chamberlain 1907.

V. lanceolata L. Lance-leaved Violet. Wet or exsiccated, open areas. Frequent. Greenwood: Wheeler 1932; Albany: Campbell (943) 1974; Waterford: Pease (28798) 1941; Lovell: Campbell and Eastman (1844) 1974; Fryeburg: Campbell and Eastman (1021) 1974; Brownfield: Campbell (1317) 1974; Hiram: V. Merrill 1913, Campbell (914), Eastman (670) 1974.

V. primulifolia L. var. *acuta* (Bigel.) T. & G. Similar habitats. Infrequent. Gilead: Furbish 1897; Hiram: V. Merrill 1913, Rossbach (6157) 1964; Porter: Campbell (2805) 1975.

V. rotundifolia Michx. Early Yellow Violet. Rich, deciduous woods. Common. Andover: Gordon (713) 1926; Newry: Norton (17107) 1926; Riley: Norton (13354) 1919, C.S. Campbell and A.S. Campbell, Jr. (1206) 1974; Canton: Parlin (2308) 1908; Bethel: Wheeler 1926; Gilead: Furbish 1897; Hartford: Parlin 1895, Norton 1938; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Dresser (no

date); Batchelders Grant: Wheeler 1907, Eastman (5) 1970; Oxford: Furbish 1897; Denmark: Steinmetz (1246) 1946.

V. pubescens Ait. f. *peckii* (House) Levesque & Dansereau (*V. pubescens* Ait. var. *peckii* House) Downy Yellow Violet. Rich woods. Rare. Norway: Mann 1862.

V. eriocarpa Schweinitz f. *leiocarpa* (Fern. & Wieg.) Deam. (*V. pennsylvanica* var. *leiocarpa* (Fern. & Wieg.) Fern.) Rich, rocky woods. Frequent. Bowmantown: Campbell, Conant, Eastman, and Newman (2817) 1975; Lynchtown: Campbell and Eastman (2777) 1975; Dixfield: Campbell (1037) 1974; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Hodgdon and Steele 1957; Batchelders Grant: Campbell (33), Eastman (70) 1973; West Paris: Verrill 1858; Stow: Campbell and Eastman (848) 1974; Hebron: Norton (7609) 1905.

V. conspersa Reichenb. American Dog Violet. Rich, generally moist woods. Infrequent. Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931, Campbell and Eastman (888) 1974; Buckfield: Parlin 1888; Hebron: Bean 1936; Hiram: Merrill 1926; Norway: Campbell (2894) 1975; Paris: Gordon (1140) 1937.

V. adunca Sm. Dry, open areas. Occasional. Canton: Parlin (2087) 1907; Milton: Pease (28715) 1941; Bethel: Wheeler 1926; Gilead: Eastman (376) 1974; Lovell: Pease (29289) 1941; Hebron: Chamberlain 1900, Campbell (2719) 1975; Oxford: Weatherby 1914; Fryeburg: Bean, Norton (17438) 1920, Campbell (2754) 1975; Denmark: Bean 1964; Brownfield: Campbell (903) 1974.

V. adunca var. *minor* (Hook.) Fern. Denmark: Seymour (22073) 1964.

**V. tricolor* L. Johnny-jump-up. Garden escape. Bethel: Wilson 1923.

THYMELAECEAE (MEZEREUM FAMILY)

DIRCA L. Leatherwood.

D. palustris L. Rich woods. Occasional. Dixfield: Fernald and Pease (25193) 1922; Hartford: Parlin 1886, Adams 1930 and 1936; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Buckfield: Steinmetz (636) 1938; Norway: Verrill 1858, Campbell (1015) and Eastman (391) 1974; Oxford: Chamberlain, Norton (2494) 1907.

LYTHRACEAE (LOOSESTRIFE FAMILY)

DECODON J. F. Gmel. Swamp-Loosestrife.

D. verticillatus (L.) Ell. Water-Willow. Pond margins. Occasional. Fryeburg: Eastman and Campbell (803) 1975; Hartford: Bean 1946.

D. verticillatus var. *laevigatus* T. & G. Sumner: Bean 1946; Porter: Campbell and Eastman (3162) 1975, Eastman and Josselyn Botanical Society (785) 1975.

LYTHRUM. L. Loosestrife.

**L. alatum* Pursh. Fryeburg: Kimball 1920.

**L. salicaria* L. Waste places. Purple Loosestrife. Infrequent. Canton: Parlin 1921; Paris: Eastman and Wight (501) 1974; Fryeburg: Parlin (Report) 1946.

**L. salicaria* var. *tomentosum* (Mill.) DC. Similar habitats. Infrequent. Norway: Campbell (2558) 1974; Paris: Campbell (1949) 1974.

MELASTOMATACEAE (MELASTOMA FAMILY)

RHEXIA L. Deergass.

R. virginica L. Swales and shores. Infrequent. Canton: Bean 1935; Fryeburg: Campbell and Eastman (3062) 1975; Denmark: Haven 1936; Brownfield: Eastman (821) 1975.

ONAGRACEAE (EVENING-PRIMROSE FAMILY)

LUDWIGIA L. False Loosestrife.

L. palustris (L.) Ell. Wet, open areas. Frequent. Dixfield: Campbell (2289) 1974; Canton: Bean 1931; Hartford: Parlin 1886; Sumner: Pease 1933; Albany: Campbell (2010) 1974; Lovell: Campbell and Eastman (1841) 1974; Stow: Eastman (314) 1973; Fryeburg: Pease (18100) 1921.

EPILOBIUM L. Willow-herb.

E. angustifolium L. Fireweed. Dry or damp, open places and recently burned land. Common. Bethel: Wheeler 1937; Gilead: Eastman (156) 1973; Albany: Campbell (1745) 1974; Batchelders Grant: Campbell and Eastman (462) 1973; Norway: Evans 1884; Hiram: V. Merrill 1912.

E. angustifolium f. *albiflorum* (Dumort) Haussk. Buckfield: Parlin (14096) 1939.

E. strictum Muhl. Wet, open areas. Infrequent. Bowmantown: Campbell and Eastman (2235) 1974; Canton: Parlin (2670) 1908; Greenwood: Campbell (3169) 1975.

E. leptophyllum Raf. Wet ground. Frequent. Bowmantown: Campbell and Eastman (2236) 1974; Lincoln Plt.: Campbell and Eastman (2137) 1974; Gilead: Furbish 1897; Sumner: Bean 1945; West Paris: Pease (23687) 1933; Oxford: Campbell (3116) 1975; Fryeburg: Rossbach (6165) 1964, Campbell and Eastman (3165) 1975.

E. palustre L. Wet ground. Infrequent. Albany: Wheeler 1914.

E. palustre var. *grammadophyllum* Haussk. Dixfield: Campbell (2291) 1974; West Paris: Pease (23788) 1933.

E. palustre var. *oliganthum* (Michx.) Fern. Gilead: Furbish 1897.

E. glandulosum Lehm. var. *adenocaulon* (Haussk.) Fern. Wet ditches, thickets and shaded ledges. Common. Lynchtown: Campbell and Eastman (1764) 1974; Lincoln Plt.: Williams 1903; Andover West Surplus: Bean 1938; Riley: Bean 1939; Bethel: Curtis 1913; Gilead: Furbish 1897, Campbell and Eastman (319) 1973; Hartford: Rowell 1938; Albany: Hodgdon and Steele 1957; Stow: Campbell and Eastman (149 and 446), Eastman (289) 1973; Denmark: Moulton 1902; Hiram: V. Merrill 1913.

E. glandulosum var. *occidentale* (Trel.) Fern. Bethel: Campbell (658) 1973; Gilead: Furbish 1897.

E. ciliatum Raf. Shaded ledges. Rare. Porter: Campbell and Eastman (1922) 1974.

OENOTHERA L. Evening-Primrose.

O. biennis L. Open, gravelly places. Common. Grafton: Bean 1945; Gilead: Pease (38464) 1956; Sumner: Bean 1951; Stow: Campbell and Eastman (161) 1973; Fryeburg: Campbell (2497) 1974; Hiram: V. Merrill 1914.

**O. erythrosepala* Borbas (*O. grandiflora* Ait.) Bethel: Wheeler 1938.

O. parviflora L. Open, gravelly or sandy places. Frequent. Grafton: Bean 1945; Rumford: Campbell (2532) 1974; Bethel: Wheeler 1935; Hiram: Campbell (2523) 1974.

**O. laciniata* Hill. Hiram: V. Merrill 1922.

**O. pilosella* Raf. Field. Paris: Campbell (1394) 1974.

O. perennis L. Open areas. Common. Lynchtown: Campbell and Eastman (1766) 1974; Byron: Campbell and Eastman (1120) 1974; Bethel: Curtis 1913, Wheeler 1923; Gilead: Campbell and Eastman (357) 1973; Hartford: Parlin 1892, Rowell 1938; Buckfield: Campbell (1388) 1974; Stow: Campbell and Eastman (730) 1973; Hiram: V. Merrill 1912 and 1924.

CIRCAEA L. Enchanter's Nightshade.

C. quadrisulcata (Maxim.) Franch. & Sav. var. *canadensis* (L.) Hara. Rocky woods. Occasional. Rumford: Campbell (3317) 1975; Canton: Parlin 1906, (2468) 1908, Campbell and Eastman (3074) 1975; Gilead: Pease (17628 and 17428) 1919, (17823) 1920; Hiram: V. Merrill 1912.

C. canadensis Hill. Rich woods. Local. Gilead: Pease (17810) 1920, Eastman (165) 1973; Stow: Campbell (419) 1973.

C. alpina L. Moist woods. Common. Bethel: Wheeler 1929; Hartford: Parlin 1885; Greenwood: Campbell (1501) 1974; Mason: Hodgdon and Steele (19743) 1958; Batchelders Grant: Campbell (245 and 307) 1973; Buckfield: Bicknell 1938; West Paris: Gordon (2023) 1938; Norway: Eastman (671) 1970.

HALORAGACEAE (WATER-MILFOIL FAMILY)

MYRIOPHYLLUM L. Water-Milfoil.

M. exallescens Fern. Shallow water. Parmachenee: Campbell and Eastman (3274) 1975.

M. farwellii Morong. Ponds and lakes. Occasional. Byron: Campbell and von Moschzisker (3222) 1975; Upton: Pease (35880) 1950, C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2310) 1974; Gilead: Furbish 1897; Albany: Pease (29276) 1941; West Paris: Parlin 1890; Stow: Pease (26874) 1938.

M. humile (Raf.) Morong. Parmachenee: Campbell and Eastman (3275) 1975.

M. humile f. *capillaceum* (Torr.) Fern. Wet shores. Denmark: Eastman and Wells (596) 1974.

M. tenellum Bigel. Sandy shores. Occasional. Byron: Campbell and von Moschzisker (3220) 1975; Canton: Pease (19638) 1925; Oxford: Campbell (3108) 1975; Hiram: Campbell and Frueh (3253) 1975; Porter: Campbell (3138), Eastman (786) and Josselyn Botanical Society 1975, Gagnon and Ogden (312) 1975.

PROSERPINACA L. Mermaid-weed.

P. palustris L. var. *crebra* Fern. & Griscom. Shallow water or stranded on shores. Occasional. Hartford: Bean 1945; Albany: Pease (23021) 1932; Stoneham: Pease (17904) 1920; Waterford: Campbell and Eastman (2260) 1974; Fryeburg: Campbell and Eastman (2125) 1974; Brownfield: Harris (26718) 1964, Campbell (1318) 1974.

P. pectinata Lam. Hiram: V. Merrill 1913.

HIPURIDACEAE (MARE'S-TAIL FAMILY)

HIPURIS L. Mare's-tail.

H. vulgaris L. Shores. Rare. Township C (or Richardsontown): Furbish 1894; Gilead: Furbish 1897.

ARALIACEAE (GINSENG FAMILY)

ARALIA L.

A. racemosa L. Spikenard. Rich woods. Frequent. Bethel: Wheeler 1926; Gilead: Furbish 1897; Hartford: Parlin 1895; Greenwood: Campbell (2065) 1974; Mason: Manter 1919; Batchelders Grant: Wheeler 1938; Campbell and Myers (509) 1973; West Paris: Curtis 1913; Stow: Campbell and Frueh (593) 1973; Denmark: Moulton 1902.

A. hispida Vent. Bristly Sarsaparilla. Dry, open, rocky or sandy areas. Common. Gilead: Eastman 1974; Hartford: Parlin 1893; Mason: Campbell (237) 1973; Batchelders Grant: Campbell (209) 1973; Stow: Campbell and Eastman (171) 1973; Hiram: V. Merrill 1924.

A. nudicaulis L. Wild Sarsaparilla. Woods. Common. Stow: Campbell (64) 1973; Hiram: V. Merrill 1911, Campbell (2906) 1975.

PANAX L. Ginseng.

P. quinquefolius L. Ginseng. Rich woods. Rare. Canton: Parlin (report) 1908; Porter: Swinington 1930.

P. trifolius L. Dwarf Ginseng. Low, rich woods. Frequent. Andover: Campbell and Eastman (883) 1974; Gilead: Deane 1921; Hartford: Parlin 1886; Greenwood: Campbell and Eastman (2797) 1975; Mason: Campbell and Eastman (821) 1974; Stow: Campbell and Eastman (821) 1974; Porter: Campbell (2750) 1975.

UMBELLIFERAE (PARSLEY FAMILY)

HYDROCOTYLE L. Water-Pennywort.

H. americana L. Wet ground. Common. Peru: Campbell (2054) 1974; Buckfield: Bean 1945; Stow: Campbell (580) 1973.

SANICULA L. Black Snakeroot.

S. marilandica L. Rich, moist woods. Occasional. Bowmantown: Campbell and Eastman (2211) 1974; Township C: Williams 1903; Rumford: Parlin 1890; Bethel: Wheeler 1926; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931, Eastman (683) 1970, Campbell and Eastman (890) 1974; Buckfield: Bicknell, Gordon (737) 1938; Norway: Campbell (1961) 1974; Oxford: Weatherby 1904; Hiram: V. Merrill 1912; Porter: Eastman (414) 1974.

OSMORHIZA Raf. Sweet Cicely.

O. claytonii (Michx.) C.B. Clarke. Rich woods. Frequent. Andover North Surplus: Campbell and Eastman (1111) 1974; Andover: Pease (33474) 1948; Dixfield: Parlin 1895; Canton: Bean 1931; Gilead: Deane 1883; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Stoneham: Campbell (2021) 1974; Mason: Hodgdon and Steele (10763) 1958; Batchelders Grant: Campbell (218), Eastman (12) 1973; Buckfield: Bicknell 1938; Norway: Bicknell 1955; Waterford: Eastman (420) 1974; Stow: Campbell and Eastman (111) 1973; Oxford: Bean 1907; Porter: Eastman and Campbell (419) 1974.

O. longistylis (Torr.) DC. Bethel: Wheeler 1929.

O. chilensis H. & A. Rich woods. Occasional, more common in the North. Bowmantown: Eastman and Campbell (579) 1974; Parmachenee: Campbell and Eastman (1803) 1974; Lincoln Plt.: Pease (26772) 1938; Magalloway Plt.: Pease (20088) 1927; Gilead: Furbish 1897; West Paris: Pease (37525) 1954.

CONIUM L. Poison Hemlock.

**C. maculatum* L. Rumford: Parlin 1890.

ZIZIA W.D.J. Koch.

Z. aurea (L.) W.D.J. Koch. Golden Alexanders. Fields and open woods. Frequent. Lincoln Plt.: Campbell and Eastman (1133) 1974; Riley: C.S. Campbell and A.S. Campbell, Jr. (1245) 1974; Bethel: Wheeler 1936; Batchelders Grant: Campbell (219), Eastman (86) 1973; Norway: Mann 1862; Hiram: V. Merrill 1913.

CICUTA L. Water-Hemlock.

C. bulbifera L. Swales and shores. Frequent. Bethel: Wheeler 1914; Gilead: Eastman (190) 1973; Greenwood: Campbell and Cross (2184) 1974; West Paris: Palmer (44592) 1938; Stow: Campbell and Eastman (718) 1973; Hebron: Campbell (2370) 1974; Fryeburg: Rossbach (6164) 1964; Hiram: V. Merrill 1913.

C. maculata L. Spotted Cowbane. Swales and shores. Lynchtown: Eastman and Campbell (580) 1974; Bethel: Wheeler 1935; Lovell: Campbell and Eastman (1836) 1974.

CARUM L. Caraway.

**C. carvi* L. Roadsides and waste places. Frequent. Oxbow: Eastman and Campbell (588) 1974; Canton: Campbell (1031) 1974; Waterford: Eastman (424) 1974; Lovell: Campbell and Eastman (1196) 1974; Hiram: V. Merrill 1914.

AEGOPODIUM L. Goutweed.

**A. podagraria* L. Waste places. Upton: Campbell and Eastman (1457) 1974; Buckfield: Campbell (1391) 1974.

SIUM L. Water-Parsnip.

S. suave Walt. Swales and wet ground. Common. Lincoln Plt.: Hunnewell 1931, Campbell and Eastman (1173) 1974; Upton: Brewster 1907; Bethel: Kennedy 1883; Stoneham: Campbell (1734) 1974; West Paris: Palmer (44588) 1938; Hiram: V. Merrill 1912 and 1924.

CONIOSELINUM Hoffm. Hemlock-Parsley.

C. chinense (L.) BSP. Alluvial woods. Occasional. Lincoln Plt.: Campbell and Eastman (3248) 1975; Roxbury: Parlin 1947; Rumford: Parlin 1889; Gilead: Furbish 1897; Buckfield: Parlin 1889; Paris: Bean 1938.

ANGELICA L. Angelica.

A. atropurpurea L. Sumner: Parlin 1890; Albany: Pease (28022) 1940.

PASTINACA L. Parsnip.

**P. sativa* L. Roadsides and waste places. Occasional. Bethel: Wheeler 1938; Norway: Eastman (672) 1974; Lovell: Campbell (1712) 1974; Fryeburg: Campbell (1310) 1974; Denmark: Moulton 1902, Eastman (671) 1974.

HERACLEUM L. Cow-Parsnip.

H. maximum Bartr. Fields and roadsides. Common northward. Parmachenee: Campbell and Eastman (1803) 1974; Lynchtown: Eastman and Campbell (436) 1974; Grafton: Eastman and Campbell (430) 1974; Bethel: Wheeler 1923; Gilead: Furbish 1897, Campbell (1569) 1974.

DAUCUS L. Carrot.

**D. carota* L. Queen Anne's-Lace. Dry fields and waste places. Occasional. Bethel: Wheeler 1935; Gilead: Furbish 1897; Greenwood: Campbell and Cross (2418) 1974; Stow: Campbell (522) 1973; Paris: Pease (28318) 1940.

CORNACEAE (DOGWOOD FAMILY)

CORNUS L. Dogwood.

C. canadensis L. Bunchberry. Woods. Common. Magalloway Plt.: Campbell and Eastman (1157) 1974; Grafton: Rossbach (5252) 1960; Newry: Deane: 1920; Gilead: Furbish 1897; Mason: Manter 1919; Batchelders Grant: Campbell (210), Campbell and Frueh (10) 1973; Oxford: Weatherby 1914.

C. stolonifera Michx. Red Osier. Wet ground. Common. Bowman-town: Campbell and Eastman (2212) 1974; Dixfield: Campbell (1949) 1974; Milton: Pease (33473) 1948; Bethel: Wheeler 1935; Gilead: Furbish: 1897; Campbell and Eastman (479) 1973; Batchelders Grant: Campbell (47) 1973; Norway: Mann 1862; Lovell: Campbell (932) 1974.

C. rugosa Lam. Round-leaved Dogwood. Dryish, rocky woods. Occasional. Bethel: Wheeler 1914; Woodstock: Campbell (2432) 1974; Stoneham: Pease (17877) 1920; Sweden: Hyland (527) 1933; Stow: Campbell and Eastman (98) 1973; Oxford: Weatherby 1914; Hiram: Eastman and Wight (764) 1975.

C. ammomum Mill. Bethel: Wheeler 1935; Hartford: Parlin 1885; Oxford: Weatherby 1914; Brownfield: Campbell, Hyland, and Josselyn Botanical Society (3144) 1975; Hiram: V. Merrill 1914.

C. obliqua Raf. Swales and thickets. Occasional. Albany: Campbell (2037) 1974; Brownfield: Bean 1964; Hiram: Campbell (915) 1974; Porter: Campbell and Eastman (1616) 1974.

C. alternifolia L.f. Blue or Pagoda-Dogwood. Woods. Frequent. Bethel: Wheeler 1935; Batchelders Grant: Campbell (85), Eastman and Campbell (93) 1973; Stow: Campbell (15) 1973; Oxford: Weatherby 1914.

PYROLACEAE (WINTERGREEN FAMILY)

CHIMAPHILA Pursh.

C. umbellata (L.) Bart. var. *cisatlantica* Blake. Dry woods. Frequent. Bethel: Pease (27311) 1939; Gilead: Eastman (327) 1973; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Albany: Campbell and Eastman (2265) 1974; Mason: Campbell (790) 1974; Waterford: Pease (31731) 1945; Lovell: Pease (29283) 1941; Oxford: Weatherby 1914; Fryeburg: Eastman (560) 1974; Denmark: Moulton 1902; Brownfield: Fellows 1905; Hiram: V. Merrill 1912; Porter: Campbell (1555) 1974.

C. maculata (L.) Pursh. Dry woods. Rare. Denmark: Eastman and O'Connell (1115) 1976; Hiram: Eastman (727) 1975.

MONESES Salisb. One-flowered Pyrola.

M. uniflora (L.) Gray. Damp woods. Occasional. Lynchtown: Eastman and Campbell (750) 1975; Lower Cupsuptic: Pease (10519) 1907; Grafton: Norton (13356) 1926; Dixfield: Campbell (1635) 1974; Bethel: Curtis 1913, Wheeler 1928; Greenwood: Bicknell 1938; Norway: Bean (2243) 1907; Oxford: Weatherby 1914; Fryeburg: Bean 1920; Hiram: V. Merrill 1914.

PYROLA L. Shinleaf.

P. secunda L. One-sided Pyrola. Moist, rich woods. Occasional. Lynchtown: Campbell and Eastman (3000) 1975; Andover: Campbell and von Moschzisker (3215) 1975; Andover West Surplus: Bean 1938; Dixfield: Campbell (1703) 1974; Newry: Wheeler 1919; Bethel: Curtis 1913, Wheeler 1927; Gilead: Furbish 1897; Sumner: Bean 1942; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931, Eastman, V. King and Wight (508) 1974; Stoneham: Bean 1935; Batchelders Grant: Eastman (195) 1973; Buckfield: Bicknell 1938; Oxford: Weatherby 1914; Fryeburg: Norton (17444) 1920; Denmark: Evans 1902; Hiram: V. Merrill 1914.

P. secunda var. *obtusata* Turcz. Bethel: Wheeler 1927; Hebron: Chamberlain 1896, Campbell, A. and R. Bradford and Eastman (1659) 1974; Paris: Pease (28704) 1941.

P. minor L. Mason: Wheeler 1919.

P. virens Schweigger. Dry woods. Occasional. Bethel: Wheeler 1929; Gilead: Wheeler 1936, Campbell and von Moschzisker (2979) 1975; Batchelders Grant: Wheeler 1937; Porter: Campbell and Eastman (1915) 1974.

P. virens var. *convoluta* (Bart.) Fern. Bethel: Wheeler 1926.

P. elliptica Nutt. Woods. Common. Parmachenee: Campbell and Eastman (1789) 1974; Dixfield: Campbell (1702) 1974; Bethel: Wheeler 1927; Gilead: Furbish 1897; Hartford: Parlin 1885; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Campbell (255), Eastman (154) 1973; Buckfield: Bean 1938; Stow: Campbell (408) 1973; Hebron: Eastman and Campbell (495) 1974; Oxford: Weatherby 1914; Fryeburg: Bean 1920; Denmark: Moulton 1902; Porter: Campbell (1554) 1974.

P. rotundifolia L. var. *americana* (Sweet) Fern. Woods and clearings. Frequent. Magalloway Plt.: Campbell and Eastman (1776) 1974; Andover: Pease (26807) 1938; Grafton: Pease (37943) 1955; Bethel: Curtis 1913; Albany: Eastman and Wight (519) 1974; Stoneham: Campbell (1732) 1974; West Paris: Palmer (44580) 1938; Stow: Eastman (526) 1974; Hebron: Eastman and Campbell (490) 1974; Oxford: Weatherby 1914, Neal 1935; Paris: Bean 1938; Fryeburg: Eastman (527) 1974; Denmark: Steinmetz (1253) 1946.

P. asarifolia Michx. Gilead: Moore 1903; Paris: Mann 1862.

P. asarifolia var. *purpurea* (Bunge) Fern. Dry woods. Paris: Eastman and Wight (447) 1974.

MONOTROPA L. Indian-pipe.

M. uniflora L. Woods. Common. Lincoln Plt.: Bean 1938; Bethel: Wheeler 1914; Stow: Campbell and Eastman (168 and 578) 1973; Hiram: V. Merrill 1912.

M. hypopithys L. Pinesap. Woods. Frequent. Grafton: Norton (13356) 1926; Bethel: Curtis 1913, Wheeler 1938; Gilead: Campbell and Eastman (318) 1973; Hartford: Parlin 1885; Greenwood: Wheeler 1925; Stow: Campbell and Eastman (167 and 542) 1973; Porter: Gordon (905) 1929.

ERICAEAE (HEATH FAMILY)

LEDUM L. Labrador-tea,

L. groenlandicum Oeder. Acidic bogs, rocky shores and exposed ledges in the mountains. Frequent. Magalloway Plt.: Pease (37940) 1955, Campbell and Eastman (1150) 1974; Grafton: St. John (17632) 1935, Richards (6014) 1954; Rumford: Pease (12302) 1924; Newry: Wheeler 1936; Hartford: Parlin 1895; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Stoneham: Bean 1925, Hyland (499) 1933; Mason: Manter 1919, Campbell (235) 1973; Batchelders Grant: Eastman (119)

1973; Norway (2252) 1907; Stow: Campbell and Eastman (554) 1973; Hebron: Chamberlain 1900; Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

RHODODENDRON L. Rhododendron.

R. canadense (L.) Torr. Rhodora. Bogs, thickets and ledges. Frequent. Lincoln Plt.: Williams 1903; Magalloway Plt.: Campbell and Eastman (1151) 1974; Dixfield: Parlin 1895; Newry: Wheeler 1926; Riley: C.S. Campbell and A.S. Campbell, Jr. (1220) 1974; Bethel: Wheeler 1937; Greenwood: Pease (36855) 1952; Albany: Pease (28793) 1941; Batchelders Grant: Campbell and Frueh (6), Eastman (57) 1973; Sweden: Pease (27286) 1939; Stow: Campbell and Eastman (547) 1973; Oxford: Weatherby 1914.

R. viscosum (L.) Torr. Clammy Azalea. Pond margins. Rare. Woodstock: Eastman and Docekal (116) 1976; Greenwood: Eastman, Mudge, and Stubbs (1117) 1976.

KALMIA L. Laurel.

K. latifolia L. Mountain-Laurel. Moist woods (especially under *Tsuga*) and thickets. Local. Albany: Campbell (1503) 1974; Fryeburg: Bean, Coburn 1920, Hyland (466 and 492) 1933; Denmark: Eastman, F. and R. Bucknell, and Campbell (752) 1975.

K. angustifolia L. Sheep-Laurel. Dry to wet, open areas. Frequent. Lincoln Plt.: Williams 1903; Grafton: Richards (6066) 1954, Eastman and Campbell (581) 1974; Newry: Wheeler 1919; Bethel: Wheeler 1923; Mason: Manter 1919, Campbell (236) 1973; Buckfield: Bean 1945; Stow: Campbell and Eastman (110 and 526) 1973; Denmark: Campbell (1279) 1974; Hiram: V. Merrill 1911.

K. polifolia Wang. Pale Laurel. Acid bogs and exposed mountain ridges and summits. Frequent. Magalloway Plt.: Pease 1935, Campbell and Eastman (1145) 1974; Grafton: Attwood 1941; Dixfield: Gordon (409) 1913; Rumford: Pease (19305) 1924; Riley: C.S. Campbell and A.S. Campbell, Jr. (1219) 1974; Bethel: Wheeler 1927; Gilead: Eastman (277) 1973; Albany: Pease (28792) 1941; Norway: Bean 1907; Stow: Campbell and Eastman (555) 1973; Hebron: Chamberlain 1900, Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Oxford: Weatherby 1914; Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Fryeburg: Pease (17877) 1920; Denmark: Bean 1964.

ANDROMEDA L.

A. glaucophylla Link. Bog-Rosemary. Acid bogs and swales. Frequent. Magalloway Plt.: Pease (37982) 1955, Campbell and Eastman

(1153) 1974; Bethel: Wheeler 1938; Hartford: Parlin 1895; Greenwood: Curtis 1913; Albany: Pease (28795) 1941; Mason: Hodgdon and Steele (10787) 1958; Buckfield: Adams 1936; Norway: Bean 1907 and 1960, Campbell and von Moschzisker (2984) 1975; Stow: Campbell and Eastman (551) 1973; Hebron: Chamberlain 1900; Oxford: Weatherby 1914; Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Fryeburg: Pease (17876) 1920.

LYONIA Nutt.

L. ligustrina (L.) DC. Bogs and pond margins. Frequent. Summer: Pease (23822) 1933; Woodstock: Blankinship 1894; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931, Pease (19088) 1932, Hodgdon and Steele (10799) 1958; Albany: Pease (28794) 1941; Waterford: Bean 1957; Lovell: Pease (17127) 1913; Stow: Campbell (108) and Eastman (101) 1973; Hebron: Chamberlain 1900; Oxford: Weatherby 1914; Fryeburg: Pease (25635) 1936; Denmark: Eastman (468) 1974; Brownfield: Campbell and Eastman (1598) 1974.

CHAMAEDAPHNE Moench. Leather-leaf.

C. calyculata (L.) Moench. var. *angustifolia* (Ait.) Rehd. Acidic bogs and pond margins. Common. Lower Cupstiptic: Campbell (2470) 1974; Gilead: Campbell and Eastman (873) 1974; Hartford: Allen 1896; Greenwood: Bill, Eaton, Fernald, Griscom, Hunnewell 1931; Sweden: Pease (27265) 1939; Stow: Campbell and Eastman (553) 1973; Oxford: Weatherby 1914; Porter: Eastman and Campbell (703) 1974.

C. calyculata var. *latifolia* (Ait.) Rehd. Similar habitats. Less common. Grafton: Campbell (3196) 1975; Mason: Manter 1919, Campbell (226) 1973; Stow: Campbell and Eastman (107) 1973.

EPIGAEA L. Trailing Arbutus.

E. repens L. var. *glabrifolia* Fern. Sandy woods. Frequent. Bethel: Wheeler 1926; Gilead: Furbish 1897; Greenwood: Blankinship 1894; Mason: Pease 1939, Hodgdon and Steele (10792) 1958; Batchelders Grant: Eastman (73) 1973; Norway: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Sweden: Pease (27287) 1939; Stow: Campbell (75) 1973; Oxford: Chamberlain 1907; Fryeburg: Pease (25639) 1936.

GAULTHERIA L. Wintergreen.

G. procumbens L. Wintergreen. Woods. Common. Riley: Deane 1925; Stow: Campbell (74), Campbell and Eastman (566) 1973; Oxford: Bean (2112) 1907; Hiram: V. Merrill 1912; Porter: Campbell and Eastman (1918) 1974.

G. hispidula (L.) Bigel. Creeping Snowberry. Mossy woods. Frequent. Lynchtown: Campbell and Eastman (1857) 1974; Grafton: Rossbach (5247) 1960; Hartford: Parlin 1895; Woodstock: Parlin 1887; Albany: Wheeler 1914; Stow: Campbell and Eastman (567) 1973.

ARCTOSTAPHYLOS Adans. Bearberry.

A. uva-ursi (L.) Spreng. var. *coactilis* Fern. & Macbr. Exposed ledges, slopes, and sandy banks. Occasional. Bethel: Wheeler 1935; Albany: Wheeler 1936, Hodgdon and Steele (10252) 1957; Denmark: Blake 1866, Pease (19694) 1925, Steinmetz (1254) 1946, Bean 1964, Campbell (1273) 1974; Porter: Campbell and Eastman (979) 1974.

GAYLUSSACIA HBK. Huckleberry.

G. baccata (Wang.) K. Koch. Black Huckleberry. Acid bogs, moist or dry woods and thickets. Frequent. Rumford: Pease (12301) 1912, Norton (17121) 1926; Gilead: Pease (19640) 1919; Greenwood: Blankinship 1894; Albany: Wheeler 1925; Lovell: Pease (17232) 1918; Stow: Campbell and Eastman (100 and 548), Campbell and Myers (485) 1973; Fryeburg: Norton (17449) 1920; Denmark: Campbell (1320) 1974.

VACCINIUM L.

V. uliginosum L. var. *alpinum* Bigel. Alpine Bilberry. Exposed mountain ridges and summits. Common. Grafton: Allen 1897, Hyland (202) 1934, St. John (17633) 1935, Richards (6019) 1954, Campbell (3194) 1975; Rumford: Parlin 1890, Pease (19304) 1924, Gordon (704) 1926; Riley: C.S. Campbell and A.S. Campbell, Jr. (1234) 1974; Stoneham: Bean 1925, Hyland (483) 1933, Campbell and Frueh (4) 1973; Mason: Manter 1919, Campbell (227) 1973; Stow: Campbell (533) 1973.

V. cespitosum Michx. Dwarf Bilberry. Alluvial woods. Occasional. Byron: Hyland (1148) 1938; Roxbury: Hyland (193) 1933; Newry: Pease (17592) 1919; Gilead: Furbish 1897; Stoneham: Bean 1925; Batchelders Grant: Campbell and Eastman (90) 1973.

V. myrtilloides Michx. Sour-top Blueberry. Fields and woods. Common. Bowmantown: Campbell and Eastman (2215) 1974; Upton: Brewster 1907; Riley: C.S. Campbell and A.S. Campbell, Jr. (1235) 1974; Bethel: Campbell (1300) 1974; Greenwood: Curtis 1913, Hunnewell, Bill, Eaton, Fernald, and Griscom (11991) 1931; Stoneham: Bean 1925; Batchelders Grant: Eastman (62) 1973; Buckfield: Campbell (1381) 1974; Stow: Campbell and Frueh (610) 1973; Oxford: Weatherby (1928) 1914.

V. boreale Hall & Aalders (*V. angustifolium* Ait. var. *angustifolium*) [48]. Infrequent at higher elevations. Grafton: J.A. Allen 1897.

V. angustifolium Ait. (*V. angustifolium* vars. *laevifolium* House, *hypolasium* Fern., and *nigrum* (Wood) Dole). [94 a] Late Sweet Blueberry. Fields, roadsides, and woods; extending to higher elevations. Common. Lincoln Plt.: Williams 1903; Roxbury: Hyland (194) 1934; Andover: Norton (17122) 1926; Grafton: St. John (17634) 1935, Campbell (3195) 1975; Newry: Wheeler 1926; Riley: Campbell (1232) 1974; Canton: Parlin (report) 1908; Bethel: Campbell (863 and 1195) 1974; Gilead: Furbish 1897, Pease (17623, 17625, and 17627) 1919; Stoneham: Hyland (481 and 495) 1933; Mason: Manter 1919; Batchelders Grant: Campbell (693) 1973; Buckfield: Allen 1880; Norway: Richards (6280) 1955; Hebron: Bean 1934; Oxford: Norton (2769) 1907, Weatherby 1914; Fryeburg: Bean 1920, Norton (17451) 1920, Hyland (496) 1933; Brownfield: Norton (17450) 1920; Porter: Campbell and Eastman (1355) 1974.

V. corymbosum L. Highbush Blueberry. Swamps. Frequent. Bethel: Pease (27277) 1939; Stow: Campbell (928) 1974; Oxford: Weatherby 1914; Fryeburg: Pease (34895) 1949.

V. corymbosum var. *albiflorum* (Hook.) Fern. Similar habitats. Frequent. Sweden: Campbell (1256) 1974; Lovell: Pease (17290) 1918; Hebron: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931, Campbell, A. and R. Bradford and Eastman (1658) 1974; Fryeburg: Pease (19439) 1934; Denmark: Campbell (1331) 1974; Porter: Campbell (2808) 1975.

V. corymbosum var. *glabrum* Gray. Rumford: Parlin 1890.

V. atrococcum (Gray) Heller. Black Highbush Blueberry. Acid bog. Infrequent. Stow: Campbell and Eastman (552) 1973, Campbell and Joselyn Botanical Society (3131) 1975.

V. vitis-idaea L. var. *minus* Lodd. Exposed places in the mountains, rarer at lower elevations. Common. Andover: L. Eaton 1896; Andover West Surplus: Bean 1938; Grafton: Allen 1897, Hyland (201) 1934, St. John (17631) 1935, Hyland (1155) 1938, Rossbach (5254) 1960, Campbell (3189) 1975; Rumford: Parlin 1890; Newry: Wheeler 1936, Pease (32873) 1947; Canton: Parlin (1936) 1906; Bethel: Wheeler 1935; Gilead: Furbish 1897, Pease (17635) 1919; Hartford: Parlin (1936) 1906; Albany: Kimball (13817) 1921, Wheeler 1936; Stoneham: Bean 1925, Hyland (486) 1933, Campbell and Frueh (3) 1973; Mason: Wheeler 1919, Campbell (233) 1973.

V. oxycoccos L. Small Cranberry. Acidic bogs. Frequent. Grafton: Norton (13363) 1919; Rumford: Norton (17124) 1926; Greenwood: Wheeler 1932; Mason: Campbell (234) 1973; Buckfield: Seymour 1893; Norway: Chamberlain 1907; Stow: Campbell and Eastman (558) 1973; Denmark: Campbell (1319) 1974.

V. oxycoccus var. *ovalifolium* Michx. Hartford: Bean 1942.

V. macrocarpon Ait. Large or American Cranberry. Acidic bogs and swales. Frequent. Byron: Gordon (1054) 1934; Bethel: Wheeler 1925; Gilead: Eastman (292) 1973; Hartford: Parlin 1895; Greenwood: Campbell and Cross (2192) 1974; Albany: Wheeler 1925, Campbell (1515) 1974; Waterford: Pease (28762) 1941; Stow: Campbell and Eastman (561) 1973; Oxford: Bean (2060) 1907; Fryeburg: Bean 1920, Hyland (579) 1933; Denmark: Bean 1964; Hiram: Campbell (1522) 1974.

DIAPENSIACEAE (DIAPENSIA FAMILY)

DIAPENSIA L.

D. lapponica L. Exposed places above treeline in the Mahoosuc range. Common. Grafton: Allen 1897, Norton (17159) 1926, Attwood 1941, Campbell (3202) 1975; Riley: Brower 1957, C.S. Campbell and A.S. Campbell, Jr. (1213) 1974.

PRIMULACEAE (PRIMROSE FAMILY)

LYSIMACHIA L. Loosestrife.

**L. punctata* L. Garden-Loosestrife. Bethel: Wheeler 1935; Norway: Chamberlain, Weatherby (2264) 1907; Hebron: Stevens 1897.

L. quadrifolia L. Whorled Loosestrife. Dry, sandy soil. Frequent. Fryeburg: Campbell (1267) 1974; Brownfield: Campbell (1338) 1974.

L. X producta (Gray) Fern. (a hybrid of *L. quadrifolia* and *L. terrestris*). Bethel: Kennedy 1883; Gilead: Furbish 1897, Pease (17426) 1919.

L. terrestris (L.) BSP. Yellow or Swamp Loosestrife. Low ground. Common. Lower Cupsuptic: Campbell (2471) 1974; Upton: Brewster 1907; Grafton: Richards (6064) 1954; Gilead: Furbish 1897; Hartford: Rowell 1938; Stoneham: Campbell (1740) 1974; Batchelders Grant: Campbell (313) 1973; Waterford: Pease (31725) 1945; Denmark: Moulton 1902; Hiram: V. Merrill 1912.

**L. nummularia* L. Moneywort. Moist woods and banks. Occasional. Dixfield: Campbell (1943) 1974; Gilead: Furbish 1897; Fryeburg: Campbell (1716) 1974.

L. thyrsoflora L. Tufted loosestrife. Swamps and low ground. Occasional. Hartford: Parlin 1886; Buckfield: Campbell (1366) 1974; Hebron: Chamberlain 1907; Oxford: Bean 1907.

L. ciliata L. Low ground and thickets. Frequent. Magalloway Pt.: Campbell and Eastman (1774) 1974; Canton: Gordon (1987) 1935; Bethel: Wheeler 1938; Greenwood: Eastman and Wight (509) 1974; Batchelders Grant: Campbell (273) 1973.

L. hybrida Michx. Low, open areas and shores. Occasional. Canton: Gordon (1087) 1935; Waterford: Pease (27264) 1939, (28785) 1941; Fryeburg: Farlow 1911, Pease (25204) 1935, Rossbach (6158) 1964, Eastman (554) 1974; Denmark: Moulton 1902; Brownfield: Campbell (1983) 1974; Hiram: Campbell and Frueh (3254) 1975.

TRIENTALIS L. Star-flower.

T. borealis Raf. Woods. Common. Parmachenee: Eastman and Campbell (709) 1975; Batchelders Grant: E.C. Ogden (1909) 1939; Oxford: Weatherby 1914; Fryeburg: Campbell (922) 1974; Porter: Campbell (2751) 1975.

OLEACEAE (OLIVE FAMILY)

FRAXINUS L. Ash.

F. americana L. White Ash. Rich woods. Common. Dixfield: Bean 1934; Bethel: Wheeler 1927; Woodstock: Parlin 1887; Stow: Campbell and Eastman (583) 1973; Paris: Hyland (519) 1933; Fryeburg: Hyland (562 and 563) 1933; Brownfield: Hyland (540, 548, 550 and 564) 1933.

F. americana f. *iodocarpa* Fern. Byron: Campbell and Eastman (1118) 1974.

F. pennsylvanica Marsh. Red Ash. River banks. Infrequent. Oxford: Campbell (2542) 1974; Fryeburg: Norton (17452) 1920, Campbell and Eastman (2120) 1974.

F. pennsylvanica var. *subintegerrima* (Vahl) Fern. Fryeburg: Rossbach (6146) 1964.

F. nigra Marsh. Low ground. Frequent. Adamstown: Campbell and Eastman (1132) 1974; Bethel: Wheeler 1938; Gilead: Furbish 1897; Hartford: Parlin 1892 and 1895, W. Allen 1898; Buckfield: Parlin 1895, Campbell (1379) 1974; Hebron: Campbell, A. and R. Bradford and Eastman (1646) 1974.

SYRINGA L. Lilac.

**S. vulgaris* L. Common Lilac. Persistent and spreading about old housesites. Stow: Campbell and Eastman (709) 1973; Porter: Campbell and Eastman (990) 1974.

GENTIANACEAE (GENTIAN FAMILY)

GENTIANA L. Gentian.

G. crinita Froel. Fringed Gentian. Buckfield: Allen 1897.

G. quinquefolia L. Stiff Gentian. Norway: Bean (report) 1945; Paris: Attwood and Bean 1952.

G. clausa Raf. Bottle-Gentian. Lovell: Pease (26972) 1938.

G. linearis Froel. Closed Gentian. Moist, grassy places. Frequent. Bowmantown: Campbell and Eastman (2239) 1974; Parmachenee: Campbell and Eastman (2141) 1974; Upton: Brewster 1907; Grafton: Pease (17590) 1919, Bean 1934; Bethel: Blake 1848, Kennedy 1863; Greenwood: Grover 1892, Curtis 1913, Pease (19059) 1922, Campbell (1965) 1974; Albany: Hodgdon and Steele (19246) 1957, Campbell (2041) 1974; Buckfield: Allen 1894, Parlin (7072) 1921, Bean 1945; Fryeburg: Page 1901; Hiram: V. Merrill 1912; Porter: Campbell and Eastman (1901) 1974.

HALENIA Borkh. Spurred Gentian.

H. deflexa (Sm.) Griseb. Open area. Rare. Stoneham: Wiggin 1974.

BARTONIA Muhl.

B. virginica L. var. *minor* Raf. Swamps and bogs. Infrequent. Lynchtown: Campbell and Eastman (3016) 1975; Gilead: Eastman (281) 1973; Hartford: Gordon (2102) 1942; Sumner: Bean 1942; Hebron: Chamberlain 1900, Campbell, A. and R. Bradford and Eastman (1653) 1974; Oxford: Weatherby 1914; Paris: Blake 1840; Fryeburg: Bean (20089) 1920.

MENYANTHES L. Buckbean. Bogbean.

M. trifoliata L. var. *minor* Raf. Wet ground. Infrequent. Hartford: Gordon (2102) 1942; Sumner: Bean 1942; Hebron: Chamberlain 1900, Campbell, A. and R. Bradford, and Eastman (1653) 1974; Oxford: Weatherby 1914; Paris: Blake 1840; Fryeburg: Bean (20089) 1920.

NYMPHOIDES Hill, Floating-heart.

N. cordata (Ell.) Fern. Ponds and lakes. Frequent. Albany: Pease (23035) 1932; Stoneham: Campbell (1739) 1974; Stow: Campbell and Eastman (744) 1973; Fryeburg: Pease (27594) 1939, Harris (26698) 1964; Brownfield: Eastman (470) 1974.

APOCYNACEAE (DOGBANE FAMILY)

VINCA L. Periwinkle.

**V. minor* L. Spread from cultivation. Paris: Campbell and Eastman (1016) 1974.

APOCYNUM L. Dogbane.

A. androsaemifolium L. Dry, open places. Common. Grafton: Richards (6068) 1954; Dixfield: Bean 1936; Gilead: Furbish 1897; Hartford: Parlin 1893, Rowell 1940; Woodstock: Blankinship 1894; Greenwood: Furbish 1904; Batchelders Grant: Campbell (269) 1973; Oxford: Weatherby 1914; Hiram: V. Merrill 1911 and 1921.

A. medium Greene. Dry or moist ground. Occasional. Canton: Parlin (2472) 1908; Bethel: Wheeler 1928; Oxford: Campbell (3113) 1975; Fryeburg: Bean 1920, Campbell and Eastman (1587) 1974; Hiram: V. Merrill 1921.

A. sibiricum Jacq. Rocky or gravelly shores. Frequent. Township C: Williams 1903; Bethel: Williams 1906, Curtis 1913; Gilead: Furbish 1897, Campbell (482) and Eastman (221) 1973; Batchelders Grant: E.C. Ogden (1893) 1931; Fryeburg: Bean 1920; Hiram: Campbell and Frueh (3264) 1975.

ASCLEPIADACEAE (MILKWEED FAMILY)

ASCLEPIAS L. Milkweed.

A. incarnata L. Swamp-Milkweed. Swale. Upton: Eastman, Campbell, and Richards (759) 1975.

A. incarnata var. *pulchra* (Ehrh.) Pers. Swales and shores. Frequent. Gilead: Furbish 1897; Sumner: Rowell 1948; Greenwood: Campbell (1966) 1974; Norway: Evans 1884, Campbell (2554), Eastman and Wight (450) 1974; Lovell: Campbell and Eastman (1833) 1974; Porter: V. Merrill 1912, Campbell and Eastman (1615) 1974.

A. incarnata var. *pulchra* f. *candida* Fern. Pond margin. West Paris: Campbell (3067) 1975.

A. exaltata L. Rich woods and clearings. Frequent. Bethel: Wheeler 1935, Norton (19136) 1938; Stoneham: Campbell (1726) 1974; Buckfield: Bicknell 1938; Waterford: Eastman and Wight (692) 1974; Lovell: Pease (28799) 1941; Oxford: Weatherby 1914; Fryeburg: Bean 1920, Eastman and Tyler (826) 1975; Denmark: Moulton 1902, Eastman (469) 1974; Hiram: V. Merrill 1912, Eastman and Wight (459) 1974; Porter: Campbell and Eastman (1612) 1974.

**A. syriaca* L. Dry roadsides and fields. Common. Gilead: Deane 1882 and 1883; Sumner: Bean 1942; Batchelders Grant: Campbell (266) 1973; Paris: Campbell (1407) 1974; Denmark: Moulton 1920.

CONVOLVULACEAE (CONVOLVULUS FAMILY)

CONVOLVULUS L. Bindweed.

C. spithameus L. Low Bindweed. Dry, open areas. Frequent. Rumford: Parlin 1890; Bethel: Wheeler 1929; West Paris: Richards (6288) 1955; Sweden: Bean 1920; Oxford: Chamberlain, Coburn 1907, Weatherby 1914; Fryeburg: Perley (no date); Denmark: Campbell (1322) 1974; Hiram: V. Merrill 1914.

C. sepium L. Hedge-Bindweed. Thickets and hedges. Infrequent. Hebron: J.A. Allen 1876; Brownfield: Merrill 1896.

**C. sepium* f. *coloratus* Lange. Similar habitats. Common. Bethel: Wheeler 1929; Gilead: Campbell and Eastman (334 and 382) 1973; Hebron: Allen 1896; Brownfield: Moulton 1890.

**C. arvensis* L. Field-Bindweed. Oxford: Eastman and Wight (496) 1974.

CUSCUTA L. Dodder.

C. gronovii Willd. Low ground, mostly on river shores. Indiscriminately parasitic. Rumford: Pease (33252) 1947, Campbell (2303) 1974; Bethel: Wheeler 1927, Campbell (2403) 1974; Gilead: Furbish 1897, Eastman (276) 1973; Fryeburg: Pease (17894) 1920, Campbell and Eastman (2122) 1974; Hiram: V. Merrill 1913 and 1914.

**C. europaea* L. In a hedge row. Gilead: Furbish 1897.

**C. epithymum* Murr. Clover-Dodder. Hartford: Parlin 1897.

POLEMONIACEAE (POLEMONIUM FAMILY)

PHLOX L. Phlox.

**P. subulata* L. Moss-pink. Dry, open spots. Occasional. Newry: Philbrook 1904; Bethel: Wheeler 1921; Albany: Campbell and Eastman (874) 1974; Hiram: V. Merrill 1914.

**P. stolonifera* Sims. Creeping Phlox. Bethel: Wheeler 1938.

**P. paniculata* L. Fall-Phlox. Porter: Campbell (1987) 1974.

BORAGINACEAE (BORAGE FAMILY)

BORAGO L. Borage.

**B. officinalis* L. Field. Fryeburg: Eastman and Collins (800) 1975.

SYMPHYTUM L. Comfrey.

**S. asperum* Lepechin. Prickly Comfrey. Hartford: Parlin 1892.

**S. officinale* L. Common Comfrey. Rumford: Parlin 1889.

LITHOSPERMUM L. Gromwell.

**L. arvense* L. Corn-Gromwell. Woodstock: Parlin 1887; Hiram: V. Merrill 1913.

MYOSOTIS L. Forget-me-not.

**M. scorpioides* L. True Forget-me-not. Wet ground and in shallow water. Frequent. Bethel: Wheeler 1923; Sumner: Eastman (429) 1974; Woodstock: Campbell (1492), Eastman and Wight (513) 1974; Waterford: Pease (28787) 1949; Stow: Eastman (690) 1974.

M. laxa Lehm. Similar habitats. Infrequent. Bowmantown: Campbell and Eastman (2245) 1974; Oxbow: Campbell (1865) and Eastman (592) 1974; Andover: Pease 1948.

**M. sylvatica* Hoffm. Waste places and lawns. Garden-Forget-me-not. Magalloway Plt.: Pease (20094) 1927; Bethel: Campbell (964) 1974; Waterford: Campbell (2333) 1974; Paris: Campbell (1411) 1974.

LAPPULA Moench. Stickseed.

**L. echinata* Gilib. Hiram: V. Merrill 1915.

HACKELIA Opiz. Beggar's-lice.

H. americana (Gray) Fern. Limestone cliff. Greenwood: Bean 1945, Campbell, Eastman, and White (2939) 1975.

VERBENACEAE (VERVAIN FAMILY)

VERBENA L. Vervain.

V. hastata L. Blue Vervain. Gravelly shores and waste places. Frequent. Rumford: Campbell (2304) 1974; Bethel: Campbell (2404) 1974; Gilead: Eastman (273) 1973; Buckfield: Campbell (2083) 1974; Norway: Evans 1884; Paris: Thompson (1834) 1892; Fryeburg: Eastman and Campbell (575) 1974.

LAMMIACEAE (MINT FAMILY)

TRICHOSTEMA L. Bluecurls.

T. dichotomum L. Bastard Pennyroyal. Dry, sandy, open areas. Frequent. Bethel: Pease (26346) 1938; Gilead: Eastman (262) 1973; Buckfield: Parlin 1889; West Paris: Bean, Gordon (2025) 1938; Fryeburg: Rossbach (6152) 1964; Denmark: Bean 1964; Brownfield: Campbell (2490) 1974; Hiram: V. Merrill 1913, Campbell (2438) 1974.

AJUGA L. Bugleweed.

**A. reptans* L. Garden escape. Porter: Campbell: (2767) 1975.

TEUCRIUM L. Germander.

T. canadense L. var. *virginicum* (L.) Eat. Alluvial woods. Local. Fryeburg: Bean 1964, Campbell (2118) 1974.

SCUTELLARIA L. Skullcap.

S. lateriflora L. Moist ground. Common. Lincoln Plt.: Williams 1903, Campbell and Eastman (1772) 1974; Bethel: Wheeler 1925; Gilead: Deane 1883; Hartford: Parlin 1893; Greenwood: Curtis 1913; Stoneham: Campbell (2040) 1974; West Paris: Palmer (44594) 1938; Stow: Campbell and Eastman (448) 1973; Fryeburg: Rossbach (6175) 1964; Hiram: V. Merrill 1912 and 1914.

S. epilobiifolia A. Hamilton. Common Skullcap. Wet ground, often on swaly pond margins. Common. Bethel: Curtis 1913, Wheeler 1927; Hartford: Parlin 1893; Albany: Campbell (1517) 1974; Batchelders Grant: Eastman (224) 1973; Buckfield: Allen 1876; West Paris: Palmer (44578) 1938; Waterford: Pease (31723) 1945; Paris: Eastman and Wight (446)

1974; Brownfield: Campbell and Eastman (1601) 1974; Porter: Campbell and Eastman (1618) 1974.

NEPETA L. Catnip.

**N. cataria* L. Shaded ledges, appearing native in waste places. Occasional. Canton: Eastman and Campbell (768) 1975; West Paris: Eastman (672) 1974; Stow: Eastman (306) 1973; Porter: Eastman (411) 1974; Hiram: V. Merrill 1914.

GLECHOMA L. Ground-Ivy.

**G. hederacea* L. Lawns, waste places, and thickets. Frequent. Bethel: Wheeler 1938, Campbell (945) 1974; Batchelders Grant: Richards (6086) 1954, Eastman (64) 1973; Hiram: V. Merrill 1912; Porter: Campbell (2701) 1975.

DRACOCEPHALUM L. Dragonhead.

**D. parviflorum* Nutt. Oxford: Weatherby 1914.

PRUNELLA L. Selfheal.

**P. vulgaris* L. Waste places. Occasional. Newry: Richards (5978) 1954; Gilead: Deane 1883; Buckfield: Bean 1949; Fryeburg: Norton (17457) 1920.

P. vulgaris var. *lanceolata* (Bart.) Fern. Open woods and thickets. Frequent. Bethel: Wheeler 1923; Mason: Hodgdon, Pease, and Steele (10829) 1958; Batchelders Grant: Campbell (248) 1973; Buckfield: Campbell (1390) 1974; Stow: Campbell and Eastman (117) 1973.

P. vulgaris var. *lanceolata* f. *iodocalyx* Fern. Gilead: Furbish 1897.

PHYSOSTEGIA Benth. False Dragonhead.

**P. virginiana* (L.) Benth. Bethel: Parlin 1889; Oxford: Campbell (2567) 1974; Brownfield: Moulton 1896.

LEONURUS L. Motherwort.

**L. cardiaca* L. Waste places and roadsides. Occasional. Gilead: Eastman (222) 1973; Hiram: V. Merrill 1913; Porter: Campbell and Eastman (1614) 1974.

GALEOPSIS L. Hemp-Nettle.

**G. tetrahit* L. Waste places. Frequent. Gilead: Furbish 1897; Woodstock: Blankinship 1894; Waterford: Eastman (565) 1974; Oxford: Weatherby 1906; Denmark: Moulton: 1902.

**G. tetrahit* var. *bifida* (Boenn.) Lej. & Court. Waste places. Common. Lynchtown: Campbell and Eastman (1885) 1974; Andover North Surplus: Bean 1939; Bethel: Curtis 1913, Wheeler 1925; Gilead: Campbell (439) 1973; Mason: Hodgdon and Steele (10824) 1958; Batchelders Grant: Campbell and Eastman (566) 1973; Waterford: Eastman (566) 1974.

**G. tetrahit* var. *bifida* f. *albiflora* House. Bowmantown: Campbell and Eastman (2113) 1974; Lynchtown: Campbell and Eastman (1758) 1974.

LAMIUM L. Dead-Nettle.

L. purpureum L. Purple Dead-Nettle. Oxford: Eastman (706) 1975.

STACHYS L. Hedge-Nettle.

**S. palustris* L. var. *pilosa* (Nutt.) Fern. Waste places. Hartford: Parlin (14383) 1940.

S. palustris var. *nipigonensis* Jennings. Alluvial woods. Fryeburg: Rossbach (6122) 1964, Campbell (2117) 1974.

S. palustris var. *homotriche* Fern. Open, dry, or moist areas. Infrequent. Hartford: Bean 1945; Fryeburg: Page 1900.

MONARDA L.

**M. didyma* L. Oswego-Tea. Bee-Balm. Garden escape. Andover: Norton 1899; Hartford: Parlin 1907; Albany: Pease (25185) 1935; Fryeburg: Campbell (1717) 1974; Brownfield: Perkins 1940.

**M. media* Willd. Woodstock: Parlin 1890, Brower (verbal report) 1970; Albany: Pease (25195) 1935.

**M. fistulosa* L. Wild Bergamot. Norway: Field 1905.

HEDEOMA Pers. Mock Pennyroyal.

H. pulegioides (L.) Pers. Pennyroyal. Dry pastures. Infrequent. Bethel: Wheeler 1927; Gilead: Pease (17638) 1919; Mason: Wheeler 1931.

**H. hispida* Pursh. Bethel: Wheeler 1938.

SATUREJA L. Savory.

**S. acinos* (L.) Scheele. Mother-of-Thyme. Dry pasture. Norway: Howe (4991) 1907.

S. vulgaris (L.) Fritsch. var. *neogaea* Fern. Dogmint. Rocky woods or shaded ledges. Occasional. Township C: Bean 1925; Hartford: Parlin 1895, (1425) 1901; West Paris: Bean 1938, Campbell and Eastman (2948)

1975; Stow: Campbell (365) 1973; Oxford: Chamberlain 1907; Hiram: V. Merrill 1914; Porter: Campbell and Eastman (1623 and 1916) 1974.

HYSSOPUS L. Hyssop.

**H. officinalis* L. Dry pastures. Hartford: Parlin 1886.

PYCNANTHEMUM Michx. Mountain-Mint.

P. tenuifolium Schrad. Dry field. Brownfield: Moulton (10757) 1890; Hiram: Eastman and Wight (1117) 1976.

THYMUS L. Thyme.

**T. serpyllum* L. Creeping Thyme. Hartford: Rowell 1940.

LYCOPUS L. Water-horehound.

L. uniflorus Michx. Low ground. Common. Lincoln Plt.: Robinson 1903; Magalloway Plt.: Williams 1903; Grafton: Bean 1945; Dixfield: Campbell (1948) 1974; Canton: Parlin (2045) 1906; Bethel: Wheeler 1929; Gilead: Furbish 1897, Campbell and Eastman (470) 1973; Greenwood: Bean 1945; Albany: Campbell (3037) 1975; Stow: Campbell and Eastman (451 and 541) 1973; Hiram: V. Merrill 1914, Campbell and Frueh (3260) 1975.

L. americanus Muhl. Low ground and thickets. Frequent. Rumford: Pease (33224) 1947; Canton: Campbell and Eastman (3077) 1975; Bethel: Wheeler 1914; Gilead: Furbish 1897; West Paris: Campbell (2082) 1974; Oxford: Bean 1907; Fryeburg: Bean 1964; Denmark: Moulton 1902; Hiram: V. Merrill 1912, 1913 and 1914.

MENTHA L. Mint.

**M. alopecuroides* Hull. Roadside. Stow: Campbell (3321) 1975.

**M. spicata* L. Spearmint. Buckfield: Parlin 1895, 1915.

**M. piperita* L. Peppermint. Bethel: Deane 1916; Hartford: Parlin 1890; Sumner: Parlin 1885.

**M. cardiaca* Baker. Canton: Parlin (7055) 1921; Bethel: Wheeler 1938; Gilead: Furbish 1897; Hiram: V. Merrill 1921.

**M. gentilis* L. Canton: Parlin (19484) 1945.

M. arvensis L. Low ground. Frequent. Dixfield: Campbell (2294) 1974; Canton: Parlin (2044) 1906; Bethel: Curtis 1913; Gilead: Furbish 1897, Eastman (264) 1973; Hartford: Bean 1940; Greenwood: Furbish 1904; Albany: Campbell (2014) 1974; Buckfield: Allen 1894, Parlin (7074) 1921.

M. arvensis f. *glabra* (Benth.) S.R. Stewart. Denmark: Moulton 1902.

M. arvensis var. *villosa* (Benth.) S.R. Stewart. Similar habitats. Frequent. Bowmantown: Campbell and Eastman (2091) 1974; Dixfield: Parlin (1439) 1901; Canton: Parlin (2094 and 2640) 1908; Bethel: Wheeler 1925; Gilead: Furbish 1897; Hiram: V. Merrill 1912.

M. arvensis var. *villosa* f. *glabrata* (Benth.) S.R. Stewart. Norway: Campbell (1972) 1974.

SOLANACEAE (NIGHTSHADE FAMILY)

SOLANUM L. Nightshade.

**S. dulcamara* L. Climbing Bittersweet. Thickets. Frequent. Gilead: Campbell (480) 1973; Hartford: Parlin 1895; Buckfield: Parlin (14097) 1939, Campbell (1088 and 1385) 1974; Waterford: Pease (27389) 1939; Paris: Pease (28714) 1941; Denmark: V. Merrill 1913.

**S. dulcamara* f. *albiflora* House. Canton: Eastman and Campbell (779) 1975; Denmark: Eastman and Campbell (771) 1975.

**S. americanum* Mill. Woodstock: Parlin 1890.

**S. nigrum* L. West Paris: Bean 1938.

**S. rostratum* Dunal. Buffalo-Bur. Bethel: Wheeler 1933; Hartford: Allen 1896, Parlin (3684) 1917.

PHYSALIS L. Ground-Cherry.

P. pruinosa L. Strawberry-Tomato. Sandy soil. Rare. Bethel: Wheeler 1937.

P. heterophylla Nees. Dry, sandy, open areas. Occasional. Canton: Bean 1935; Buckfield: Parlin 1893; Norway: Campbell and Eastman (2351) 1974; Oxford: Campbell (2923) 1975; Brownfield: Campbell (3031) 1975; Hiram: Merrill 1925, Eastman (801) 1975.

P. heterophylla var. *ambigua* (Gray.) Rydb. Bethel: Wheeler 1938.

**P. alkekengi* L. Chinese Lantern-plant. Grassy bank above railroad. Rumford: Campbell (2531) 1974.

DATURA L. Jimsonweed.

**D. stramonium* L. Gilead: Eastman (302) 1973.

PETUNIA Juss. Petunia.

**P. violacea* Lindl. Denmark: Eastman and Wells (597) 1974; Brownfield: Eastman (549) 1974.

SCROPHULARIACEAE (FIGWORT FAMILY)

VERBASCUM L. Mullein.

**V. thapsus* L. Gilead: Deane 1882, Campbell (436) 1973; Hartford: Parlin 1893; Batchelders Grant: Campbell (268) 1973; Oxford: Weatherby 1916; Denmark: Moulton 1902.

**V. blattaria* L. Moth-Mullein. Fryeburg: Moulton 1902; Hiram: Eastman and Wight (778) 1975.

LINARIA Mill. Toadflax.

**L. vulgaris* Hill. Butter-and-Eggs. Waste places. Frequent. Lincoln Plt.: Campbell and Eastman (1862) 1974; Mexico: Campbell (2453) 1974; Rumford: Campbell (1924) 1974; Paris: Eastman and Wight (500) 1974.

L. canadensis (L.) Dumort. Old-field-Toadflax. Dry, open places. Frequent. Greenwood: Campbell (2429) 1974; Albany: Campbell (1744) 1974; Oxford: Eastman and Wight (498) 1974; Fryeburg: Campbell (1709) 1974; Brownfield: Pease (17897) 1920; Hiram: V. Merrill 1913.

CHAENORRHINUM Reichenb. Dwarf Snapdragon.

**C. minus* (L.) Lange. Waste places, especially railroad ballast. Frequent. Bethel: Campbell (1306) 1974; Gilead: Campbell (393) Eastman (332) 1973; Woodstock: Brower (verbal report) 1970; Buckfield: Parlin (14640) 1941; Oxford: Eastman and Wight (498) 1974.

SCROPHULARIA L. Figwort.

S. lanceolata Pursh. Fields. Infrequent. Bethel: Wheeler 1927; Batchelders Grant: Pease (39872) 1961.

CHELONE L. Turtlehead.

C. glabra L. Wet ground. Frequent. Bowmantown: Eastman and Campbell (581) 1974; Milton: Pease (34976) 1949; Bethel: Curtis 1913, Wheeler 1936; Sumner: Parlin 1895; Albany: Campbell (2017) 1974; Batchelders Grant: Campbell (641) 1973; Denmark: Moulton 1902; Hiram: V. Merrill 1912.

C. glabra var. *dilatata* Fern. & Wieg. Upper Cupsuptic: Campbell and Eastman (1850) 1974.

PENSTEMON Mitchell. Beard-tongue.

**P. tubaeiflorus* Nutt. var. *achoreus* Fern. Old fields. Infrequent. Rumford: Parlin 1887; Riley: Curtis 1913.

**P. digitalis* Nutt. Fields. Infrequent. Newry: Eastman and Gray (477) 1974; Canton: Perley 1933; Hiram: Hoyt 1932.

P. hirsutus (L.) Willd. Dry fields. Rare. Canton: Parlin (2367) 1908.

MIMULUS L. Monkey-flower.

M. ringens L. Shores. Occasional. Upton: Campbell, Eastman, and Richards (3047) 1975; Bethel: Wheeler 1935; Sumner: Campbell (2086) 1974; Waterford: Pease (28786) 1941, Campbell (3185) 1975; Hiram: Eastman and Wight (763) 1975; Porter: V. Merrill 1912.

**M. moschatus* Dougl. Muskflower. Springy ground. Rare. Hartford: Adams 1941; Collected by Campbell and Eastman (2255) 1974 in Frontenac County, Quebec very near the Oxford County line.

GRATIOLA L. Hedge-Hyssop.

G. neglecta Torr. Bog. Brownfield: Harris (26723) 1964.

G. aurea Muhl. Sandy pond and lake shores. Common. Upton: Pease (10585) 1910; Gilead: Furbish 1897; Greenwood: Curtis 1913; Stoneham: Campbell (2039) 1974; Waterford: Pease (26906) 1938, Bean 1957; Lovell: Pease (17285) 1918, Steinmetz 1933, Rossbach (6174) 1964, Campbell and Eastman (1840) 1974; Oxford: Neal 1935; Fryeburg: Rossbach (6150) 1964, Eastman (680) 1970; Denmark: Eastman and Campbell (598) 1974; Brownfield: Campbell (1982) 1974; Porter: Merrill 1912.

G. aurea f. *leucantha* Bartlett. Sandy shores. Campbell, Svenson, and Josselyn Botanical Society (3133) 1975.

LINDERNIA All. False Pimpernel.

L. dubia (L.) Pennell. Muddy or sandy shores. Frequent. Byron: Campbell and von Moschzisker (3221) 1975; Rumford: Parlin 1889; Bethel: Campbell (2407) 1974, (3099) 1975; Gilead: Eastman (263) 1973; Stow: Eastman (346) 1973; Hebron: Campbell (1951) 1974; Fryeburg: V. Merrill 1914, Campbell and Eastman (2127) 1974; Brownfield: Harris (26722) 1964.

DIGITALIS L. Foxglove.

**D. purpurea* L. Persistent about old housesites. Albany: Campbell (1509) 1974.

VERONICA L. Speedwell.

**V. longifolia* L. Waste places. Upton: Eastman, Campbell and Richards (758) 1975; Dixfield: Campbell (1641) 1974; Rumford: Campbell (1695) 1974; Bethel: Wheeler 1927, Eastman and Campbell (757) 1975.

**V. serpyllifolia* L. Thyme-leaved Speedwell. Damp, open places. Common. Parmachenee: Campbell and Eastman (1809) 1974; Adams-town: Campbell and Eastman (1139) 1974; Township C: Campbell and Eastman (1099) 1974; Bethel: Wheeler 1938; Gilead: Furbish 1897; Hartford: Rowell 1942; Albany: Pease (28126) 1940; Stow: Eastman (388) 1973; Oxford: Bean (2063), Chamberlain, Norton (2474) 1907; Paris: Steinmetz 1933; Denmark: Moulton 1902; Porter: Campbell and Eastman (1004) 1974.

V. tenella All. Streambank. Andover: Campbell (2867) 1975.

**V. officinalis* L. Common Speedwell. Fields. Common. Lynchtown: Campbell and Eastman (1426) 1974; Adamstown: Campbell and Eastman (1136) 1974; Canton: Parlin (7046) 1921; Batchelders Grant: Pease (28531) 1941, Campbell (192) 1973; Stow: Campbell and Eastman (115) 1973; Fryeburg: Bean, Norton (17458) 1920; Hiram: V. Merrill 1912; Porter: Gordon (903) 1929.

**V. chamaedrys* L. Bird's-eye. Old field. Buckfield: Campbell (1373) 1974.

V. scutellata L. Marsh-Speedwell. Wet, open areas. Common. Magalloway Plt.: Campbell and Eastman (594) 1974; Upton: Brewster 1907, Neal 1935; Rumford: Golman 1926; Canton: Bean 1938; Bethel: Wheeler 1929, Campbell (1193 and 1679) 1974; Gilead: Furbish 1897; Hartford: Bean 1940; Woodstock: Blankinship 1894; Greenwood: Eastman and Wight (510) 1974; Albany: Campbell (2031) 1974; Buckfield: Blankinship 1894; Norway: Bean 1907; Waterford: Pease (27263) 1939, (28796) 1941; Sweden: Campbell (1248) 1974; Oxford: Weatherby 1914; Denmark: Moulton 1902.

V. americana (Raf.) Schwein. American Brooklime. Wet ditches and thickets. Occasional. Parmachenee: Campbell (1443) and Eastman (433) 1974; Lynchtown: Campbell and Eastman (1433) 1974; Parkertown: Campbell (1414) and Eastman (432) 1974; Upton: Williams 1903; Dixfield: Parlin 1895, Campbell (1701) 1974.

V. peregrina L. var. *xalapensis* (HBK.) Pennell. Bethel: Wheeler 1935.

**V. agrestis* L. Field-Speedwell. Hebron: Allen 1897.

**V. polita* Fries. Lawns. Gilead: Campbell (902) 1974; Hebron: Campbell (3441) 1976.

**V. persica* Poir. Bird's-eye. Hebron: Allen 1897.

AGALINIS Raf.

A. tenuifolia (Vahl) Raf. (*Gerardia tenuifolia* Vahl.). Open, sandy areas. Infrequent. Hartford: Adams 1935; Greenwood: Campbell and Cross (2417) 1974; Lovell: Eastman (600) 1974; Oxford: Campbell (2555) 1974; Paris: Baker 1913.

AUREOLARIA Raf.

A. flava (L.) Farwell (*Gerardia flava* L.). Dry woods. Infrequent. Hiram: V. Merrill 1914, Eastman and Wight (762) 1975; Porter: Pease (18135) 1921, Campbell and Eastman (1913) 1974.

A. pedicularia (L.) Raf. (*Gerardia pedicularia* L.). Dry woods and ledges. Occasional. Rumford: Parlin 1889; Waterford: Campbell and Eastman (2350) 1974; Oxford: Bean 1957; Fryeburg: Moulton 1896, Pease (17895) 1920; Brownfield: Eastman (615) 1974.

MELAMPYRUM L. Cow-wheat.

M. lineare Desr. Moist to dryish woods and ledges. Occasional. Rumford: Pease (19420) 1924; Stoneham: Pease (23947) 1933, Bean 1935; Batchelders Grant: Campbell (212) 1973; Stow: Eastman and Campbell (127) 1973; Brownfield: Eastman (544) 1974.

M. lineare var. *americana* (Michx.) Beauverd. Dry woods and ledges. Frequent. Township C: Morss 1888; Hartford: Norton (19138) 1938; Mason: Campbell (240) 1973; Stow: Campbell and Eastman (175), Campbell and Myers (486) 1973; Oxford: Weatherby 1914; Fryeburg: Pease (38497) 1956; Denmark: Moulton 1902; Porter: Campbell and Eastman (1621) 1974.

EUPHRASIA L. Eyebright.

E. americana Wettst. Fields and banks. Frequent. Parmachenee: Campbell and Eastman (1823) 1974; Upper Cupsuptic: Eastman and Campbell (582) 1974; Batchelders Grant: Eastman (15) 1970, Campbell and Myers (505) 1973; Stow: Campbell (368) 1973.

E. canadensis Townsend. Gravelly roadside. Bowmantown: Campbell and Eastman (3227) 1975.

RHINANTHUS L. Yellow-rattle.

R. crista-galli L. Fields and roadsides. Frequent northward. Oxbow: Eastman and Campbell (589) 1974; Upper Cupsuptic: Eastman and Campbell (584) 1974; Lynchtown: Campbell and Eastman (1861) 1974; Lincoln Plt.: Pease (26728) 1938; Magalloway Plt.: Campbell and Eastman (1777) 1974; Upton: Campbell and Eastman (1456) 1974; West Paris: Eastman and Wight (502) 1974.

PEDICULARIS L. Lousewort or wood-betony.

P. canadensis L. Common Lousewort. Fields and clearings, Rare. Fryeburg: V. Merrill 1913; Porter: Eastman (565) 1974.

OROBANCHACEAE (BROOM-RAPE) FAMILY)

EPIFAGUS Nutt. Beech-drops.

E. virginiana (L.) Bart. Parasitic on *Fagus grandifolia* Ehrh. Frequent. Newry: Wheeler 1931; Canton: Parlin (2285) 1906, Bean 1935; Bethel: Wheeler 1929; Woodstock: Blankinship 1894, Campbell (2435) 1974; Mason: Campbell (673) 1973; Batchelders Grant: Campbell (691) 1973; Buckfield: Parlin 1895; Waterford: Campbell (2329) 1974; Lovell: Pease (29282) 1941.

E. virginiana f. *pallida* Weath. Hiram: Keenan 1976.

CONOPHOLIS Wallr. Squawroot. Cancer-root.

C. americana (L.) Wallr. Oak woods. Infrequent. Greenwood: Tamminen 1971; Albany: Campbell and Eastman (2265) 1974; Stoneham: Wiggin 1975; Batchelders Grant: Eastman (20) 1971; Stow: Eastman (8) 1970, Campbell and Eastman (180) 1973; Fryeburg: Norton (report) 1902.

OROBANCHE L. Broom-rape.

O. uniflora L. One-flowered Cancer-root. On a variety of hosts. Infrequent. Rumford: Parlin 1885 and 1890; Albany: Steele (2488) 1957; Stow: Eastman and Campbell (700) 1973.

LENTIBULARIACEAE (BLADDERWORT FAMILY)

UTRICULARIA L. Bladderwort.

U. purpurea Walt. Ponds and lakes, in deepish quiet water. Occasional. Hartford: Parlin 1895; Waterford: Campbell (1514) 1974; Buckfield: Adams 1941; West Paris: Campbell and Ver Steeg (3069) 1975;

Lovell: Eastman and Campbell (550) 1974; Fryeburg: Eastman and Collins (799) 1975; Porter: Campbell and Eastman (1894) 1974.

U. inflata Walt. var. *minor* Chapm. Ponds and lakes. Infrequent. Upton: C.S. Campbell, A.S. Campbell, and G.H. Campbell (2315) 1974; Woodstock: Campbell (2436) 1974; Albany: Pease (29270) 1941, (31710) 1945; Waterford: Pease (26894) 1938; Hiram: Merrill 1923, Campbell and Frueh (3267) 1975.

U. geminiscapa Benj. Shallow waters or shores. Infrequent. Gilead: Eastman (29) 1973; West Paris: Campbell and Ver Steeg (3068) 1975; Fryeburg: Harris (26675) 1964.

U. vulgaris L. Ponds and lakes. Common. Bethel: Campbell (1680) 1974; Gilead: Brown 1919; Hartford: Parlin 1886, Adams 1943; Woodstock: Campbell (2070) 1974; Greenwood: Curtis 1913; Buckfield: Norton (19141), Steinmetz (631) 1938; Norway: Richards (6284) 1955; Lovell: Monroe (no date); Oxford: Weatherby 1914; Fryeburg: Harris (26676) 1964; Rossbach (6128) 1964, Campbell and Eastman (1591) 1974; Brownfield: Campbell (1332) 1974; Hiram: Campbell (1550) 1974; Porter: Eastman (569) 1974.

U. gibba L. Muddy shores. Rare. Albany: Pease (35672) 1950; Fryeburg: Campbell and Josselyn Botanical Society (3128) 1975.

U. intermedia Hayne. In muck and very shallow water. Frequent. Oxbow: Campbell and Eastman (2447) 1974; Sumner: Bean 1942; Woodstock: Campbell (1186) 1974; Buckfield: Parlin 1895; Stow: Campbell (467) and Eastman (219) 1973; Hiram: Campbell (1549) 1974; Porter: Eastman and Campbell (570) 1974.

U. cornuta Michx. Wet shores and bogs. Frequent. Lynchtown: Eastman and Campbell (751) 1975; Canton: Bean, Gordon (1079) 1935; Peru: Pease (23806) 1933; Bethel: Wheeler 1929; Hartford: Parlin 1885; Greenwood: Curtis 1913, Campbell and Cross (2187) 1974; Albany: Pease (19125) 1922, (23023) 1932; Waterford: Pease (19416) 1924, Bean 1957, Eastman (568) 1974; Lovell: Pease (17300) 1918; Fryeburg: Pease (19627) 1925; Denmark: Campbell (1360) 1974; Brownfield: Eastman (559) 1974; Hiram: Campbell (1548) 1974.

U. resupinata B.D. Greene. Shallow water of ponds. Local. Canton: Gordon (1078) 1935; Hartford: Gordon (1065) 1933; Albany: Pease (19126) 1922; Fryeburg: Campbell and Eastman (3167) 1975.

PLANTAGINACEAE (PLANTAIN FAMILY)

PLANTAGO L. Plantain.

**P. major* L. Common Plantain. Roadsides and waste places. Common. Parmachenee: Campbell and Eastman (1815) 1974; Bethel: Wheeler 1927; Gilead: Campbell (412) 1973; Hartford: Parlin 1893; Batchelders Grant: Campbell (190) 1973.

**P. major* f. *intermedia* (Gilib.) Pilger. Gilead: Furbish 1897; Hartford: Parlin 1897; Buckfield: Parlin 1895.

**P. major* var. *scopulorum* Fries & Broberg. Gilead: Furbish 1897.

**P. rugellii* Dene. Norway: Nelson 1933.

**P. lanceolata* L. Ribgrass. Waste places. Frequent. Lincoln Plt.: Campbell and Eastman (2139) 1974; Andover: Campbell (2872) 1975; Batchelders Grant: Campbell (53), Eastman (85) 1973; Norway: Campbell (2006) 1974.

P. virginica L. Hoary Plantain. Dry, open areas. Bethel: Wheeler 1939.

**P. indica* L. Railroad ballast. Rumford: Campbell (2273) 1974.

RUBIACEAE (MADDER FAMILY)

GALIUM L. Bedstraw.

G. triflorum Michx. Rich, rocky woods. Frequent. Parmachenee: Campbell and Eastman (1794) 1974; Newry: Gordon (735) 1926; Bethel: Wheeler 1938; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Mason: Campbell, Eastman and Richards (1481) 1974; Batchelders Grant: Campbell (203) 1973; Stow: Campbell and Eastman (154) 1973; Oxford: Weatherby 1914; Hiram: V. Merrill 1912; Porter: Campbell and Eastman (1911) 1974.

G. kamtschaticum Steller. Rich, deciduous woods in the far North. Bowmantown: Campbell and Eastman (2112) 1974; Parmachenee: Campbell and Eastman (1800) 1974.

G. circaezans Michx. var. *hypomalacum* Fern. Rich, rocky woods. Infrequent. Lovell: Pease (29265) 1941; Stow: Eastman (104) 1973; Hiram: Campbell (2480) 1974; Porter: Campbell: (1565) 1974.

G. lanceolatum Torr. Rich woods. Occasional. Canton: Parlin (2197) 1907; Bethel: Curtis 1913; Woodstock: Parlin 1887 and 1890; Green-

wood: Bill, Eaton, Fernald, Griggs, and Hunnewell 1931, Bean 1945; Albany: Campbell and Eastman (2268) 1974; Stow: Pease (36332) 1951, Campbell and Eastman (164) 1973; Hiram: V. Merrill 1912; Porter: Campbell and Eastman (1633) 1974.

G. boreale L. Northern Bedstraw. Meadows. Buckfield: Ricker 1944, Parlin (16590) 1941; Paris: Bicknell 1938.

G. boreale var. *hyssopifolium* (Hoffm.) DC. Hiram: V. Merrill 1913 and 1914.

**G. verum* L. Yellow Bedstraw. Roadsides and waste places. Infrequent. Canton: Campbell and Eastman (3029) 1975; Norway: Bean 1955, Eastman and Wight (449) 1974.

**G. mollugo* L. Roadsides and fields. Infrequent. Lincoln Pt.: Pease (26705) 1938; Rumford: Parlin 1889 and 1890; Oxford: Eastman (452) 1974.

**G. erectum* Huds. Fields. Bethel: Campbell and Eastman (1453) 1974.

**G. sylvaticum* L. Scotch-mist. Roadsides. Dixfield: Gordon (334) 1912; Gilead: Campbell and Eastman (336) 1973.

G. palustre L. Wet ground. Occasional. Gilead: Campbell and Eastman (349) 1973; Woodstock: Campbell (1494) 1974; Batchelders Grant: Eastman (218) 1973; Paris: Campbell (1400) 1974; Hiram: V. Merrill 1913.

G. trifidum L. Low woods and shores. Occasional. Bethel: Campbell (1677) 1974; Mason: Eastman (301) 1973; Batchelders Grant: Eastman (151) 1973; Oxford: Weatherby (2269) 1907; Hiram: V. Merrill 1912, Campbell (1611) 1974.

G. tinctorium L. Low ground. Frequent. Bethel: Wheeler 1938; Albany: Hodgdon, Lincoln, Pease and Steele (10248) 1957; Stoneham: Campbell (1731) 1974; Buckfield: Campbell (1075 and 1386) 1974; West Paris: Palmer (44576) 1938; Waterford: Pease (37945) 1955; Oxford: Weatherby 1906; Fryeburg: Campbell and Josselyn Botanical Society (3164) 1975; Brownfield: Campbell and Josselyn Botanical Society (3142) 1975.

G. asprellum Michx. Low ground. Frequent. Bowmantown: Campbell and Eastman (2254) 1974; Parmachenee: Campbell and Eastman (1790) 1974; Upton: Neal 1935; Gilead: Eastman (299) 1973; Hartford: Parlin

1893; Batchelders Grant: Campbell (270 and 312) 1973; West Paris: Palmer (44577) 1938; Oxford: Weatherby (209) 1906; Fryeburg: V. Merrill 1914.

MITCHELLA L. Partridge-berry.

M. repens L. Woods. Frequent. Hartford. Parlin 1885; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Porter: Campbell (1553) 1974.

CEPHALANTHUS L. Buttonbush.

C. occidentalis L. Low woods, shores and swales. Frequent. Peru: Pease (23916) 1933; Gilead: Furbish 1897; Sumner: Pease (27669) 1939; Woodstock: Pease (34716) 1950; Greenwood: Pease (34962) 1949; Albany: Wheeler 1929; Stoneham: Pease (35685) 1950; Stow: Campbell and Eastman (455) 1973; Oxford: Weatherby 1914; Fryeburg: Hyland (576) 1933, Pease (34872) 1949, Rossbach (6168) 1964; Denmark: Evans 1902; Brownfield: Bean 1964; Hiram: Norton and Merrill (18215) 1923; Porter: Eastman and Campbell (574) 1974.

HOUSTONIA L.

H. caerulea L. Bluets. Open areas. Common. Newry: Richards (5993) 1954; Bethel: Wheeler 1921; Gilead: Campbell (773) 1974; Batchelders Grant: Campbell (16) 1973; Stow: Campbell (62) 1973; Brownfield: Campbell (1330) 1974; Hiram: V. Merrill 1914; Porter: Campbell (2752) 1975.

CAPRIFOLIACEAE (HONEYSUCKLE FAMILY)

DIERVILLA Duham. Bush-Honeysuckle.

D. lonicera. Mill. Woods, ledges and clearings. Common. Bethel: Wheeler 1929; Albany: Kennedy 1863; Stoneham: Campbell and Myers (492) 1973; Stow: Campbell and Eastman (99) 1973; Oxford: Weatherby 1914; Denmark: Campbell (1274) 1974; Hiram: V. Merrill 1914.

LONICERA L. Honeysuckle.

L. villosa (Michx.) R. & S. Mountain-Fly-Honeysuckle. Moist to wet, open areas. Infrequent. Buckfield: Bean 1945; Norway: Smith (no date); Hebron: Campbell (2716) 1975.

L. villosa var. *solonis* (Eat.) Fern. Similar habitats. The commonest variety. Parmachenee: Campbell and Eastman (1419 and 1761) 1974;

Lynchtown: Campbell and Eastman (3015) 1975; Lincoln Plt.: Pease (27781) 1940; Hartford: W. Allen 1896; Buckfield: Parlin (2526) 1908, Campbell (1092) 1974; Norway: Chamberlain 1907.

L. villosa var. *calvescens* (Fern. & Wieg.) Fern. Upton: Brewster 1907.

**L. morrowi* Gray. Old field. Hiram: Campbell (920) 1974.

**L. tatarica* L. Tartarian Honeysuckle. Waste ground. Frequent. Bethel: Campbell (969) 1974.

L. canadensis Bartr. Fly-Honeysuckle. Woods. Common. Gilead: Campbell (751) 1974; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Mason: Campbell (679) 1973; Batchelders Grant: Campbell (39) 1973; Norway: Mann 1862; Stow: Eastman (3) 1970; Oxford: Bean 1907, Eastman (453) 1974.

SYMPHORICARPOS Duham. Snowberry.

**S. albus* (L.) Blake var. *laevigatus* (Fern.) Blake. Persistent and spreading after cultivation. Fryeburg: Campbell (2502) 1974; Denmark: Eastman and Wells (562) 1974; Brownfield: Hyland (544) 1933.

LINNAEA Gronov. Twinflower.

L. borealis L. var. *americana* (Forbes) Rehd. Moist woods. Common. Adamstown: Campbell and Eastman (1138) 1974; Grafton: Richards (6081) 1954; Riley: Pease (11130) 1908; Bethel: Wheeler 1923; Woodstock: Campbell (1466) 1974; Albany: Wheeler 1919; Mason: Wheeler 1927; Batchelders Grant: Campbell (247) 1973; West Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Norway: Richards (6286) 1955; Hebron: Hunnewell 1931.

VIBURNUM L. [32]

V. lantanoides Michx. (*V. alnifolium* Marsh.) Hobblebush. Moist woods. Common. Lincoln Plt.: Williams 1903; Upton: Brewster 1907; Andover West Surplus: Attwood 1941; Rumford: Norton (17128) 1926; Bethel: Wheeler 1926; Gilead: Furbish 1897, Campbell (358) 1973; Hartford: Parlin 1885; Batchelders Grant: Campbell and Frueh (1), Eastman (73) 1973; Buckfield: Parlin 1895; Fryeburg: Hyland (460) 1933.

V. cassinoides L. Wild Raisin. Low woods, swamps and ledges. Common. Upton: Brewster 1907; Bethel: Wheeler 1930; Gilead: Furbish 1897; Hartford: Parlin 1885, Rowell 1941; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Mason: Wheeler 1919, Campbell

(238) 1973; Batchelders Grant: Campbell (84 and 211) 1973; Stow: Campbell (528) 1973; Oxford: Coburn 1907, Hunnewell 1931.

V. lentago L. Sweet Viburnum. Low woods and clearings. Occasional. Canton: Parlin (2473) 1907; Buckfield: Steinmetz (629) 1938; Gilead: Furbish 1897; Hartford: Parlin 1895; West Paris: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Hiram: Campbell (906) 1974, Campbell and Frueh (3261) 1975.

V. recognitum Fern. Arrow-wood. Low woods and thickets. Frequent. Upton: C.S. Campbell, A.S. Campbell, Jr., and G.H. Campbell (2307) 1974; Bethel: Pease (27321) 1933; Gilead: Campbell and Eastman (341) 1973; Hartford: Parlin 1885; Stow: Campbell and Eastman (109) 1973; Oxford: Bean (2057), Coburn 1907, Hyland (1222) 1938; Hiram: V. Merrill 1914.

V. acerifolium L. Maple-leaved Viburnum. Rocky woods. Frequent. Bethel: Wheeler 1929; Gilead: Furbish 1897; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Mason: Wheeler 1931; Lovell: Pease 1941; Stow: Campbell (60) 1973; Denmark: Campbell (1284) 1974; Brownfield: Eastman (611) 1974.

V. edule (Michx.) Raf. Squashberry. Low woods and cold ravines in the North. Frequent. Bowmantown: Campbell and Eastman (2219) 1974; Andover North Surplus: Campbell and Eastman (1103) 1974; Grafton: Hyland (205) 1934; Riley: C.S. Campbell and A.S. Campbell, Jr. (1226) 1974.

V. trilobum Marsh. Thickets and low ground. Frequent. Parmachenee: Campbell and Eastman (1418) 1974; Upton: Norton 1901; Bethel: Wheeler 1925 and 1938, Campbell (957) 1974; Gilead: Eastman (279) 1973; West Paris: Hunnewell (11976) 1931; Norway: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Fryeburg: Eastman (681) 1970.

SAMBUCUS L. Elder.

S. canadensis L. Common Elder. Low ground. Frequent. Bethel: Wheeler 1938; Batchelders Grant: Campbell (277) 1973; Waterford: Campbell (2347) 1974; Fryeburg: Bean 1964.

S. pubens Michx. Red-berried Elder. Woods and openings. Frequent. Gilead: Furbish 1897; Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931; Batchelders Grant: Eastman and Campbell (110) 1973.

S. pubens f. *calva* Fern. Lynchtown: Campbell and Eastman (1429) 1974.

VALERIANACEAE (VALERIAN FAMILY)

VALERIANA L. Valerian.

**V. officinalis* L. Garden escape. Sumner: Eastman (428) 1974; Paris: Campbell (1392) 1974.

CUCURBITACEAE (GOURD FAMILY)

ECHINOCYSTIS T. & G.

**E. lobata* T. & G. California Cucumber. Thickets. Frequent. Waterford: Campbell (2349) 1974; Hiram: Merrill 1914.

CAMPANULACEAE (BLUEBELL FAMILY)

SPECULARIA Frabricius. Venus's Looking-glass.

S. perfoliata (L.) A.DC. Dry ledges. local. Albany: Hodgdon, Lincoln, and Steele (19258) 1957; Brownfield: Eastman (536) 1974; Hiram: Campbell (1535) 1974; Porter: Campbell and Eastman (1627), Eastman (412) 1974.

CAMPANULA L. Bellflower.

**C. rapunculoides* L. Waste places. Occasional. Parmachenee: Campbell and Eastman (2142) 1974; Fryeburg: Campbell and Eastman (1586) 1974; Hiram: Eastman and Wells (599) 1974.

**C. linifolia* Jacq. Open field. Upton: Eastman and Gray (479) 1974.

**C. latifolia* L. Waste places. Bethel: Campbell (1583) 1974.

C. rotundifolia L. Harebell, Bluebell. Ledges. Frequent. Parmachenee: Campbell and Eastman (1752) 1974; Dixfield: W. Allen 1896; Rumford: Blake 1851; Bethel: Wheeler 1915; Gilead: Pease (17634) 1919, Campbell and Eastman (326) 1973; Sumner: Parlin 1885; Albany: Hodgdon, Lincoln, and Steele (10262) 1957; Waterford: Verrill 1858; Denmark: Blake 1851; Brownfield: Eastman (537) 1974; Porter: V. Merrill 1912, Gordon (942) 1929, Campbell and Eastman (1631) 1974.

C. aparinoides Pursh. Marsh-Bluebell. Swales. Infrequent. Greenwood: Campbell (2147) 1974; Albany: Pease (27261) 1939; Hiram: V. Merrill 1914; Porter: Gordon (942) 1929.

LOBELIA L. Lobelia.

L. cardinalis L. Cardinal-flower. Rocky shores or rivers and streams. Frequent. Hartford: Parlin 1885; Sumner: Campbell (2085) 1974; Albany: Pease (26904) 1938, Campbell (2038) 1974; Stoneham: Pease (17884) 1920; Waterford: Pease (21737) 1945; Sweden: Pease (19424) 1924; Oxford: Campbell (2544) 1974; Paris: Pease (26923) 1938; Fryeburg: Brower 1964, Eastman and Campbell (575) 1974; Denmark: Eastman and Wight (767) 1975; Hiram: V. Merrill 1912.

L. cardinalis f. *alba* (Eat.) St. John. Fryeburg: Brower 1964.

L. spicata Lam. Moist, open areas. Infrequent. Rumford: Parlin 1889; Newry: Eastman and Gray (478) 1974; Bethel: Wheeler 1926.

L. spicata var. *hirtella* Gray. Brownfield: Haley 1890; Eastman and Wight (888) 1975.

L. inflata L. Indian-tobacco. Low, muddy, commonly disturbed ground. Common. Bethel: Campbell (665) 1973; Gilead: Campbell (426) 1973; Hartford: Parlin 1893; Batchelders Grant: Campbell and Myers (506) 1973, Eastman (209) 1973; Waterford: Campbell (2346) 1974; Stow: Campbell (425) 1973; Hiram: V. Merrill 1913 and 1929.

L. dortmanna L. Water-lobelia. Shallow water of lakes and ponds. Frequent. Township C: Morss (no date); Hartford: Parlin 1884; Woodstock: Pease (28305) 1940; Albany: Wheeler 1929; Stoneham: Campbell (1733) 1974; Waterford: Bean 1957; Stow: Campbell (453) and Eastman (240) 1973; Brownfield: V. Merrill 1912, Campbell and Eastman (1597) 1974.

ASTERACEAE (COMPOSITE FAMILY)

EUPATORIUM L. Thoroughwort.

E. maculatum L. Joe-Pye-weed. Low ground. Common. Andover: Bean 1948; Grafton: Dean 1920; Gilead: Eastman (318) 1973; Hartford: Bean 1945; Batchelders Grant: Campbell (632) 1973; Fryeburg: Bean 1964.

E. maculatum var. *foliosum* (Fern.) Wieg. Bowmantown: Campbell and Eastman (3229) 1975; Newry: Pease (17591) 1919.

E. perfoliatum L. Boneset. Swales and low ground. Common. Andover: Pease (39144) 1948; Bethel: Curtis 1913, Wheeler 1938; Albany: Campbell (2018) 1974; Batchelders Grant: Campbell (636) 1973; Stow: Pease (35064) 1949, Campbell (519) 1973.

E. rugosum Houtt. White Snakeroot. Rich woods and clearings. Frequent. Andover North Surplus: Adams 1938; Grafton: Bean 1945; Hartford: Parlin 1880; Batchelders Grant: Wheeler 1938; Lovell: Pease (29287) 1941; Stow: Eastman (16) 1970; Fryeburg: Bean 1964; Rossbach (6123) 1964.

SOLIDAGO L. Goldenrod.

(The last two species of this genus probably better treated as part of the genus *Euthamia* (Nuttall) Nuttall)

S. caesia L. Blue-stem Goldenrod. Rich, rocky woods. Occasional. Sumner: Parlin 1890; Woodstock: Campbell (2430) 1974; Waterford: Campbell (2330) 1974; Stow: Campbell (740) and Eastman (305) 1973.

S. caesia f. *axillaris* (Pursh) House. Gilead: Furbish 1897; Hiram: Campbell (2486) 1974.

S. flexicaulis L. Rich woods and thickets. Frequent. Bowmantown: Campbell and Eastman (3224) 1975; Andover North Surplus: Bean 1939; Canton: Parlin 1900; Bethel: Pease 1933; Gilead: Furbish 1897; Stoneham: Bean 1925; Batchelders Grant: Eastman (18) 1973; Stow: Campbell (741) and Eastman (304) 1973.

S. squarrosa Muhl. Open ledges and banks. Occasional. Andover North Surplus: Bean 1940; Andover: Pease (37357) 1955; Newry: Pease (28379) 1940; Bethel: Wheeler 1938; Gilead: Furbish 1897, Eastman (374) 1973; Albany: Bean 1925; Stoneham: Bean 1935; Lovell: Pease (25970) 1938; Oxford: Weatherby (2269) 1907.

S. macrophylla Pursh. Upland woods. Common. Upper Cupsuptic: Campbell and Eastman (1856) 1974; Andover North Surplus: Bean 1939; Andover West Surplus: Bean 1938; Grafton: Dean 1925, Bean 1938, Rossbach (5249) 1960; Newry: Bean 1934; Riley: C.S. Campbell and G.H. Campbell (2389) 1974; Gilead: Furbish 1897; Paris: Neal 1935.

S. bicolor L. Dry woods or fields. Common. Rumford: Pease (37356) 1953; Bethel: Curtis 1913, Pease (23853) 1933; Gilead: Furbish, Williams 1897; Hartford: Parlin 1948; Waterford: Campbell (2340) 1974; Stoneham: Bean 1935; Mason: Campbell (676) 1973; Buckfield: Allen 1877, Bean 1947; Stow: Campbell and Frueh (595) 1973; Hebron: Stevens 1894.

S. hispida Muhl. Dry, open soil. Gilead: Eastman (372) 1973.

S. puberula Nutt. Dry, open areas. Common. Byron: Bean 1948; Andover: Pease (23143) 1932; Rumford: Pease (33255) 1947; Canton: Bean 1931; Peru: Pease (25774) 1933; Milton: Pease (23848) 1933;

Bethel: Wheeler 1914; Gilead: Eastman (714) 1973, Campbell & Eastman (3300) 1975; Hartford: Parlin 1892; Greenwood: Pease (19087) 1922; Waterford: Pease (31749) 1945; Oxford: Blake (no date); Paris: Campbell and Eastman (3295) 1975; Fryeburg: Campbell (3327) 1975.

S. cutleri Fern. Alpine areas in the Mahoosuc Range. Local. Riley: Quinn 1927.

S. randii (Porter) Britt. Ledges and exposed spots in the mountains. Common. Grafton: Norton 1932; Rumford: Blake 1851, Pease (19418) 1924; Newry: Bean 1934, Pease (36951) 1952; Peru: Pease (25779) 1936; Bethel: Pease (23824) 1933; Gilead: Furbish 1897, Deane 1916, Pease (17626) 1919, (27529) 1939; Hartford: Parlin (no date); Sumner: Bean 1936; Woodstock: Bean 1936; Greenwood: Pease (19145) 1922; Albany: Pease (31743) 1945; Stoneham: Bean 1935; Mason: Deane 1916, Pease (18212) 1921; Batchelders Grant: Campbell (694) 1973; Lovell: Pease (29291) 1941; Stow: Campbell and Frueh (622) 1973.

S. randii var. *monticola* (Porter) Fern. Peru: Allen 1896; Mason: Ganther 1917; Stow: Campbell and Myers (488) 1973.

S. racemosa Greene. Dry ledges. Local. Bowmantown: Campbell and Eastman (2214) 1974; Byron: Bean 1948.

S. juncea Ait. Dry, open areas (especially sandy). Common. Bethel: Campbell (1686) 1974; Gilead: Deane 1917, Campbell (2410) 1974; Hartford: Rowell 1940; Albany: Campbell (2030) 1974; Batchelders Grant: Eastman (200) 1973.

S. juncea f. *ramosa* (Porter & Britt.) Fern. Porter: Campbell and Eastman (1889) 1974.

S. uliginosa Nutt. var. *linoides* (T. & G.) Fern. Bogs. Occasional. Canton: Parlin (1994) 1906; Albany: Bean 1938; Batchelders Grant: Bean 1936; Buckfield: Allen 1891; Hebron: Stevens 1891.

S. arguta Ait. Woods. Occasional. Gilead: Furbish 1897, Deane 1916; Woodstock: Parlin 1890, Blankinship 1894; Greenwood: Curtis 1913; Batchelders Grant: Bean 1936; West Paris: Bean 1938; Stow: Campbell and Frueh (613) 1973; Fryeburg: Bean 1964.

S. nemoralis Ait. Dry, open areas. Occasional. Dixfield: Campbell (2285) 1974; Peru: Campbell (2161) 1974; Bethel: Pease (23859) 1933; Gilead: Furbish 1897; Hartford: Parlin 1893; Greenwood: Campbell and Eastman (2205) 1974; Mason: Campbell (677) 1973; Fryeburg: Bean 1964.

S. rugosa Ait. Open wet or dry areas. Common. Bowmantown: Campbell and Eastman (2231) 1974; Grafton: Bean 1938; Bethel: Pease (23851) 1933; Gilead: Furbish 1897, Eastman (373) 1973; Woodstock: Bean 1936; Albany: Bean 1938; Mason: Campbell (675) 1973; Hebron: Stevens 1894; Hiram: Campbell (2524) 1974.

S. rugosa var. *villosa* (Pursh.) Fern. Bethel: Campbell (2167) 1974.

S. canadensis L. Fields and thickets. Common. Bowmantown: Campbell and Eastman (2230) 1974; Andover North Surplus: Bean 1939; Gilead: Eastman (370) 1973; Hartford: Parlin 1892; Greenwood: Campbell (2199) 1974; Albany: Bean 1938; Stow: Campbell (518) 1973; Hebron: Stevens 1894, Campbell and Eastman (3296) 1975.

S. gigantea Ait. Low ground. Occasional. Rumford: Campbell (2297) 1974; Gilead: Furbish 1897; Fryeburg: Bean 1964; Campbell (2496) 1974, (3308) 1975.

S. gigantea var. *leiophylla* Fern. Upton: Purdy (no date); Bethel: Curtis 1913, Pease (23846) 1933, Campbell (2411) 1974; Gilead: Furbish 1897, Eastman (777) 1974, Pease (25653) 1936; Fryeburg: Rossbach (6114) 1964.

S. graminifolia (L.) Salisb. Open areas. Frequent. Bethel: Pease (23845) 1933; Batchelders Grant: Eastman (358) 1973; Fryeburg: Eastman (682) 1970, 1972.

S. graminifolia var. *nuttallii* (Greene) Fern. Similar habitats. More common. Gilead: Campbell (402) 1973; Greenwood: Bean 1945; Waterford: Pease (17293) 1938; Stow: Campbell and Eastman (540) 1973; Hebron: Stevens 1894; Fryeburg: Harris (22051) 1964; Brownfield: Pease (18122) 1922.

S. tenuifolia Pursh. Sandy shore. Oxford: Campbell (3111) 1975.

S. tenuifolia var. *pycnocephala* Fern. Shores and low ground. Infrequent. Greenwood: Bean 1945; Lovell: Pease (17293) 1918; Fryeburg: Pease (17879) 1920, (19626) 1925, Rossbach (6162) 1964.

BELLIS L. English Daisy.

**B. perennis* L. Garden escape. Bethel: Wheeler 1928.

ASTER L. Aster.

A. macrophyllus L. Moist to dry open woods and roadsides. Common. Canton: Parlin (2049) 1906; Peru: Pease (25709) 1936; Bethel: O. Allen 1878; Gilead: Eastman (284 and 359) 1973; Sumner: Parlin 1885;

Woodstock: Bean 1936; Greenwood: Curtis 1913; Batchelders Grant: Bean 1936.

A. macrophyllus var. *velutinus* Burgess. Newry: Pease (28378) 1940; Gilead: Furbish 1897; Batchelders Grant: Pease (23864) 1933; Hiram: Campbell (2484) 1974.

A. macrophyllus var. *sejunctus* Burgess. Andover West Surplus: Bean 1938; Canton: Bean 1931; Batchelders Grant: Campbell and Myers (511) 1973; Stow: Campbell and Frueh (586) 1973.

A. macrophyllus var. *ianthinus* (Burgess) Fern. Batchelders Grant: Pease (23865) 1933.

A. cordifolius L. Woods and clearings. Common. Canton: Bean 1931; Bethel: Wheeler 1917; Gilead: Furbish 1897; Woodstock: Campbell (2438) 1974; Mason: Pease (38958) 1957, Campbell (663) 1973; Batchelders Grant: Campbell (635) 1973; Waterford: Pease (31730) 1945; Stow: Campbell and Frueh (587) 1973.

A. cordifolius var. *polycephalus* Porter. Canton: Parlin 1906; Gilead: Furbish 1897, Eastman (257) 1973.

A. cordifolius var. *furbishiae* Fern. Gilead: Furbish 1897.

A. undulatus L. Dry soil. Frequent. Peru: Pease (25772) 1936; Bethel: Curtis 1913, Wheeler 1935; Gilead: Furbish 1897; Sumner: Bean 1936; Woodstock: Pease (23863) 1938, Pease and Wells (39618) 1959; Greenwood: Pease (19120) 1922; Albany: Pease (31726) 1945; Mason: Pease (38961) 1957; Lovell: Pease (26967) 1938; Paris: Campbell and Eastman (3294) 1975; Fryeburg: Campbell (3323) 1975.

A. novae-angliae L. New England Aster. Dry, open sites. Infrequent. Bethel: Campbell (2446) 1974; Norway: Eastman and Campbell (822) 1975; Stow: Eastman (309) 1973; Paris: Campbell (2552) 1974.

A. novae-angliae f. *roseus* (Desf.) Britt. Norway: Eastman and Campbell (823) 1975; Paris: Campbell (2553) 1974.

A. tardiflorus L. f. *vestitus* Fern. Canton: Gordon (1102) 1935.

A. puniceus L. Low ground. Common. Lincoln Plt.: Campbell (2140) 1974; Rumford: Anonymous 1865, Pease (27591) 1939; Riley: Pease (39647) 1959; Peru: Bean 1936; Bethel: Wheeler 1925; Gilead: Eastman (249) 1973; Woodstock: Campbell (2431) 1974; Albany: Wheeler 1914; Batchelders Grant: Campbell (633) 1973; Stow: Campbell (520) 1973.

A. puniceus f. *demissus* (Lindl.) Fern. Bethel: Pease (23882) 1933; West Paris: Bean 1947.

A. puniceus var. *firmus* (Nees) T. & G. Bethel: Wheeler 1925, Pease (23883) 1933.

A. laevis L. Paris: Bean 1952.

A. radula Ait. Low ground. Frequent. Upton: Campbell and Eastman (3232) 1975; Rumford: Pease (33230) 1947; Canton: Parlin (2676) 1908; Bethel: Wheeler 1927; Gilead: Furbish 1897, Campbell (345) and Eastman (191) 1973; Sumner: Bean 1945; Greenwood: Campbell (1967) 1974; Albany: Wheeler 1941; Buckfield: Allen 1877; West Paris: Pease (23797) 1933; Norway: Verrill 1858; Stow: Campbell and Josselyn Botanical Society (3130) 1975; Hebron: O. Allen 1878; Fryeburg: Pease (19621) 1925.

A. radula var. *strictus* (Pursh.) Gray. Township C: Williams 1903.

A. pilosus Willd. Field. Rumford: Campbell (3325) 1975.

A. pilosus var. *pringlei* (Gray) Blake. Dry soil. Bethel: Wheeler 1925.

A. vimineus Lam. Dry fields. Fryeburg: Eastman 1972, Campbell (3324) 1975; Denmark: Campbell and Eastman (3158) 1975; Brownfield: Campbell (1981) 1974.

A. lateriflorus (L.) Britt. Woods and thickets. Occasional. Rumford: Pease (33227) 1947; Canton: Parlin (2050) 1906; Buckfield: Bean 1947; Hebron: Campbell (2375) 1974.

A. lateriflorus var. *pendulus* (Ait.) Burgess. Gilead: Furbish: 1897.

A. lateriflorus var. *tenuipes* Wieg. Lynchtown: Campbell and Eastman (1872) 1974.

A. lateriflorus X *tradescantii*. Gilead: Furbish 1897.

A. lateriflorus X *vimineus*. Lovell: Pease 1918.

A. simplex Willd. Low, open areas. Occasional. Bethel: Wheeler 1914; Gilead: Furbish 1897; Brownfield: Bean 1964.

A. simplex var. *ramosissimus* (T. & G.) Cronq. Common. Lincoln Plt.: Pease (26448) 1937; Andover West Surplus: Campbell and von Moschzisker (3216) 1975; Rumford: Campbell (3326) 1975; Bethel: Curtis 1913; Gilead: Furbish 1897; Sumner: Bean 1936; Greenwood: Campbell and Cross (2196) 1974; Fryeburg: Bean 1964.

A. tradescantii L. Shores. Occasional. Richardsontown: Campbell (2467) 1974; Upton: Pease (34109) 1948, Campbell (2323) 1974, Campbell and Eastman (3230) 1975; Rumford: Campbell (2177) 1974; Gilead: Furbish 1897; Albany: Pease (37282) 1953; Waterford: Pease (28768) 1941; Fryeburg: Rossbach (6171) 1964.

A. junciformis Rydb. Riverbank. Lincoln Plt.: Campbell and Eastman (3233) 1975.

A. foliaceus L. Rumford: Pease (33228) 1947.

A. johannensis Fern. Shores and low ground. Infrequent. Magalloway Plt.: Campbell (2458) 1974; Bethel: Pease (23860) 1933; Gilead: Furbish 1897; Batchelders Grant: Eastman (360) 1973.

A. johannensis var. *villicaulis* (Gray) Fern. Canton: Parlin (2039) 1906, (3677) 1918; Gilead: Furbish 1897.

A. novi-belgii L. Low ground. Occasional. Dixfield: Campbell (2286) 1974; Bethel: Pease (25825) 1936; Gilead: Campbell (2400) 1974; Hebron: Campbell (3297) 1975; Fryeburg: Pease (38188) 1955; Bean 1964, Campbell and von Moschzisker (3303) 1975.

A. nemoralis Ait. Bog-Aster. Wet peaty ground. Occasional. Adamstown: Pease (26458) 1937; Hartford: Parlin (879) 1897; Greenwood: Campbell and Cross (2189) 1974; Albany: Pease (31814) 1945; Buckfield: O. Allen 1877; Fryeburg: Eastman (802) 1975; Porter: Campbell and Josselyn Botanical Society (3140) 1975.

A. blakei (Porter) House. Low woods and thickets. Occasional. Hartford: Parlin (576) 1897; Albany: Pease (31727) 1945; Stoneham: Campbell (2028) 1974; Denmark: Campbell (2008) 1974.

A. acuminatus Michx. Dry or moist woods. Common. Lincoln Plt.: Williams 1903; Newry: Bean 1934; Peru: Pease 1936; Hartford: Parlin 1906; Albany: Wheeler 1914; Stoneham: Bean 1925; Mason: Manter 1919; Batchelders Grant: Wheeler 1930.

A. acuminatus f. *subverticillatus* Fern. Riley: C.S. Campbell and G.H. Campbell (2390) 1974.

A. umbellatus Mill. Woods and clearings. Common. Bowmantown: Campbell and Eastman (2098) 1974; Township C: Williams 1903; Gilead: Eastman (350) 1973; Batchelders Grant: Campbell (275) 1973; Stow: Campbell and Eastman (449) 1973; Hebron: Allen 1871.

A. linariifolius L. Dry, open, sterile sites. Common. Dixfield: Kennedy 1863, Campbell (2284) 1974; Rumford: Pease (33227) 1947; Can-

ton: Pease (27509) 1939; Peru: Campbell (2160) 1974; Bethel: Pease (25770) 1936, Wheeler 1939; Brownfield: Eastman (603) 1974; Hiram: Eastman (579) 1974.

ERIGERON. L. Fleabane.

E. pulchellus Michx. Robin's-plantain. Moist, open areas. Frequent. Rumford: Parlin 1890; Newry: Campbell and Eastman (1462) 1974; Bethel: Wheeler 1928, Campbell and Eastman (1179) 1974; Woodstock: Bean 1955; Norway: Bean, Bicknell 1955; Stow: Campbell and Eastman (120) 1973; Oxford: Bean (2130) 1907, Campbell (2884) 1975; Denmark: Merrill 1936.

E. philadelphicus L. Grassy places. Frequent. Lincoln Plt.: Campbell and Eastman (1149) 1974; Grafton: Furbish 1888; Upton: Campbell and Eastman (1460) 1974; Batchelders Grant: Eastman (107) 1973.

E. annuus (L.) Pers. Daisy-Fleabane. Roadsides and grassy banks. Occasional. Lynchtown: Eastman and Campbell (788) 1975; Hartford: Rowell 1938 and 1946; Mason: Campbell (2454) 1974; Stow: Campbell (1262), (1560) 1974.

E. strigosus Muhl. Daisy-Fleabane. Roadsides and fields. Frequent. Lynchtown: Campbell and Eastman (1450) 1974; Bethel: Wheeler 1938; Gilead: Campbell (373) 1973; Stow: Campbell and Eastman (140) 1973; Fryeburg: Campbell and Eastman (1334) 1974; Brownfield: Campbell and Eastman (2509) 1974.

E. strigosus var. *septentrionalis* (Fern. & Wieg.) Fern. Gilead: Furbish 1897; Stoneham: Eastman (684) 1974.

E. canadensis L. Horse-weed. Fields and waste places. Occasional. Gilead: Eastman (340) 1973; Woodstock: Campbell (3091) 1975; Stow: Campbell (631) 1973.

ANTENNARIA Gaertn. Pussy's-Toes.

A. canadensis Greene. Fields and banks. Frequent. Canton: Parlin (1933) 1906, (2303) 1908; Gilead: Furbish 1897, Pease (35028) 1950; Stow: Campbell (56 and 59), Eastman and Campbell (133) 1973; Oxford: Weatherby 1914.

A. neglecta Greene. Fields. Frequent. Byron: Campbell and Eastman (1121) 1974; Roxbury: Pease (33465) 1948; Batchelders Grant: Campbell (17), Eastman (46) 1973; Hebron: Campbell (3440) 1976; Porter: Campbell and Eastman (995) 1974.

A. rupicola Fern. On shelves of ledges of Twin Peaks, Bowman-town: Campbell, Conant, Eastman, and Newman (2811) 1975.

A. neodioica Greene. Dry fields and banks. Occasional. Roxbury: Pease (33468) 1948; Rumford: Campbell (2863) 1975; Bethel: Wheeler 1929; Greenwood: Hunnewell (11980) 1931; Oxford: Bean (2055) 1907.

A. neodioica var. *attenuata* Fern. Canton: Parlin (16569) 1949; Gilead: Furbish 1897.

A. neodioica var. *chorophylla* Fern. Greenwood: Bill, Eaton, Fernald, Griscom, and Hunnewell 1931.

A. petaloidea Fern. Dry ledges. Denmark: Campbell (1288) 1974.

A. petaloidea var. *grandis* Fern. Peru: Campbell (1030) 1974; Waterford: Pease (28707) 1941.

A. munda Fern. Dry, open woods, and fields. Occasional. Canton: Parlin (1924 and 1935) 1906; Hartford: Parlin 1906; Greenwood: Pease (35291) 1950; Albany: Pease (29278) 1941; Oxford: Bean, Weatherby 1907.

A. fallax Greene. Open woods and shaded ledges. Occasional. Canton: Parlin (1925) 1906; Hartford: Parlin (3660) 1918; Sumner: Bean 1942; Buckfield: Parlin (1434) 1901; Stow: Campbell and Eastman (179) 1973; Denmark: Pease (19630) 1925.

A. parlinii Fern. Dry, open woods and clearings. Occasional. Canton: Parlin (2346) 1908; Stow: Campbell (152) and Eastman (147) 1973.

A. parlinii var. *arnoglossa* (Greene) Fern. Canton: Campbell (1033), Campbell and Eastman (1197) 1974; Gilead: Furbish 1897; Lovell: Pease (17128) 1918.

A. plantaginifolia (L.) Hook. Dry, shaded ledges and banks. Infrequent. Mexico: Campbell (2853) 1975; Denmark: Campbell (1289) 1974; Porter: Campbell (1054), Eastman (394) 1974.

ANAPHALIS DC. Everlasting.

A. margaritacea (L.) C.B. Clarke. Pearly Everlasting. Open, gravelly areas. Porter: Campbell (1988) 1974.

A. margaritacea var. *intercedens* Hara. Upton: Brewster 1907; Bethel: Campbell (674) 1973; Gilead: Furbish 1897; Albany: Wheeler 1914. Mason: Hodgdon and Steele (10902) 1958, Eastman (259) 1973.

A. margaritacea var. *angustior* (Miquel) Nakai. Bethel: Curtis 1913.

GNAPHALIUM L. Cudweed.

G. macounii Greene. Dry fields and roadsides. Frequent. Newry: Pease (28381) 1940; Bethel: Wheeler 1937; Gilead: Furbish 1897; Sumner: Parlin 1890; Stow: Eastman (272) 1973; Hebron: Allen 1877; Oxford: Campbell (3120) 1975; Fryeburg: Campbell and Eastman (3166) 1975.

G. obtusifolium L. Catfoot. Dry fields. Frequent. Rumford: Pease (25778) 1936; Bethel: Curtis 1913, Wheeler 1937; Gilead: Furbish 1897; Hartford: Parlin 1890; Woodstock: Pease (35875) 1950; Batchelders Grant: Eastman (260) 1973; Norway: Campbell and Eastman (2352) 1974; Fryeburg: Pease (26897) 1938; Porter: Campbell and Eastman (1921) 1975.

G. obtusifolium var. *micradenium* Weath. Brownfield: Rossbach (6178) 1964.

G. uliginosum L. Low Cudweed. Roadsides and waste places. Common. Lincoln Plt.: Campbell and Eastman (1870) 1974; Gilead: Furbish 1897; Hartford: Parlin 1893; Stoneham: Campbell (1722) 1974; Stow: Eastman (278) 1973; Hebron: Campbell (2364) 1974; Fryeburg: Bean 1964; Brownfield: Campbell (2491) 1974.

G. sylvaticum L. Roadbeds and borders of woods in the North. Bowmantown: Campbell and Eastman (2246) 1974; Oxbow: Campbell and Eastman (2448) 1974; Richardsontown: Campbell (2465) 1974.

INULA L.

**I. helenium* L. Elecampine. Buckfield: Parlin 1895.

AMBROSIA L. Ragweed.

**A. trifida* L. Garden and barnyard. Bethel: Noyes 1976.

**A. artemisiifolia* L. Common Ragweed. Waste places. Batchelders Grant: Campbell (638) 1973.

**A. artemisiifolia* var. *elatior* (L.) Descourtils. Roadsides and waste places. Common. Lincoln Plt.: Campbell and Eastman (1869) 1974; Rumford: Pease (33259) 1942; Stow: Campbell (513) 1973; Fryeburg: Pease (25673) 1936; Brownfield: Harris (26713) 1964.

**A. artemisiifolia* var. *elatior* f. *villosa* Fern. & Griscom. Peru: Campbell (2157) 1974.

**A. psilostachya* DC. var. *coronopifolia* (T. & G.) Farw. Newry: Pease (16830) 1916; Buckfield: Parlin (14438) 1940.

XANTHIUM L. Cocklebur.

X. italicum Moretti. Oxford: Neal 1935.

HELIOPSIS Pers. Ox-eye.

**H. helianthoides* (L.) Sweet var. *scabra* (Dunal) Fern. Woodstock: Parlin 1887.

RUDBECKIA L. Coneflower.

**R. laciniata* L. var. *hortensis* Bailey. Spreading from cultivation. Denmark: Campbell (2006) 1974.

**R. serotina* Nutt. Black-eyed Susan. Fields. Common. Gilead: Eastman (167) 1973; Batchelders Grant: Campbell (267) 1973.

**R. serotina* f. *pulcherrima* (Farus.) Fern. & Schub. Canton: Eastman and Campbell (827) 1975.

ECHINACEA Moench. Purple Coneflower.

**E. pallida* Nutt. Sumner: Parlin 1890.

HELIANTHUS L. Sunflower.

**H. annuus* L. Common Sunflower. Roadsides and waste places. Occasional. Fryeburg: Campbell (1997) 1974.

**H. petiolaris* Nutt. Waste places. Hiram: V. Merrill 1914.

**H. laetiflorus* Pers. Waste places. Mexico: Campbell (2450) 1974.

**H. mollis* Lam. Waste places. Bethel: Wheeler 1937.

H. divaricatus L. Dry thickets and ledges. Infrequent. Porter: Pease (17906) 1920, Campbell (1909) and Eastman (568) 1974.

**H. decapetalus* L. Open woods and thickets. Occasional. Dixfield: Kennedy 1935; Canton: Parlin (2031) 1906; Gilead: Furbish 1897, Pease (21146) 1929; Buckfield: Swallow (no date); Norway: Verrill 1858; Fryeburg: Blake 1862, Bean, Rossbach (6106) 1964.

**H. tuberosus* L. Jerusalem Artichoke. Waste places. Bethel: Parlin 1889; Gilead: Furbish 1897; Fryeburg: Campbell (2501) 1974.

BIDENS L. Bur-Marigold.

B. cernua L. Stick-tight. Wet places. Common. Canton: Bean 1935; Bethel: Wheeler 1914; Gilead: Eastman (247) 1974; Hartford: Parlin 1893; Sumner: Pease (27556) 1939; Albany: Wheeler 1914; Waterford: Pease (31720) 1945; Stow: Campbell and Eastman (737) 1973; Oxford: Neal 1935.

B. cernua var. *elliptica* Wieg. Bowmantown: Campbell and Eastman (2240) 1974.

B. cernua var. *minima* (Huds.) Pursh. Upton: Pease (35883) 1950; Greenwood: Pease (20795) 1930; Stow: Campbell and Eastman (746) 1973.

B. connata Muhl. var. *petiolata* (Nutt.) Farw. Swales and wet woods. Occasional. Greenwood: Campbell and Cross (2427) 1974; Mason: Eastman (291) 1973; Buckfield: Allen 1877, Campbell and Eastman (2354) 1974; Hiram: Campbell and Frueh (3272) 1975.

B. frondosa L. Low ground. Frequent. Gilead: Eastman (331) 1973; Greenwood: Campbell and Cross (2200) 1974; Albany: Wheeler 1914; Waterford: Pease (26928) 1938; Stow: Campbell and Eastman (713) 1973.

MEGALODONTA Greene. Water-Marigold.

M. beckii (Torr.) Greene. Lakes. Local. Buckfield: Adams 1941; Norway: Verrill 1858, Campbell and Cross (2420) 1974; Fryeburg: Pease (25201) 1935.

GALINSOGA R. & P. [15]

**G. quadriradiata* Ruiz & Pavon. (*G. ciliata* (Raf.) Blake.) Waste places. Frequent. Rumford: Campbell (1697) 1974; Bethel: Wheeler 1911; Gilead: Eastman (341) 1973; Sumner: J. Wheeler 1899; Paris: Campbell (1410) 1974.

HELENIUM L. Sneezeweed.

**H. nudiflorum* Nutt. Andover: Rand (Report) 1905; Bethel: Wheeler 1928; Fryeburg: Harris (26656) 1964; Brownfield: Eastman (605) 1974, Campbell and Josselyn Botanical Society (3143) 1975.

ACHILLEA L. Yarrow.

**A. ptarmica* L. Sneezeweed. Roadsides and meadows. Occasional. Bethel: Eastman and Campbell (592) 1974; Albany: Campbell (2013) 1974; West Paris: Campbell (2081) 1974.

A. borealis Bong. (not very distinct from the next species) Gravelly slope. Parmachenee: Campbell and Eastman (1818) 1974.

**A. millefolium* L. Common Yarrow. Fields and roadsides. Common. Bethel: Wheeler 1917; Gilead: Eastman (173) 1973; Batchelders Grant: Campbell (252) 1973; Stow: Campbell (514) 1973; Fryeburg: Rossbach (6115) 1964; Hiram: V. Merrill 1911.

**A. millefolium* f. *rosea* Rand & Redf. Roadsides and lawns. Occasional. Newry: Eastman and Campbell (431) 1974; Bethel: Campbell (1307) 1974; Sweden: Campbell (1257) 1974.

ANTHEMIS L. Chamomile.

**A. cotula* L. Waste places. Occasional. Grafton: Eastman and Campbell (576) 1974; Bethel: Wheeler 1927; Gilead: Furbish 1897.

**A. tinctoria* L. West Paris: Bicknell 1958.

MATRICARIA L. Wild Chamomile.

**M. matricarioides* (Less.) Porter. Pineapple-weed. Roadsides and fields. Common. Bethel: Wheeler 1924; Stoneham: Campbell (1722) 1974; West Paris: Campbell and Eastman (880) 1974.

M. matricarioides var. *agrestis* (Knaf.) Wilmott. West Paris: Eastman and Wight (777) 1975.

CHRYSANTHEMUM L. Chrysanthemum.

**C. leucanthemum* L. var. *pinnatifidum* Lecoq. & Lamotte. Dry fields and roadsides. Common: Parmachenee: Campbell and Eastman (1445) 1974; Batchelders Grant: Campbell (253) 1973; Buckfield: Campbell (1076) 1974.

**C. balsamita* L. Bethel: Wheeler 1935.

TANACETUM L. Tansy.

**T. vulgare* L. Common Tansy. Fields and waste places. Frequent. Dixfield: Campbell (1640) 1974; Peru: Campbell (2159) 1974; Gilead: Eastman (261) 1973, Campbell (2422) 1974; Batchelders Grant: Campbell (727) 1973.

**T. vulgare* f. *crispum* (L.) Hayek. Bethel: Wheeler 1936.

ARTEMISIA L. Wormwood.

**A. annua* L. Bethel: Wheeler 1917.

**A. vulgaris* L. Common Mugwort. Waste places. Infrequent. Rumford: Campbell (2277) 1974; Bethel: Wheeler 1914.

**A. ludoviciana* Nutt. var. *brittonii* (Rydb.) Fern. Moist bank. Greenwood: Campbell and Cross (2415) 1974.

TUSSILAGO L. Coltsfoot.

**T. farfara* L. Shores and ditches. Frequent northward. Bowman-town: Eastman and Campbell (583) 1974; Oxbow: Eastman and Camp-

bell (586) 1974; Lynchtown: Campbell and Eastman (1435) 1974; Adamstown: Campbell and Eastman (1140) 1974; Dixfield: Allen 1897; Sumner: Eastman (426) 1974; Greenwood: Campbell and Cross (2194) 1974; Batchelders Grant: Campbell and Eastman (78) 1973; Buckfield: Parlin 1895; Stow: Eastman (116) 1973; Hebron: Eastman and Wight (455) 1974; Denmark: Steinmetz (1250) 1946.

PETASITES Mill. Sweet Coltsfoot.

P. palmatus (Ait.) Gray. Low woods. Infrequent. Canton: Parlin (2709) 1908; Hebron: Allen 1897.

ERECHTITES Raf. Fireweed.

E. hieracifolia (L.) Raf. var. *intermedia* Fern. Dry, open areas; especially in sandy, disturbed soil. Frequent. Bethel: Wheeler 1937; Waterford: Campbell (3186) 1975; Brownfield: Campbell (2493) 1974.

SENECIO L. Ragwort. [4]

S. pauperculus Michx. Exposed ledges. Local. Magalloway Plt.: Lincoln 1938; Upton: Pease (10506) 1907.

S. schweinitzianus Nutt. (*S. robbinsii* Oakes) Swales and low woods. Common. Parmachenee: Campbell and Eastman (1750) 1974; Township C: Williams 1903; Grafton: Campbell and Eastman (1454) 1974; Dixfield: Fernald and Pease (25338) 1922; Canton: Parlin (1943) 1906, (2407) 1908; Bethel: Wheeler 1925; Buckfield: Campbell (1087) 1974; Norway: Chamberlain (2267), Howe 1907; Stow: Campbell and Eastman (728) 1973; Hebron: Chamberlain (100) 1900; Oxford: Bean (2121), Chamberlain 1907; Paris: Hunnewell, Bill, Eaton, Fernald, and Griscom (11972) 1931; Denmark: Steinmetz (1247) 1946; Hiram: Eastman (405) 1974.

S. aureus L. var. *intercursus* Fern. Alluvial woods. Local. Parmachenee: Campbell and Eastman (1424) 1974.

ARCTIUM L. Burdock.

**A. minus* (Lill) Bernh. Common Burdock. Waste places. Common. Bethel: Wheeler 1914; Gilead: Campbell (625), Eastman (294) 1973.

**A. minus* f. *purpureum* (Blytt) A.H. Evans. Porter: Campbell (2538) 1974.

ECHINOPS L. Globe Thistle.

**E. sphaerocephalus* L. Spread from cultivation. Bethel: Eastman and Campbell (765) 1975.

CIRSIIUM Mill. Thistle.

**C. vulgare* (Savi) Tenore. Bull-Thistle. Fields. Occasional. Township C: Williams 1903; Bethel: Campbell (2528) 1974.

C. muticum Michx. Swamp-Thistle. Rocky clearings and low ground. Frequent, especially in the north. Bowmantown: Campbell, Eastman and Richards (3045) 1975; Oxbow: Campbell and Eastman (2449) 1974; Parmachenee: Campbell and Eastman (1910) 1974; Lynchtown: Campbell and Eastman (3017) 1975; Dixfield: Batchelder 1919; Hebron: Chamberlain 1900.

C. pumilum (Nutt.) Spreng. Pasture-Thistle. Fields and thickets. Occasional. Canton: Campbell and Eastman (3079) 1975; Bethel: Wheeler 1926; Stow: Campbell and Eastman (577) 1973; Hebron: Campbell (2371) 1974.

**C. arvense* (L.) Scop. Canada Thistle. Fields and waste places. Occasional. Bowmantown: Campbell and Eastman (2142) 1974; Magalloway Plt.: Campbell and Eastman (2998) 1975; Batchelders Grant: Eastman (208) 1973.

CENTAUREA L. Star-Thistle.

**C. cyanus* L. Waste places. Bethel: Wheeler 1938.

**C. nigra* L. var. *radiata* DC. Waste places and roadsides. Buckfield: Eastman and Campbell (602) 1974; Norway: Bean 1957.

**C. maculosa* Lam. Waste places. Bethel: Campbell (1959) 1974; Paris: Eastman and Wight (504) 1974.

CICHORIUM L. Chicory.

**C. intybus* L. Roadsides and waste places. Frequent. Parkertown: Campbell and Eastman (2145) 1974; Rumford: Campbell (2275) 1974; Batchelders Grant: Eastman (210) 1973; Waterford: Campbell (2344) 1974.

LEONTODON L. Hawkbit.

**L. autumnalis* L. Fall-Dandelion. Lawns and waste places. Common. Lynchtown: Campbell and Eastman (1871) 1974; Bethel: Wheeler 1914, Pease (16896) 1916; Woodstock: Pease (23862) 1933; Mason: Eastman (344) 1973.

**L. autumnalis* var. *pratensis* (Link) W.D.J. Koch. Mason: Campbell (698) 1973.

TRAGOPOGON L. Goat's-beard.

**T. pratensis* L. Hebron: Eastman and Wight (488) 1974; Hiram: Eastman (488) 1974.

TARAXACUM Zinn. Dandelion.

**T. erythrospermum* Andrz. Bethel: Wheeler 1929 and 1938.

**T. officinale* Weber. Common Dandelion. Waste places and lawns. Common. Upper Cupsuptic: Campbell and Eastman (2782) 1975; Stow: Campbell (34) 1973; Porter: Campbell (2765) 1975.

SONCHUS L. Sow-Thistle.

**S. arvensis* L. Field-Sow-Thistle. Waste places. Buckfield: Eastman and Campbell (601) 1974.

**S. asper* (L.) Hill. Spiny-leaved Sow-Thistle. Roadsides and waste places. Bethel: Wheeler 1927 and 1935.

**S. asper* f. *glandulosa* Beckh. f. *inermis* (Bisch.) G. Beck. Hebron: Campbell (2379) 1974.

LACTUCA L. Lettuce.

**L. scariola* L. f. *integrifolia* (Bogenh.) G. Beck. Prickly Lettuce. Railroad ballast. Bethel: Campbell (2385) 1974.

L. canadensis L. Woods, clearings and roadsides. Gilead: Furbish 1897; Oxford: Campbell (3122) 1975; Porter: Campbell and Eastman (1613) 1974.

L. canadensis var. *longifolia* (Michx.) Farw. Porter: Campbell and Eastman (1625) 1974.

L. canadensis var. *latifolia* Ktze. Sumner: Bean 1942; Hebron: Eastman and Wight (460) 1974; Denmark: Campbell, Bucknell, and Eastman (3025) 1975; Porter: Campbell and Eastman (1620) 1974.

L. canadensis var. *latifolia* f. *spinulosa* Jennings. Bethel: Wheeler 1925.

L. hirsuta Muhl. var. *sanguinea* (Bigel.) Fern. Township C: Williams 1903.

L. biennis (Moench) Fern. Woods, clearings and roadsides. Common. Bowmantown: Campbell and Eastman (2233) 1974; Gilead: Campbell and Eastman (745) 1973; Woodstock: Bean 1947; Greenwood: Curtis 1913; Batchelders Grant: Campbell (637) 1973.

CREPIS L. Hawk's-beard.

**C. capillaris* (L.) Wallr. Bethel: Wheeler 1930.

PRENANTHES L. Rattlesnake-root.

P. trifoliata (Cass.) Fern. Gall-of-the-earth. Dry woods and clearings. Frequent. Andover West Surplus: Bean 1938; Riley: Quinn 1927; Bethel: Wheeler 1914; Stoneham: Bean 1935; Stow: Campbell and Eastman (705) 1973; Oxford: Bean 1936; Hiram: Merrill 1929, Campbell (2525) 1974.

P. trifoliata var. *nana* (Bigel.) Fern. Alpine region of the Mahoosuc Range. Riley: Adams 1941.

P. altissima L. Woods and clearings. Common. Bowmantown: Campbell and Eastman (2257) 1974; Lincoln Plt.: Campbell and Eastman (3244) 1975; Andover West Surplus: Bean 1938; Bethel: Wheeler 1914; Woodstock: Bean 1936, Campbell (2441) 1974; Greenwood: Curtis 1913; Mason: Campbell (662) 1973; Batchelders Grant: Campbell (634) 1973.

P. altissima f. *hispidula* Fern. Canton: Bean 1931; Woodstock: Parlin 1888.

HIERACIUM L. Hawkweed.

**H. pilosella* L. Mouse-ear. Fields. Andover: Campbell (2874) 1975; Rumford: Wheeler 1923; Milton: Campbell and Eastman (1170); Stow: Campbell (119), Eastman (109) 1973; Paris: Campbell (960) 1974.

**H. flagellare* Willd. Paris: Campbell (960) 1974.

**H. aurantiacum* L. Devil's Paint-brush. Fields, roadsides and waste places. Common. Upper Cusuptic: Campbell and Eastman (1859) 1974; Lynchtown: Campbell and Eastman (1448) 1974; Dixfield: Campbell (1039) 1974; Bethel: Wheeler 1925; Gilead: Campbell (443), Eastman (356) 1973; Sumner: Parlin 1885; Batchelders Grant: Campbell (17) 1973; Buckfield: Allen 1886; Paris: Thompson 1892.

**H. floribundum* Wimm. & Grab. King Devil. Fields and roadsides. Common. Lynchtown: Campbell and Eastman (1447) 1974; Parkertown: Campbell and Eastman (1412) 1974; Bethel: Wheeler 1937; Stow: Campbell (131) 1973; Denmark: Campbell (1291) 1974.

**H. pratense* Tausch. King Devil. Fields. Canton: Parlin (14580) 1941, (15818) 1943; Bethel: Wheeler 1934; Hartford: Rowell 1940; Norway: Bean 1955; Paris: Campbell (1291) 1974.

**H. praealtum* Gochnat. var. *decipiens* W.D.J. Koch. King Devil. Fields and roadsides. Upper Cupsuptic: Campbell and Eastman (1858) 1974; Roxbury: Pease (33471) 1948; Hartford: Parlin (16589) 1944.

**H. florentinum* All. King Devil. Bethel: 1937; Hebron: Hunnewell (12011) 1931.

H. canadense Michx. Roadsides. Infrequent. Greenwood: Campbell (2426), Campbell and Cross (2180) 1974.

H. canadense var. *fasciculatum* (Pursh) Fern. Dry soil. Common. Peru: Pease (26922) 1936; Bethel: Pease (23844) 1933, (26922) 1938; Greenwood: Curtis 1913; Albany: Pease (31752) 1945; Buckfield: Allen 1877; West Paris: Bean 1935; Lovell: Pease (20973) 1938; Stow: Campbell and Eastman (706) 1973; Fryeburg: Pease (19620) 1925.

H. canadense var. *hirtirameum* Fern. Bethel: Campbell (2174) 1974; Sumner: Bean 1951.

H. kalmii L. Andover: Pease (37355) 1953.

H. kalmii var. *fasciculatum* (Pursh) Lepage. Paris: Pease (28288) 1940.

H. paniculatum L. Woods. Frequent. C Surplus: Pease (37354) 1953; Newry: Pease (28377) 1948; Bethel: Campbell: (678) 1973; Gilead: Furbish 1897; Woodstock: Bean 1936, Campbell (2437) 1974; Greenwood: Curtis 1913; Stoneham: Bean 1935; Waterford: Pease (26943) 1938; Lovell: Pease (29280) 1941; Stow: Campbell and Frueh (605) 1973; Batchelders Grant: Campbell and Myers (510) 1973.

H. paniculatum f. *glandulosum* Hoffm. Gilead: Furbish 1897; Batchelders Grant: Pease (23866) 1933.

H. scabrum Michx. Dry woods and fields. Common. Lincoln Plt.: Williams 1903; Magalloway Plt.: Campbell (2459) 1974; Upton: Purdie 1897; Newry: Pease (28380) 1940; Bethel: Pease (23847) 1933; Gilead: Furbish 1897; Woodstock: Bean 1947; Stoneham: Bean 1935; Stow: Campbell and Frueh (596) 1973; Paris: Pease (28294) 1940.

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