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THE FLORA OF MENDON PONDS PARK
RICHARD H. GOODWIN
NOTES ON THE FLORA OF MONROE COUNTY, N. Y.
ROYAL E. SHANKS AND RICHARD H. GOODWIN



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THE FLORA OF MENDON PONDS PARK¹

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DESCRIPTION OF THE AREA

The Mendon Ponds are situated in the southeastern part of Monroe County, New York. For at least seventy years they have been a Mecca for botanists and during this period many rare and interesting species of plants have been collected in their vicinity. Since its dedication in 1930, Mendon Ponds Park has become one of the most-used recreation centers within the county and now thousands of people visit it every year. With the exploitation of the area, however, profound changes in the vegetation are being brought about. The purpose of the present paper is to describe as accurately as possible certain interesting botanical features of the area as they appear today. It is hoped that a description of the remarkably rich vegetation of this small tract will provide a valuable historical record in the years to come. Furthermore, it should serve as a useful supplement to the recent, comprehensive ecological survey of the vegetation of Monroe County by Shanks (1943).

The paper has been divided into two sections: first, a description of the physical and ecological features of the area; and second, an annotated list of the species and varieties of vascular plants which have been found therein.

PHYSICAL FEATURES

The area under consideration is situated about three miles northwest of Mendon and is shown in the accompanying map, fig. 1. It is bounded on the east by the Pittsford-Mendon Center Road, on the south by the Mendon Road, on the west by State Highway 65 or the southward continuation of Clover Street, and on the north by the eastward continuation of Reeves Road. The area includes the whole of Mendon Ponds Park and a certain amount of privately-owned adjacent farm land.

The broken topography is of considerable interest to the glacial geologist. The area is enclosed by two long steep-sided, sinuous ridges running in a generally north-south direction. Fairchild (1926) has pointed out that these are eskers, water-laid sand and gravel deposits formed by

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The author wishes to thank Dr. Royal E. Shanks for assistance in the field and for going over the first portion of the manuscript. He is indebted to Mr. J. Franklin Bonner of the Monroe County Division of Regional Planning for making available aerial photographs and ecological data on file with the Division of Regional Planning. He is also grateful to his wife, Esther B. Goodwin, Mr. Warren A. Matthews, Mr. William Stepka and others for assistance in various ways. For the determination of specimens in certain groups, acknowledgment is made in footnotes to the annotated list under the particular family involved.

subglacial rivers under the receding Wisconsin ice sheet.² In the depression between them lie five little lakes known as Hundred Acre (or Big) Pond, Deep Pond, Lost Pond, Round (or Harris) Pond and Quaker (or Mud) Pond, all of which drain southward into the headwaters of Irondequoit Creek. In addition to the eskers are a number of small, rounded, sandy hills or kames—outwash deposits laid down at the edge of the ice sheet in the waters of ancient Lake Warren which extended from the edge of the ice south to the Allegheny upland. Among these glacial sand and gravel deposits are a number of steep-walled depressions known as kettles. These are thought to mark the former location of buried fragments of glacial ice. The bottoms of some of the kettles are above the water table, and hence are dry. Others are below the water table and are occupied by lakes, as in the case of the Devil's Bath tub, or by bogs, such as Kennedy's Bog. Owing partly to the sandy nature of the underlying deposits of the area, the bodies of water are fed by springs, and their level, being dependent on the water table, is extremely constant. This is very important from a botanical standpoint.

The soil types found within the area have been well studied in detail. Fig. 2 shows a soil map of the area adapted from the soil survey of Monroe County by Sweet, *et al.* (1938). The soil types fall into three major categories on the basis of their mode of origin. (1) Those of the higher land to the east and west, indicated by diagonal cross-hatching, are characterized by water-worn sands and gravels and are plainly derived from water-laid, stratified deposits. The Groton series, the most extensive in this category, is found on the kames and eskers. (2) To the north are areas characterized by unassorted glacial till, indicated by stippling. These deposits have developed for the most part into the somewhat acid loams of the Ontario series. (3) In the depressions are found peat and muck deposits up to eleven feet or more in thickness. These are composed chiefly of decomposed organic material representing the accumulation of plant remains for thousands of years. The muck is sometimes underlaid by a fine, whitish marl which was formed by aquatic plants when the ponds were more extensive and covered these areas. Such calcareous deposition is certainly taking place now along the moderately steep banks of Deep Pond where masses of the alga *Chara* are thriving to the virtual exclusion of other types of aquatic vegetation. The dark poorly-drained soils at the margin of the muck deposits are usually underlaid with marl and have been classified as the Colwood loam.

THE VEGETATION

The post-Pleistocene vegetation of the Mendon Ponds area must have first become established subsequent to the draining of glacial Lakes Warren and Dana (Fairchild, 1926). An analysis of pollen distribution

² See also Fairchild (1896), and Giles (1918).

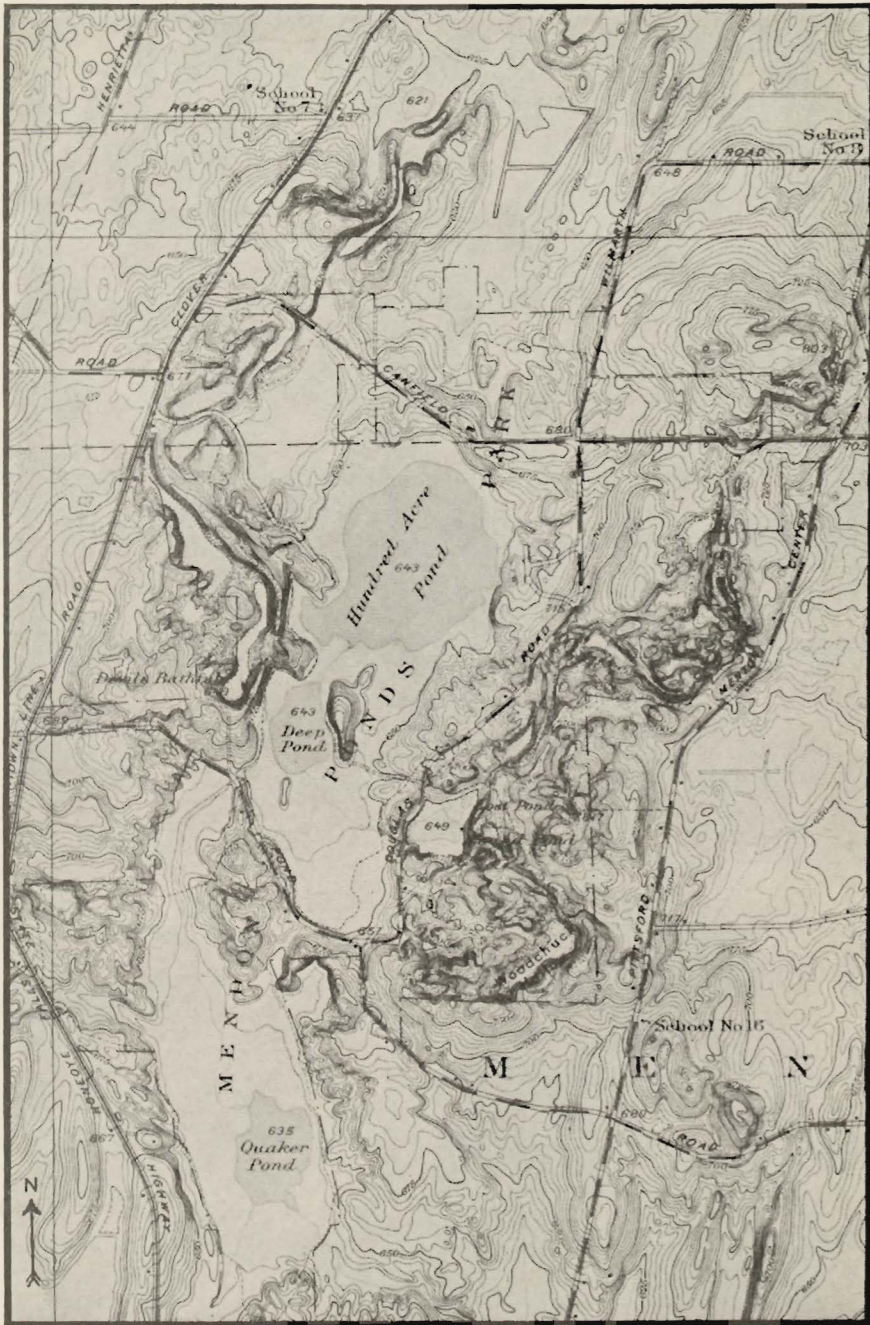


FIG. 1. A topographic map of the Mendon Ponds reproduced from the 1935 edition of the Mendon Ponds quadrangle (U.S.G.S.). The contour interval is five feet.

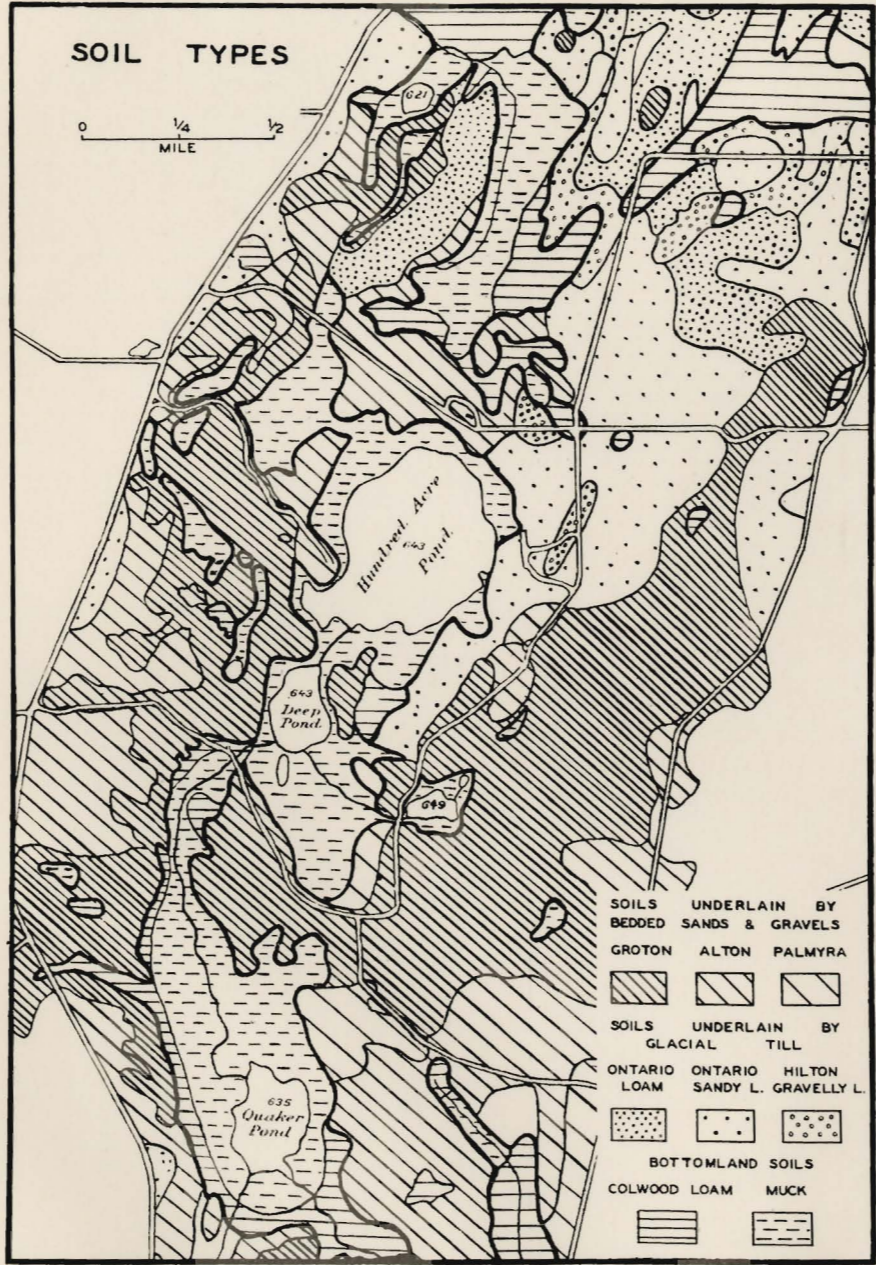


FIG. 2. A map of soil types adapted from the soil survey of Monroe County (Sweet, et al., 1938).

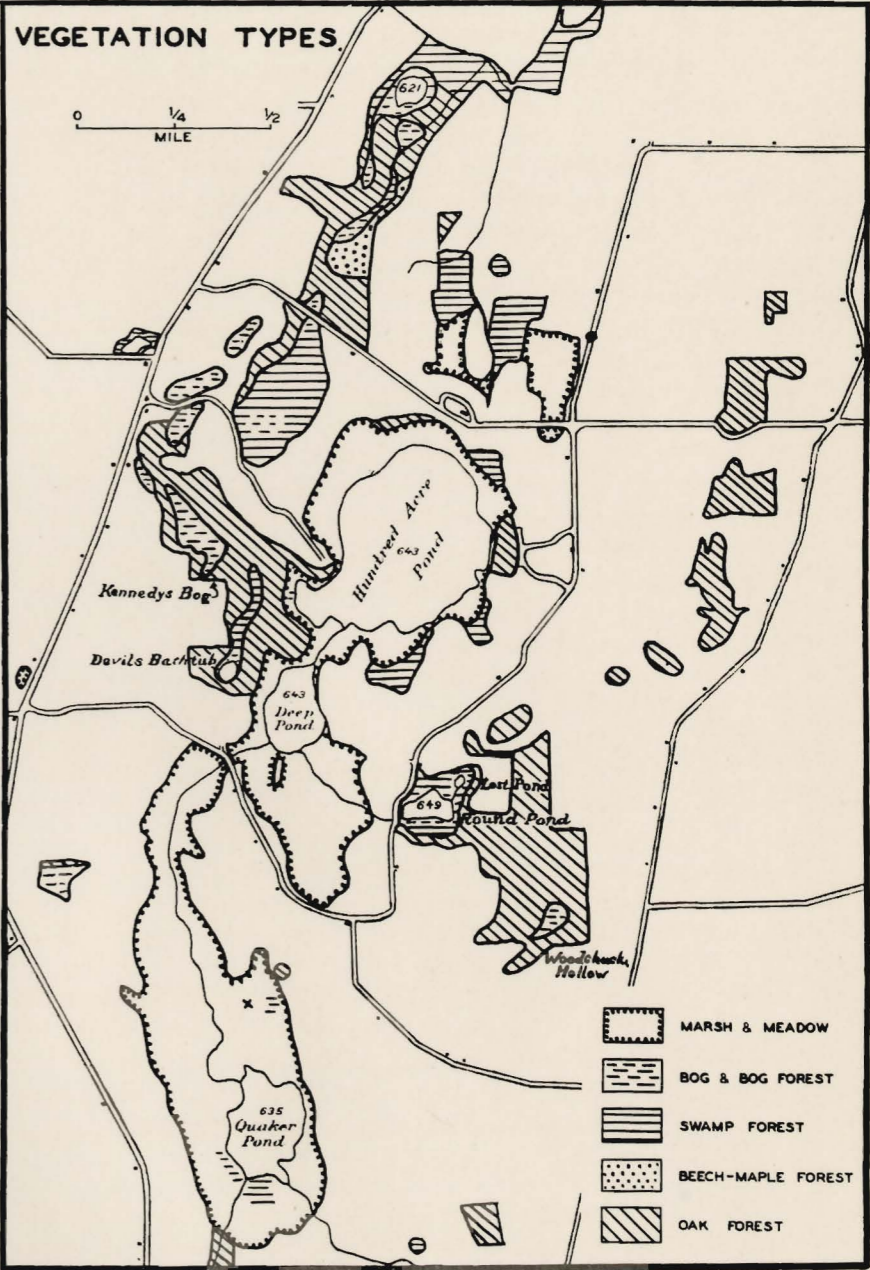


FIG. 3. A map of the remnants of the original vegetation compiled with the aid of aerial photographs loaned by the Monroe County Division of Regional Planning. The various vegetation types recognized by Shanks (1943) are shown.

in the local peat bogs should reveal the vegetational succession which must have taken place. From the results of such analyses made in neighboring states which have a similar climate, such as Pennsylvania, Ohio, and Indiana (Sears, 1935), it can be surmised that the sandy and gravelly slopes were clothed first by spruce and fir, then by white pine and later by hardwoods similar to those found in the region today. Lakes must have occupied the intervening depressions which gradually became filled in by marshes and bogs, an encroachment still in progress at the present time.

From a recent ecological survey of the remaining woodlots in Monroe County and from available historical sources, Shanks (1943) has reconstructed the probable distribution of the vegetation types within the region as they occurred before white settlement. He has distinguished eight different types: marshes and marsh meadows; bogs and bog forest; deciduous swamp forest; hemlock-northern hardwood forest; beech-maple forest; oak forest; oak-chestnut-pine forest; and oak openings. It is beyond the scope of this paper to discuss these generalized vegetation types at length. As Shanks points out, there are innumerable variations in their composition, and transitions frequently occur between them. Each type is easily recognized, however, by the spectrum of its dominant species, and each type fits into a definite ecological niche which is locally conditioned in large part by the water supply and the nature of the soil. All but two of these types, the hemlock-northern hardwood forest, and the oak-chestnut-pine forest, occur within the tract under consideration, reflecting the great diversity of habitat conditions within this small area, which accounts in part for the diversity of the flora.

The distribution of these vegetation types in the relatively undisturbed portions of the area is shown in fig. 3. A comparison of this map with that of fig. 1 will show the close correlation between the location of the remnants of the original vegetation and the topography. Marshes, marsh meadows, bogs and bog forest occupy the low, poorly-drained areas, which, for the most part, are covered with deposits of muck or peat (see fig. 2); while upland oak and beech-maple woods are found chiefly on slopes too steep to be suitable for agriculture. The rest of the land has been cleared for the better part of a century, the first man to clear land in the area having settled in Mendon prior to 1817 (Foreman, 1930). In describing the area in 1896, Fairchild wrote that "much of the valley bottom between the lakes is tilled land. The same hills are mostly pasture land or under cultivation."

In the following pages a description is given of the various vegetation types which are found in the vicinity of Mendon Ponds. Emphasis has been placed on botanical features of particular interest—the marshes and meadows, the bogs, and the oak openings—while the woodlots and cleared

areas which are very similar to those elsewhere in the county have been treated very briefly.

Aquatics. The shallow ponds and sluggish streams (see figs. 4 and 5) are rich in species of flowering plants. The pondweeds, belonging to the genus *Potamogeton*, are particularly abundant with ten species, two of which, *P. praelongus* and *P. strictifolius* var. *rutiloides*, have not been reported elsewhere in the county. The duckweed family is represented by two species of *Lemna*, two species of *Wolffia* and *Spirodela polyrhiza*. Other aquatics include two species of naiad (*Najas*), waterweed (*Anacharis canadensis*), eel grass (*Vallisneria americana*), water stargrass (*Heteranthera dubia*), cow lily (*Nuphar variegata*) (fig. 4), sweet white water lily (*Nymphaea odorata*), hornwort (*Ceratophyllum demersum*), two species of water milfoil (*Myriophyllum*), and the great bladderwort (*Utricularia vulgaris* var. *americana*). For further details the reader is referred to the annotated list.

Marsh and marsh meadow. The marshes and marsh meadows have been formed as a result of the invasion of the open water of the ponds by a marsh vegetation. This invasion is still in progress and all stages of transition between the pioneer species at the water's edge and well-developed natural meadows may still be found. The endless variation in the composition of these marshes and meadows baffles description. However, certain representative and interesting communities will be described in detail.

The invasion of open water by the marsh has reached an advanced stage particularly around Hundred Acre and Quaker Ponds. A dominant pioneer of this zone is the water willow (*Decodon verticillatus*) (see fig. 5). The immersed tips of the recurved branches of this shrub develop a very spongy cortical tissue which gives buoyancy to the floating mass of vegetation. The following species are commonly found growing in this community: the marsh fern (*Dryopteris Thelypteris* var. *pubescens*), the great bulrush (*Scirpus validus*) (fig. 4), arrow arum (*Peltandra virginica*), false nettle (*Boehmeria cylindrica* var. *Drummondiana*), spotted touch-me-not (*Impatiens biflora*), marsh St. John's-wort (*Hypericum virginicum*), marsh skullcap (*Scutellaria galericulata*), bugle weed (*Lycopus uniflorus*), and blue nightshade (*Solanum Dulcamara*). In the very wet marshes behind this outer fringe of vegetation additional species occur, including the cattails, *Typha latifolia* and *T. angustifolia* var. *elongata*, water plantain (*Alisma Plantago-aquatica*), great water dock (*Rumex Britannica*), swamp milkweed (*Asclepias incarnata*), dodder (*Cuscuta Gronovii*), button-bush (*Cephalanthus occidentalis*), *Aster junceus*, and *A. lateriflorus*.

North of Quaker Pond the *Decodon* community gives way to an extensive marsh. Conspicuous and dominant species are the great bulrush (*Scirpus validus*) and reed grass (*Phragmites communis*), but a number

of other species are important components of the mat of vegetation which is virtually floating on unconsolidated peat—*Eleocharis rostellata*, its long recurved culms frequently rooting at the tips, *Calamagrostis canadensis*, *C. inexpansa*, *Muhlenbergia racemosa*, *M. sylvatica*, and *Cladium mariscoides*. Near the border of the pond and along sluggish streams which are frequently completely overgrown, may be found pools varying from six inches to six feet or more in depth. These pools are often choked with the sweet white water lily (*Nymphaea odorata*) or may contain *Chara* and *Utricularia intermedia*, and at their margins have been collected such unusual species as *Eleocharis pauciflora* and *Carex limosa*. Other species with a scattered but more general distribution in the marsh are the grass pink (*Calopogon pulchellus*), pitcher plant (*Sarracenia purpurea*), shrubby cinquefoil (*Potentilla fruticosa*), marsh cinquefoil (*P. palustris*), *Galium labradoricum*, marsh bellflower (*Campanula uliginosa*), goldenrod (*Solidago uniligulata*), *Aster junceus* and *A. lateriflorus*.

As one approaches firmer ground to the north, the marsh gradually becomes a wet meadow. A boring made at the point marked *x* in fig. 3 showed that there an eight foot layer of well-preserved peat was underlaid by twenty feet of pure marl. The calcareous nature of the underlying deposits and of the springs feeding the meadow is indicated by the vegetation, which shows a great similarity to the floras of the marl beds in Bergen Swamp (Stewart and Merrell, 1937) and of the marly region around the Junius ponds (Wiegand and Eames, 1926). A list of species characteristic of marly habitats which have been found in this meadow are given in table 1. Dense mixed stands of *Eleocharis rostellata*, *Carex Buxbaumii*, and *Juncus balticus* var. *littoralis* are interspersed with *Scirpus validus*, *Carex exilis*, clumps of *Sorghastrum nutans*, and other species (fig. 6). In the marginal portions of this meadow grow mixed stands of *Bromus ciliatus*, *Rynchospora alba*, *Smilacina stellata*, *Thalictrum polygamum*, *Pycnanthemum virginianum*, *Valeriana uliginosa*, *Campanula uliginosa*, *Eupatorium maculatum*, *E. perfoliatum*, *Solidago ohioensis*, *S. uniligulata*, *Aster umbellatus*, and *Cirsium muticum*, and in local depressions among the above-mentioned species may be found the following rare or unusual plants characteristic of marl beds: *Triglochin palustris*, *Rynchospora capillacea*, *Scleria verticillata*, *Juncus brachycephalus*, *Spiranthes cernua*, *Liparis Loeselii*, *Parnassia glauca*, and *Lobelia Kalmii*. Mounds of sphagnum in this zone are covered with sundew (*Drosera rotundifolia*) and occasional pitcher plants.

Islands of shrubs may be found scattered about in this marsh meadow. These include the willows, *Salix Bebbiana*, *S. candida*, *S. discolor*, and other species, bayberry (*Myrica carolinensis*) (fig. 6), speckled alder (*Alnus incana* var. *americana*), shrubby cinquefoil (*Potentilla fruticosa*), swamp rose (*Rosa palustris*), poison sumac (*Rhus Vernix*), and swamp fly honeysuckle (*Lonicera oblongifolia*).

TABLE 1

Characteristic species of marly habitats found in the meadows north of Quaker Pond, on the marl beds of Bergen Swamp (Stewart and Merrell, 1937), and around the Junius Ponds (Wiegand and Eames, 1926).

	Quaker Pond meadows	Bergen Swamp marl beds	Junius Ponds
<i>Triglochin palustris</i>	+*	+	+
<i>Phragmites communis</i>	+	+	
<i>Sorghastrum nutans</i>	+	+	
<i>Eleocharis pauciflora</i>	+**	+	
<i>Eleocharis rostellata</i>	+**	+	+
<i>Cladium mariscoides</i>	+**	+	+
<i>Rynchospora capillacea</i>	+*	+	+
<i>Scleria verticillata</i>	+**	+	+
<i>Carex Buxbaumii</i>	+**	+	+
<i>C. Sartwellii</i>	+**	+	+
<i>Juncus balticus</i> var. <i>littoralis</i>	+	+	+
<i>J. brachycephalus</i>	+*	+	+
<i>Spiranthes cernua</i>	+	+	
<i>Liparis Loeselii</i>	+*	+	+
<i>Salix candida</i>	+*	+	
<i>Parnassia glauca</i>	+	+	+
<i>Potentilla fruticosa</i>	+	+	+
<i>Pycnanthemum virginianum</i>	+		+
<i>Utricularia gibba</i>	+**		+
<i>Lonicera oblongifolia</i>	+*	+	+
<i>Valeriana uliginosa</i>	+*	+	+
<i>Lobelia Kalmii</i>	+	+	+
<i>Solidago ohioensis</i>	+*	+	+
<i>S. uniligulata</i>	+**	+	+

* Rare elsewhere in Monroe County.

** Only station reported for Monroe County.

Bogs and bog forest. The development of bog vegetation takes place where poor drainage conditions prevail. "This results in deficient aeration and the concomitant conditions of a poor bacterial and fungus flora and, often, of acidity."³ Excellent examples of bogs and bog forest in various stages of development occur within the Mendon Ponds area. Bog vegetation as indicated by the presence of sphagnum and a number of characteristic species of vascular plants such as cranberry (*Vaccinium macrocarpon*), pitcher plant (*Sarracenia purpurea*), and sundew (*Drosera rotundifolia*) may be found in the marshes around Quaker Pond. A patch of bog forest composed chiefly of tamarack (*Larix laricina*) and poison sumac (*Rhus Vernix*) has become established on the west side of the pond (fig. 7). Elsewhere in these marshes the few scattered tamarack trees, some of them now dead, attest the failure of a bog vegetation to become well developed.

Situations more favorable for bog formation are the deeper of the undrained kettles. These were probably originally occupied by lakes similar to the Devil's Bathtub and subsequently became filled in. Kennedy's Bog, the largest and best-preserved sphagnum bog within the county (Bray, 1915; Merrell, 1930; Shanks, 1943), is one of this type.

³ Weaver and Clements (1938), p. 76.

It is about five acres in extent and is situated to the west of the ponds in an undrained depression, bounded on the north by the steep slopes of an esker and on the south by kame deposits. The surrounding upland is heavily wooded with oak and hickory but near the margins of the bog may be found a fringe of trees including black ash (*Fraxinus nigra*), red maple (*Acer rubrum*), yellow birch (*Betula lutea*) and two species which are relatively rare in the county, black gum (*Nyssa sylvatica* var. *caroliniana*), and balsam poplar (*Populus Tacamahacca*).

Surrounding the bog is a very wet zone often with a foot or more of standing water. In places this zone is a slough choked with wild calla (*Calla palustris*) and various other species including *Cicuta bulbifera*, *Impatiens biflora*, *Lycopus uniflorus*, *Circaea quadrisulcata* var. *canadensis*, and *Bidens frondosa*. Occasional specimens of tufted loosestrife (*Lysimachia thyrsiflora*), buckbean (*Menyanthes trifoliata* var. *minor*), *Carex comosa*, *Eleocharis obtusa*, and *Glyceria grandis* may also be found. Elsewhere the margin of the bog is filled with a dense growth of tall shrubs, including black chokeberry (*Aronia melanocarpa*), mountain holly (*Nemopanthus mucronata*), winterberry (*Ilex verticillata*), speckled alder (*Alnus incana* var. *americana*), highbush blueberry (*Vaccinium corymbosum*), button-bush (*Cephalanthus occidentalis*), with occasional specimens of bog willow (*Salix pedicellaris* var. *hypoglauca*), shining willow (*S. lucida*), poison sumac (*Rhus Vernix*), and withe-rod (*Viburnum cassinoides*).

Beyond this marginal zone lies the open bog which is covered with low ericaceous shrubs growing in a bed of sphagnum. The bog heath has a number of sharply-defined communities, each dominated by characteristic species. Portions of the bog toward the southeast are covered with large bushes of leatherleaf (*Chamaedaphne calyculata*), to the exclusion of all other shrubs. The western end has been taken over by luxuriant stands of the handsome Virginia chain fern (*Woodwardia virginica*), growing four to five feet tall (fig. 9). In the central section a considerable area is covered with a mixed and stunted growth of *Chamaedaphne*, bog rosemary (*Andromeda glaucophylla*), and Labrador tea (*Ledum groenlandicum*) (fig. 8). In a few places, where the cranberries (*Vaccinium Oxycoccus* and *V. macrocarpon*) become the dominant heaths, stands of *Rynchospora alba* give the bog the appearance of a grassy swale, and the following species are also found in abundance: pitcher plant (*Sarracenia purpurea*), the sundews (*Drosera rotundifolia* and *D. intermedia*), cotton grass (*Eriophorum virginicum*), rose pogonia (*Pogonia ophioglossoides*) and very stunted specimens of *Chamaedaphne* and *Andromeda*.

Quite a number of other species have been found in the sphagnum of the bog heath, among them *Dryopteris Thelypteris* var. *pubescens*, *Scheuchzeria palustris*, *Eriophorum gracile*, *E. viridi-carinatum*, *Scirpus*

cyperinus, *Dulichium arundinaceum*, *Carex canescens* and its varieties *disjuncta* and *sublohiacea*, *C. interior*, *C. limosa*, *C. trisperma* and its variety *Billingsii*, *Juncus canadensis*, *Boehmeria cylindrica* var. *Drummondiana*, *Hypericum virginicum*, *Decodon verticillatus*, and *Solanum Dulcamara*.

The present bog heath is broken here and there by islands of taller shrubs, especially highbush blueberry (*Vaccinium corymbosum*), black huckleberry (*Gaylussacia baccata*) and the bog conifers—tamarack (*Larix laricina*) and black spruce (*Picea mariana*), the latter species having been reported from only one other station within the county (fig. 8). Toward the west end, the bog is being invaded by clumps of *Aronia melanocarpa*; and scattered individuals of red maple (fig. 9), sweet birch (*Betula lenta*), and poison sumac are also becoming established. It is clear that the invasion of the bog by the bog forest has well begun. Botanists who have been visiting this area for many years comment on the increasing dryness and solidity of the heath. It is very probable that desiccation has been hastened by the destruction of adjacent woodlands and by subsequent farming operations.

Bog forest may be found at the bottoms of wooded kettles such as Woodchuck Hollow and at the margins of Round Pond and the Devil's Bathtub. In such habitats grow species not found elsewhere in the area—e.g., pink ladyslipper (*Cypripedium acaule*), goldthread (*Coptis groenlandica*), bunchberry (*Cornus canadensis*), and shinleaf (*Pyrola asarifolia* var. *incarnata*). Forty years ago a more extensive bog forest containing a considerable stand of tamarack occurred west of Hundred Acre Pond, and was known as a "huckleberry swamp." Although draining, cutting, peat removal and various other activities of man have greatly altered the flora so that it now appears as swamp forest dominated by red maple and blackberries, black spruce and a few other interesting bog forest species still persist in this woodlot.

Swamp forest. The most extensive swamp forests in Monroe County occupied low ground along the streams. Alluvial deposits characteristic of such habitats are almost absent around the Mendon Ponds, and the swamp-forest vegetation, where present (see fig. 3), has probably been derived secondarily from bog forest, as in the case mentioned in the preceding paragraph. Dominant trees of this secondary swamp forest community are red maple, American elm (*Ulmus americana*), basswood (*Tilia americana*), white ash (*Fraxinus americana*), and red ash (*F. pennsylvanica*). In this habitat several conspicuous species of ferns are usually abundant, cinnamon fern (*Osmunda cinnamomea*), interrupted fern (*O. Claytoniana*), and ostrich fern (*Pteretis nodulosa*).

Beech-maple forest. This forest type occurs on rich, well-drained soils and is considered to be a climax association. It is characterized in this area by three dominant species, sugar maple (*Acer saccharum*), beech



FIG. 4. The sluggish outlet to Quaker Pond, lined by the great bulrush (*Scirpus validus*) and choked with cow lily (*Najas variegata*). The edge of an extensive alder thicket may be seen at the right.

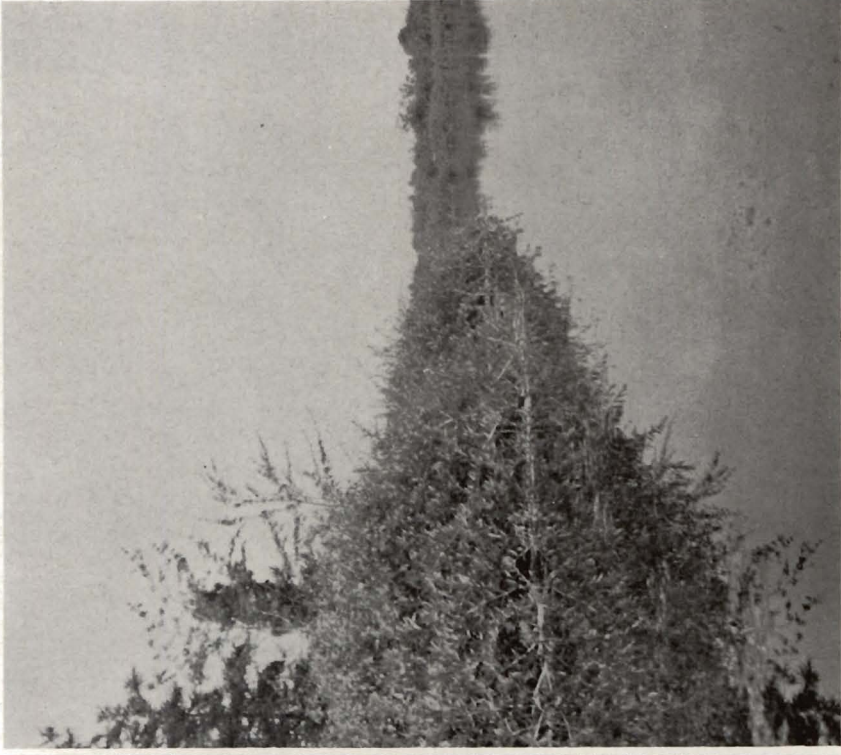


FIG. 5. A view looking north along the western shore of Quaker Pond. Here, the water willow (*Decodon verticillatus*) is invading the open water of the pond. The conifers at the left, which are also shown in the distance in figure 7, are tamarack (*Larix laricina*).



FIG. 6. A portion of the marly meadow north of Quaker Pond looking north from the point marked *x* in figure 3. The dominant species in the foreground are *Eleocharis rostellata*, with the recurved culms, *Juncus balticus* var. *littoralis*, and *Carex Buxbaumii*. The dark patches are shrubs of bayberry (*Myrica carolinensis*). In the background to the right is a young grove of aspen (*Populus tremuloides*).

FIG. 7. A view looking eastward toward Quaker Pond across a marsh meadow in which the dominant species are bluejoint (*Calamagrostis canadensis*) and sedges (particularly *Carex strictior*). The patch of bog conifers in the background are tamarack (*Larix laricina*) growing at the margin of the pond. In front of them may be seen a zone of shrubs composed of alder (*Alnus incana* var. *americana*) and various species of willow (including *Salix candida*, *S. Bebbiana*, and *S. discolor*).

(*Fagus grandifolia*) and basswood (*Tilia americana*). Associated with these are American elm, white ash, red maple, red oak (*Quercus borealis* var. *maxima*), shagbark hickory (*Carya ovata*), hop hornbeam (*Ostrya virginiana*), tulip tree (*Liriodendron Tulipifera*), wild black cherry (*Prunus serotina*), hornbeam (*Carpinus caroliniana* var. *virginiana*), witch hazel (*Hamamelis virginiana*), flowering dogwood (*Cornus florida*), and alternate-leaved dogwood (*Cornus alternifolia*). The ground cover includes a wide variety of woodland species, many of them vernal wild-flowers. A small patch of beech-maple woods may be found north of Canfield Road (see fig. 3).

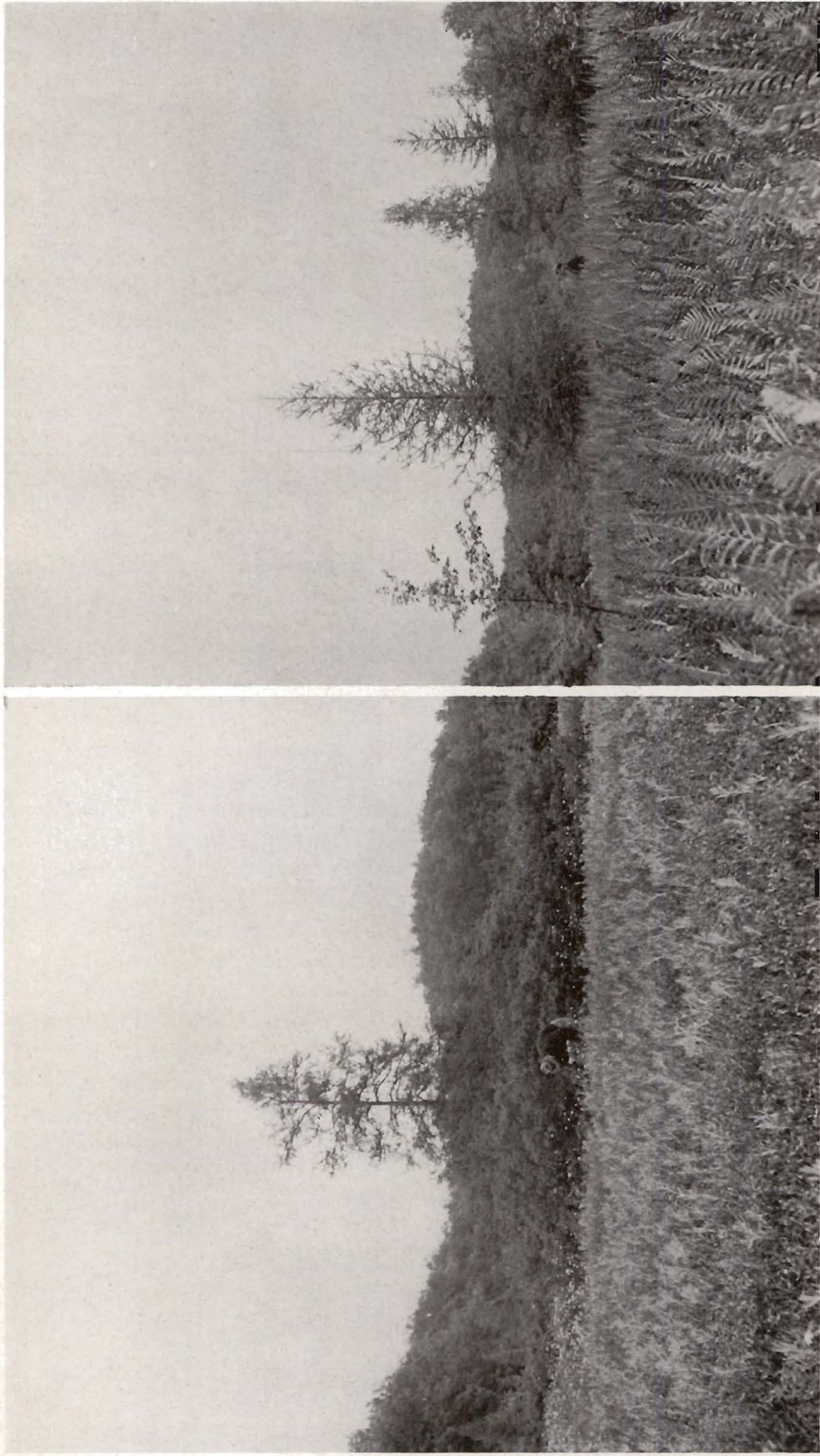
Upland oak forest. This is the most generally-distributed vegetation type within the Mendon Ponds area, occupying the well-drained sands and gravels of the kames and eskers. Formerly it must have been much more extensive, occupying most of the cleared land which has been pastured or under cultivation until recent years.

The dominant species are white oak (*Quercus alba*), red oak (*Q. borealis* var. *maxima*), black oak (*Q. velutina*), and shagbark hickory (*Carya ovata*). Numerous other tree species are also found in this association, including various other hickories (*Carya spp.*), white ash, red maple, wild black cherry, sassafras (*Sassafras albidum*), hop hornbeam (*Ostrya virginiana*), butternut (*Juglans cinerea*), slippery elm (*Ulmus fulva*), basswood, tulip tree, bur oak (*Quercus macrocarpa*), and chestnut (*Castanea dentata*). Smaller trees and shrubs include witch hazel (*Hamamelis virginiana*), choke cherry (*Prunus virginiana*), flowering dogwood, arrowwood (*Viburnum affine* var. *hypomalacum* and *V. acerifolium*), various species of shadbush (*Amelanchier*), and staghorn sumac (*Rhus typhina*).

Oak openings. In very dry situations on the over-drained, sandy glacial deposits and on the limestone outcrops, openings occurred in the original oak forests of the county. Shanks (1943) has assembled a considerable body of evidence derived from historical records and from recent vegetation studies to demonstrate the nature and extent of these so-called oak openings, a very good undisturbed example of which may still be found a short distance west of Five Points in the town of Rush.⁴ The openings apparently represent a remnant of a more generally-distributed prairie vegetation which extended far eastward of its present range (Transeau, 1935; Gordon, 1940) and which flourished during the "xerothermic phase" of the post-glacial period (Sears, 1932, 1942). Dryness of the habitat and occasional fires were probably major factors in maintaining these openings.

The sandy kame deposits in the vicinity of Mendon Ponds were a favorable place for the survival of these prairie plants, many of which may still be found within the area. These species must have originally

⁴For maps indicating the sites of oak openings see Shanks and Goodwin (1943), figs. 9, 10, 11, and 12.



FIGS. 8 and 9. Views of the heath in Kennedy's Bog. The undulating wooded crest of the western esker is shown in the background. Fig. 8. (Left) A stand of leatherleaf (*Chamaedaphne calyculata*) and bog rosemary (*Andromeda glaucophylla*). The white tufts are the fruiting heads of cotton grass (chiefly *Eriophorum virginicum*). The island of shrubs is composed chiefly of highbush blueberry (*Vaccinium corymbosum*) with some marginal specimens of black huckleberry (*Gaylussacia baccata*). The tree in the center is tamarack (*Larix laricina*), and black spruce (*Picea mariana*) may be seen in the background, to the right. Fig. 9. A luxuriant stand of the Virginia chain fern (*Woodwardia virginica*) about five feet high. Red maple (*Acer rubrum*) and tamarack are shown invading the bog. The man standing near the center of the picture is Dr. Royal E. Shanks.

occupied dry sterile sites on the tops and slopes of the kames and eskers, particularly along trails and about camp sites of the Indians (see Parker, 1920 and 1926), but it is almost certain that openings in these situations were not extensive. Due to the drastic changes which have taken place since white settlement, very few actual oak openings remain intact. In the Mendon Ponds area only a few square yards of this original vegetation have been found on a knoll northeast of Quaker Pond in an open stand of black oak and pignut hickory (*Carya glabra*). Here were found a considerable number of characteristic prairie species in an unbroken association. The turf was composed of **Andropogon scoparius*, **A. furcatus*, **Sorghastrum nutans*, **Poa compressa*, **Danthonia spicata*, **Panicum sphaerocarpon*, **Carex pennsylvanica*, **Juncus macer*, and **Luzula multiflora*. Among these were scattered plants of **Pteridium latiusculum*, **Lilium philadelphicum*, **Hypoxis hirsuta*, **Comandra umbellata*, **Fragaria virginiana*, **Desmodium canadense*, **Helianthemum canadense*, **Zizia aurea*, **Gaultheria procumbens*, **Vaccinium angustifolium*, **Pycnanthemum flexuosum*, **Areolaria pedicularia*, **Galium boreale*, **Campanula rotundifolia*, **Solidago bicolor*, **S. juncea*, **S. nemoralis*, **Aster laevis*, **Sericocarpus asteroides*, and **Antennaria plantaginifolia*. Numerous additional prairie species not necessarily confined to prairie habitats are found within the area, even though the original plant associations have been disturbed or even completely disrupted. Of the 273 species listed by Shimek (1911) from typical prairie habitats in Iowa, at least 91 (or 33 per cent) have been collected around the Mendon Ponds.

Cleared land and park policies. Since the formation of the Park in 1930 some of the cleared land has begun to revert to forest. The early stages of such a succession are best seen on some of the steep slopes of the eskers, where pastures and fields of golden rod (*Solidago* spp.) have been invaded first by brambles (*Rubus* spp.) and subsequently by sumac (*Rhus typhina* and *R. glabra*), hawthorn (*Crataegus* spp.), *Sassafras*, or willow (*Salix humilis* and other species).

Numerous sections have been extensively planted with various conifers, of which the only native species are white pine (*Pinus Strobus*) and arbor vitae (*Thuja occidentalis*). Some of the introduced species may be found in the annotated list. The groves which are developing from these plantings will be relatively sterile and uninteresting from a botanical standpoint, at least until such time as they may be invaded by the native vegetation.

From the preceding description of the vegetation of the area and from the annotated list of species which follows, it should be clear that within the boundaries of the Park may still be found many fascinating botanical and ecological features. The preservation of these features is, in the writer's opinion, compatible with the best interests of the many people

* Typical prairie species (see Shimek, 1911; Weaver and Fitzpatrick, 1934).

who use the Park as a recreation center. Roads, parking areas, picnic facilities, bathing beach, bridle paths, trails, etc., have already been adequately developed. Further encroachment of civilization would threaten the survival of those plant communities which contribute the most toward the natural beauty and scientific interest of the area. Inasmuch as some of these associations are virtually unique within the county, no adequate substitute could be found once they became destroyed.

Those who are interested in conservation should keep themselves informed as to developments in County Park policies in order to safeguard this fragment of our vanishing heritage. Recent lumbering, excavation of peat and gravel pit operations which have been carried out within the Park can scarcely net the county budgetary saving commensurate with the violence done to the natural features and should be stopped. Moreover, further landscaping of the roadsides with cultivated plants seems scarcely appropriate in an area so well known for its natural botanical attractions.

AN ANNOTATED LIST OF THE SPECIES OF VASCULAR PLANTS

In the following list the results of a large number of collecting trips to the vicinity of Mendon Ponds made during the past eighty years have been brought together. Among the botanists who have made substantial contributions to our knowledge of the flora of this area previous to 1938 should be mentioned Mr. George T. Fish, Mr. Joseph B. Fuller, Mr. Milton S. Baxter, Mr. Ellsworth P. Killip, Dr. Karl M. Wiegand, Mr. Warren A. Matthews, and Dr. Homer D. House. During the past five years the vegetation of the area has been surveyed by W. P. A. workers under the supervision of Dr. Royal E. Shanks as part of an ecological study of the vegetation of Monroe County sponsored jointly by the New York State Museum and the Monroe County Division of Regional Planning (Shanks, 1943). In 1939, Dr. Robert T. Clausen and Mr. W. A. Hinkey studied the aquatics in conjunction with the biological survey of the Ontario watershed (Clausen, 1940). The writer, accompanied on various occasions by Dr. Royal E. Shanks, Mr. Warren A. Matthews, Mr. William Stepka and others, has attempted to round out the record by adding and supplementing common species and recent introductions, by verifying earlier reports, and by noting the distribution and relative abundance of the various components of the flora. Although the list is still incomplete, it seems advisable to bring together the material available at the present time.

Certain conventions have been followed in the annotated list. Scientific names of native plants are printed in **bold face** type. Those of introduced species and common names are printed in SMALL CAPITALS. Nomenclature conforms insofar as possible with the International Rules. Wherever the scientific names differ from those of *Gray's Manual*, edi-

tion 7, of the *Annotated List of the Ferns and Flowering Plants of New York State* (House, 1924), or of the previously published lists of the flora of Monroe County, New York (Beckwith *et al.*, 1896, 1910, 1917), the synonyms are given in *italics*.

The sequence of the families and genera follows that of the *Genera Siphonogamarum* (Dalle Torre and Harms, 1907), an arrangement in use in most of our manuals. The only exception to this will be found in the *Gramineae* which follow Hitchcock (1935). Students will find excellent up-to-date keys for the identification of our native plants in the *Flora of the Cayuga Lake Basin, New York* (Wiegand and Eames, 1926) and in the *Flora of Indiana* (Deam, 1940). Most of the species listed will be found in either of these publications.

Information concerning specimens and literature reports is given in condensed form within brackets following the names. Letters refer to herbaria in which specimens are deposited. Numbers refer to published reports fully cited in the bibliography (page 297). Other literature references are cited by author and date. An index to the symbols and abbreviations used is given below.

- * Collected or seen by the author within the last five years.
- C Herbarium of Cornell University, College of Agriculture, Ithaca.
- HP Herbarium at Highland Park, Rochester.
- NYS Herbarium of the New York State Museum, Albany.
- R Herbarium of the University of Rochester. (Most of the specimens collected previous to 1930 are in the Herbarium of the Rochester Academy of Science, now on deposit with the University of Rochester.)
- USNM Herbarium of the United States National Museum, Washington, D. C.
- WAM Herbarium of Warren A. Matthews, Rochester.
 1. Beckwith and Macauley (1896).
 2. Beckwith, Macauley and Baxter (1910).
 3. Beckwith, Macauley and Baxter (1917).
 4. Clausen (1940).
 5. Shanks and Goodwin (1943).

OPHIOGLOSSACEAE

- Botrychium matricariaefolium** A. Br. (*B. ramosum* of Gray's Man., ed. 7; *B. neglectum* of House.) [1, p. 9] Reported only once from the area. No confirming specimens have been found.
- Botrychium virginianum** (L.) Sw. RATTLESNAKE FERN. [*R] Wooded portions of the area; occasional.
- Ophioglossum vulgatum** L. COMMON ADDER'S TONGUE. [2, R, WAM] Apparently rare. Last collected by *M. S. Baxter* in 1919.

OSMUNDACEAE

- Osmunda cinnamomea** L. CINNAMON FERN. [*] Swamp forest, throughout the area; common.
- Osmunda Claytoniana** L. INTERRUPTED FERN. [*] Similar habitats; not nearly as common as the preceding species.

Osmunda regalis L. var. **spectabilis** (Willd.) Gray. (Rhodora 21: 179. 1919.) (*O. regalis* L. of Gray's Man., ed. 7, and of Monroe Co. List.) ROYAL FERN. [*] Wet situations in open woods or at the edges of thickets around the ponds; frequent.

POLYPODIACEAE

Cystopteris fragilis (L.) Bernh. (*Felix fragilis* of House.) FRAGILE BLADDER FERN. [*R] Moist humus of the swamp forest; frequent.

Pteretis nodulosa (Michx.) Nieuwl. (Rhodora 21: 178. 1919.) (*Onoclea Struthiopteris* of Gray's Man., ed. 7, and of Monroe Co. List.) OSTRICH FERN. [*] Moist humus of the swamp forest, often in standing water; infrequent.

Onoclea sensibilis L. SENSITIVE FERN. [*R] Low ground in open woods, at the edges of marshes, along roadsides, etc.; abundant.

Dryopteris cristata (L.) Gray var. **Clintoniana** (D. C. Eaton) Underw. (*Aspidium cristatum* var. *Clintonianum* of Gray's Man., ed. 7, and of Monroe Co. List; *Thelypteris Clintoniana* of House.) CLINTON'S WOODFERN. [R]

Dryopteris hexagonoptera (Michx.) C. Chr. (*Phegopteris hexagonoptera* of Gray's Man., ed. 7, and of Monroe Co. List; *Thelypteris hexagonoptera* of House.) BROAD BEECH FERN. [*] In beech-maple woods; infrequent.

Dryopteris Linnaeana C. Chr. (*Phegopteris Dryopteris* of Gray's Man., ed. 7, and of Monroe Co. List; *Thelypteris Dryopteris* of House.) OAK FERN. [1]

Dryopteris marginalis (L.) Gray. (*Aspidium marginale* of Gray's Man., ed. 7, and of Monroe Co. List; *Thelypteris marginalis* of House.) MARGINAL SHIELD FERN. [*] Moist slopes among mixed hardwoods; occasional.

Dryopteris noveboracensis (L.) Gray. (*Aspidium noveboracense* of Gray's Man., ed. 7, and of Monroe Co. List; *Thelypteris noveboracensis* of House.) NEW YORK FERN. [*]

Dryopteris spinulosa (O. F. Müller) Ktze. (*Aspidium spinulosum* of Gray's Man., ed. 7, and of Monroe Co. List; *Thelypteris spinulosa* of House.) SPINULOSE SHIELD FERN. [*R] Moist humus of the swamp forest.

Dryopteris spinulosa var. **intermedia** (Muhl.) Underw. (Rhodora 21: 178. 1919; 22: 196. 1920.) (*Thelypteris intermedia* of House.) [*R] Habitat the same as that of the species.

Dryopteris Thelypteris (L.) Gray var. **pubescens** (Lawson) A. R. Prince. (*Aspidium Thelypteris* of Gray's Man., ed. 7, and of Monroe Co. List; *Thelypteris Thelypteris* of House.) MARSH FERN. [*R] Marshes surrounding the ponds; abundant.

- Polystichum acrostichoides** (Michx.) Schott. (*Aspidium acrostichoides* of Monroe Co. List.) CHRISTMAS FERN. [*R] Wooded slopes of the eskers; frequent.
- Athyrium angustum** (Willd.) Presl. (Rhodora 19: 190-197. 1917.) (*Asplenium Felix-femina* of Gray's Man., ed. 7, and of Monroe Co. List.) LADY FERN. [Edson, 1928] Dry woods.
- Asplenium platyneuron** (L.) Oakes. (*A. ebeneum* of Monroe Co. List.) EBONY SPLEENWORT. [1, R] One specimen was collected by M. S. Baxter in a "huckleberry swamp" in 1896. This species apparently has never been found since.
- Woodwardia virginica** (L.) Sm. (*Anchistea virginica* of House.) VIRGINIA CHAIN FERN. [*R, 1] In the sphagnum of Kennedy's Bog (see fig. 9); a dominant species in this habitat, but not found elsewhere.
- Adiantum pedatum** L. MAIDENHAIR FERN. [*] Moist slopes in beech-maple woods or under mixed hardwoods; infrequent.
- Pteridium latiusculum** (Desv.) Hieronymus. (*Pteris aquilina* of Gray's Man., ed. 7, and of Monroe Co. List.) BRACKEN. [*] Dry open woods and abandoned pastures on the slopes of the kames and eskers; common.

EQUISETACEAE

- Equisetum arvense** L. FIELD HORSETAIL. [*] Moist sandy soil in fields and along roadsides; common.
- Equisetum fluviatile** L. (*E. limosum* of Monroe Co. List.) WATER HORSETAIL. [*R, 5] In standing water at the edge of Hundred Acre Pond; rare.
- Equisetum praealtum** Raf. (*E. hyemale* var. *affine* of Gray's Man., ed. 7; *E. hyemale* of Monroe Co. List.) TALL SCOURING-RUSH. [*R] Shaded or open, moist sandy slopes; occasional.
- Equisetum sylvaticum** L. [*] Wet shady places; infrequent.

LYCOPODIACEAE

- Lycopodium flabelliforme** (Fern.) Blanchard. (Rhodora 13: 168-171. 1911.) (*L. complanatum* L. var. *flabelliforme* Fern.) [*]
- Lycopodium lucidulum** Michx. SHINING CLUBMOSS. [*R] Only one locality in the swamp forest; scarce.
- Lycopodium obscurum** L. GROUNDPIKE. [*R] Found only with the preceding species; scarce.

PINACEAE

- PINUS NIGRA Arnold var. AUSTRIACA Aschers. & Graebn. AUSTRIAN PINE. [*] Planted.
- PINUS RESINOSA Ait. RED PINE. [*] Planted.

- Pinus Strobus** L. WHITE PINE. [*5] Planted extensively. A natural station may be found in a boggy depression just west of Clover Street.
- PINUS SYLVESTRIS** L. SCOTCH PINE. [*] Planted.
- Larix laricina** (DuRoi) Koch. (*L. americana* of Monroe Co. List.) LARCH. TAMARACK. [*5] Sphagnum bogs, wet marly meadows and various places near the margins of the ponds (see figs. 7 and 8). This species is still frequent but was formerly more abundant.
- PICEA ABIES** (L.) Karst. NORWAY SPRUCE. [*R] Planted.
- PICEA CANADENSIS** (Mill.) BSP. (*P. glauca* of House.) WHITE SPRUCE. [*R] Planted.
- Picea mariana** (Mill.) BSP. (*P. nigra* of Monroe Co. List.) BLACK SPRUCE. [*R, 1] In Kennedy's Bog, abundant; also found as scattered trees in two or three other localities in remnants of the bog forest. This species has been reported from only one other station in the county.
- Thuja occidentalis** L. (*Thuya* of Monroe Co. List.) ARBOR VITAE. WHITE CEDAR. [*5] In a small sphagnum bog beside the western esker; also planted in several places.

TYPHACEAE

- Typha angustifolia** L. var. **elongata** (Dudley) Wieg. (Rhodora 26: 1. 1924.) (*T. latifolia* var. *elongata* of Monroe Co. List.) NARROW-LEAVED CATTAIL. [*] Marshes; not nearly as common as *T. latifolia*.
- Typha latifolia** L. BROAD-LEAVED CATTAIL. [*] Marshes; frequent, but nowhere forming extensive stands.

NAJADACEAE⁵

- Potamogeton**. PONDWEED.
- Potamogeton americanus** Cham. & Schlecht. (*P. lonchitis* of House; *P. fluitans* of Monroe Co. List.) [*R, 4, 5] In Hundred Acre, Deep, and Quaker Ponds; common to frequent.
- Potamogeton amplifolius** Tuckerm. [NYS, 5]
- Potamogeton angustifolius** Berch. & Presl. [*R, 4, 5] In Hundred Acre, Deep, and Quaker Ponds; abundant to frequent.
- Potamogeton Burchardii** Fieb. (Rhodora 42: 246. 1940.) (*P. pusillus* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) [*4, 5] In Hundred Acre Pond; frequent.
- Potamogeton compressus** L. (*P. zosterifolius* of Gray's Man., ed. 7, and of Monroe Co. List; *P. zosteriformis* Fern.) [*R, 4, 5] In Quaker Pond; common.

⁵ Notes on distribution have been taken from Clausen (1940). I am indebted to Dr. W. C. Muenscher for determinations of the specimens of *Potamogeton* in the Herbarium of the University of Rochester.

- Potamogeton gramineus** L. var. **graminifolius** Fries. (*P. heterophyllus* of Gray's Man., ed. 7, and of Monroe Co. List.) [*R, 4, 5] In Hundred Acre Pond; common.
- Potamogeton natans** L. [*R, 4, 5] In Hundred Acre and Quaker Ponds; frequent.
- Potamogeton pectinatus** L. [*R, 4, 5] In Hundred Acre, Deep, and Quaker Ponds; abundant to common.
- Potamogeton praelongus** Wulf. [*R, 4, 5] In Hundred Acre Pond; common. In Deep Pond; rare. This is a rare species not reported elsewhere within the county.
- Potamogeton strictifolius** Benn. var. **rutiloides** Fern. (Memoirs Gray Herb. 3: 57-60. 1932.) [*R, NYS, 4, 5] In 2-4 feet of water in Hundred Acre, Deep, and Quaker Ponds; abundant to frequent. This is the only station for this species within the county.
- Najas flexilis** (Willd.) Rostk. & Schmidt. NAIAD. [*R, C, 4, 5] A submerged aquatic. Hundred Acre Pond; abundant. Deep Pond; rare.
- Najas marina** L. LARGE NAIAD. [*C, 4, 5] In three feet of water, Hundred Acre Pond; frequent.

JUNCAGINACEAE

- Triglochin palustris** L. ARROW-GRASS. [*R, 5] In wet depressions in the marly meadows north of Quaker Pond, associated with *Rynchospora capillacea* and *Scleria verticillata*; rare.
- Scheuchzeria palustris** L. var. **americana** Fern. (Rhodora 25: 177-179. 1923.) (*S. palustris* of Gray's Man., ed. 7, and of Monroe Co. List.) [*R, C, 1] In sphagnum, Kennedy's Bog; rare.

ALISMACEAE

- Alisma Plantago-aquatica** L. (*A. subcordatum* of House; *A. Plantago* of Monroe Co. List.) WATER PLANTAIN. [*R] In mucky soil at the edges of the ponds; frequent. This is the species with large achenes. One shallow slough just west of Clover Street has been completely covered by it.
- Alisma Plantago-aquatica** var. **parviflorum** (Pursh) Farwell. [*R, 5] Margin of Quaker Pond outlet, in a wet muddy pasture.
- Sagittaria latifolia** Willd. (*S. variabilis* of Monroe Co. List.) ARROW-HEAD. [*R] Muddy borders of the streams and ponds; frequent. Specimens of *S. latifolia* forma *hastata* (Pursh) Robinson have also been collected [*R].

HYDROCHARITACEAE

- Anacharis canadensis** (Michx.) Planch. (*Elodea canadensis* of Gray's Man., ed. 7, and of Monroe Co. List; *Philotria canadensis* of House.) WATERWEED. [*R, 4] A submerged aquatic of the ponds; common.

Vallisneria americana Michx. (*Rhodora* 20: 108-110. 1918.) (*V. spiralis* of Gray's Man., ed. 7, of House, and of Monroe Co. List.)
EEL GRASS. WILD CELERY. [*R, 4] A submerged aquatic; frequent in Hundred Acre Pond.

GRAMINEAE⁶

- Bromus ciliatus** L. FRINGED BROME. [*R] Wet marly meadows; infrequent.
- BROMUS COMMUTATUS** Schrad. HAIRY CHESS. [*R, 5] A roadside adventive.
- Bromus Kalmii** Gray. [R, 1]
- BROMUS SECALINUS** L. CHESS. [*R] A weed of cultivated fields and roadsides.
- BROMUS TECTORUM** L. DOWNY CHESS. [*R] A weed of roadsides and waste places; frequent.
- FESTUCA ELATIOR** L. MEADOW FESCUE. [*R] A weed of meadows and roadsides; frequent.
- Festuca obtusa** Spreng. (*F. nutans* of Gray's Man., ed. 7, and of Monroe Co. List.) NODDING FESCUE. [R] Open woods. Collected by *E. P. Killip* in 1919.
- Glyceria grandis** Wats. (*Panicularia grandis* of House.) AMERICAN MANNAGRASS. [*R] Wet soil in marshes.
- Glyceria striata** (Lam.) Hitchc. (*G. nervata* of Gray's Man., ed. 7, and of Monroe Co. List; *Panicularia striata* of House.) FOWL MANNA-GRASS. [*R] Wet mud in shady places.
- Poa alsodes** Gray. [*R] Moist woods.
- POA ANNUA** L. ANNUAL BLUEGRASS. [*] Lawns and cultivated ground; common.
- POA COMPRESSA** L. CANADA BLUEGRASS. [*R] Dry open hillsides; abundant.
- Poa languida** Hitchc. (*P. debilis* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) [3]
- POA PRATENSIS** L. KENTUCKY BLUEGRASS. [*] Open woods, fields and open ground; abundant.
- DACTYLIS GLOMERATA** L. ORCHARD GRASS. [*R] Fields, meadows and roadsides; common.
- Phragmites communis** Trin. (*Phragmites Phragmites* of House.) REED GRASS. [*R, 1] A conspicuous grass in portions of the wet marshes around Quaker Pond; infrequent.
- Schizachne purpurascens** (Torr.) Swallen. (*Melica striata* of Gray's Man., ed. 7; *Melica purpurascens* of House; *Avena striata* of Monroe Co. List.) [2]

⁶ In this family the sequence of genera and the nomenclature of Hitchcock (1935) have been followed. I am indebted to Mrs. Agnes Chase of the U. S. National Museum for identification of critical material including all specimens of the genus *Panicum*.

- AGROPYRON REPENS (L.) Beauv. QUACKGRASS. [*R] A weed of roadsides and cultivated ground; abundant.
- Agropyron subsecundum** (Link) Hitchc. (Amer. Jour. Bot. 21: 131. 1934.) (*A. caninum* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) BEARDED WHEATGRASS. [R, 5]
- TRITICUM AESTIVUM L. WHEAT. [*R] An occasional escape.
- Hystrix patula** Moench. (*H. Hystrix* of House; *Asprella Hystrix* of Monroe Co. List.) BOTTLEBRUSH. [R] Collected by *E. P. Killip* in 1915.
- Sphenopholis intermedia** (Rydb.) Rydb. (*S. pallens* of Gray's Man., ed. 7, and of House; probably *Eatonia pennsylvanica* of Monroe Co. List.) SLENDER WEDGEGRASS. [R, 5]
- Sphenopholis nitida** (Spreng.) Scribn. (*Eatonia Dudleyi* of Monroe Co. List.) WEDGEGRASS. [*R, 5] Dry wooded hillsides.
- ARRHENATHERUM ELATIUS (L.) Mert. & Koch. (*A. avenaceum* of Monroe Co. List.) TALL OATGRASS. [R, 5] A roadside weed.
- HOLCUS LANATUS L. (*Notholcus lanatus* of House.) VELVET GRASS. [*R, 5] A roadside adventive; scarce.
- Danthonia spicata** (L.) Beauv. POVERTY OATGRASS. [*R] A grass of openings and open woods especially on the crests and slopes of the eskers; common.
- Calamagrostis canadensis** (Michx.) Beauv. BLUEJOINT. [*R, C] In the marshes, particularly around Quaker Pond, where it is a dominant species over considerable areas (see fig. 7).
- Calamagrostis inexpansa** Gray. NORTHERN REEDGRASS. [*R, 5] Marly marsh meadows north of Quaker Pond; apparently much less frequent than *C. canadensis*.
- AGROSTIS ALBA L. (*A. palustris* of House.) REDTOP. [*R] Meadows and pastures; abundant.
- AGROSTIS PALUSTRIS Huds. (*A. alba* var. *maritima* of Gray's Man., ed. 7; *A. maritima* of House.) CREEPING BENT. [R] Collected by *M. S. Baxter*, 1917.
- Agrostis perennans** (Walt.) Tuckerm. AUTUMN BENT. [R, C] Sandy woods.
- Alopecurus aequalis** Sobol. (*A. geniculatus* var. *aristulatus* of Gray's Man., ed. 7, and of Monroe Co. List.) SHORT-AWN FOXTAIL. [*R] In the shallow water of depressions which usually dry up in the summer and fall.
- PHLEUM PRATENSE L. TIMOTHY. [*R] A common escape along roadsides and in fields.
- Muhlenbergia foliosa** (Roem. & Schult.) Trin. [*R] Marshes and wet thickets.
- Muhlenbergia racemosa** (Michx.) BSP. (*M. glomerata* of Monroe Co. List.) MARSH MUHLY. [*R] Marshes north of Quaker Pond; frequent.

- Muhlenbergia tenuiflora** (Willd.) BSP. (*M. Willdenowii* of Monroe Co. List.) [1] Reported as growing on sandy knolls.
- Sporobolus vaginiflorus** (Torr.) Wood. [*R] In rock fill along roadsides.
- Oryzopsis asperifolia** Michx. [R] Collected by *E. P. Killip* in 1921.
- Hierochloë odorata** (L.) Beauv. (*Torresia odorata* of House; *H. borealis* of Monroe Co. List.) SWEETGRASS. [*R, 3] Open marshes and moist stream banks.
- ANTHOXANTHUM ODORATUM L. SWEET VERNALGRASS. [R] Collected by *E. P. Killip* in 1916.
- Phalaris arundinacea** L. REED CANARY GRASS. [*R] Marshes around the ponds; infrequent.
- Leersia oryzoides** (L.) Swartz. (*Homalocenchrus oryzoides* of House.) RICE CUTGRASS. [*R] Wet places particularly at or near the edges of the marshes; frequent.
- DIGITARIA ISCHAEMUM (Schreb.) Muhl. (*D. humifusa* of Gray's Man., ed. 7; *Syntherisma Ischaemum* of House; *Panicum glabrum* of Monroe Co. List.) SMOOTH CRABGRASS. [*R] A weed of fields and farmyards.
- DIGITARIA SANGUINALIS (L.) Scop. (*Syntherisma sanguinalis* of House; *Panicum sanguinale* of Monroe Co. List.) CRABGRASS. [*R] A weed of fields and abandoned farmyards; common.
- Paspalum pubescens** Muhl. (*P. Muhlenbergii* of Monroe Co. List.) [*R] Sandy hillsides.
- Panicum barbulatum** Michx. [*USNM, 5] Dry wooded slopes of an esker.
- Panicum boreale** Nash. [C, 5] Sandy fields.
- Panicum capillare** L. WITCHGRASS. [*R] A weed of dry sandy fields; common.
- Panicum dichotomum** L. [*R, 5] Dry fields.
- Panicum huachucae** var. **fasciculatum** (Torr.) F. T. Hubb. (*P. huachucae* var. *silvicola* of Gray's Man., ed. 7, and of House.) [C, 5] Dry sandy fields.
- Panicum latifolium** L. (*P. macrocarpon* of Monroe Co. List.) [*USNM, 5] Dry wooded slopes of an esker.
- Panicum linearifolium** Scribn. [*USNM, 5] Dry wooded slopes of an esker.
- Panicum Scribnerianum** Nash. [3, 5]
- Panicum sphaerocarpon** Ell. [*R, 5] Dry slopes of the eskers; common. Depauperate specimens were also collected in wet marly meadows.
- Panicum subvillosum** Ashe. [R, 5] Dry sandy soil.
- Panicum tsugetorum** Nash. [R, 5]
- Echinochloa crusgalli** (L.) Beauv. (*Panicum crusgalli* of Monroe Co. List.) BARNYARD GRASS. [*R] A weed of fields and roadsides and many other habitats; common.

- SETARIA LUTESCENS** (Weigel) F. T. Hubb. (*S. glauca* of Gray's Man., ed. 7, and of Monroe Co. List; *Chaetochloa lutescens* of House.)
YELLOW BRISTLEGRASS. YELLOW FOXTAIL. [R, 5] Fields, roadsides and waste ground; common.
- SETARIA VIRIDIS** (L.) Beauv. (*Chaetochloa viridis* of House.) GREEN BRISTLEGRASS. GREEN FOXTAIL. [*R] A weed of roadsides and cultivated ground; common.
- Andropogon furcatus** Muhl. TALL BLUESTEM. [*R, 5] In the remnants of oak openings; infrequent.
- Andropogon scoparius** Michx. LITTLE BLUESTEM. [*R, 5] Dry sandy soils, on the slopes of the eskers, and in oak openings where disturbances of the vegetation have not been too recent; common.
- Sorghastrum nutans** (L.) Nash. (*Chrysopogon nutans* of Monroe Co. List.) INDIAN GRASS. [*R, 5] In the remnants of oak openings and in the dryer portions of the marly marsh meadows; occasional.

CYPERACEAE¹

- Cyperus diandrus** Torr. [*R] Muddy margins of ponds and streams; infrequent.
- Cyperus filiculmis** Vahl. var. **macilentus** Fern. (*Rhodora* 37: 153-154. 1935.) [*R, C, 5] Dry soil on the open tops of the kames and eskers; infrequent.
- Cyperus rivularis** Kunth. [*R, C, 5] Muddy margins of Quaker Pond; infrequent.
- Cyperus strigosus** L. [*R] On the muddy banks of ditches, etc.
- Dulichium arundinaceum** (L.) Britt. (*D. spathaceum* of Monroe Co. List.) [*R, 1] In sphagnum in Kennedy's Bog; rare.
- Eriophorum**. COTTON GRASS.
- Eriophorum angustifolium** Roth. (*E. polystachyon*, in part, of Monroe Co. List.) [R] Collected by *G. T. Fish* in 1867.
- Eriophorum gracile** Koch. [*R, 1] In sphagnum in Kennedy's Bog; rare.
- Eriophorum virginicum** L. (Including *E. virginicum* var. *album* Gray.) [*R, 1] In sphagnum, particularly in Kennedy's Bog, where locally abundant (see fig. 8).
- Eriophorum viridi-carinatum** (Engelm.) Fern. (*E. polystachyon*, in part, of Monroe Co. List.) [R] In the marshes around Quaker Pond. Collected by *E. P. Killip* in 1919.
- Scirpus acutus** Muhl. (*S. occidentalis* of Gray's Man., ed. 7, and of Monroe Co. List.) BULRUSH. [*R, 5] In water along the margin of ponds; common.

¹ I am indebted to Dr. Henry K. Svenson for the determination of specimens of *Scirpus*, *Cyperus*, and *Eleocharis*; to Dr. Royal E. Shanks and Dr. Frederick J. Hermann for assistance in the identification of specimens of *Carex* and *Eriophorum*. The nomenclature of the genus *Carex* is that of K. K. Mackenzie (*North American Flora* 18: 1-478. 1931-1935.) unless otherwise indicated.

- Scirpus atrovirens** Muhl. [*R] Along the shores of the ponds; frequent.
- Scirpus atrovirens** var. **georgianus** (Harper) Fern. (Rhodora 23: 134. 1921.) (*S. georgianus* of Gray's Man., ed. 7.) [5] No specimens of this variety have been seen.
- Scirpus cyperinus** (L.) Kunth. (*Eriophorum cyperinum* of Monroe Co. List.) WOOL GRASS. [*R] In wet swales and marshes; common.
- Scirpus cyperinus** var. **pelius** Fern. [*R] Habitat same as that of the species. This variety has not previously been recorded for the county.
- Scirpus lineatus** Michx. [*R] On the dryer, undisturbed banks of the ponds; scarce.
- Scirpus pedicellatus** Fern. [*R, 5] Found in a wet depression; scarce.
- Scirpus planifolius** Muhl. [*R, 5] Oak woods on the dry slopes of the eskers; frequent.
- Scirpus polyphyllus** Vahl. [*R, 5] Boggy woods.
- Scirpus validus** Vahl. (*S. lacustris* of Monroe Co. List.) GREAT BUL-RUSH. [*R, 5] In the marshes around the ponds; abundant (see fig. 4).
- Eleocharis.** SPIKERUSH.
- Eleocharis calva** Torr. (*E. palustris*, in part, of recent authors.) [*R, 5] At the muddy margins of the ponds; frequent.
- Eleocharis elliptica** Kunth. (Rhodora 41: 65. 1939.) [R, 5]
- Eleocharis equisetoides** (Ell.) Torr. (*E. interstincta* of Gray's Man., ed. 7, and of House.) [R, 5] This is the only record for the species within the state. It was reported by *W. A. Matthews* in 1920 as growing in standing water at the edge of Hundred Acre Pond. It apparently no longer occurs at this station.
- Eleocharis intermedia** (Muhl.) Schultes. (*E. reclinata* of House.) (Rhodora 41: 67. 1939.) [*R] On exposed mud at the edges of ponds and streams. *H. K. Svenson* has reported this station (Rhodora 39: 263. 1937.).
- Eleocharis obtusa** (Willd.) Schultes. (*E. ovata* of Monroe Co. List.) [*R] On the muddy shores of ponds and sloughs; frequent.
- Eleocharis olivacea** Torr. [R, 2] Collected on a floating island by *M. S. Baxter* in 1897 and again in 1907.
- Eleocharis pauciflora** (Lightf.) Link. (*Scirpus pauciflorus* of Gray's Man., ed. 7, and of House.) [*R, 5] At the edge of muddy pools in the marsh meadow north of Quaker Pond; rare. This is the first record for this species within the county.
- Eleocharis rostellata** Torr. [*R, 5] In the marly meadows north of Quaker Pond; abundant in this habitat (see fig. 6). This is the first authentic record for this species from the county.

- Cladium mariscoides** (Muhl.) Torr. TWIGRUSH. [*R, 1] Marly meadows and at the margins of ponds; infrequent.
- Rynchospora alba** (L.) Vahl. BEAKRUSH. [*R, 1] In sphagnum bogs and marly meadows; frequent.
- Rynchospora capillacea** Torr. BEAKRUSH. [*R, C, 5] Marly springy places; scarce.
- Scleria verticillata** Muhl. NUTRUSH. [*R, 1] Growing in marly springy places with *Rynchospora capillacea*; rare.
- Carex.** SEDGE.
- Carex albursina** Sheldon. (*C. laxiflora* var. *latifolia* of Gray's Man., ed. 7, and of Monroe Co. List.) [*R, 5] On the steep slopes of the eskers in oak woods; frequent.
- Carex angustior** Mack. (*C. stellulata* var. *angustata* of Gray's Man., ed. 7, and of Monroe Co. List.) [R, 3] Listed as scarce by *M. S. Baxter*.
- Carex artitecta** Mack. (*C. varia*, including var. *colorata*, of Gray's Man., ed. 7, of House, and of Monroe Co. List.) [*R] In oak woods on the slopes of the eskers. A specimen referred to the variety was collected by *E. P. Killip* in 1919.
- Carex atlantica* Bailey. (See note on *C. sterilis*.)
- Carex aurea** Nutt. [R] Collected by *E. P. Killip* in 1915.
- Carex Bebbii** Olney. (*C. tribuloides* var. *Bebbii* of Monroe Co. List.) [*R] Marshes.
- Carex blanda** Dewey. (*Carex laxiflora* var. *blanda* of Gray's Man., ed. 7, and of Monroe Co. List.) [*R, 3, 5] Dry wooded slopes of the eskers; frequent.
- Carex bromoides** Schk. [*R] Wet woods.
- Carex Buxbaumii** Wahl. (*C. polygama* of Gray's Man., ed. 7; *C. fusca* of Monroe Co. List.) [*R, 5] In the marly meadows and marshes around Quaker Pond; frequent in this habitat (see fig. 6).
- Carex canescens** L. [*R, 5] In sphagnum bogs.
- Carex canescens** var. *disjuncta* Fern. [*R, 5] In sphagnum in Kennedy's Bog.
- Carex canescens** var. *subloliacea* Laest. [*R, 5] In sphagnum in Kennedy's Bog.
- Carex Careyana** Torr. [2]
- Carex castanea** Wahl. [R, 5] Sphagnum bogs. Collected by *E. P. Killip* and later by *M. S. Baxter* between 1917 and 1918.
- Carex cephalophora** Muhl. [*R] In the dryer wooded areas; common.
- Carex communis** Bailey. [*R] In oak woods on the slopes of the eskers; common.
- Carex comosa** Boott. (*C. Pseudo-Cyperus* var. *americana* of Monroe Co. List.) [*R] In marshes around the ponds, often in shallow water; common.

- Carex comosa* × *C. retrorsa*. [R, 5] One plant of this hybrid was collected by *M. S. Baxter* in 1911. No other collections have been seen.
- Carex conoidea* Schk. [R, 5] Collected by *M. S. Baxter* near Quaker Pond in 1917.
- Carex convoluta* Mack. (Bull. Torrey Bot. Club 43: 428. 1916.) [*R, 5] Dry woods.
- Carex cristatella* Britt. (*C. cristata* of Gray's Man., ed. 7; *C. tribuloides* var. *cristata* of Monroe Co. List.) [*R] Moist oak woods.
- Carex cryptolepis* Mack. (Torreya 14: 156. 1914.) (*C. flava*, in part, of Gray's Man., ed. 7, and of Monroe Co. List.) [*R, 5] Marshes and wet meadows; infrequent.
- Carex diandra* Schrank. (*C. teretiuscula* of Monroe Co. List.) [*R, USNM] At the marly margin of Round Pond.
- Carex digitalis* Willd. [*R] On dry slopes in oak woods.
- Carex exilis* Dewey. [*R, 5] Marly marsh meadows around Quaker Pond.
- Carex flava* L. [*R] In marly marshes south of Quaker Pond.
- Carex gracillima* Schwein. [*R] Moist woods.
- Carex granularis* Muhl. [R] Collected by *E. P. Killip* near Quaker Pond in 1919.
- Carex Grayii* Carey. (*C. Asa-grayi* of House.) [5] At the edge of swampy woods north of Hundred Acre Pond.
- Carex Haleana* Olney. (*C. granularis* var. *Haleana* of Gray's Man., ed. 7, and of Monroe Co. List; *C. Shriveri* of House.) [*R, 5] Moist woods.
- Carex Howei* Mack. (Bull. Torrey Bot. Club 37: 245. 1910.) (*C. scirpoides* var. *capillacea* of Gray's Man., ed. 7.) [*R, 5] On mossy hummocks in wet boggy woods.
- Carex hystericina* Muhl. [*R] Swamps and boggy places.
- Carex interior* Bailey. (*C. scirpoides* of Gray's Man., ed. 7.) [R, 2]
- Carex intumescens* Rudge. [R] Collected by *M. S. Baxter* in 1895.
- Carex lacustris* Willd. (*C. riparia* of Gray's Man., ed. 7, and of Monroe Co. List.) [*R] In the marshes around the ponds; common.
- Carex laevivaginata* (Kükenth.) Mack. (Rhodora 17: 231. 1915.) (*C. stipata*, in part, of Gray's Man., ed. 7.) [*R, 5] Boggy woods.
- Carex lanuginosa* Michx. (*C. filiformis* var. *latifolia* of Monroe Co. List.) [*R] In marshy places.
- Carex lasiocarpa* Ehrh. (*C. filiformis* of Gray's Man., ed. 7, and of Monroe Co. List.) [R, 5] In the marshes around Quaker Pond.
- Carex laxiflora* Lam. (Including *C. laxiflora* var. *patulifolia*.) [*R, 5] Dry oak woods.
- Carex leptalea* Wahl. (*C. polytrichoides* of Monroe Co. List.) [*R] In sphagnum bogs; where abundant.

- Carex limosa** L. [*R, C, 1] In sphagnum in the marsh meadow north of Quaker Pond and in Kennedy's Bog; scarce.
- Carex livida** (Wahl.) Willd. [R, 5] Collected by *M. S. Baxter* in 1917 and 1919.
- Carex lupulina** Muhl. (Including *C. lupulina* var. *pedunculata*.) [*R] Wet swales; infrequent.
- Carex lurida** Wahl. [*R] In wet places around the ponds; common.
- Carex Muhlenbergii** Schk. [R, 1] On sandy knolls.
- Carex Muhlenbergii** var. **enervis** Boott. (*C. plana* of House.) [*R, 5] On the open crests of the dry gravelly eskers; infrequent.
- Carex normalis** Mack. (*C. mirabilis* of Gray's Man., ed. 7; *C. straminea* var. *mirabilis* of Monroe Co. List.) [*R] Dry open woods.
- Carex pallescens** L. [R, 5] Moist meadows.
- Carex pennsylvanica** Lam. [*R] In oak woods on the dry slopes of the eskers.
- Carex plantaginea** Lam. [*] In moist beech-maple woods.
- Carex prairea** Dewey. (*C. diandra* var. *ramosa* of Gray's Man., ed. 7; *C. teretiuscula* var. *ramosa* of Monroe Co. List.) [*R] In marsh meadows.
- Carex Pseudo-Cyperus** L. [*R] In the marshes around the ponds; common.
- Carex radiata** (Wahl.) Dewey. (*C. rosea* var. *radiata* of Gray's Man., ed. 7, and of Monroe Co. List.) [R] Collected by *M. S. Baxter* in 1918.
- Carex retrorsa** Schwein. [*R] In wet places; infrequent.
- Carex rosea** Schk. [*R] Moist woods; frequent.
- Carex Sartwellii** Dewey. [*R, 5] Wet marshy meadows; rare.
- Carex siccata** Dewey. [R, 5] Dry kames southeast of Round Pond.
- Carex sterilis** Willd. (*C. echinata* var. *microstachys* and *C. atlantica* of Monroe Co. Lists.) [*R] Marly marsh meadows. This species was collected by *H. D. House* (N. Y. State Mus. Bull. 254: 166. 1924.), and a collection by *E. P. Killip* was erroneously listed as *C. atlantica* [3].
- Carex stipata** Muhl. [*R] In wet places; common.
- Carex stricta** Lam. [R] Quaker Pond marsh. Collected by *E. P. Killip*, 1917.
- Carex strictior** Dewey. (Mackenzie, North Amer. Flora 18: 404. 1935.) (Probably *C. stricta*, in part, of Monroe Co. List.) [*R, 5] Extensive stands of this and the following species may be found in the marshes and marsh meadows, particularly south of Deep Pond and south of Quaker Pond (see fig. 7). These sedges form dense beds or may be found invading the shallow water of Deep Pond as tussocks.

- Carex substricta** (Kükenth.) Mack. (Rydberg, Flora Rocky Mts., 139. 1917.) (*C. aquatilis*, in part, of Gray's Man., ed. 7, and of Monroe Co. List.) [*R, 5] Habitat same as for the preceding species. Previously listed from the area as *C. aquatilis* [1].
- Carex tetanica** Schk. [*R, 5] Marly marsh meadows north of Quaker Pond.
- Carex tribuloides** Wahl. [*R] In wet swales.
- Carex trisperma** Dewey. [*R, 1] In the sphagnum bogs; abundant.
- Carex trisperma** var. **Billingsii** Knight. [*R, 5] In sphagnum in Kennedy's Bog.
- Carex umbellata** Schk. [*R] The specimens upon which this report is based are rather immature and should possibly be referred to *C. rugosperma*. Dry sandy soil on the open crests of the eskers.
- Carex vulpinoidea** Michx. [*R] In wet places; common.

ARACEAE

- Acorus Calamus** L. SWEET FLAG. [*R] Alluvial bottom land east of the Pittsford-Mendon Center Road; scarce.
- Symplocarpus foetidus** (L.) Nutt. (*Spathyema foetida* of House.) SKUNK CABBAGE. [*] Shady springy places growing in wet muck; common.
- Calla palustris** L. WILD CALLA. [*R, 1] Shady places at the mucky borders of the ponds and in the sphagnum of Kennedy's Bog; locally abundant in these habitats.
- Peltandra virginica** (L.) Kunth. ARROW ARUM. [*R, C, 4] In wet muck or shallow water along streams or at the borders of the ponds; frequent.
- Arisaema atrorubens** (Ait.) Blume. (Rhodora 42: 252. 1940.) (*A. triphyllum* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) JACK-IN-THE-PULPIT. [*] In damp mucky soil in low woodlands; infrequent.
- Arisaema Stewardsonii** Britt. (Britton & Brown, Ill. Flora, ed. 2, 1: 443. 1913; Rhodora 42: 250. 1940; Proc. Roch. Acad. Sci. 8: 316. 1943.) [*R, 5] This species grows in wetter, more boggy habitats than *A. atrorubens*.

LEMNACEAE

- Spirodela polyrhiza** (L.) Schleid. GREATER DUCKWEED. [*R] In the marshes and sluggish streams; common.
- Lemna minor** L. LESSER DUCKWEED. [*R] This is the commonest species of duckweed and may be found in almost every sheltered body of water in the area.
- Lemna trisulca** L. SUBMERGED DUCKWEED [*R] Floating underneath other species of aquatics in the shallow water of the ponds; common.

- Wolffia columbiana** Karst. (*Bruniera columbiana* of House.) COMMON WOLFFIA. [*R, 5] Floating in more or less stagnant water in the streams and in the shallow bays of the ponds; abundant.
- Wolffia punctata** Griseb. (*Bruniera punctata* of House; *W. brasiliensis* of Monroe Co. List.) DOTTED WOLFFIA. [*5] Habitat the same as for the preceding species; much less common.

PONTEDERIACEAE

- Heteranthera dubia** (Jacq.) MacM. (*Zosterella dubia* of House; *H. graminea* of Monroe Co. List.) WATER STARGRASS. [*R, 3, 4] A submerged aquatic in the shallow water of the ponds; common.

JUNCACEAE⁸

- Juncus**. RUSH.
- Juncus articulatus** L. [R, C, 5] Gravelly shore of Hundred Acre Pond; infrequent.
- Juncus balticus** Willd. var. *littoralis* Engelm. [*R, 5] Wet marly meadows north of Quaker Pond; frequent in this habitat (see fig. 6).
- Juncus brachycephalus** (Engelm.) Buch. [*R, 5] Marly meadows; scarce.
- Juncus bufonius** L. [*R] In sand or clay, in roadbeds, trails and ditches; frequent.
- Juncus canadensis** J. Gay. (*J. canadensis* var. *longicaudatus* of Monroe Co. List.) [*R] In sphagnum bogs; infrequent.
- Juncus Dudleyi** Wieg. [*R, 5] Wet shores and meadows; infrequent.
- Juncus effusus** L. var. *solutus* Fern. & Wieg. (Rhodora 12: 90. 1910.) (*J. effusus* of Gray's Man., ed. 7, and of Monroe Co. List.) [*R] Along the shores of the ponds and in wet meadows; frequent.
- Juncus macer** S. F. Gray. (Jour. Bot. 68: 364-367. 1930.) (*J. tenuis* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) [*R] Fields, pastures, paths and roadsides; common.
- Juncus nodosus** L. [*R] At the sandy edges of the marshes; infrequent.
- Luzula carolinae** S. Wats. var. *saltuensis* (Fern.) Fern. (Rhodora 40: 404. 1938.) (*L. saltuensis* of Gray's Man., ed. 7; *Juncoides carolinae* of House; *L. vernalis* of Monroe Co. List.) WOOD RUSH. [*R] Oak woods, particularly on the slopes of the eskers; common.
- Luzula multiflora** (Ehrh.) Lejeune. (*L. campestris* var. *multiflora* of Gray's Man., ed. 7; *Juncoides intermedium* of House; *L. campestris* of Monroe Co. List.) WOOD RUSH. [*R] Oak woods, particularly on the slopes of the eskers; common.

⁸ I am indebted to Dr. Royal E. Shanks for checking the determinations of all specimens within this family.

LILIACEAE

- Chamaelirium luteum** (L.) Gray. (*C. carolinianum* of Monroe Co. List.)
DEVIL'S BIT. BLAZING STAR. [*R, 5] Beech woods on steep gravelly slopes; rare.
- Uvularia perfoliata** L. BELLWORT. [*R] Rich wet woods; frequent.
- Uvularia sessilifolia** L. (*Oakesia sessilifolia* of Gray's Man., ed. 7, and of Monroe Co. List; *Oakesiella sessilifolia* of House.) SESSILE BELLWORT. [*R] Rich wet woods; frequent.
- HEMEROCALLIS FULVA** L. COMMON DAYLILY. [*] This ornamental species has become established along roadsides where it was probably originally planted.
- Allium tricoccum** Ait. WOOD LEEK. [*] Woods, in deep leaf mold; infrequent.
- Lilium canadense** L. MEADOW LILY. CANADA LILY. [*R] Moist meadows and boggy places; scarce.
- Lilium philadelphicum** L. WOOD LILY. [*R] Dry sandy soil in open oak woods; infrequent.
- Erythronium americanum** Ker. YELLOW ADDER'S-TONGUE. [*] Moist woods; common.
- ASPARAGUS OFFICINALIS** L. GARDEN ASPARAGUS. [*] A sporadic escape in open places.
- Smilacina racemosa** (L.) Desf. (*Vagnera racemosa* of House.) FALSE SOLOMON'S-SEAL. [*] Rich wet woods; common.
- Smilacina stellata** (L.) Desf. (*Vagnera stellata* of House.) [*R] Moist woods and also in open marly meadows; frequent.
- Maianthemum canadense** Desf. (*Unifolium canadense* of House.) TWO-LEAVED FALSE SOLOMON'S-SEAL. [*R] Moist woods; abundant.
- Disporum lanuginosum** (Michx.) Nichols. [WAM, 3] Woodlot on the crest of a drumlin about half a mile north of the Park; rare.
- Polygonatum biflorum** (Walt.) Ell. (Complex). (*P. commutatum* of Gray's Man., ed. 7, and of House.) SMALL SOLOMON'S-SEAL. [*R] Rich woods; common.
- Medeola virginiana** L. INDIAN CUCUMBER-ROOT. [*] Rich wet woods; infrequent.
- Trillium erectum** L. WAKE ROBIN. BIRTHROOT. [*] Moist woods; common.
- Trillium grandiflorum** (Michx.) Salisb. LARGE WHITE TRILLIUM. [*] Moist woods; common.
- Smilax herbacea** L. CARRION-FLOWER. [*R] A climbing species of moist woods and thickets; frequent.
- Smilax hispida** Muhl. GREEN BRIER. [*] Rich wet woods; infrequent.

AMARYLLIDACEAE

Hypoxis hirsuta (L.) Coville. (*H. erecta* of Monroe Co. List.) STAR GRASS. [*R] Dry sandy soil in an oak opening; scarce.

IRIDACEAE

Iris versicolor L. BLUE FLAG. [*R] Wet meadows and pastures; infrequent.

ORCHIDACEAE

Cypripedium acaule Ait. PINK OR STEMLESS LADYSLIPPER. [*R, 1] This ladyslipper was reported in 1894 as "abundant in a swamp." It is certainly scarce now, although a few plants have been found in the rich wet woods of the swamp forest.

Cypripedium Calceolus L. var. **pubescens** (Willd.) Correll. (Bot. Mus. Leaf. Harvard Univ. 7: 1-18. 1938.) (Including *C. parviflorum* Salisb., and *C. parviflorum* var. *pubescens* (Willd.) Knight or *C. pubescens* Willd.) YELLOW LADYSLIPPER. [*R, 1] Correll has recently lumped the large and small yellow ladyslippers into one polymorphic variety of the Eurasian species, *C. Calceolus* L. Both the large and small-flowered forms have been reported from the Mendon area, but I have seen no specimens of the small-flowered form. One of the three stations which I have found was destroyed in 1940 by some vandal who discarded the plants within a few feet of the place where he had pulled them up. Dry wooded slopes; scarce.

Cypripedium reginae Walt. (*C. hirsutum* of Gray's Man., ed. 7; *C. spectabile* of Monroe Co. List.) SHOWY LADYSLIPPER. [R, 1] The most recent collection of this species was made by *M. S. Baxter* in a tamarack swamp in 1922. It probably no longer occurs within this area.

Habenaria blephariglottis (Willd.) Torr. (*Blephariglottis Blephariglottis* of House.) WHITE FRINGED ORCHID. [R, 1] Reported as growing in sphagnum.

Habenaria clavellata (Michx.) Spreng. (*Gymnadeniopsis clavellata* of House; *H. tridentata* of Monroe Co. List.) SMALL GREEN WOOD ORCHID. [R] Collected by *F. Beckwith* in 1920.

Habenaria Hookeri Torr. (*Lysias Hookeriana* of House.) HOOKER'S ORCHID. [1]

Habenaria hyperborea (L.) R. Br. (*Limnorchis hyperborea* of House.) NORTHERN GREEN ORCHID. [*R] Wet marly meadow; rare.

Habenaria lacera (Michx.) Lodd. (*Blephariglottis lacera* of House.) GREEN FRINGED ORCHID. [*R, 1] Wet swampy woods; rare.

Pogonia ophioglossoides (L.) Ker. ROSE POGONIA. [*R, 1] Sphagnum bogs and boggy meadows; formerly frequent but now scarce.

- SERAPIAS HELLEBORINE L. (*Epipactis Helleborine* of Monroe Co. List.) [*5] Shady places throughout the area; frequent. This is our only weedy orchid.
- Spiranthes cernua** (L.) Richard. (*Ibidium cernuum* of House.) NODDING LADIES' TRESSES. [*R] Wet marly meadows; scarce. Specimens have been found in bloom as early as August 3rd.
- Goodyera repens** (L.) R. Br. var. **ophioides** Fern. (*Epipactis repens* var. *ophioides* of Gray's Man., ed. 7; *Peramium secundum* of House; *Goodyera repens* of Monroe Co. List.) RATTLESNAKE PLANTAIN. Reported by M. S. Baxter in 1895 (Proc. Roch. Acad. Sci. 3: 160. 1896.) as *Epipactis repens*. No confirming specimen has been found and the species identification is uncertain.
- Calopogon pulchellus** (Salisb.) R. Br. (*Cathea pulchella* of House.) GRASS-PINK ORCHID. [*R, 1] Wet marly meadows and marshes; scarce.
- Corallorrhiza odontorhiza** Nutt. LATE CORALROOT. [R, 1]
- Liparis Loeselii** (L.) Richard. LOESEL'S TWAYBLADE. [*R, 1] Boggy tussocks at the edge of one of the ponds and in open springy places; scarce.

SALICACEAE⁹

- POPULUS ALBA L. WHITE POPLAR. [*] Established in abandoned pastures where it is spreading rapidly.
- Populus deltoides** Marsh. (*P. monilifera* of Monroe Co. List.) COTTONWOOD. [*] Low ground around the ponds and along the streams; frequent.
- Populus grandidentata** Michx. LARGE-TOOTHED ASPEN. [*R] Dry slopes; less frequent.
- Populus Tacamahacca** Mill. (*P. balsamifera* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) BALSAM POPLAR. [*R] Low ground north of Hundred Acre Pond; scarce.
- Populus tremuloides** Michx. ASPEN. [*] Hills, abandoned fields and low ground at the edge of fields and meadows; common (see fig. 6).
- SALIX ALBA L. var. VITELLINA (L.) Koch. WHITE WILLOW. [*] Low ground along roadsides.
- Salix amygdaloides** Anders. PEACH-LEAVED WILLOW. [*R] Stream margin.
- Salix Bebbiana** Sarg. (Jour. Arnold Arboretum 2: 68. 1920.) (*S. rostrata* of Gray's Man., ed. 7, and of Monroe Co. List.) [*R] A low shrub in the marshes, particularly around Quaker Pond; frequent (see fig. 7).

⁹ Mr. R. E. Horsey, in the course of a survey of the woody plants of the Monroe County Parks, reported two more species of *Salix* from Mendon Ponds, *S. longifolia* Muhl., the sand-bar willow, and *S. purpurea* L., the purple willow, but no specimens were collected. Although all but two of the species of *Salix* previously listed from Monroe County have been reported from Mendon, this technical group needs further study, particularly in the area south of Deep Pond.

- SALIX BLANDA** Anders. (Bailey, Man. Cult. Plants: 225. 1924.) WISCONSIN WEeping WILLOW. [*R] Low ground.
- Salix candida** Flügge. HOARY WILLOW. SAGE WILLOW. [*R, C, 1] A low shrub in the marshes around Quaker Pond; frequent (see fig. 7).
- Salix cordata** Muhl. HEART-LEAVED WILLOW. [*R] Wet marshes and meadows and along streams; common.
- Salix discolor** Muhl. PUSSY WILLOW. GLAUCOUS WILLOW. [*R] In marshy places; frequent.
- SALIX FRAGILIS** L. CRACK WILLOW. [*R] Low ground along roadsides; frequent, often becoming a large tree.
- Salix humilis** Marsh. PRAIRIE WILLOW. [*R] Dry sandy hillsides; infrequent.
- Salix lucida** Muhl. SHINING WILLOW. [*R] A shrub of the marshes and bogs; infrequent.
- Salix nigra** Marsh. BLACK WILLOW. [*R] A shrub or tree in wet places along streams and at the edges of the ponds and bogs; common.
- Salix pedicellaris** Pursh var. **hypoglauca** Fern. (Rhodora 11: 161. 1909.) (*S. pedicellaris*, in part, of Gray's Man., ed. 7; *S. myrtilloides* of Monroe Co. Lists.) BOG WILLOW. [*R, 1] Kennedy's Bog; rare.
- Salix petiolaris** J. E. Smith. [*R, C, 5] A shrub of the marsh meadows around Quaker Pond; infrequent.
- Salix serissima** (Bailey) Fern. AUTUMN WILLOW. [*R, C, 5] A late-flowering shrub of marshy and boggy places; infrequent.

MYRICACEAE

- Myrica carolinensis** Mill. (*M. cerifera* of Monroe Co. List.) BAY-BERRY. [*R, 5] Marly meadows usually associated with *Potentilla fruticosa* (see fig. 6), rarely on upland sites; infrequent.

JUGLANDACEAE

- Juglans cinerea** L. BUTTERNUT. [*] Oak-hickory woods on the slopes of the kames and eskers; frequent.
- Carya cordiformis** (Wang.) K. Koch. (*Hicoria cordiformis* of House; *C. amara* of Monroe Co. List.) BITTERNUT. [*] Oak-hickory woods on the slopes of the eskers; frequent.
- Carya glabra** (Mill.) Sweet. (*Hicoria glabra* of House; *C. porcina*, including var. *acuta*, of Monroe Co. Lists.) PIGNUT. [*HP, 3] Oak-hickory woods on the slopes of the eskers.
- Carya ovalis** (Wang.) Sarg. (*C. microcarpa*, in part, of Gray's Man., ed. 7, and of Monroe Co. List; *Hicoria ovalis* of House.) [*] Oak-hickory woods; scarce.
- Carya ovalis** var. **obovalis** Sarg. [*R]

- Carya ovalis** var. **odorata** (Marsh.) Sarg. [HP] Collected by C. C. Laney and R. E. Horsey, 1911.
- Carya ovata** (Mill.) K. Koch. (*Hicoria ovata* of House; *C. alba* of Monroe Co. List.) SHAGBARK HICKORY. [*R] Oak-hickory woods throughout the area; the commonest species of the genus.
- Carya tomentosa** (Lam.) Nutt. (*C. alba* of Gray's Man., ed. 7; *Hicoria tomentosa* of House.) MOCKERNUT. [1] Extended search by J. Dunbar, B. H. Slavin, and R. E. Horsey has failed to reveal this species within the county.

BETULACEAE

- Carpinus caroliniana** Walt. var. **virginiana** (Marsh.) Fern. (Rhodora 37: 425. 1935.) (*C. caroliniana* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) HORNBEAM. BLUE BEECH. WATER BEECH. [*] Moist woods throughout the area; common.
- Ostrya virginiana** (Mill.) K. Koch. (*O. virginica* of Monroe Co. List.) HOP HORNBEAM. IRONWOOD. [*] Woods, usually in dryer, better-drained soil than the preceding species.
- Corylus americana** Walt. AMERICAN HAZELNUT. [*R, 1] Moist thickets; scarce.
- Corylus cornuta** Marsh. (*C. rostrata* of Gray's Man., ed. 7, and of Monroe Co. List.) BEAKED HAZELNUT. [*] Woods and thickets; more frequent than the preceding species.
- Betula lenta** L. SWEET BIRCH. BLACK BIRCH. [*5] Becoming established in Kennedy's Bog.
- Betula lutea** Michx. f. YELLOW BIRCH. [*5] Moist wooded slopes and bottomlands; frequent.
- Alnus incana** (L.) Moench. var. **americana** Regel. (*A. incana* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) SPECKLED ALDER. [*R] Forming thickets at the borders of the streams and ponds; common (see fig. 4).

FAGACEAE

- Fagus grandifolia** Ehrh. (*F. ferruginea* of Monroe Co. List.) AMERICAN BEECH. [*] Confined chiefly to the northern portion of the area where found for the most part on the glacial till; frequent.
- Castanea dentata** (Marsh.) Borkh. (*C. sativa* var. *americana* of Monroe Co. List.) CHESTNUT. [*R, 5] The chestnut blight has eliminated this species as a forest tree. Suckers growing from old stumps may be found in various places.
- Quercus alba** L. WHITE OAK. [*R] In practically every woodlot in this area; one of the three dominant oaks of the oak and oak-hickory forests.
- Quercus bicolor** Willd. SWAMP WHITE OAK. [*R, 5] Wet oak woods; locally abundant.

Quercus borealis Michx. var. **maxima** (Marsh.) Ashe. (*Q. rubra* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) RED OAK. [*R] In the oak and oak-hickory woods; one of the three dominant species.

Quercus macrocarpa Michx. BUR OAK. MOSSYCUP OAK. [*5] Wet woods near the ponds and streams; infrequent.

Quercus velutina Lam. (*Q. coccinea* var. *tinctoria* of Monroe Co. List.) BLACK OAK. [*R] In the oak and oak-hickory woods; one of the three dominant species.

ULMACEAE

Ulmus americana L. AMERICAN ELM. WHITE ELM. [*] A dominant species of the swamp forest; abundant.

Ulmus fulva Michx. SLIPPERY ELM. RED ELM. [*] Usually in wet woods; frequent.

MORACEAE

MORUS ALBA L. WHITE MULBERRY. [R] Collected by *E. P. Killip* in 1915.

URTICACEAE

URTICA DIOICA L. STINGING NETTLE. [*R] A roadside weed.

Urtica procera Muhl. in Willd. (*Rhodora* 28: 195. 1926.) (*U. gracilis* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) TALL NETTLE. [*R] Damp roadsides and low ground; frequent.

Pilea pumila (L.) Gray. RICHWEED. CLEARWEED. [*R] Moist shaded soil and springy places; frequent.

Boehmeria cylindrica (L.) Sw. FALSE NETTLE. [*R] Thickets and wet woods and occasionally in open marshes; frequent.

Boehmeria cylindrica var. **Drummondiana** Wedd. (*Rhodora* 12: 10. 1910.) (*B. cylindrica* var. *scabra* of Gray's Man. ed. 7.) [*R, 5] In open marshes around the ponds; common.

LORANTHACEAE

Arceuthobium pusillum Peck. (*Razoumofskya pusilla* of House.) DWARF MISTLETOE. [R, C, 1] Parasitic on the branches of *Picea mariana* in Kennedy's Bog; rare.

SANTALACEAE

Comandra umbellata (L.) Nutt. BASTARD TOADFLAX. [*R] Dry sandy soil in an oak opening; scarce. A semi-parasite associated with *Gaylussacia* and *Helianthemum*.

ARISTOLOCHIACEAE

- Asarum canadense** L. var. **acuminatum** Ashe. (*A. acuminatum* of House; *A. canadense*, in part, of Monroe Co. List.) WILD GINGER. [*] Found in beech-maple woods just west of Clover Street, but not elsewhere.

POLYGONACEAE

- RUMEX ACETOSELLA** L. SHEEP SORREL. FIELD SORREL. [*] A weed of sandy fields and roadsides; common.
- Rumex Britannica** L. GREAT WATER DOCK. [*] Marshes around the ponds; frequent.
- RUMEX CRISPUS** L. (Including *R. elongatus* Guss.) CURLY OR YELLOW DOCK. [*R] A weed of roadsides and waste ground; common.
- RUMEX OBTUSIFOLIUS** L. BLUNT-LEAVED DOCK. [*R] Moist ground; frequent.
- POLYGONUM CONVULVULUS** L. BLACK BINDWEED. [*R] Fields, roadsides, and waste ground; common.
- Polygonum lapathifolium** L. (*P. lapathifolium* var. *incarnatum* of Monroe Co. List.) [*R] Shores of Quaker Pond.
- Polygonum natans** A. Eaton f. **genuinum** Stanford. (*Rhodora* 27: 156-166. 1925.) (*P. amphibium* of Gray's Man., ed. 7, and of Monroe Co. List; *P. fluitans* of House.) [R]
- Polygonum natans** A. Eaton f. **Hartwrightii** (Gray) Stanford. (*P. amphibium* var. *Hartwrightii* of Gray's Man., ed. 7; *P. Hartwrightii* of House, and of Monroe Co. List.) [*R] Marshes around the ponds; infrequent.
- POLYGONUM NEGLECTUM** Besser. (*P. aviculare* var. *angustissimum* of Gray's Man., ed. 7; *P. aviculare* of Monroe Co. List.) [*R] A roadside weed.
- Polygonum pennsylvanicum** L. var. **laevigatum** Fern. (*Rhodora* 19: 73. 1917.) (*P. pennsylvanicum*, in part, of Gray's Man., ed. 7, and of Monroe Co. List.) [*R] Low ground, particularly in wet places.
- POLYGONUM PERSICARIA** L. LADY'S THUMB. [*] A weed of fields and roadsides; common.
- Polygonum punctatum** Ell. (*Rhodora* 29: 77-87. 1927.) (Including var. *leptostachyum*. *P. acre* of Gray's Man., ed. 7, and of Monroe Co. List.) [*R, C] Marshy places; frequent.

CHENOPODIACEAE

- Chenopodium album** L. PIGWEED. LAMB'S QUARTERS. GOOSEFOOT. [*R] A weed, particularly of cultivated fields.
- CHENOPODIUM URBICUM** L. (*C. urbicum* var. *rhombofolium* of Monroe Co. List.) UPRIGHT GOOSEFOOT. [*R] A weed of cultivated fields.

SALSOLA PESTIFER A. Nels. (*S. Kali* var. *tenuifolia* of Gray's Man., ed. 7, and of Monroe Co. List.) **RUSSIAN THISTLE.** [*R] An adventive in waste ground; infrequent.

AMARANTHACEAE

AMARANTHUS GRAECIZANS L. (*A. albus* of Monroe Co. List.) **TUMBLEWEED.** [*R] A weed of cultivated fields and roadsides; common.

AMARANTHUS RETROFLEXUS L. **GREEN AMARANTH. PIGWEED.** [*R] A weed of cultivated fields and roadsides; common.

PHYTOLACCACEAE

Phytolacca americana L. (*P. decandra* of Gray's Man., ed. 7, and of Monroe Co. List.) **POKEWEED. SCOKE. GARGET.** [*R] Rich moist soil in thickets and woods; frequent.

PORTULACACEAE

Claytonia virginica L. **VIRGINIA SPRING BEAUTY.** [*] Rich moist woods; frequent.

PORTULACA OLERACEA L. **COMMON PURSLANE.** [*] A weed of cultivated ground; common.

CARYOPHYLLACEAE

STELLARIA GRAMINEA L. [*] A weed of roadsides and fields.

STELLARIA MEDIA (L.) Cyril. **COMMON CHICKWEED.** [*R] A weed of cultivated ground and sometimes of woodlands; common.

CERASTIUM VULGATUM L. **MOUSE-EAR CHICKWEED.** [*] A weed of cultivated ground; common.

Arenaria lateriflora L. (*Moehringia lateriflora* of House.) **SANDWORT.** [*R, 1] In undisturbed meadows and in association with *Potentilla fruticosa*; infrequent.

ARENARIA SERPYLLIFOLIA L. **THYME-LEAVED SANDWORT.** [*R] A weed of dry sandy fields and banks; common.

SILENE LATIFOLIA (Mill.) Britten & Rendle. (*S. Cucubalus* of Monroe Co. Lists.) **BLADDER CAMPION.** [*] A weed of dry sandy fields and roadsides.

LYCHNIS ALBA Mill. (*L. vespertina* of Monroe Co. List.) **WHITE CAMPION.** [*R] A roadside adventive.

DIANTHUS ARMERIA L. **DEPTFORD PINK.** [*R, 5] A roadside escape.

SAPONARIA OFFICINALIS L. **BOUNCING BET. SOAPWORT.** [*R] A roadside weed; common.

NYMPHAEACEAE

Nymphaea odorata Ait. (Rhodora 18: 161. 1916.) (*Castalia odorata* of Gray's Man., ed. 7, and of House; *N. odorata*, including var. *minor*,

- of Monroe Co. List.) SWEET WHITE WATER LILY. [*R, 1, 4] In shallow water of the ponds; abundant. Specimens with flowers only 4 cm. in diameter may be found in very shallow pools in the marshes.
- Nuphar variegata** Engelm. (*Nymphaea advena* var. *variegata* of Gray's Man., ed. 7, and of House; *Nuphar advena* of Monroe Co. List.)
- COW LILY. SPATTERDOCK. YELLOW POND LILY. [*4] In shallow water in the ponds and sluggish streams; frequent (see fig. 4).

CERATOPHYLLACEAE

- Ceratophyllum demersum** L. HORNWORT. [*R, 4] A submerged aquatic in the ponds; common.

RANUNCULACEAE

- Caltha palustris** L. MARSH MARIGOLD. [*R] In springy places and along streams in or near running water; common.
- Coptis groenlandica** (Oeder) Fern. (*Rhodora* 31: 136-142. 1929.) (*C. trifolia* of Gray's Man., ed. 7, of House, and of Monroe Co. List.)
- GOLDTHREAD. [*R] Swampy and boggy woods; frequent.
- Actaea alba** (L.) Mill. WHITE BANE BERRY. [*] Rich woods; frequent.
- Actaea rubra** (Ait.) Willd. (*A. spicata* var. *rubra* of Monroe Co. List.)
- RED BANE BERRY. [*R] Rich woods; frequent.
- Aquilegia canadensis** L. WILD COLUMBINE. [*R] In gravelly soil on the dry wooded slopes of the eskers; frequent.
- Anemone cylindrica** Gray. LONG-FRUITED ANEMONE. [*] In sandy soil on the dry open slopes of the eskers; frequent.
- Anemone virginiana** L. TALL ANEMONE. [*R] Dry thickets and open woods; frequent.
- Anemonella thalictroides** (L.) Spach. (*Syndesmon thalictroides* of House.)
- RUE ANEMONE. [*R] Dry wooded slopes and crests of the eskers; frequent.
- Hepatica acutiloba** DC. HEPATICA. [*] Dry open woods; frequent.
- Hepatica americana** (DC.) Ker. (*H. triloba* of Gray's Man., ed. 7, and of Monroe Co. List.) HEPATICA. [*R] Dry open woods; common.
- Clematis virginiana** L. VIRGIN'S BOWER. WHITE CLEMATIS. [*R]
- Thickets and fence rows; infrequent.
- Ranunculus abortivus** L. SMALL-FLOWERED BUTTERCUP. [*] Wet woods and springy places; common.
- RANUNCULUS ACRIS L. TALL BUTTERCUP. [*R] Fields and roadsides; frequent.
- Ranunculus hispidus** Michx. (Including var. *falsus* Fern., *Rhodora* 22: 30. 1920.) BRISTLY BUTTERCUP. [*R, 5] Oak woods; frequent.
- Thalictrum dioicum** L. EARLY MEADOW RUE. [*] On the steep wooded slopes of the eskers; frequent.
- Thalictrum polygamum** Muhl. (*T. canadense* of House.) TALL MEADOW RUE. [*R] Meadows and marsh meadows; common.

BERBERIDACEAE

- Podophyllum peltatum** L. MAYAPPLE. [*] Moist woods; frequent.
- Jeffersonia diphylla** (L.) Pers. TWINLEAF. [3, WAM] In woods on the crest of a drumlin about half a mile north of the park area and also just east of the Pittsford-Mendon Center Road; rare.
- Caulophyllum thalictroides** (L.) Michx. BLUE COHOSH. [*] Rich woods; frequent.
- BERBERIS THUNBERGII** DC. JAPANESE BARBERRY. [*] An occasional escape.
- BERBERIS VULGARIS** L. EUROPEAN BARBERRY. [*R] An occasional escape.

MENISPERMACEAE

- Menispermum canadense** L. MOONSEED. [*] Thickets and banks; infrequent.

MAGNOLIACEAE

- Liriodendron Tulipifera** L. TULIP TREE. TULIP POPLAR. [*5] Particularly on glacial till, and often associated with beech; frequent.

LAURACEAE

- Sassafras albidum** (Nutt.) Nees. (*S. variifolium* of Gray's Man., ed. 7; *S. sassafras* of House; *S. officinale* of Monroe Co. List.) SASSAFRAS. [*R] Dry woods; common. Forming fairly extensive thickets on some of the cut-over sandy slopes.
- Benzoin aestivale** (L.) Nees. (*B. Benzoin* of Monroe Co. List.) SPICE-BUSH. [*R] Low swampy woods; common.

PAPAVERACEAE

- Sanguinaria canadensis** L. BLOODROOT. [*] Rich woods; occasional.

CRUCIFERAE

- LEPIDIUM CAMPESTRE** (L.) R. Br. DOWNY PEPPERGRASS. [*R, 1] A weed of roadsides and fields; frequent.
- LEPIDIUM DENSIFLORUM** Schrad. var. **TYPICUM** Thellung. (*L. apetalum* of Gray's Man., ed. 7; *L. intermedium* of Monroe Co. List.) [*R] A weed of roadsides and sandy fields; common.
- Lepidium virginicum** L. var. **typicum** C. L. Hitchcock. PEPPERGRASS. [*] A weed of roadsides and sandy fields; common.
- SISYMBRIUM OFFICINALE** (L.) Scop. (*Erysimum officinale* of House.) HEDGE MUSTARD. [*R] A weed of waste places; frequent.
- SISYMBRIUM THALIANUM** (L.) J. Gay. (*Arabidiopsis Thaliana* of House; *S. Thaliana* of Monroe Co. Lists.) MOUSE-EAR CRESS. [*R] A weed of sandy fields and waste grounds; frequent.

- BARBAREA VULGARIS** R. Br. (*Campe Barbarea* of House.) COMMON WINTER CRESS. YELLOW ROCKET. [*] A weed of damp cultivated fields and roadsides; common.
- ARMORACIA LAPATHIFOLIA** Gilib. (Bot. Mus. Leaf. Harvard Univ. 10: 144. 1942.) (*Radicula Armoracia* of Gray's Man., ed. 7; *A. Armoracia* of House; *Nasturtium Armoracia* of Monroe Co. List.) HORSE-RADISH. [*R] Escaping in wet places; infrequent.
- Cardamine bulbosa** (Schreb.) BSP. var. **purpurea** (Torr.) BSP. (*C. Douglassii* of Gray's Man., ed. 7, and of House; *C. rhomboidea* var. *purpurea* of Monroe Co. List.) SPRING CRESS. [*R] Swampy woods; common.
- Cardamine pratensis** L. var. **palustris** Wimm. & Grab. (Rhodora 22: 14. 1920.) (*C. pratensis* of Gray's Man., ed. 7, and of Monroe Co. List.) CUCKOO FLOWER. [*R, 3] Marshes around Quaker Pond and elsewhere; infrequent.
- Dentaria diphylla** Michx. CRINKLEROOT. TOOTHWORT. PEPPERROOT. [*] Rich woods in moist humus; frequent.
- Dentaria laciniata** Muhl. CUT-LEAVED TOOTHWORT OR PEPPERROOT. [*R] Rich wet woods in deep humus; infrequent.
- CAPSELLA BURSA-PASTORIS** (L.) Medic. (*Bursa Bursa-pastoris* of House.) SHEPHERD'S PURSE. [*R] A weed of fields, lawns and roadsides; common.
- CAMELINA MICROCARPA** Andr. FALSE FLAX. [*R, 5] Roadside adventive; scarce.
- Arabis canadensis** L. SICKLE-POD. [R] Dry sandy soil on the wooded eskers. Collected by *G. T. Fish*, 1865, and by *E. P. Killip*, 1919.
- Erysimum cheiranthoides** L. (*Cheirinia cheiranthoides* of House.) WORM-SEED MUSTARD. [*R] In sandy loam or sandy muck, particularly in disturbed areas, such as the banks of ditches; common.

SARRACENIACEAE

- Sarracenia purpurea** L. PITCHER PLANT. [*R, 1] In sphagnum in the bogs and marshes; locally abundant.

DROSERACEAE

- Drosera intermedia** Hayne. (*D. longifolia* of Gray's Man., ed. 7; *D. intermedia* var. *americana* of Monroe Co. List.) SPATULATE-LEAVED SUNDEW. [*R, C, 1] In sphagnum. Only found in the eastern portion of Kennedy's Bog, where abundant.
- Drosera rotundifolia** L. ROUND-LEAVED SUNDEW. [*R, 1] In sphagnum in the bogs and marshes; locally abundant.

CRASSULACEAE

- Penthorum sedoides** L. DITCH STONECROP. [*R] In wet mucky soil in open places; frequent.

SAXIFRAGACEAE

- Saxifraga pennsylvanica** L. SWAMP SAXIFRAGE. [*1, 2] In wet springy places; scarce.
- Saxifraga virginensis** Michx. EARLY ROCK SAXIFRAGE. [*R] Dry gravelly banks; common.
- Tiarella cordifolia** L. FALSE MITERWORT. [*] Wooded slopes; common.
- Mitella diphylla** L. MITERWORT. BISHOP'S CAP. [*] Moist woods; common.
- Parnassia glauca** Raf. (*Bartonia* 17: 18. 1935.) (*P. caroliniana* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) GRASS OF PARNASSUS. [*R, 1] In wet marly places in the marsh-meadows and around the ponds; infrequent.
- Ribes americanum** Mill. (*Rhodora* 11: 46. 1909.) (*R. floridum* of Gray's Man., ed. 7, and of Monroe Co. List.) WILD BLACK CURRANT. [*R] Swampy woods; frequent.
- RIBES SATIVUM** (Reichenb.) Syme. (*R. vulgare* of Gray's Man., ed. 7, and of House; *R. rubrum* of Monroe Co. List.) RED CURRANT. [*R] Moist woods.
- Ribes triste** Pall. var. **albinervium** (Michx.) Fern. (*R. rubrum* var. *subglandulosum* of Monroe Co. List.) WILD RED CURRANT. [*] Boggy woods.

HAMAMELIDACEAE

- Hamamelis virginiana** L. WITCH-HAZEL. [*] On the wooded slopes; common throughout the area.

ROSACEAE

- Spiraea alba** DuRoi. (*S. salicifolia*, in part, of Gray's Man., ed. 7, and of Monroe Co. List.) MEADOW-SWEET. [*R, 1] Marly marsh meadows; scarce.
- PYRUS COMMUNIS** L. COMMON PEAR. [*] Abandoned farmyards.
- MALUS PUMILA** Mill. (*Pyrus Malus* of Gray's Man., ed. 7, and of Monroe Co. List; *Malus Malus* of House.) COMMON APPLE. [*] Abandoned farmyards and orchards, possibly escaping.
- SORBUS DECORA** (Sarg.) Schneid. (*Jour. Arnold Arboretum* 20: 1-43. 1939.) (*Pyrus sitchensis* of Gray's Man., ed. 7; *S. dumosa* of House.) SHOWY MOUNTAIN-ASH. [*R] Probably introduced. It has been found growing along roadsides.
- Aronia melanocarpa** (Michx.) Ell. (*Pyrus melanocarpa* of Gray's Man., ed. 7; *Pyrus arbutifolia* var. *melanocarpa* of Monroe Co. List.) BLACK CHOKEBERRY. [*R, HP, 1] Acid peat bogs; frequent.

- Aronia prunifolia** (Marsh.) Rehder. (Jour. Arnold Arboretum 19: 74. 1938.) (*Pyrus arbutifolia* var. *atropurpurea* of Gray's Man., ed. 7, and of Monroe Co. List; *A. atropurpurea* of House.) PURPLE CHOKEBERRY. [HP, 2]
- Amelanchier amabilis** Wieg. (Wiegand & Eames, Flora Cayuga Lake basin, 1926: 247.) (*A. canadensis* var. *rotundifolia*, in part, of Monroe Co. List; *A. grandifolia* Wieg.) [*R, 5] Dry wooded crest of an esker.
- Amelanchier canadensis** (L.) Medic. (*A. canadensis* var. *Botryapium* of Gray's Man., ed. 7; *A. canadensis* var. *oblongifolia* of Monroe Co. List.) SHADBUSH. [*R] Dry woods; common.
- Amelanchier intermedia** Spach. (Rhodora 22: 147. 1920.) [*R, C, 5] Marshes and boggy margins of the ponds; scarce.
- Amelanchier laevis** Wieg. (*A. canadensis* of Gray's Man., ed. 7, and of Monroe Co. List.) SHADBUSH. JUNE BERRY. SERVICEBERRY. [*R] Dry wooded slopes of the eskers; frequent.
- Amelanchier sanguinea** (Pursh) DC. (Rhodora 14: 138. 1912.) (*A. spicata* of Gray's Man., ed. 7; *A. canadensis* var. *rotundifolia*, in part, of Monroe Co. List.) [*R, C, HP, 5] Swamps and gravelly soil on the dry open crests of the eskers; frequent.
- Amelanchier stolonifera** Wieg. (Rhodora 14: 144. 1912.) [3]
- Crataegus**. HAWTHORN. This difficult genus has been inadequately collected and studied. Specimens may be found in a number of places in thickets and along fencerows in low ground and particularly on the dry open slopes of the eastern esker.
- Crataegus pruinosa** (Wendl.) K. Koch. (For synonymy see N. Y. State Mus. Bull. 254: 421. 1924.) [*R] The specimens collected have been tentatively referred to this species.
- Rubus allegheniensis** Porter. (*R. villosus* of Monroe Co. List.) COMMON HIGH BLACKBERRY. [*R] Forming thickets on dry open slopes; common.
- Rubus canadensis** L. [*] Dry slopes and thickets; frequent.
- Rubus flagellaris** Willd. (*R. villosus* of Gray's Man., ed. 7.) DEWBERRY. [*R] Dry open slopes and crests of the eskers; common.
- Rubus hispidus** L. [*C] Borders of swamps and in dry sandy woods; infrequent.
- Rubus idaeus** L. var. **strigosus** (Michx.) Maxim. (Rhodora 21: 96. 1919.) (*R. idaeus* var. *aculeatissimus* of Gray's Man., ed. 7; *R. strigosus* of House, and of Monroe Co. List.) WILD RED RASPBERRY. [*] At the edges of thickets; abundant.
- Rubus occidentalis** L. BLACK RASPBERRY. [*] Dry thickets and open slopes of the eskers; abundant.
- Rubus odoratus** L. PURPLE FLOWERING RASPBERRY. [*] Gravelly banks and thickets; infrequent.

- Rubus pubescens** Raf. (Rhodora 11: 236. 1909.) (*R. triflorus* of Gray's Man., ed. 7, and of Monroe Co. List.) [*R] Swampy woods; infrequent.
- Fragaria virginiana** Duchesne. WILD STRAWBERRY. [*] Gravelly and sandy fields; common.
- Potentilla argentea** L. SILVERY CINQUEFOIL. [*] Fields, lawns and roadsides; common.
- Potentilla arguta** Pursh. [*] Dry sandy fields; frequent.
- Potentilla fruticosa** L. SHRUBBY CINQUEFOIL. [*R, 1, 5] Borders of marly meadows where it frequently forms extensive stands; abundant. Individuals with nearly white flowers have been found.
- Potentilla palustris** (L.) Scop. (*Comarum palustre* of House.) MARSH CINQUEFOIL. [*R, 1] Marshes around Quaker Pond; infrequent.
- POTENTILLA RECTA** L. [*R] A weed of dry sandy fields and roadsides; common.
- Potentilla simplex** Michx. var. **typica** Fern. (Rhodora 33: 180-191. 1931.) (*P. canadensis* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) COMMON CINQUEFOIL. [*R] Dry sandy fields and roadsides; frequent.
- Waldsteinia fragarioides** (Michx.) Tratt. BARREN STRAWBERRY. [*] Dry woods; infrequent.
- Geum aleppicum** Jacq. var. **strictum** (Ait.) Fern. (Rhodora 37: 294. 1935.) (*G. strictum* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) YELLOW AVENS. [*R] Moist thickets; frequent.
- Geum canadense** Jacq. WHITE AVENS. [*R] Moist thickets; frequent.
- Geum rivale** L. WATER OR PURPLE AVENS. [*R] Edges of wet meadows and swampy woods; infrequent.
- Agrimonia gryposepala** Wallr. (*A. Eupatoria*, in part, of Monroe Co. List.) AGRIMONY. [*R] Thickets and banks; common.
- Agrimonia striata** Michx. AGRIMONY. [*R, 3] Dry thickets and open woods.
- Sanguisorba canadensis** L. (*Poterium canadense* of Monroe Co. List.) CANADIAN BURNET. [*R, 5] At the edge of a wet alder thicket near Quaker Pond; scarce.
- Rosa carolina** L. (Rhodora 20: 91. 1918.) (*R. humilis* of Gray's Man., ed. 7, and of Monroe Co. List.) DWARF ROSE. [*R] Dry open slopes of the eskers. The specimens examined appear to belong to var. **glandulosa** (Crep.) Farw.
- Rosa palustris** Marsh. (*R. carolina* of Gray's Man., ed. 7, and of Monroe Co. List.) SWAMP ROSE. [*R] Swamps and wet meadows around the ponds; common.
- ROSA RUBIGINOSA** L. SWEETBRIER. [*R] Dry open slopes of the eskers.

- PRUNUS AVIUM L. SWEET CHERRY. MAZZARD. [*R] Thickets, fence-rows and the edges of woods; a frequent escape.
- PRUNUS DOMESTICA L. GARDEN PLUM. [*] Abandoned farmyards.
- Prunus nigra Ait. WILD PLUM. [*R] Forming roadside thickets.
- Prunus pennsylvanica L. f. WILD RED CHERRY. PIN CHERRY. [*R] Thickets and wet woods; scarce.
- Prunus serotina Ehrh. WILD BLACK CHERRY. [*] Open woods and clearings; common.
- Prunus virginiana L. CHOKE CHERRY. [*R] Thickets, fencerows and open woods; common.

LEGUMINOSAE

- CERCIS CANADENSIS L. REDBUD. [*R] Roadside plantings.
- GLEDITSIA TRIACANTHOS L. (*Gleditschia* of Monroe Co. List.) HONEY LOCUST. [1]
- Lupinus perennis L. WILD LUPINE. [*R] Dry sandy slopes; infrequent.
- CYTISUS SCOPARIUS (L.) Link. (*Sarothamnus scoparius* of House.) SCOTCH BROOM. [*R, 5] Well established in a sandy field.
- MEDICAGO LUPULINA L. BLACK MEDICK. NONESUCH. [*R] A weed of fields, roadsides and lawns; common.
- MEDICAGO SATIVA L. ALFALFA. LUCERNE. [*R] A weed of fields and roadsides, commonly escaping from cultivation.
- MELILOTUS ALBA Desr. WHITE SWEET CLOVER. WHITE MELILOT. [*] A weed of gravelly roadsides and waste places; common.
- MELILOTUS OFFICINALIS (L.) Lam. YELLOW SWEET CLOVER. YELLOW MELILOT. [*R] A weed of fields, roadsides, and waste places; common.
- TRIFOLIUM AGRARIUM L. YELLOW OR HOP CLOVER. [*] Dry gravelly fields and roadsides; frequent.
- TRIFOLIUM HYBRIDUM L. ALSIKE CLOVER. [*R] Fields and roadsides; common.
- TRIFOLIUM PRATENSE L. RED CLOVER. [*R] Fields and roadsides; common.
- TRIFOLIUM REPENS L. CREEPING WHITE CLOVER. [*R] Lawns and roadsides; common.
- ROBINIA PSEUDO-ACACIA L. COMMON OR BLACK LOCUST. [*] Planted and freely escaping at several places.
- Astragalus neglectus (T. & G.) Sheldon. (*Phaca neglecta* of House; *A. Cooperi* of Monroe Co. List.) [*R, 5] Open oak woods on the gravelly crests of the eskers; rare.
- Desmodium acuminatum (Michx.) DC. (*D. grandiflorum* of Gray's Man., ed. 7; *Meibomia grandiflora* of House.) POINTED-LEAVED TICK TREFOIL. [*] Dry open woods; frequent.

- Desmodium bracteosum** (Michx.) DC. (*Meibomia bracteosa* of House; *D. cuspidatum* of Monroe Co. List.) LARGE-BRACTED TICK TREFOIL. [*R, C] Dry open woods; infrequent.
- Desmodium canadense** (L.) DC. (*Meibomia canadensis* of House.) CANADA TICK TREFOIL. [*R] Open slopes; common.
- Desmodium ciliare** DC. (*D. obtusum* of Gray's Man., ed. 7; *Meibomia obtusa* of House.) [R, 1] Previously listed as rare.
- Desmodium nudiflorum** (L.) DC. (*Meibomia nudiflora* of House.) NAKED-FLOWERED TICK TREFOIL. [*R] Dry sandy woods; frequent.
- Desmodium paniculatum** (L.) DC. (*Meibomia paniculata* of House.) PANICLED TICK TREFOIL. [*R] Dry sandy woods; frequent.
- Desmodium rotundifolium** (Michx.) DC. (*Meibomia Michauxii* of House.) PROSTRATE TICK TREFOIL. [*R] Dry sandy woods; rare.
- Lespedeza hirta** (L.) Hornem. (*L. polystachya* of Monroe Co. List.) HAIRY BUSH CLOVER. [*R] Dry sandy woods and open slopes; common.
- Lespedeza intermedia** (Wats.) Britt. (Rhodora 26: 31. 1924.) (*L. frutescens* of Gray's Man., ed. 7; *L. Stuevei* var. *intermedia* of Monroe Co. List.) WANDLIKE BUSH CLOVER. [*R] Dry open woods; scarce.
- VICIA CRACCA** L. WILD VETCH. [*R] Fields and roadsides.
- VICIA VILLOSA** Roth. HAIRY VETCH. WINTER VETCH. [*R, 5] A roadside escape; frequent.
- Amphicarpa bracteata** (L.) Fern. (*A. monoica* of Gray's Man., ed. 7, and of Monroe Co. List; *Falcata comosa* of House.) HOG PEANUT. [*R] Woods and thickets; frequent.
- Apios americana** Medic. (*A. tuberosa* of Gray's Man., ed. 7, and of Monroe Co. List; *Glycine Apios* of House.) GROUNDNUT. [*R] Thickets and wet woods; frequent.

GERANIACEAE

- Geranium carolinianum** L. [3]
- Geranium maculatum** L. WILD GERANIUM. WILD CRANESBILL. [*R] Dry wooded slopes of the eskers; common.

OXALIDACEAE

- Oxalis stricta** L. (*O. corniculata* var. *stricta* of Monroe Co. List.) YELLOW WOOD SORREL. [*R] Roadsides and fallow fields; frequent.
- OXALIS EUROPAEA** Jordan. (Rhodora 27: 134. 1925.) (*O. corniculata* of Gray's Man., ed. 7, and of Monroe Co. List.) YELLOW WOOD SORREL. [*R] Roadsides and cultivated ground; common.

LINACEAE

Linum virginianum L. YELLOW FLAX. [1] Previously reported as scarce in dry sandy woods.

RUTACEAE

Zanthoxylum americanum Mill. (*Xanthoxylum* of Monroe Co. List.) NORTHERN PRICKLY ASH. [*] Low ground along fencerows; infrequent.

SIMARUBACEAE

AILANTHUS ALTISSIMA (Mill.) Swingle. (*A. glandulosus* of Gray's Man., ed. 7, and of Monroe Co. List.) TREE OF HEAVEN. AILANTHUS. [*] A roadside escape; infrequent.

POLYGALACEAE

Polygala paucifolia Willd. FRINGED POLYGALA. FLOWERING WINTER-GREEN. [*] In marly places under dense stands of *Potentilla fruticosa*; rare. This is an unreported station in the county.

Polygala Senega L. SENECA SNAKEROOT. [*R] Steep wooded slopes of the eskers; scarce.

Polygala verticillata L. [*R, C] Dry open slopes of the eskers; frequent.

Polygala verticillata var. *ambigua* (Nutt.) Wood. [*R] Habitat similar to that of the species.

EUPHORBIACEAE

Euphorbia maculata L. (Contr. Gray Herb. 127: 74. 1939.) (*E. Preslii* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) SPURGE. [*R] A weed of roadsides, particularly on rock fill; frequent.

ANACARDIACEAE

RHUS AROMATICA Air. (*R. canadensis* of Gray's Man., ed. 7, and of Monroe Co. List.) FRAGRANT SUMAC. [*R] This small shrub has been planted along certain of the graded roadsides, from which it is sparingly escaping.

Rhus glabra L. SMOOTH SUMAC. [*R] Forming thickets on the dry open slopes of the eskers; occasional.

Rhus radicans L. (*R. Toxicodendron* L.) POISON IVY. [*] Along roadsides and stone walls and in thickets; abundant.

Rhus typhina L. STAGHORN SUMAC. [*] The most common of the pioneer shrubs invading the dry open slopes. It forms extensive stands in numerous places, particularly near the crests of the eskers.

Rhus Vernix L. (*R. venenata* of Monroe Co. List.) POISON SUMAC. [*R, 1, 5] In the marshes around the ponds but more often in bogs and boggy woods; frequent.

AQUIFOLIACEAE

- Ilex verticillata** (L.) Gray. WINTERBERRY. BLACK ALDER. [*R, 1]
In swampy or boggy places around the bogs and ponds; frequent.
- Nemopanthus mucronata** (L.) Trel. (*Nemopanthes fascicularis* of Monroe Co. List.) MOUNTAIN HOLLY. [*R, 1, 5] Habitats similar to the preceding species; somewhat less frequent.

CELASTRACEAE

- Celastrus scandens** L. AMERICAN BITTERSWEET. [*R] Thickets and open woods; frequent.

ACERACEAE

- Acer rubrum** L. RED MAPLE. [*R] A dominant tree of the swamp forest, but also found in moist situations throughout the area.
- Acer saccharinum** L. (*A. dasycarpum* of Monroe Co. List.) SILVER MAPLE. [*] Occasional.
- Acer saccharum** Marsh. (*A. saccharinum* of Monroe Co. List.) SUGAR MAPLE. [*R] A common hardwood especially in the northern portion of the area where it is associated with beech.

BALSAMINACEAE

- Impatiens biflora** Walt. (*I. fulva* of Monroe Co. List.) SPOTTED TOUCH-ME-NOT. [*] In mucky soil in wet woods and in the bogs and marshes; abundant.

RHAMNACEAE

- Rhamnus alnifolia** L'Hér. ALDER-LEAVED BUCKTHORN. [*R, 5] In sphagnum bogs and wet marly meadows; scarce.
- Ceanothus americanus** L. NEW JERSEY TEA. [*R] On the dry slopes and crests of the eskers, usually in open woods; common.

VITACEAE

- Vitis aestivalis** Michx. SUMMER GRAPE. [*R] Dry thickets; frequent.
- Vitis riparia** Michx. (Rhodora 41: 431-434. 1939.) (*V. vulpina* of Gray's Man., ed. 7, and of House.) FROST GRAPE. RIVERBANK GRAPE. [*R] Moist thickets; common.
- Parthenocissus inserta** (Kerner) Fritsch. (Jour. Arnold Arboretum 20: 419. 1939.) (*Psedera vitacea* of Gray's Man., ed. 7, and of House; *Ampelopsis quinquefolia*, in part, of Monroe Co. List.) [*R, C, 5] Roadside fencerows and banks; common.
- Parthenocissus quinquefolia** (L.) Planch. (*Psedera quinquefolia* of Gray's Man., ed. 7, and of House; *Ampelopsis quinquefolia*, in part, of Monroe Co. List.) VIRGINIA CREEPER. WOODBINE. [*R] Low woods and moist slopes; common.

TILIACEAE

Tilia americana L. BASSWOOD. LINDEN. [*] Moist woodlands, particularly in the northern portion of the area; common.

MALVACEAE

ALTHAEA ROSEA (L.) Cav. HOLLYHOCK. [*] A roadside escape; occasional.

MALVA NEGLECTA Wallr. (*M. rotundifolia*, in part, of Gray's Man., ed. 7, of House, and of Monroe Co. List.) [*R] COMMON MALLOW. CHEESES. A weed of cultivated ground and waste places; common.

HYPERICACEAE

Hypericum Ascyron L. GREAT ST. JOHN'S-WORT. [1] Previously reported as scarce.

Hypericum majus (Gray) Britt. (*H. canadense* var. *majus* of Monroe Co. List.) [C, 5] Low pasture.

HYPERICUM PERFORATUM L. COMMON ST. JOHN'S-WORT. [*R] A weed of dry fields and roadsides; common.

Hypericum punctatum Lam. (*H. maculatum* of Monroe Co. List.) [*R] Moist thickets; frequent.

Hypericum virginicum L. (*Triadenum virginicum* of House; *Elodes campanulata* of Monroe Co. List.) MARSH ST. JOHN'S-WORT. [*R] In bogs and in marshes around the ponds; frequent.

CISTACEAE

Helianthemum canadense (L.) Michx. FROSTWEED. [*R, C, 5] In dry sandy soil in the remnants of an oak opening; rare.

VIOLACEAE

VIOLA ARVENSIS Murr. (*V. tricolor* var. *arvensis* of Monroe Co. List.) FIELD PANSY. [*R, 1] Fallow fields and roadsides; infrequent.

Viola blanda Willd. WHITE VIOLET. [*R] Boggy woods; infrequent.

Viola canadensis L. CANADA VIOLET. [*] Found in beech-maple woods just west of Clover Street, but not elsewhere.

Viola cucullata Ait. (*V. palmata* var. *cucullata* of Monroe Co. List.) MARSH BLUE VIOLET. [*R] Marshy meadows and woodlands; common.

Viola incognita Brainerd var. **Forbesii** Brainerd. WHITE VIOLET. [*R] Boggy woods; infrequent.

Viola pallens (Banks) Brainerd. WHITE VIOLET. [*] Wet meadows; frequent.

Viola palmata L. PALMATE VIOLET. [*R] Dry wooded slopes; frequent.

- Viola papilionacea* Pursh. [WAM] Collected by *W. A. Matthews*, 1915. Deam (1940) states that this species should probably be considered a form of *V. sororia*.
- Viola pubescens* Ait. DOWNY YELLOW VIOLET. [*R] Wooded slopes of the eskers; common.
- Viola sagittata* Ait. var. *ovata* (Nutt.) T. & G. (*V. fimbriatula* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) OVATE-LEAVED BLUE VIOLET. [*R] Dry sandy pastures on the slopes of the kames and eskers; frequent.
- Viola sororia* Willd. [WAM] Collected by *W. A. Matthews*, 1915.
- Viola triloba* Schw. THREE-LOBED VIOLET. [5]

LYTHRACEAE

- CUPHEA PETIOLATA (L.) Koehne. (*Parsonsia petiolata* of House.) CLAMMY CUPHEA. [R, 5] Growing at the edge of a field, probably adventive.
- Decodon verticillatus* (L.) Ell. WATER WILLOW. SWAMP LOOSESTRIFE. [R; 1, p. 9] In the marshes around all the ponds and also in Kennedy's Bog. Particularly abundant on the south and west sides of Quaker Pond (see fig. 5) and in the Quaker Pond outlet.

ONAGRACEAE

- Ludwigia palustris* (L.) Ell. var. *americana* (DC.) Fern. & Griseb. (*Rhodora* 37: 176-177. 1935.) (*Ludwigia palustris*, in part, of Gray's Man., ed. 7; *Ludwigia palustris* of House, and of Monroe Co. List.) WATER PURSLANE. [*R] In ditches and streams; frequent.
- Epilobium coloratum* Muhl. WILLOW HERB. [*R] Ditches and marshy places; frequent.
- Epilobium densum* Raf. (*E. lineare* of House, and of Monroe Co. List.) [*R, 5] Marly marsh meadows around Quaker Pond; scarce.
- Epilobium glandulosum* Lehm. var. *adenocaulon* (Haussk.) Fern. (*Rhodora* 20: 34. 1918.) (*E. adenocaulon* of Monroe Co. Lists.) [*R] WILLOW HERB. Ditches and marshy places; frequent.
- EPILOBIUM HIRSUTUM L. [*C, 3] Low ground in fields and partially-drained swamps; common.
- Epilobium strictum* Muhl. (*E. molle* of Gray's Man., ed. 7.) [*R, C, 1] Marly marsh meadows around Quaker Pond; frequent in this habitat.
- Oenothera biennis* L. var. *pycnocarpa* (Atkins. & Bart.) Wieg. (*Rhodora* 15: 83. 1913; 26: 3. 1924.) (*O. biennis* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) EVENING PRIMROSE. [*R, C] Roadside weed; common.
- Circaea alpina* L. [*] Boggy woods; scarce.
- Circaea quadrisulcata* (Maxim.) Franch. & Sav. var. *canadensis* (L.) Hara. (*Rhodora* 41: 386-387. 1939.) (*C. lutetiana* of Gray's

Man., ed. 7, and of Monroe Co. List; *C. latifolia* of House.) EN-
CHANTER'S NIGHTSHADE. [*R] Rich moist woods; common.

HALORAGIDACEAE

Myriophyllum exalbescens Fern. (Rhodora 21: 120. 1919.) (*M. spi-
catum* of Gray's Man., ed. 7, of House, and of Monroe Co. List.)
WATER MILFOIL. [*R, 4, 5] In Hundred Acre and Deep Ponds;
common.

Myriophyllum verticillatum L. var. **pectinatum** Wallr. (*M. verticillatum*
of House, and of Monroe Co. List.) [R, 5] Collected by *M. S.*
Baxter in 1922 in one of the ponds.

ARALIACEAE

Aralia hispida Vent. BRISTLY SARSAPARILLA. [1] Previously listed as
"abundant in some of the marshes." I have seen no specimens of
this species.

Aralia nudicaulis L. WILD SARSAPARILLA. [*] Rich woods; common.

ARALIA SPINOSA L. HERCULES' CLUB. [*R] Recently introduced in
an ornamental planting.

UMBELLIFERAE

Hydrocotyle americana L. WATER PENNYWORT. [*R, C, 1] Boggy
and marshy margins of the ponds; frequent.

Sanicula canadensis L. [*] Dry woods; infrequent.

Sanicula marilandica L. (*S. marylandica* of House, and of Monroe Co.
List.) SANICLE. BLACK SNAKEROOT. [*R] Rich moist woods;
frequent.

Osmorhiza Claytoni (Michx.) Clarke. (*Washingtonia Claytoni* of House;
O. brevistylis of Monroe Co. List.) SWEET CICELY. [*R] Moist
wooded slopes of the eskers; frequent.

Zizia aurea (L.) Koch. GOLDEN ALEXANDERS. [*R] Moist meadows
and roadsides; frequent.

Cicuta bulbifera L. [*R] Swamps, marshes and sloughs, usually in
standing water; common.

Cicuta maculata L. WATER HEMLOCK. [*R] Swamps and marshes;
frequent.

Cryptotaenia canadensis (L.) DC. (*Deringa canadensis* of House.)
HONEWORT. [*] Rich woods; infrequent.

CARUM CARVI L. CARAWAY. [*] A roadside escape.

Taenidia integerrima (L.) Drude. (*Pimpinella integerrima* of Monroe
Co. List.) [*R] In open oak woods on the dry slopes and crests
of the eskers; infrequent.

Angelica atropurpurea L. PURPLE-STEMMED ANGELICA. [*] Marshy
meadows; infrequent.

Angelica villosa (Walt.) BSP. (*A. hirsuta* of Monroe Co. List.) [*R]
Dry open woodlands; infrequent.

DAUCUS CAROTA L. WILD CARROT. [*R] A weed of fields, roadsides and waste places; common.

CORNACEAE

Nyssa sylvatica Marsh. var. **caroliniana** (Poir.) Fern. (*Rhodora* 37: 433-437. 1935.) SOUR GUM. BLACK GUM. PEPPERIDGE. [*R, 1, 5] In rich wet woods around Kennedy's Bog and the Devil's Bathtub; rare.

Cornus alternifolia L. f. ALTERNATE-LEAVED DOGWOOD. [*R] Moist woods; frequent.

Cornus Amomum Mill. (*C. sericea* of Monroe Co. List.) SILKY DOGWOOD. KINNICKINNIK. [*] Low ground about the margins of the ponds and bogs; common.

Cornus canadensis L. DWARF CORNEL. BUNCHBERRY. [*R] Boggy woods; scarce.

Cornus racemosa Lam. (*C. paniculata* of Gray's Man., ed. 7, and of Monroe Co. List; *C. femina* of House.) GRAY DOGWOOD. [*R] Forming thickets along roadsides and fencerows and in low ground at the edges of the marshes; abundant.

Cornus florida L. FLOWERING DOGWOOD. [*] Dry woods, especially on the slopes of the eskers; frequent.

Cornus rugosa Lam. (*C. circinata* of Gray's Man., ed. 7, and of Monroe Co. List.) ROUND-LEAVED DOGWOOD. [*R] On the dry wooded slopes of the eskers; frequent.

Cornus sericea L. ssp. and f. **stolonifera** (Michx.) Fosberg. (Bull. Torrey Bot. Club 69: 583-589. 1942.) (*C. stolonifera* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) RED-OSIER DOGWOOD. [*] Forming thickets in low ground around the ponds and in open woods; very common.

ERICACEAE

Monotropa uniflora L. INDIAN PIPE. [*R] A saprophyte of woodlands in moist humus; frequent.

Monotropa Hypopitys L. (*Hypopitys americana* of House.) PINESAP. [*R] Saprophytic in humus on the wooded slopes of the eskers; scarce.

Chimaphila umbellata (L.) Bart. var. **cisatlantica** Blake. (*Rhodora* 19: 241. 1917.) (*C. umbellata* of authors, in part.) PIPSISSIWA. PRINCE'S PINE. [*R] Moist oak woods; rare. Only three plants have been found.

Pyrola asarifolia Michx. var. **incarnata** (Fisch.) Fern. (*P. uliginosa* of House; *P. incarnata* of Monroe Co. List.) SHINLEAF. [*R, 3] Boggy forest; scarce.

- Pyrola elliptica** Nutt. SHINLEAF. [*R] At or near the base of moist wooded slopes; infrequent.
- Pyrola rotundifolia** L. var. **americana** (Sweet) Fern. (Rhodora 22: 122. 1920.) (*P. americana* of Gray's Man., ed. 7, and of House; *P. rotundifolia* of Monroe Co. List.) ROUND-LEAVED SHINLEAF. [*]
- Pyrola secunda** L. [R] Collected on a dry hillside by *M. S. Baxter* in 1894.
- Ledum groenlandicum** Oeder. (*L. latifolium* of Monroe Co. List.) LABRADOR TEA. [*R, 1] In sphagnum bogs; scarce.
- Rhododendron maximum** L. GREAT LAUREL. [*R] Quite a number of small plants of this species have been found growing along a ditch in the mucky peat of a patch of swamp forest. It is possible that these plants have been introduced. If the species is native to the area it is surprising that it has not been previously reported.
- Rhododendron nudiflorum** (L.) Torr. var. **roseum** (Loisel.) Wieg. (Rhodora 26: 4. 1924.) (*R. canescens* of Gray's Man., ed. 7; *Azalea periclymenoides* of House; *R. nudiflorum* of Monroe Co. List.) PINK AZALEA. PINXTER FLOWER. [*R, C, 5] Open oak woods on the dry sandy or gravelly slopes of the eskers and often at the margins of the swamps and bogs; frequent.
- Andromeda glaucophylla** Link. (*A. Polifolia* of Monroe Co. List.) ANDROMEDA. BOG ROSEMARY. [*R, 1] In sphagnum bogs; abundant in Kennedy's Bog (see fig. 8).
- Chamaedaphne calyculata** (L.) Moench. (*Cassandra calyculata* of Monroe Co. List.) LEATHERLEAF. [*R, 1] In sphagnum in the bogs and marshes; dominant species in a number of the bogs (see fig. 8).
- Epigaea repens** L. TRAILING ARBUTUS. MAYFLOWER. [*R, 5] Growing in open oak woods on the sandy and gravelly slopes of the eskers; now scarce except in a few places.
- Gaultheria procumbens** L. WINTERGREEN. CHECKERBERRY. [*] Moist woods; frequent.
- Gaylussacia baccata** (Wang.) K. Koch. (*G. resinosa* of Monroe Co. List.) BLACK HUCKLEBERRY. [*R, 1] Occasionally growing in dry open woods; common in the sphagnum of Kennedy's Bog.
- Vaccinium angustifolium** Ait. (*V. pennsylvanicum* of Gray's Man., ed. 7, and of Monroe Co. List.) EARLY UPLAND BLUEBERRY. [*R] In oak woods on dry sandy and gravelly slopes; common.
- Vaccinium corymbosum** L. SWAMP OR Highbush BLUEBERRY. [*R, 1] In the sphagnum bogs; very abundant in Kennedy's Bog, where it forms shrubby islands (see fig. 8) and a marginal fringe.
- Vaccinium corymbosum** var. **atrococcum** Gray. (*V. atrococcum* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) [2] Wiegand and Eames (1926) question the distinctness of this variety in central N. Y.

- Vaccinium corymbosum** var. **glabrum** Gray. (*V. caesariense* of House.) [C, 5] Sphagnum bog.
- Vaccinium macrocarpon** Ait. (*Oxycoccus macrocarpus* of House.) LARGE CRANBERRY. [*R, 1] In sphagnum in Kennedy's Bog and in the marshes around Quaker Pond.
- Vaccinium Oxycoccus** L. (*Oxycoccus Oxycoccus* of House.) SMALL CRANBERRY. [*R] In sphagnum; abundant in Kennedy's Bog.
- Vaccinium stamineum** L. (*Polycodium stamineum* of House.) DEERBERRY. [*R] Habitat the same as that of the preceding species; frequent.
- Vaccinium vacillans** Kalm. LATE UPLAND BLUEBERRY. [*R] Habitat the same as that of the preceding species; common.

PRIMULACEAE

- Lysimachia nummularia** L. MONEYWORT. [*R] In low ground and on moist banks; established at several places.
- Lysimachia quadrifolia** L. WHORLED LOOSESTRIFE. [*R] Dry oak woods; infrequent.
- Lysimachia terrestris** (L.) BSP. (*L. stricta* of Monroe Co. List.) [*] Marshes south of Quaker Pond; scarce.
- Lysimachia thyrsoiflora** L. TUFTED LOOSESTRIFE. [*R] Wet meadows and marshes; infrequent.
- Steironema ciliatum** (L.) Raf. FRINGED LOOSESTRIFE. [*R] Borders of marshes and low thickets; common.
- Trientalis borealis** Raf. (Rhodora 11: 236. 1909.) (*T. americana* of Gray's Man., ed. 7, and of Monroe Co. List.) STAR FLOWER. [*] Moist or boggy woods; infrequent.

OLEACEAE

- Fraxinus americana** L. WHITE ASH. [*] Upland woods; common.
- Fraxinus nigra** L. (*F. sambucifolia* of Monroe Co. List.) BLACK ASH. [*] Wet and swampy woods; infrequent.
- Fraxinus pennsylvanica** Marsh. (*F. pubescens* of Monroe Co. List.) RED ASH. [*R] Wet swampy woods, particularly near the shores of the ponds; frequent.

GENTIANACEAE

- Gentiana Andrewsii** Griseb. (*G. clausa* of House.) CLOSED GENTIAN. [*R] Moist undisturbed meadows; scarce.
- Gentiana crinita** Froel. FRINGED GENTIAN. [*R] Moist undisturbed meadows; scarce.
- Gentiana quinquefolia** L. (*G. quinqueflora* of Monroe Co. List.) [R] Collected in 1866 and again in 1894 by *G. T. Fish*.

Menyanthes trifoliata L. var. **minor** Michx. (Rhodora 31: 195-198. 1929.) (*M. trifoliata* L. of Gray's Man., ed. 7, of House, and of Monroe Co. List.) BUCKBEAN. [*R, 1] Bogs and boggy marshes; scarce.

APOCYNACEAE¹⁰

VINCA MINOR L. PERIWINKLE. [*] Banks and roadsides; an occasional escape.

Apocynum androsaemifolium L. var. **incanum** A. DC. (*A. androsaemifolium* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) SPREADING DOGBANE. [*R] Dry thickets and open woods; common.

Apocynum cannabinum L. var. **glaberrimum** A. DC. (*A. cannabinum*, in part, of Gray's Man., ed. 7, of House, and of Monroe Co. List.) INDIAN HEMP. [*R] Marshy meadows around the ponds.

Apocynum cannabinum var. **pubescens** (Mitchell) A. DC. (*A. pubescens* of House.) INDIAN HEMP. [*R, 5] Wet meadows.

Apocynum hypericifolium Ait. (*A. cannabinum* var. *hypericifolium* of Gray's Man., ed. 7; *A. sibericum* of House.) [C, 5] Margin of a bog.

Apocynum medium Greene. [R, 5] Dry fields. A recent investigation by Anderson (1936) has shown that the various forms of this "species" are in reality derived from crosses between *A. androsaemifolium* and *A. cannabinum*.

ASCLEPIADACEAE

Asclepias incarnata L. SWAMP MILKWEED. [*R] Marshes; common.

Asclepias quadrifolia Jacq. FOUR-LEAVED MILKWEED. [*R] Dry open woods along the crests of the eskers; scarce.

Asclepias syriaca L. (*A. cornuti* of Monroe Co. List.) COMMON MILKWEED. [*] Fields and roadsides; frequent.

Asclepias tuberosa L. BUTTERFLY-WEED. PLEURISY-ROOT. [*R] Dry sandy slopes of the kames and eskers; common.

CONVOLVULACEAE

Cuscuta Gronovii Willd. COMMON DODDER. [*R] Marshes around the ponds; frequent.

Convolvulus sepium L. HEDGE BINDWEED. [*R] A weed of roadsides and cultivated ground; frequent.

HYDROPHYLLACEAE

Hydrophyllum canadense L. WATER-LEAF. [R, 1] Rich woods.

¹⁰ The treatment of the genus *Apocynum* follows the monograph of Woodson (Ann. Missouri Bot. Gard. 17: 1-212. 1930.).

BORAGINACEAE

- Cynoglossum boreale** Fern. (*C. virginicum* of Monroe Co. List.) WILD COMFREY. [2]
- CYNOGLOSSUM OFFICINALE L. HOUND'S TONGUE. [*R] Abandoned farmyards and at the edges of the thickets; frequent.
- Hackelia virginiana** (L.) I. M. Johnston. (*Lappula virginiana* of Gray's Man., ed. 7, and of House; *Echinosperrum virginicum* of Monroe Co. List.) BEGGAR'S LICE. [*] Woodlands and thickets; frequent.
- ECHIUM VULGARE L. BLUE WEED. BLUE DEVIL. [*R, 5] A weed on the dry open gravelly slopes and crests of the eskers; infrequent.

VERBENACEAE

- Verbena hastata** L. BLUE VERVAIN. [*R] Low ground in fields and meadows; frequent.
- Verbena urticaefolia** L. WHITE VERVAIN. [*R] Roadsides, fields and fencerows; frequent.

LABIATAE

- Scutellaria galericulata** L. (*S. epilobiifolia* Hamil.; Rhodora 23: 85-86. 1921.) MARSH SKULLCAP. [*R] Marshes and along streams; common.
- NEPETA CATARIA L. CATNIP. [*R] Roadsides and waste places; common.
- GLECOMA HEDERACEA L. (*Nepeta hederacea* of Gray's Man., ed. 7; *N. Glechoma* of Monroe Co. List.) GROUND IVY. GILL-OVER-THE-GROUND. [*] Roadsides and waste places.
- Prunella vulgaris** L. (*Brunella* of Monroe Co. List.) (See note in Wiegand and Eames, Flora Cayuga Lake Basin, p. 358. 1926.) HEAL-ALL. SELF-HEAL. [*R] Rich soil in fields and meadows, and at the borders of swamps; common.
- LEONURUS CARDIACA L. MOTHERWORT. [*R] Roadsides and waste places; common.
- STACHYS LANATA Jacq. [R, 1] A roadside escape which did not become established.
- SALVIA SYLVESTRIS L. SAGE. [*R, USNM, 5] A conspicuous escape, well established at one place on the dry open slopes of an esker.
- Monarda clinopodia** L. BALM. [3]
- Monarda fistulosa** L. WILD BERGAMOT. [*R] Dry open hillsides; frequent.
- Monarda fistulosa** var. *mollis* (L.) Benth. (*M. mollis* of Gray's Man., ed. 7, and of House.) [*R] Habitat similar to that of the typical form; common.

- Satureja vulgaris** (L.) Fritsch. (*Clinopodium vulgare* of House; *Calamintha Clinopodium* of Monroe Co. List.) BASIL. [*R] Moist fields and roadsides; frequent.
- Pycnanthemum flexuosum** (Walt.) BSP. (*Koellia flexuosa* of House.) MOUNTAIN MINT. [3]
- Pycnanthemum muticum* (Michx.) Pers. (See note on *P. virginianum*.)
- Pycnanthemum virginianum** (L.) Durand & Jackson. (*Koellia virginiana* of House; *P. lanceolatum* of Monroe Co. List.) MOUNTAIN MINT. [*R, 2] Open sandy soil at the edge of an oak opening; scarce. A report of *P. muticum* [1] from Mendon was apparently based on a misidentification of a specimen of this species collected by G. T. Fish.
- Lycopus americanus** Muhl. (*L. sinuatus* of Monroe Co. List.) WATER HOREHOUND. [*R] Marshy places; frequent.
- Lycopus americanus** var. **Longii** Benner. (*Bartonia* 16: 46-47. 1935.) [*R] Habitats similar to that of the species.
- Lycopus uniflorus** Michx. (Apparently *L. virginicus* of Monroe Co. List.) BUGLE WEED. [*R, 5] Marshes, frequently with *Decodon verticillatus*; common.
- Mentha arvensis** L. var. **canadensis** (L.) Briq. (*M. canadensis* of House, and of Monroe Co. List.) WILD MINT. [*R] Wet places at the borders of swamps and along roadsides; frequent.
- MENTHA PIPERITA L. PEPPERMINT. [*R] Wet meadows.
- MENTHA SPICATA L. (*M. viridis* of House, and of Monroe Co. List.) SPEARMINT. [*R] Wet places along Clover Street.
- Collinsonia canadensis** L. HORSE BALM. RICHWEED. [*] Rich moist woods; frequent.

SOLANACEAE

- LYCIUM HALIMIFOLIUM** Mill. (*L. vulgare* of Monroe Co. List.) MATRIMONY-VINE. [*R] Cultivated and persisting in abandoned farmyards.
- Physalis heterophylla** Nees. (*P. virginiana* of Monroe Co. List, at least in part.) GROUND CHERRY. [*R] Dry open sandy places; frequent.
- Solanum Dulcamara** L. BITTERSWEET. BLUE NIGHTSHADE. [*] Low ground and marshes; abundant.

SCROPHULARIACEAE

- VERBASCUM BLATTARIA** L. MOTH MULLEIN. [*R] Fallow fields and dry sandy slopes; common. Both the typical yellow-flowered form and the white-flowered form, f. **albiflora** (G. Don) House, occur.
- VERBASCUM THAPSUS** L. COMMON MULLEIN. [*R] Dry fields; common.

- LINARIA VULGARIS** Hill. (*L. linaria* of House.) BUTTER-AND-EGGS. YELLOW TOADFLAX. [*R] Roadside weed; common.
- Scrophularia lanceolata** Pursh. (*S. leporella* of Gray's Man., ed. 7, and of Monroe Co. List.) FIGWORT. [*R] Thickets and open fields; scarce.
- Chelone glabra** L. var. **typica** Pennell. TURTLEHEAD. [*R] Wet meadows and thickets; frequent.
- PENSTEMON DIGITALIS** Nutt. (*P. laevigatus* var. *Digitalis* of Gray's Man., ed. 7, and of Monroe Co. List.) FOXGLOVE PENSTEMON. BEARDTONGUE. [*R, 5] Adventive; rare.
- Mimulus ringens** L. MONKEY FLOWER. [*R] Wet meadows and pastures; infrequent.
- Veronica americana** (Raf.) Schw. AMERICAN BROOKLIME. [*R] Borders of brooks; frequent.
- VERONICA ARVENSIS** L. CORN SPEEDWELL. [R]
- VERONICA LONGIFOLIA** L. (*V. maritima* of House.) [R, 5] An occasional garden escape.
- VERONICA OFFICINALIS** L. COMMON SPEEDWELL. [*R] Dry banks, fields, and pastures; frequent.
- Veronica peregrina** L. PURSLANE SPEEDWELL. [*] A weed of cultivated grounds and waste places.
- Veronica serpyllifolia** L. THYMELEAF SPEEDWELL. [*R] Moist roadsides.
- Gerardia paupercula** (Gray) Britt. var. **borealis** (Pennell) Pennell. (Proc. Acad. Nat. Sci. Philadelphia 81: 159. 1929.) (*G. paupercula* of Gray's Man., ed. 7; *Agalinis paupercula* of House; *G. purpurea* and *G. purpurea* var. *paupercula* of Monroe Co. List.) [*R, 1] Low sandy borders of the ponds and marshes; infrequent.
- Gerardia tenuifolia** Vahl. var. **typica** Pennell. (*Agalinis tenuifolia* of House.) SLENDER GERARDIA. [R] Dry open woods.
- Aureolaria pedicularia** (L.) Raf. var. **intercedens** Pennell. (Torrey 19: 207. 1919.) (*Gerardia pedicularia*, in part, of Gray's Man., ed. 7, and of Monroe Co. List; *A. pedicularia*, in part, of House.) FALSE FOXGLOVE. [*R] Dry open oak woods; infrequent.
- Aureolaria virginica** (L.) Farw. (*Gerardia flava* of Gray's Man., ed. 7, and of Monroe Co. List.) DOWNY FALSE FOXGLOVE. [*R] Sandy soil in dry open woods; infrequent.
- Melampyrum lineare** Lam. var. **latifolium** (Muhl.) Beauv. (*M. americanum* of Monroe Co. List.) COW WHEAT. [*] Dry woods; frequent.
- Pedicularis canadensis** L. LOUSEWORT. WOOD BETONY. [*] Dry woods; frequent.
- Pedicularis lanceolata** Michx. SWAMP LOUSEWORT. [*R, 5] Lush meadows in marly muck; rare.

BIGNONIACEAE

Catalpa speciosa Warder. CATAWBA TREE. CIGAR TREE. [*R]
Roadsides. Planted.

OROBANCHACEAE

Orobanche uniflora L. var. *typica* Achey. (Bull. Torrey Bot. Club 60: 441-451. 1933.) (*Aphyllon uniflorum* of House, and of Monroe Co. List.) ONE-FLOWERED CANCER-ROOT. [*R] A parasite on the wooded slopes of the eskers; rare.

Epifagus virginiana (L.) Bart. (*Leptamnium virginianum* of House; *Epiphegus* of Monroe Co. List.) BEECHDROPS. [*] Beech-maple woods; infrequent.

LENTIBULARIACEAE

Utricularia cornuta Michx. HORNED BLADDERWORT. [C, 1] Reported as rare by *G. T. Fish* in 1896. Collected by *A. J. Eames* and *F. P. Metcalf*, 1917, and in Kennedy's Bog by *K. M. Wiegand*, 1918.

Utricularia gibba L. SWOLLEN-SPURRED BLADDERWORT. [*R, 1] In very shallow water or muck, on marly flats; rare.

Utricularia intermedia Hayne. FLAT-LEAVED BLADDERWORT. [*R, C, 5] Pools and sluggish streams in the marsh meadow north of Quaker Pond; scarce.

Utricularia minor L. LESSER BLADDERWORT. Clausen's report of this species from Mendon [4] should be referred to *U. intermedia* [5].

Utricularia resupinata B. D. Greene. [R, 1, 4] Reported as rare on the muddy margin of Mendon Ponds in 1896.

Utricularia vulgaris L. var. *americana* Gray. (*U. macrorhiza* of House; *U. vulgaris* of Monroe Co. List.) GREAT BLADDERWORT. [*R, 4] In Hundred Acre, Deep and Quaker Ponds; common.

PHRYMACEAE

Phryma leptostachya L. LOPSEED. [WAM] Moist woods. Collected by *W. A. Matthews*, 1915.

PLANTAGINACEAE

Plantago aristata Michx. (*P. patagonica* var. *aristata* of Monroe Co. List.) BRACKETED PLANTAIN. [*R, 5] In dry sand or gravel on the crests of the eskers; infrequent.

PLANTAGO LANCEOLATA L. ENGLISH PLANTAIN. RIB GRASS. [*R] A weed of roadsides, fields and waste places; abundant.

PLANTAGO MAJOR L. PLANTAIN. [*R] Roadsides, fields, lawns, and waste places; common.

PLANTAGO RUGELII Dcne. PLANTAIN. [*] Rich roadsides, fields, and waste places; common. The specimens examined had hairy scapes and should perhaps be referred to var. **ASPERULA** Farw. (Papers Mich. Acad. Sci. 1: 99. 1923.)

RUBIACEAE

- Cephalanthus occidentalis** L. BUTTON-BUSH. [*R] In marshes around the ponds; frequent.
- Mitchella repens** L. PARTRIDGE-BERRY. [*] Dry woods on the slopes of the eskers; frequent.
- Galium Aparine** L. CLEAVERS. GOOSE GRASS. [*] Damp woods and thickets; common.
- Galium boreale** L. var. **typicum** Beck von Man. (Rhodora 30: 106-110. 1928.) NORTHERN BEDSTRAW. [*R, 1, 5] Dry open slopes of the eskers or in open oak woods; frequent.
- Galium boreale** var. **hyssopifolium** (Hoffm.) DC. [*R, 5] Habitat the same as for the typical form.
- Galium boreale** var. **intermedium** DC. [*R, 5] Sandy soil at edge of an oak opening.
- Galium circaezans** Michx. var. **hypomalacum** Fern. (Rhodora 39: 450. 1937.) WILD LICORICE. [*R, 5] Wooded slopes of the eskers; frequent.
- Galium labradoricum** Wieg. [*R] Marshes around Quaker Pond; infrequent.
- Galium tinctorium** L. (Rhodora 41: 388. 1939.) (*G. Claytoni* of Gray's Man., ed. 7, and of House.) [*R] Marshes and boggy woods; frequent.
- Galium trifidum** L. [*R, C] Boggy woods and marshes around the ponds; frequent.

CAPRIFOLIACEAE

- Sambucus canadensis** L. COMMON ELDER. [*] Low ground in open places; common.
- Sambucus pubens** Michx. (*S. racemosa* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) RED-BERRIED ELDER. [*] Moist woods and thickets; frequent.
- Viburnum acerifolium** L. MAPLE-LEAVED VIBURNUM. ARROW-WOOD. [*R] Dry woods on the slopes of the eskers; common.
- Viburnum affine** Bush. var. **hypomalacum** Blake. (Rhodora 20: 14. 1918.) (*V. pubescens*, in part, of Gray's Man., ed. 7, and of Monroe Co. List.) ARROW-WOOD. [*R, C] Dry, gravelly crests of the eskers; infrequent.
- Viburnum cassinoides** L. WITHE-ROD. [*, 1] Boggy woods in the kettles; infrequent.

- Viburnum dentatum** L. ARROW-WOOD. Wet thickets around the ponds and bogs; common.
- VIBURNUM LANTANA L. WAYFARING-TREE. [*] Roadside planting.
- Viburnum Lentago** L. NANNYBERRY. SHEEPBERRY. SWEET VIBURNUM. [*] Wet woods and thickets; frequent.
- VIBURNUM OPULUS L. [*R] The European species now in roadside plantings.
- Viburnum trilobum** Marsh. (*V. Opulus* var. *americanum* of Gray's Man., ed. 7; *V. Opulus* of House, and of Monroe Co. List.) CRANBERRY-TREE. Highbush CRANBERRY. [*] Thickets at the margin of Hundred Acre Pond; infrequent.
- Symphoricarpos albus** (L.) Blake. (Rhodora 16: 118. 1914.) (*S. racemosus* of Gray's Man., ed. 7; *S. racemosus* var. *pauciflorus* of Monroe Co. List.) SNOWBERRY. [HP, 2] Hillside.
- Lonicera canadensis** Marsh. (*L. ciliata* of Monroe Co. List.) FLY HONEYSUCKLE. [*R] Dry wooded slopes of the eskers; infrequent.
- Lonicera dioica** L. (*L. glauca* of Monroe Co. List.) [*] Dry wooded slopes of the eskers; infrequent.
- Lonicera oblongifolia** (Goldie) Hook. SWAMP FLY HONEYSUCKLE. [*R, 1] Swamps and marly marsh meadows; scarce.
- LONICERA SEMPERVIRENS L. TRUMPET HONEYSUCKLE. [*R, 5] Roadside escape; scarce.
- Diervilla Lonicera** Mill. (*D. Diervilla* of House; *D. trifida* of Monroe Co. List.) BUSH HONEYSUCKLE. [*R] Dry wooded slopes of the eskers; infrequent.

VALERIANACEAE

- Valeriana uliginosa** (T. & G.). (*V. sylvatica* of Monroe Co. List.) SWAMP VALERIAN. [*R, 1] Wet marly meadows, especially north of Quaker Pond; abundant in this habitat.

DIPSACACEAE

- DIPSACUS SYLVESTRIS Huds. WILD TEASEL. [*R] Moist fields, roadsides and waste ground; frequent.

CUCURBITACEAE

- Sicyos angulatus** L. ONE-SEEDED BUR CUCUMBER. [*] Moist thickets; scarce.

CAMPANULACEAE

- Campanula rotundifolia** L. var. *intercedens* (Witasek) Farw. (*C. rotundifolia* var. *arctica* and *C. rotundifolia*, in part, of Monroe Co. List.) HAREBELL. BLUEBELL. [*R, 5] Dry open slopes of the eskers, oak openings and moist meadows; frequent.

Campanula uliginosa Rydb. (Probably *C. aparinoides* of Monroe Co. List, in part.) MARSH BELLFLOWER. [*R, C, 5] Marshes and wet marly meadows; frequent.

Specularia perfoliata (L.) A. DC. VENUS LOOKING-GLASS. [R] Collected by *G. T. Fish*, 1866.

LOBELIACEAE

Lobelia inflata L. INDIAN TOBACCO. [*] Dry open slopes; infrequent.

Lobelia Kalmii L. KALM'S LOBELIA. [*R] Shores and wet marly meadows; frequent.

Lobelia siphilitica L. GREAT LOBELIA. [*R] Low ground in woods or swamps; frequent.

COMPOSITAE

Eupatorium fistulosum Barratt. (*Rhodora* 22: 57-70. 1920; 39: 297-306. 1937.) PURPLE-STEM JOE-PYE-WEED. [*R] Wet meadows; frequent.

Eupatorium maculatum L. (*Rhodora* 22: 57-70. 1920; 39: 297-306. 1937.) SPOTTED STEM JOE-PYE-WEED. [*R] Wet meadows and swampy places; frequent.

Eupatorium perfoliatum L. THOROUGHWORT. BONESET. [*R] Wet meadows and low grounds; common.

Eupatorium rugosum Houtt. (*Rhodora* 40: 293. 1938.) (*E. urticaefolium* of Gray's Man., ed. 7, and of House; *E. ageratoides* of Monroe Co. List.) WHITE SNAKEROOT. [*R] Rich woods; common.

Solidago. GOLDENROD.

Solidago altissima L. [*R, 5] Fallow fields and roadsides; frequent.

Solidago arguta Ait. [*R, C] Sandy soil in open woods and thickets; frequent.

Solidago bicolor L. SILVERROD. [*R] Dry soil, in somewhat shady places; frequent.

Solidago caesia L. [*R] Open woods; abundant.

Solidago canadensis L. var. **Hargerii** Fern. [*R, C, 5] Meadows.

Solidago gigantea Ait. (*Rhodora* 41: 457. 1939.) (*S. serotina* var. *gigantea* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) [*R, C] Wet meadows; frequent.

Solidago graminifolia (L.) Salisb. var. **Nuttallii** (Greene) Fern. [*R] Roadsides and abandoned fields; common.

Solidago hispida Muhl. [*] Dry soil, in somewhat shady places; frequent.

Solidago juncea Ait. [*R] The early-flowering species of meadows and hillsides; abundant.

Solidago latifolia L. (*S. flexicaulis* of House.) [*R] Moist wooded slopes; frequent.

- Solidago nemoralis** Ait. [*R] Dry open hillsides; abundant.
- Solidago ohioensis** Riddell. [*R, C, 5] Wet marly meadows; infrequent.
- Solidago patula** Muhl. [*] Boggy woods; scarce.
- Solidago rugosa** Mill. [*R] Roadsides, fields and thickets; common.
- Solidago squarrosa** Muhl. [*R] Wooded slopes of the eskers; infrequent.
- Solidago ulmifolia** Muhl. [C] Damp woods. Collected by *K. M. Wiegand*, 1918).
- Solidago uniligulata** (DC.) Porter. (*S. neglecta* var. *linoides* of Monroe Co. List.) [*R] Marly meadows north of Quaker Pond; scarce.
- Solidago uniligulata** var. *levipes* Fern. (*Rhodora* 17: 7. 1915.) [*R] Marly meadows north of Quaker Pond; scarce. It is possible that the specimens referred to this variety are *S. humilis* Pursh (*Rhodora* 17: 6. 1915; *S. uliginosa* of Gray's Man., ed. 7, and of Monroe Co. List), but I am uncertain as to the distinction between these groups.
- Solidago uniligulata** var. *neglecta* (T. & G.) Fern. (*Rhodora* 23: 292. 1921.) (*S. neglecta* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) [1] No specimens have been seen to confirm this report.
- Aster cordifolius** L. [*R] Dry fields, roadsides and thickets; common.
- Aster divaricatus** L. (*A. corymbosus* of Monroe Co. List.) [*] Open woods and thickets.
- Aster junceus** Ait. [*R, C, 1] Marshes, wet marly meadows, and boggy places; frequent. A specimen previously listed as *A. novi-belgii* var. *elodes* was referred to this species by *K. M. Wiegand*.
- Aster laevis** L. [*R] Dry fields and thickets; common.
- Aster lateriflorus** (L.) Britt. (*Rhodora* 30: 172-173. 1928.) (*A. diffusus* and *A. diffusus* var. *hirsuticaulis* of Monroe Co. List.) [*R] Wet meadows; frequent.
- Aster macrophyllus** L. [*R] Rich moist woods; common.
- Aster novae-angliae** L. NEW ENGLAND ASTER. [*] Fields, thickets and roadsides; common.
- Aster novi-belgii* L. var. *elodes* (T. & G.) Gray. (See note on *A. junceus*.)
- Aster paniculatus** Lam. var. *simplex* (Willd.) Burgess. (*Rhodora* 35: 32-34. 1933.) [*R] Damp meadows; frequent.
- Aster puniceus** L. [*R] Wet meadows and marshes; common.
- Aster Schreberi** Nees. [*] Dry open woods.
- Aster umbellatus** Mill. (*Doellingeria umbellata* of House.) [*R] Wet meadows, sometimes in marly places; common.
- Erigeron annuus** (L.) Pers. DAISY FLEABANE. WHITETOP. [*R] Dry fields and openings; frequent.
- Erigeron canadensis** L. (*Leptilon canadense* of House.) HORSEWEED. [*R] A weed of fields, roadsides and cultivated ground; common.

- Erigeron philadelphicus** L. FLEABANE. [*R] Moist fields, meadows, and open woods; frequent.
- Erigeron pulchellus** Michx. (*E. bellidifolius* of Monroe Co. List.) ROBIN'S PLANTAIN. [*R] Dry wooded slopes of the eskers; frequent.
- Erigeron ramosus** (Walt.) BSP. (*E. strigosus* of Monroe Co. List.) DAISY FLEABANE. [*R] Fields; abundant.
- Sericocarpus asteroides** (L.) BSP. (*S. conyzoides* of Monroe Co. List.) WHITE-TOPPED ASTER. [*R] Dry open woods; scarce.
- Antennaria neglecta** Greene. LADIES' TOBACCO. PUSSY'S TOES. [R] Collected by *E. P. Killip*, 1917.
- Antennaria petaloidea** Fern. [*R, USNM] Dry pasture.
- Antennaria plantaginifolia** (L.) Richards. LADIES' TOBACCO. PUSSY'S TOES. [*R] Dry sterile fields and pastures; common.
- Anaphalis margaritacea** (L.) B. & H. var. *intercedens* Hara. (Rhodora 41: 391. 1939.) (*A. margaritacea* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) PEARLY EVERLASTING. [*R] Dry open hillsides; common.
- Gnaphalium obtusifolium** L. (*G. polycephalum* of Gray's Man., ed. 7, and of Monroe Co. List.) EVERLASTING. [*R] Dry open slopes; frequent.
- INULA HELENIUM L. ELECAMPANE. [*R] Moist soil in pastures and waste places; infrequent.
- Ambrosia elatior** L. (Amer. Midland Nat. 17: 673-700. 1936.) (*A. artemisiifolia* of Gray's Man., ed. 7, and of Monroe Co. List; *A. elatior* var. *artemisiifolia* of House.) COMMON RAGWEED. [*R] A weed of cultivated ground; abundant.
- Xanthium italicum** Moretti. (See Deam, Flora Indiana: 962. 1940.) (*X. echinatum*, in part, of Gray's Man., ed. 7; *X. canadense* var. *echinatum* of Monroe Co. List.) COCKLEBUR. [*R] Low disturbed ground; infrequent.
- RUDBECKIA HIRTA L. BLACK-EYED SUSAN. [*R] A weed of fields and roadsides; common.
- Helianthus divaricatus** L. WILD SUNFLOWER. [*R] Dry open woods or thickets; frequent.
- Helianthus strumosus** L. WILD SUNFLOWER. [*R] Dry open woods or thickets; frequent.
- Bidens cernua** L. NODDING BUR-MARIGOLD. [*R] Muddy margins of the ponds and marshes; common.
- Bidens connata** Muhl. var. *petiolata* (Nutt.) Farw. (Rhodora 10: 197. 1908.) SWAMP BEGGAR'S TICKS. [*R] Muddy margins of the ponds and marshes; frequent.
- Bidens frondosa** L. BEGGAR'S TICKS. [*] Low ground; common.

- GALINSOGA CILIATA (Raf.) Blake. (Rhodora 24: 34-36. 1922.) (*G. parviflora* var. *hispida* of Gray's Man., ed. 7, and of Monroe Co. List.) QUICKWEED. [WAM] A weed of cultivated ground.
- ANTHEMIS ARVENSIS L. CORN CHAMOMILE. [*R] A weed of dry fields and roadsides; common.
- ANTHEMIS ARVENSIS var. AGRESTIS (Wallr.) DC. [*R] Habitat the same as for the typical form.
- ANTHEMIS COTULA L. MAY-WEED. DOG FENNEL. [*] A weed of dry fields and roadsides; frequent.
- ANTHEMIS TINCTORIA L. YELLOW CHAMOMILE. [*R, 5] A roadside adventive.
- Achillea Millefolium** L. COMMON YARROW. [*R] A weed of fields and roadsides; common.
- CHRYSANTHEMUM LEUCANTHEMUM L. var. PINNATIFIDUM Lecoq & Lamotte. OXEYE DAISY. [*] A weed of fields and roadsides; common.
- TANACETUM VULGARE L. COMMON TANSY. [*] A garden escape.
- ERECTITES HIERACIFOLIA (L.) Raf. FIREWEED. [*R] Moist thickets and clearings; frequent.
- Senecio aureus** L. GOLDEN RAGWORT. [*R] Marly marsh meadows and shaded springy places; infrequent. Specimens approaching var. **gracilis** (Pursh) Britt. have been collected.
- ARCTIUM MINUS (Hill) Bernh. SMALLER BURDOCK. [*R] A weed of roadsides and waste places; common.
- CIRSIIUM ARVENSE (L.) Scop. (*Cnicus arvensis* of Monroe Co. List.) CANADA THISTLE. [*R] A weed of moist cultivated ground; common.
- Cirsium muticum** Michx. (*Cnicus muticus* of Monroe Co. List.) SWAMP THISTLE. [*R] Wet meadows; infrequent.
- CIRSIIUM VULGARE (Savi) Airy-Shaw. (Fedde Rept. Spec. Nov. 43: 302-315. 1938.) (*C. lanceolatum* of Gray's Man., ed. 7, and of House; *Cnicus lanceolatus* of Monroe Co. List.) BULL THISTLE. [*R] Pastures, fields and roadsides; frequent.
- CENTAUREA JACEA L. var. LACERA Koch. [*R, 5] A roadside weed; scarce.
- CICORIUM INTYBUS L. CHICORY. [*] A roadside weed; common.
- PICRIS HIERACIOIDES L. [*R, 5] An adventive of fields and roadsides; infrequent.
- TRAGOPOGON PRATENSIS L. GOAT'S BEARD. [*] A roadside weed; frequent.
- TARAXACUM PALUSTRE (Lyons) Lam. & DC. var. VULGARE (Lam.) Fern. (Rhodora 35: 380. 1933.) (*T. officinale* of Gray's Man., ed. 7, and of Monroe Co. List; *Leontodon Taraxacum* of House.) DANDELION. [*] A weed of roadsides, fields, and lawns; common.

- LACTUCA SCARIOLA L. PRICKLY LETTUCE. [*R] An adventive in cultivated places.
- LACTUCA SCARIOLA var. INTEGRATA Gren. & Godr. [*R] Habitat the same as for the typical form; common.
- Lactuca spicata (Lam.) Hitchc. (*L. leucophaea* of Monroe Co. List.) BLUE LETTUCE. [*R] Low ground, in thickets and at the borders of woods; frequent.
- Prenanthes alba L. (*Nabalus albus* of House.) RATTLESNAKE ROOT. WHITE LETTUCE. LION'S-FOOT. [*] Open woods; frequent.
- Prenanthes altissima L. (*Nabalus altissimus* of House.) RATTLESNAKE ROOT. LION'S-FOOT. [*R] Moist woods; frequent.
- HIERACIUM AURANTIACUM L. ORANGE HAWKWEED. DEVIL'S PAINTBRUSH. [*] A weed of dry fields and pastures; common.
- HIERACIUM PRATENSE Tausch. KING DEVIL. [*] A weed of dry fields and pastures; common.
- Hieracium venosum L. RATTLESNAKE-WEED. [*R] Dry open woods on the slopes of the eskers; frequent.

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NOTES ON THE FLORA OF MONROE COUNTY, NEW YORK¹

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Since the publication of *Plants of Monroe County, New York, and Adjacent Territory* (Beckwith and Macauley, 1896) and subsequent supplements (Beckwith, Macauley and Baxter, 1910, 1917) additional information on the vascular flora of this area has become available. Field work during the past twenty-five years has contributed a number of species previously unrecorded from the county and has yielded a clearer picture of the distribution of certain significant species. This paper brings together information of both these types from several sources:

(1) Previously unreported collections from Monroe County, principally by members of the Botanical Section of the Rochester Academy of Science, most of which are on file in the Herbarium of the Academy now on deposit in the Herbarium of the University of Rochester. Collections from adjacent counties have been intentionally omitted from this list.

(2) Collections by one or both of the authors during the last five years. All records are from this source unless otherwise indicated, and the supporting specimens have been deposited in the Herbarium of the University of Rochester.

(3) Scattered records in the literature, principally the reports of the State Botanist (House, 1918, 1919, 1921, 1923, 1924), for which no supporting specimens have been seen by the authors.

(4) Data on distribution of aquatic plants in the New York State Conservation Department's *Biological Survey of the Lake Ontario Watershed* (Clausen, 1940).

(5) Unpublished data on plant distribution compiled during the course of an ecological survey of the vegetation of Monroe County jointly sponsored by the New York State Museum and the Monroe County Division of Regional Planning, 1938-1942. Copies of these data are filed at Albany and Rochester, and the report of this survey (Shanks, 1943) will be published as a bulletin of the New York State Museum.

Several factors have contributed to the wide diversity of the vegetation of this relatively small area and are responsible for its floristic richness. The 119 soil separations recognized in the soil survey of Monroe County (Sweet *et al.*, 1938) reflect the wide range of soil material and drainage conditions. It is apparent that the climate also varies

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within the county, particularly with distance from the lake (Mordoff, 1934; Monroe County Division of Regional Planning, 1938). The land surface has been exposed since early post-glacial time, and species have migrated into the area from the south, east and west. Climatic and physiographic changes during this period have brought about broad changes in the plant cover, and many species formerly widespread have been restricted to those sites most favorable for them or least favorable for the regional dominants which have succeeded them over most of the area.

The plant communities which made up the natural vegetation of the area prior to white settlement have been mapped and discussed in detail in the report of the previously mentioned vegetation survey of Monroe County (Shanks, 1943). The beech-sugar maple association was most extensive, occupying more than half of the county. It occupied large areas exclusively and some portion of every town in the county. The elm-ash-maple swamp forest and its variants occurred locally along stream margins and on other poorly drained sites throughout the beech-sugar maple area, but the largest continuous swamp forest occupied the flats of the Genesee River in the central and southern parts of the county. Large stands of the hemlock-northern hardwood association occurred in the northeastern and northwestern corners of the county (*cf.* Maps 5 and 6) and the greater part of the oak-chestnut-pine type occurred in the area between them, near Irondequoit Bay and the mouth of the Genesee River, north of the present city of Rochester (*cf.* Maps 1, 2 and 3). Upland oak and oak-hickory forests which did not include chestnut or pine as an important constituent were rather widely distributed in the southern half of the county, occupying extensive acreage in the southernmost towns and extending northward along the valleys of Irondequoit Creek and the Genesee River. Local "oak openings" characterized by typical prairie species were commonest on the overdrained sites in these upland oak forests, but also occurred in the oak-pine areas adjacent to Irondequoit Bay. Their approximate distribution is indicated in Map 12, which shows the combined distribution of tall bluestem, little bluestem and Indian grass, the three dominant grasses in eastward extensions of the prairie. Bogs occupied a rather insignificant total area but were widely distributed in a broad belt extending east and west across the county (*cf.* Maps 7 and 8).

These plant communities are for the most part clearly defined and constitute more or less distinct floristic units. This tendency is reflected in the accompanying maps, which have been selected to show types of species distribution. They are based on extensive field work during which every natural area in the county was visited. It is not claimed that every station in the county for these species is shown, but it is believed that the records are complete enough to give a clear picture of

their range. Distribution notes for other woody species in the list are derived from the same source.

Certain conventions have been followed in the annotated list. Scientific names of native plants are printed in **bold face** type. Those of introduced species and common names are printed in SMALL CAPITALS. Nomenclature conforms insofar as possible with the International Rules. Wherever the scientific names differ from those of *Gray's Manual*, edition 7, of the *Annotated List of the Ferns and Flowering Plants of New York State* (House, 1924), or of the previously published lists of the flora of Monroe County, New York (Beckwith *et al.*, 1896, 1910, 1917), the synonyms are given in *italics*.

Unless otherwise indicated, specimens cited have been collected by the authors. Names of collectors other than the authors are given in italics along with the year of collection. Specimens are deposited in the Herbarium of the University of Rochester (R), the Herbarium of Cornell University, College of Agriculture (C), the Herbarium of the New York State Museum (NYS), the Herbarium of the United States National Museum (USNM), or the personal herbarium of Mr. Warren A. Matthews of Rochester (WAM). The distribution data available in previous Monroe County lists has been included in the following notes, without citation.

POLYPODIACEAE

Dryopteris marginalis (L.) Gray × **D. spinulosa** (O. F. Muell.) Watt. var. **intermedia** (Muhl.) Underw. Hipp's Brook, Penfield, *M. S. Baxter*, 1917 (R). Fide P. Dowell.

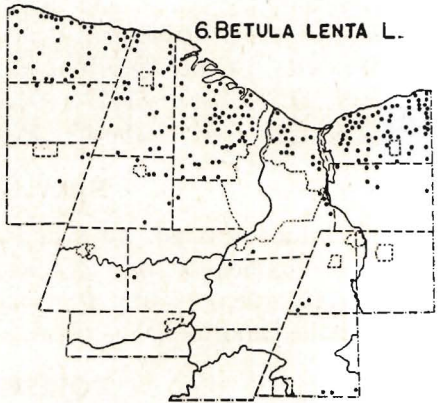
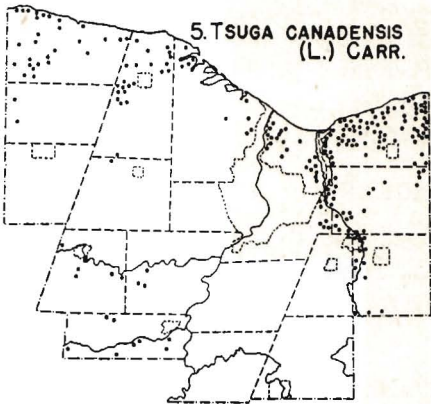
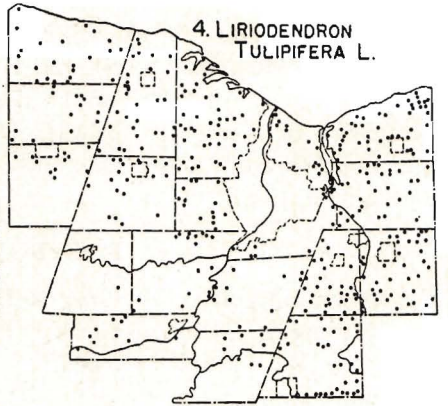
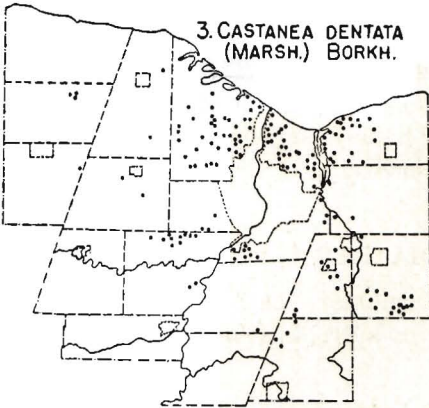
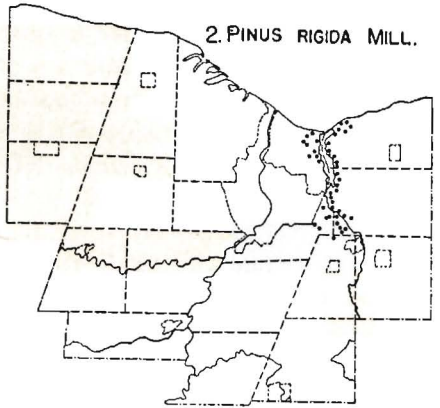
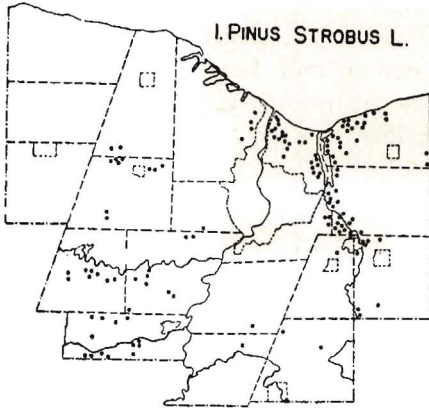
Athyrium pycnocarpon (Spreng.) Tidestr. (*Asplenium angustifolium* of Gray's Man., ed. 7, and of Monroe Co. List.) NARROW-LEAVED SPLEENWORT. Rich moist woods. Adams Basin, *M. S. Baxter*, 1878 (R); Egypt, Perinton, *E. P. Killip*, 1915 (R); south of Fairport, *M. S. Baxter*, 1927 (R); Webster (Edson, 1928). Previously listed from near Rochester, Penfield, Gates, and Brockport.

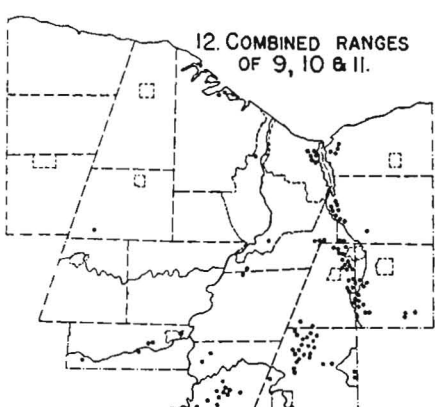
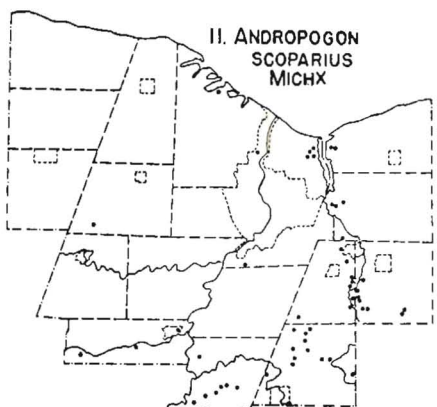
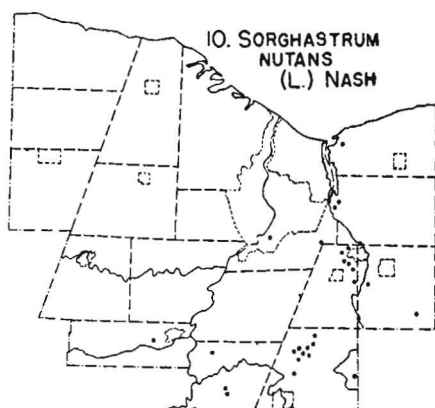
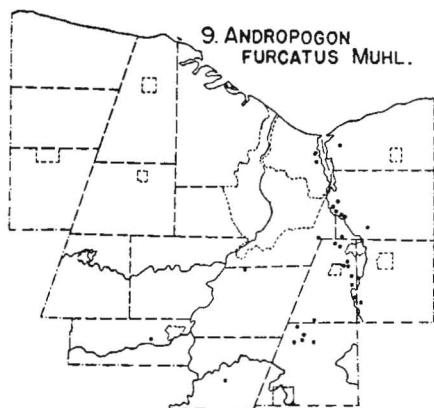
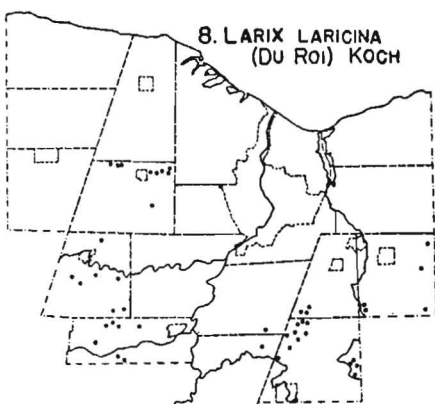
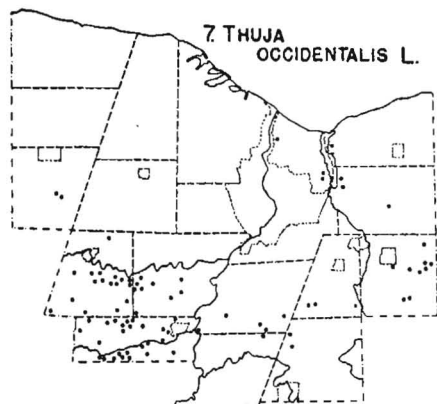
SALVINIACEAE

Azolla caroliniana Willd. WATER FERN. Mouth of Sandy Creek, abundant; Irondequoit Bay (R), Round Pond, frequent; Braddock Bay, rare (Clausen, 1940). Previously reported "in all the side waters of Lake Ontario."

EQUISETACEAE

Equisetum fluviatile L. (*E. limosum* of Monroe Co. List.) WATER HORSETAIL. Mendon Ponds Park (R). Previously listed from Rochester, Gates, and Brockport.





Equisetum scirpoides Michx. Seneca Park, *M. S. Baxter*, 1917 (R); growing on stumps, arbor vitae swamp, Riga (R); pastured hillside, Densmore Creek, Irondequoit (R). Previously listed from Greece, Rochester, banks of Irondequoit Creek and Bay, and Webster,

TAXACEAE

Taxus canadensis Marsh. AMERICAN YEW. Usually associated with hemlock or arbor vitae, either in upland woods or in bogs. Recorded from thirteen widely scattered stations in Hamlin, Parma, Webster, Sweden, Riga, Rush, Pittsford, and Penfield.

PINACEAE

Pinus rigida Mill. PITCH PINE. Map 2. Apparently restricted to the deep sands along Irondequoit Bay and the lower valley of Irondequoit Creek. This is the westernmost county from which the species has been reported in the Ontario plain. Extensive stands occurred on the sand deposits east of the bay and a station on the Pittsford-Perinton town line south of East Rochester was reported in the original land survey notes (Gilbert, 1789). The species may also have been native in Seneca Park, where a number of rather large specimens occur. Previously listed from Irondequoit, Brighton, Penfield, and Webster.

Pinus Strobus L. WHITE PINE. Map 1. Rather widely distributed in the county, occupying habitats of two distinct types. North and east of Rochester its distribution indicates the extent of the oak-chestnut-pine forests of which it was an important constituent. In this area it occurs on dry ridges and sand plains. Elsewhere in the county it is largely restricted to bog forests in association with arbor vitae, tamarack and yellow birch. It has, however, been recorded from the following widely scattered upland sites: Pine Hill, near the Parma-Ogden town line; Widger Road, Ogden; north of Bowen Road, Chili; Burrell Road near Oatka Creek, Wheatland; and Pine Hill near Honeoye Creek, Rush. Now rather widely used in reforestation in the area.

Larix laricina (Du Roi) Koch. (*L. americana* of Monroe Co. List.) TAMARACK. LARCH. Map 8. Apparently the first tree species to invade open bogs where it persists until drainage occurs or it is shaded out by other species. Restricted to such habitats. Land survey records indicate that it was formerly more widely distributed in the area, but there are no records of its occurrence north of the Ridge.

Tsuga canadensis (L.) Carr. HEMLOCK. Map 5. Although previously listed as common, it is entirely absent from large parts of the area. Its pattern of distribution near the lake and in the valley of Ironde-

quoit Creek indicates the former extent of hemlock-northern hardwood forests, which were largely restricted to the Lake Iroquois plain, north of the Ridge. With the exception of local stands on Oatka Creek in Wheatland, the stations in the southwestern part of the county are in forested bogs, in association with arbor vitae and white pine.

Thuja occidentalis L. (*Thuya* of Monroe Co. List.) ARBOR VITAE. WHITE CEDAR. Map 7. Largely restricted to bogs underlain with marl from which there is some surface drainage. Such bogs occur in a broad band across the county in the Salina depression, between the Lockport and Onondaga escarpments. The Bergen Swamp, a short distance west of the Monroe County line, belongs to this general type (Stewart & Merrell, 1937). This species is also recorded from upland sites along the Genesee River, Irondequoit Bay and Oatka Creek.

NAJADACEAE²

- Potamogeton americanus** Cham. & Schlecht. (*P. lonchitis* of House; *P. fluitans* of Monroe Co. List.) Irondequoit Bay, rare; Braddock Bay, frequent; mouth of Sandy Creek, common; Mendon Ponds, *M. S. Baxter*, 1921, 1926 (R), common. Also previously listed from the Genesee River and Long Pond.
- Potamogeton amplifolius** Tuckerm. Hamlin, *E. L. Hankenson*, 1894 (R); Mendon Ponds, *W. A. Matthews*, 1921 (NYS). Previously listed from Irondequoit Bay and Long Pond.
- Potamogeton angustifolius** Berch. & Presl. Irondequoit Bay, *W. A. Matthews*, 1924 (NYS); Mendon Ponds, *M. S. Baxter*, 1922 (R), common. Probably the early reports of *P. lucens* L. should be referred to this species.
- Potamogeton Berchtoldi** Fieb. (*Rhodora* 42: 246. 1940.) (*P. pusillus* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) Braddock Bay, frequent; Mendon Ponds, *M. S. Baxter*, 1923 (NYS), frequent. Previously listed from Irondequoit Bay.
- Potamogeton compressus** L. (*P. zosterifolius* of Gray's Man., ed. 7, and of Monroe Co. List; *P. zosteriformis* Fern.) Round Pond, Buck Pond, frequent; Long Pond, Cranberry Pond, mouth of Sandy Creek, rare; Braddock Bay, *E. P. Killip*, 1914 (R), common; Mendon Ponds, *M. S. Baxter*, 1922 (R), *W. A. Matthews* (NYS), cited by Fernald (*Mem. Amer. Acad. Arts & Sciences* 17: 1-183. 1932.), common. Also previously listed from Irondequoit Bay.

² All species of *Potamogeton* and *Najas* in previous Monroe County lists have been included. Records and notes on distribution are those of Clausen (1940) unless otherwise indicated. We are indebted to Dr. W. C. Muenscher for determinations of specimens of *Potamogeton*.

- POTAMOGETON CRISPUS L. Irondequoit Bay, *M. S. Baxter*, 1921 (R), Braddock Bay, rare; Round Pond, frequent. Previously listed from Long Pond.
- Potamogeton filiformis* Pers. var. *borealis* (Raf.) St. John. (*Rhodora* 18: 134. 1916.) Outlet of Long Pond, *M. W. Allen*, 1937 (C).
- Potamogeton foliosus* Raf. (*P. pauciflorus* of Monroe Co. List.) Round Pond, Buck Pond, frequent; Braddock Bay, rare.
- Potamogeton Friesii* Rupr. Irondequoit Bay, *J. B. Fuller*, 1866 (R), *W. A. Matthews*, 1924 (NYS), cited by Fernald (*Mem. Amer. Acad. Arts & Sciences* 17: 1-183. 1932.).
- Potamogeton gramineus* L. var. *graminifolius* Fries. (*P. heterophyllus* of Gray's Man., ed. 7, and of Monroe Co. List.) Mendon Ponds, *M. S. Baxter*, 1921 (R), common. Previously listed as common in Irondequoit Bay.
- Potamogeton lucens* L. (See note on *P. angustifolius*.)
- Potamogeton natans* L. Irondequoit Bay and Buck Pond, *M. S. Baxter*, 1921 (R); Round Pond, Braddock Bay, common; Long Pond, rare; mouth of Sandy Creek, Mendon Ponds, *M. S. Baxter*, 1921 (R), frequent.
- Potamogeton panormitanus* Biv. var. *major* G. Fischer. (*P. pusillus* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) Irondequoit Bay at Newport, *W. A. Matthews*, 1924 (NYS), cited by Fernald (*Mem. Amer. Acad. Arts & Sciences* 17: 1-183. 1932.); deep water, Braddock Bay, *R. T. Clausen & W. A. Hinkey*, 1939 (C, NYS), rare.
- Potamogeton pectinatus* L. Irondequoit Bay, *E. P. Killip*, 1915 (R), Round Pond, Braddock Bay, frequent; Buck Pond, Long Pond, Cranberry Pond, mouth of Sandy Creek, rare; Mendon Ponds (R), common.
- Potamogeton perfoliatus* L. Previously listed as common in the bays, ponds and slow streams. Clausen (1940) doubts the specific distinction between *P. perfoliatus* and *P. Richardsonii*. The early reports should perhaps be referred to the latter species.
- Potamogeton praelongus* Wulf. Mendon Ponds, *M. S. Baxter*, 1922 (R), common; not reported elsewhere within the county.
- Potamogeton Richardsonii* (Benn.) Rydb. (*P. perfoliatus* var. *lanceolatus* of Monroe Co. List.) Growing in 3-4 feet of water. Irondequoit Bay, *E. P. Killip*, 1915 (R); Buck Pond, *M. S. Baxter*, 1921 (R), Braddock Bay, mouth of Sandy Creek, rare.
- Potamogeton Robbinsii* Oakes. Previously listed as common in Irondequoit Bay.
- Potamogeton strictifolius* Benn. var. *rutiloides* Fern. (*Memoirs Gray Herb.* 3: 57-60. 1932.) Growing in 2-4 feet of water, Mendon Ponds, *W. Stepka*, 1940 (R), *M. S. Baxter*, 1921 (R, NYS), abun-

dant. This station is cited by Fernald (Mem. Amer. Acad. Arts and Sciences 17: 1-183. 1932.)

Najas flexilis (Willd.) Rostk. & Schmidt. NAIAD. Irondequoit Bay, rare; Round Pond, Buck Pond, mouth of Sandy Creek, frequent; Braddock Bay, Mendon Ponds, *E. P. Killip*, 1915 (R), Bullhead Pond, *R. T. Clausen & W. A. Hinkey*, 1939 (C), common. Previously listed as common.

Najas marina L. LARGE NAIAD. In 3 feet of water, Mendon Ponds, *R. T. Clausen & W. A. Hinkey*, 1939 (C). Formerly in Irondequoit Bay, *G. T. Fish*, 1865 (R); *M. S. Baxter*, 1915 (R, NYS); *E. P. Killip*, 1915 (R), and previously reported.

Najas minor Allioni. Braddock Bay, *R. T. Clausen & W. A. Hinkey*, 1939 (C), frequent.

JUNCAGINACEAE

Triglochin palustris L. ARROW-GRASS. Marly meadows and shores. Mendon Ponds Park (R); north of Langpap Rd., Mendon (R); Blue Pond, Scottsville, *W. A. Matthews*, 1931 (WAM).

ALISMACEAE

Alisma Plantago-aquatica L. var. **parviflorum** (Pursh) Farwell. Muddy stream margin, Mendon Ponds Park (R).

GRAMINEAE³

BROMUS COMMUTATUS Schrad. HAIRY CHESS. Adventive, Mendon Ponds Park (R).

BROMUS INERMIS Leyss. SMOOTH BROME GRASS. Corbett's Glen, Brighton, *M. S. Baxter*, 1921 (R); East Rochester, *M. S. Baxter*, cited by House (N. Y. State Mus. Bull. 254: 124. 1924.); Forest Lawn, Webster, *M. S. Baxter*, 1924 (R).

BROMUS MOLLIS L. (*B. hordeaceus* of Gray's Man., ed. 7, and of House.) SOFT CHESS. Adventive in waste ground, Jaeschke's Mill, Bushnell's Basin, *E. P. Killip*, 1919 (R). Previously listed but with no specific location.

FESTUCA CAPILLATA Lam. (*F. ovina* var. *capillata* of Gray's Man., ed. 7.) HAIR FESCUE. Pittsford, *F. S. Boughton*, 1919 (R).

Poa languida Hitchc. (Biol. Soc. Wash. Proc. 41: 158. 1928.) (*P. debilis* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) Meadows, Adams Basin, *M. S. Baxter*, 1877 (R); sphagnum bogs, Perinton, *M. S. Baxter*, 1911 (R); woods, Pittsford, *E. P. Killip*, 1919 (R). Previously listed from Irondequoit and Mendon.

³ Owing to the large number of misidentifications of *Panicum* all species in this genus in previous Monroe County lists have been included and locality citations have been given whenever specimens were available. The authors are indebted to Mrs. Agnes Chase for identifying all of the specimens cited in this difficult group and a number of specimens in other genera of the Gramineae, as well.

- Eragrostis hypnoides** (Lam.) BSP. (*E. reptans* of Monroe Co. List.) Wet sand. Henrietta, *M. S. Baxter*, 1908 (R). Previously listed from the shores of Lake Ontario and the banks of the Genesee River and also from Penfield and Greece (Paine, 1865).
- Eragrostis peregrina** Wieg. (*Rhodora* 19: 95. 1917.) East Rochester, *M. S. Baxter*, 1923 (R).
- ERAGROSTIS POAEOIDES (L.) Beauv. (*E. minor* of Gray's Man., ed. 7; *E. Eragrostis* of House.) Adventive. Pittsford, *F. S. Boughton*, 1917 (R), *M. S. Baxter*, 1921 (R); East Rochester, *M. S. Baxter*, 1920 (R); Charlotte, *W. A. Matthews & D. M. White*, 1931 (WAM); Rochester (R).
- CYNOSURUS CRISTATUS L. CRESTED DOGTAIL. Adventive in waste places and cultivated fields. Pittsford, *F. S. Boughton*, 1919 (R). Previously listed from Rochester.
- Phragmites communis** Trin. (*Phragmites Phragmites* of House.) REED GRASS. Bog, east of Spencerport, Ogden (R); Buck Pond marsh (R). Previously listed from Hamlin, Round Pond and Mendon Ponds.
- Triodia flava* (L.) Smyth. (*Tridens flavus* of Gray's Man., ed. 7, and of Monroe Co. List.) The previous report from Bushnell's Basin (Proc. Roch. Acad. Sci. 5: 78. 1917.) was based on a misidentification of *Panicum virgatum*.
- AGROPYRON SMITHII Rydb. BLUESTEM WHEATGRASS. Cobb's Hill, Rochester, *M. S. Baxter*, 1920 (R); along the railroad, East Rochester, *M. S. Baxter*, 1920 (R), cited by House (N. Y. State Mus. Bull. 243-244: 38. 1923.) under the name *A. pseudorepens*.
- Agropyron subsecundum** (Link) Hitchc. (Amer. Jour. Bot. 21: 131. 1934.) (*A. caninum* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) BEARDED WHEATGRASS. Mendon Ponds, *G. T. Fish*, 1865 (R). Previously listed as frequent.
- Sphenopholis intermedia** (Rydb.) Rydb. (*S. pallens* of Gray's Man., ed. 7, and of House; probably *Eatonia pennsylvanica* of Monroe Co. List.) SLENDER WEDGEGRASS. Penfield, *M. S. Baxter*, 1910 (R); Mendon, *M. S. Baxter*, 1921 (R). Previously listed as frequent on moist banks and at the borders of marshes.
- Sphenopholis nitida** (Spreng.) Scribn. (*Eatonia Dudleyi* of Monroe Co. List.) WEDGEGRASS. Dry wooded hillsides. Around Irondequoit Bay, *M. S. Baxter*, *E. P. Killip*, 1919 (R); Mendon Ponds, *E. P. Killip*, 1919 (R); Woolston's, Perinton, *E. P. Killip*, 1921 (R). Previously listed from the moist bank of the Genesee River.
- ARRHENATHERUM ELATIUS (L.) Mert. & Koch. (*A. avenaceum* of Monroe Co. List.) TALL OATGRASS. Roadsides, Mendon, *M. S. Baxter*, 1905 (R). Previously listed from Rochester.

- HOLCUS LANATUS** L. (*Notholcus lanatus* of House.) VELVET GRASS. Roadside, Mendon Ponds Park (R). Previously listed from Genesee Valley Park and from Rochester.
- Calamagrostis inexpansa** Gray. NORTHERN REEDGRASS. Marly meadow, Mendon Ponds Park (R).
- Sporobolus asper** (Michx.) Kunth. East Rochester, *M. S. Baxter*, 1921 (R).
- Sporobolus cryptandrus** (Torr.) Gray. Cobb's Hill, Rochester, *M. S. Baxter*, 1922 (R). Previously listed from the sandy shore of Lake Ontario.
- Sporobolus neglectus** Nash. Genesee Valley Park, Rochester, *M. S. Baxter*, 1918 (R).
- Leptoloma cognatum** (Schult.) Chase. FALL WITCHGRASS. Along the railroad tracks near East Rochester, *M. S. Baxter*, 1920 (R), *D. M. White*, cited by House (N. Y. State Mus. Bull. 243-244: 38. 1923.).
- Panicum barbulatorum** Michx.³ Near Float Bridge, Irondequoit Bay, *M. S. Baxter*, 1919 (R); dry wooded slopes, Mendon Ponds Park, *R. H. Goodwin*, 1942 (USNM).
- Panicum boreale** Nash. Sandy fields, Mendon Ponds, *K. M. Wiegand*, 1918 (C). Previously listed from Irondequoit.
- Panicum Boscii** Poir. Woolston's, Perinton, *M. S. Baxter*, 1920 (R).
- Panicum capillare** L. WITCHGRASS. A common weed. Previously listed.
- Panicum clandestinum** L. Previously listed from Penfield. No specimens have been seen.
- Panicum commutatum** Schult. Rochester, *M. S. Baxter*, 1879 (R). Previously listed from Irondequoit.
- Panicum depauperatum** Muhl. (Including *P. depauperatum* var. *psilophyllum* Fern.) Irondequoit Bay at Sea Breeze, *M. S. Baxter*, 1917 (R) and at Inspiration Point, *M. S. Baxter*, 1921 (R); East Rochester, *M. S. Baxter*, 1927 (R). Previously listed as frequent within the county.
- Panicum dichotomiflorum** Michx. (*P. proliferum* of Monroe Co. Lists.) Railroad yards, Rochester, *C. M. Booth*, 1896 (R). Previously listed from Penfield.
- Panicum dichotomum** L. Dry fields, Perinton, *M. S. Baxter*, 1911 (R); Mendon, *E. P. Killip*, 1915 (R); Irondequoit Bay, *E. P. Killip*, 1919 (R). Previously listed as common within the county.
- Panicum huachucae** Ashe. Mendon, *M. S. Baxter*, 1909 (R); Long Pond, *M. S. Baxter*, 1919 (R); Seneca Park, Rochester, *M. S. Baxter*, 1920 (R); Buck Pond and Irondequoit Bay, *M. S. Baxter*, 1922 (R); Braddock Bay (R, USNM).

³See footnote, page 307.

- Panicum huachucae** var. **fasciculatum** (Torr.) F. T. Hubb. (*P. huachucae* var. *silvicola* of Gray's Man., ed. 7, and of House.) Dry sandy field, Mendon Ponds, *K. M. Wiegand*, 1918 (C).
- Panicum implicatum** Scribn. Woods Crossing, *M. S. Baxter*, 1917 (R); Buck Pond, *M. S. Baxter*, 1922 (R). The specimens previously listed should have been referred to other species.
- Panicum latifolium** L. (*P. macrocarpon* of Monroe Co. List.) River Bank, near Rochester, *J. B. Fuller* (R); Penfield, *M. S. Baxter*, 1893 (R); dry wooded slopes, Mendon Ponds Park, *R. H. Goodwin*, 1942 (USNM). Previously listed as frequent.
- Panicum linearifolium** Scribn. Dry wooded slopes, Mendon Ponds Park, *R. H. Goodwin*, 1942 (USNM).
- Panicum meridionale** Ashe. Penfield, *M. S. Baxter*, 1895 (R).
- PANICUM MILIACEUM** L. BROOMCORN MILLET. An escape, Rochester, *J. B. Fuller*, 1897 (R), *M. S. Baxter*, 1922 (R). Previously listed from Rochester.
- Panicum scoparium** Lam. (*P. pubescens* of Monroe Co. List.) Previously listed from Irondequoit. No specimens have been seen.
- Panicum Scribnerianum** Nash. Penfield, *M. S. Baxter*, 1910 (R); Manitou Beach, *E. P. Killip*, 1915 (R); Pittsford, *F. S. Boughton*, 1919 (R); Inspiration Point, Irondequoit Bay, *M. S. Baxter*, 1921 (R); East Rochester and Buck Pond, *M. S. Baxter*, 1922 (R); Long Pond, Greece, *A. B. Lechenby* (R), *H. D. House* (N. Y. State Mus. Bull. 254: 82. 1924.). Previously listed from Irondequoit and Mendon.
- Panicum sphaerocarpon** Ell. Penfield, *M. S. Baxter*, 1895 (R); Woolston's, Perinton, *M. S. Baxter*, 1920 (R); Irondequoit, *H. D. House* (N. Y. State Mus. Bull. 254: 82. 1924.); Irondequoit Bay, *M. S. Baxter*, 1922 (R); Mendon Ponds Park (R).
- Panicum spretum** Schult. Previously listed from Irondequoit. No specimens have been seen.
- Panicum subvillosum** Ashe. Dry sandy soil. Mendon, *E. P. Killip*, 1915 (R); Inspiration Point, Irondequoit Bay, *M. S. Baxter*, 1921 (R). The Mendon specimens were erroneously reported as *P. implicatum* (Proc. Roch. Acad. Sci. 5: 77. 1917; N. Y. State Mus. Bull. 254: 79. 1924.).
- Panicum tennesseense** Ashe. Wet meadow, Long Pond, Greece, *E. P. Killip*, 1917 (R).
- Panicum tsugetorum** Nash. Penfield, *M. S. Baxter*, 1910 (R); Mendon, *M. S. Baxter*, 1918 (R); Inspiration Point, Irondequoit Bay, *M. S. Baxter*, 1921 (R); East Rochester, *M. S. Baxter*, 1927 (R).
- Panicum villosissimum** Nash. Penfield, *M. S. Baxter*, 1895 (R); sandy hillside in partial shade, Irondequoit, *H. D. House*, 1919 (NYS)

(N. Y. State Mus. Bull. 233-234: 11. 1921; 254: 81. 1924.), *M. S. Baxter*, 1919 (R); Woolston's, Perinton, *M. S. Baxter*, 1920 (R).

***Panicum virgatum* L.** SWITCHGRASS. Bushnell's Basin, *M. S. Baxter*, 1910 (R); railroad tracks, East Rochester, *M. S. Baxter*, 1920 (R). Previously listed as rare, in sandy soil, Penfield. The specimens from Bushnell's Basin were erroneously reported as *Tridens flavus* (Proc. Roch. Acad. Sci. 5: 78. 1917.).

SETARIA LUTESCENS (Wiegel) F. T. Hubb. (*S. glauca* of Gray's Man., ed. 7, and of Monroe Co. List; *Chaetochloa lutescens* of House.) YELLOW BRISTLEGRASS. YELLOW FOXTAIL. Fields, roadsides and waste ground, common. Adams Basin, *M. S. Baxter*, 1878 (R); Rochester, *M. S. Baxter*, 1897 (R); Irondequoit, *F. Beckwith*, 1912 (R); Mendon Ponds Park (R). Previously reported as common. A specimen from Mendon (*E. P. Killip*, 1915 (R)) was erroneously listed as *S. virescens* (Proc. Roch. Acad. Sci. 5: 77. 1917.).

SETARIA VERTICILLATA (L.) Beauv. (*Chaetochloa verticillata* of House.) BUR BRISTLEGRASS. Pittsford, *F. S. Boughton*, 1918 (R). Previously listed from Rochester.

***Andropogon furcatus* Muhl.** TALL BLUESTEM. Map 9. With the exception of the station on the Brighton-Henrietta town line, which represents a recent introduction along a railroad right-of-way, the stations for this species occur on sand or gravel deposits and mark the locations of local prairie communities which occupied openings in the upland oak forests. The Wheatland station is in the Garbutt Cemetery about a mile east of a "great lot" described as "excellent openings" in the original land survey notes (Smith, 1804).

***Andropogon scoparius* Michx.** LITTLE BLUESTEM. Map 11. More widespread and occupying even drier sites. This was the most abundant and characteristic grass of the oak openings. In addition to the sandy and gravelly sites mentioned, it also occurs on thin soils associated with outcrops of the Onondaga limestone near the escarpment in southern Rush and southwestern Wheatland.

***Sorghastrum nutans* (L.) Nash.** (*Chrysopogon nutans* of Monroe Co. List.) INDIAN GRASS. Map 10. Associated with *Andropogon furcatus* and *A. scoparius* in the oak openings and persisting on the same or similar sites. Also present in the marly meadow north of Quaker Pond, Mendon Ponds Park (R).

CYPERACEAE⁴

***Cyperus filiculmis* Vahl. var. *macilentus* Fern.** (Rhodora 37: 153-154. 1935.) Open places in dry sandy soil. Mendon Ponds Park (R). Previously reported as *C. filiculmis* from the region surrounding Irondequoit Bay.

⁴ We are indebted to Dr. Henry K. Svenson for the determination of specimens of *Scirpus*, *Cyperus*, and *Eleocharis*, and to Dr. Frederick J. Hermann for the determination of specimens of *Carex*.

- Cyperus rivularis** Kunth. Mendon, *M. S. Baxter*, 1917 (R), *K. M. Wiegand*, 1918 (C); mud at margin of Quaker Pond, Mendon Ponds Park (R).
- Scirpus acutus** Muhl. (*S. occidentalis* of Gray's Man., ed. 7, and of Monroe Co. List.) BULRUSH. Buck Pond, *M. S. Baxter*, 1919 (R), Long Pond, Braddock Bay, *M. S. Baxter*, 1917 (R), common; Cranberry Pond, frequent; Irondequoit Bay, *M. S. Baxter*, 1916 (R) and mouth of Sandy Creek, rare; Mendon Ponds (R), common (Clausen, 1940); Ontario Beach, *W. A. Matthews*, 1921 (NYS). Previously listed only from Braddock Bay.
- Scirpus atrovirens** Muhl. var. **georgianus** (Harper) Fern. (*Rhodora* 23: 134. 1921.) (*S. georgianus* of Gray's Man., ed. 7.) Mendon, *W. A. Matthews*, cited by House (N. Y. State Mus. Bull. 254: 149. 1924.).
- Scirpus pedicellatus** Fern. Pittsford, *H. D. House* (N. Y. State Mus. Bull. 254: 151. 1924.); wet depression, Mendon Ponds Park (R).
- Scirpus planifolius** Muhl. Dry wooded hillsides. Perinton, *M. S. Baxter*, 1911 (R); Mendon Ponds Park (R).
- Scirpus polyphyllus** Vahl. Boggy woods, Mendon Ponds Park, *R. H. Goodwin & W. Stepka*, 1940 (R).
- Scirpus validus** Vahl. (*S. lacustris* of Monroe Co. List.) GREAT BULRUSH. Irondequoit Bay, *E. P. Killip*, 1917 (R), Round Pond, frequent; Long Pond, Braddock Bay, *M. S. Baxter*, 1920 (R), mouth of Sandy Creek, rare; Mendon Ponds (R), common (Clausen, 1940). Churchville, *M. S. Baxter*, 1917 (R); Adams Basin, *M. S. Baxter*, 1878 (R); Hamlin, *M. S. Baxter*, 1894 (R). Previously listed as common.
- Eleocharis calva** Torr. (*E. palustris*, in part, of recent authors.) Margins of ponds. Manitou, *E. P. Killip*, 1915 (R); Woolston's, Perinton, *M. S. Baxter*, 1915 (R); Buck Pond and Long Pond, *M. S. Baxter*, 1919 (R); Pittsford, *E. P. Killip*, 1919 (R); Mendon Ponds Park (R). A collection from Mendon, *E. P. Killip*, 1915, was erroneously reported as *E. rostellata* (*Proc. Roch. Acad. Sci.* 5: 79. 1917.).
- Eleocharis elliptica** Kunth. (*Rhodora* 41: 65. 1939.) Mendon Ponds, *M. S. Baxter*, 1919 (R). Fide H. K. Svenson.
- Eleocharis equisetoides** (Ell.) Torr. (*E. interstincta* of Gray's Man., ed. 7, and of House.) Growing in 1-2 feet of water, Mendon Ponds, *W. A. Matthews*, 1921, cited by House (N. Y. State Mus. Bull. 243-244: 40. 1923; 254: 136. 1924.); *M. S. Baxter*, 1921 (R, NYS). This was the only known station for this species within the state and it apparently no longer occurs in this locality.

- Eleocharis palustris** (L.) R. & S. var. **major** Sonder. (Rhodora 31: 61. 1929.) (*E. palustris*, in part, of Gray's Man., ed. 7, and of Monroe Co. List.) Cranberry Pond, *M. S. Baxter*, 1922 (R); outlet of Long Pond, *M. W. Allen*, 1937 (C).
- Eleocharis pauciflora** (Lightf.) Link. (*Scirpus pauciflorus* of Gray's Man., ed. 7, and of House.) Marly marsh-meadow, Mendon Ponds Park (R). Fide H. K. Svenson.
- Eleocharis rostellata** Torr. Marly meadow, Mendon Ponds Park (R).
- Eleocharis Smallii** Britton. (*E. palustris*, in part, of recent authors.) Bullhead Pond, *R. T. Clausen & W. A. Hinkey*, 1939 (C), rare.
- Fimbristylis autumnalis** (L.) R. & S. var. **mucronulata** (Michx.) Fern. (Rhodora 37: 398. 1935.) (*F. Frankii* of Gray's Man., ed. 7; *Trichelostylis autumnalis* of House.) Sandbar, outlet of Irondequoit Bay, *W. A. Matthews*, 1922 (R, NYS), cited by Clausen (1940) as *F. mucronulata* (Michx.) Blake.
- Rynchospora capillacea** Torr. Lily Pond bog, Bushnell's Basin (R); marly springy places, Mendon Ponds Park (R). Collected periodically since 1878 at Mendon Ponds by *M. S. Baxter*. Previously reported from the banks of the Genesee River at Rochester.
- Carex albursina** Sheldon. (*C. laxiflora* var. *latifolia* of Gray's Man., ed. 7, and of Monroe Co. List.) Rich woods. Palmer's Glen, *H. D. House*, 1917 (N. Y. State Mus. Bull. 205-206: 16. 1919.); Mendon Ponds Park (R). Previously listed as frequent.
- Carex alopecoidea** Tuckerm. Margin of Little Black Creek, Chili (R). Previously listed from Monroe Co. with no specific location.
- Carex blanda** Dewey. (*C. laxiflora* var. *blanda* of Gray's Man., ed. 7, and of Monroe Co. List.) Dry woods. Pinnacle Hills, Rochester, *M. S. Baxter*, 1893 (R); Mendon Ponds Park (R). Previously listed from Mendon.
- Carex Buxbaumii** Wahl. (*C. polygama* of Gray's Man., ed. 7; *C. fusca* of Monroe Co. List.) Marsh meadows, Mendon Ponds Park (R), *H. D. House*, 1917 (N. Y. State Mus. Bull. 205-206: 16. 1919.). Previously reported from the banks of the Genesee River (Greece) by *S. B. Bradley* (Paine, 1865).
- Carex canescens** L. Sphagnum bog, Mendon Ponds Park (R).
- Carex canescens** var. **disjuncta** Fern. Sphagnum bog, Mendon Ponds Park (R).
- Carex canescens** var. **subloliacea** Laest. Mucky margin of sphagnum bog, Mendon Ponds Park (R).
- Carex Careyana** Torr. Brockport, *M. S. Baxter*, 1897 (R); Pittsford, *M. S. Baxter*, 1922 (R). Previously listed from woods near the Genesee River, Henrietta, and Mendon.
- Carex castanea** Wahl. Sphagnum bog, Mendon Ponds, *E. P. Killip*, 1917 (R).

- Carex comosa** Boott. × **C. retrorsa** Schw. Mendon Pond, *M. S. Baxter*, 1911 (R), cited by House (N. Y. State Mus. Bull. 254: 199. 1924.). Previously listed as *C. vulpinoidea* × *C. comosa* (Proc. Roch. Acad. Sci. 5: 80. 1917.).
- Carex conoidea** Schk. Near Quaker Pond, Mendon Ponds Park, *M. S. Baxter*, 1917 (R). Previously listed from Long Pond.
- Carex convoluta** Mack. (Bull. Torrey Bot. Club 43: 428. 1916.) Woolston's, Perinton, *M. S. Baxter*, 1917 (R); Palmer's Glen, *H. D. House* (N. Y. State Mus. Bull. 243-244: 38. 1923.); Mendon Ponds Park (R).
- Carex cryptolepis** Mack. (Torreya 14: 156. 1914.) (*C. flava*, in part, of Gray's Man., ed. 7, and of Monroe Co. List.) Wet meadows, Mendon Ponds Park (R), *M. S. Baxter*, 1917 (R).
- Carex Davisii** Schw. & Torr. Rich alluvial woods, West Rush, *K. M. Wiegand*, 1921 (C), *M. S. Baxter*, 1921 (R).
- Carex eburnea** Boott. Boggy stream margin, arbor vitae swamp, Riga (R). Previously reported as frequent on dry cliffs along the Genesee River.
- Carex exilis** Dewey. Marly meadows, Mendon Ponds Park (R).
- Carex formosa** Dewey. Rush, *M. S. Baxter*, 1920 (R). Previously listed from Seneca Park.
- Carex Grayii** Carey. (*C. Asa-grayi* of House.) Alluvial woods and meadows. Black Creek, Chili (R); Rush, *M. S. Baxter*, 1920 (R); Mendon Ponds Park, *W. A. Matthews*. Previously reported from near Rochester and from Irondequoit Bay.
- Carex grisea** Wahl. West Rush, *M. S. Baxter*, 1917 (R); Perinton, *M. S. Baxter*, cited by House (N. Y. State Mus. Bull. 254: 184. 1924.); Chili (R). Previously listed from the vicinity of Rochester.
- Carex Haleana** Olney. (*C. granularis* var. *Haleana* of Gray's Man., ed. 7, and of Monroe Co. List; *C. Shriveri* of House.) Moist woods, Mendon Ponds Park (R).
- Carex hirtifolia** Mack. (Bull. Torrey Bot. Club 37: 244. 1910.) (*C. pubescens* of Gray's Man., ed. 7, and of Monroe Co. List.) Jaeschke's Mill, Bushnell's Basin, *M. S. Baxter*, 1921 (R).
- Carex Howei** Mack. (Bull. Torrey Bot. Club 37: 245. 1910.) (*C. scirpoides* var. *capillacea* of Gray's Man., ed. 7.) Riga, *F. Beckwith*, 1910 (R); mossy hummocks in wet boggy woods, Mendon Ponds Park (R), *M. S. Baxter*, 1917 (R); sphagnum bog near Woolston's, Perinton, *E. P. Killip*, 1921 (R).
- Carex Jamesii** Schwein. Open woods, near Honeoye Falls, Mendon, *W. A. Matthews*, 1941 (R).
- Carex laevivaginata** (Kükenth.) Mack. (Rhodora 17: 231. 1915.) (*C. stipata*, in part, of Gray's Man., ed. 7.) Palmer's Glen, *M. S. Baxter*, 1922 (R); Mendon Ponds Park (R).

- Carex lasiocarpa** Ehrh. (*C. filiformis* of Gray's Man., ed. 7, and of Monroe Co. List.) Marshes, Mendon Ponds, *E. P. Killip*, 1917 (R); lake beach at Long Pond, *M. S. Baxter*, 1919 (R).
- Carex laxiflora** Lam. Dry woods. Palmer's Glen, *E. P. Killip*, 1917 (R); Mendon Ponds Park (R). Previously listed as frequent.
- Carex leptoneuria** (Fern.) Fern. Dry woods, Pittsford, *M. S. Baxter*, 1895 (R).
- Carex livida** (Wahl.) Willd. Marsh, Mendon Ponds, *M. S. Baxter*, 1917 (R); *E. P. Killip*, cited by House (N. Y. State Mus. Bull. 205-206: 16. 1919; 254: 178. 1924.).
- Carex Muhlenbergii** Schk. Dry sandy soil. Jaeschke's Mill, Bushnell's Basin, *E. P. Killip* (R); west of East Rochester, Pittsford (R). Previously listed from near Irondequoit Bay, Braddock Bay, and Mendon Ponds.
- Carex Muhlenbergii** var. **enervis** Boott. (*C. plana* of House.) Crests of the dry gravelly eskers, Mendon Ponds Park (R). Baxter (Proc. Roch. Acad. Sci. 3: 122. 1896.) reported a form approaching this variety at Mendon Ponds.
- Carex pallescens** L. Moist meadows. Irondequoit Creek, Penfield, *E. P. Killip*, 1916 (R); Mendon, *M. S. Baxter*, 1917 (R); Little Black Creek, Chili (R). Previously listed from Woolston's, Perinton, and Seneca Park, Rochester.
- Carex Peckii** E. C. Howe. (*C. Emmonsii* Dewey var. *elliptica* Boott.) Reported from Rochester by *C. Dewey* (Paine, 1865). No specimen has been seen to confirm this report.
- Carex prairea** Dewey. (*C. diandra* var. *ramosa* of Gray's Man., ed. 7; *C. teretiuscula* var. *ramosa* of Monroe Co. List.) Boggy meadow, Mendon Ponds Park (R).
- Carex rugosperma** Mack. (Bull. Torrey Bot. Club 42: 621. 1915.) (*C. umbellata*, in part, of Gray's Man., ed. 7, and of Monroe Co. List.) Dry sandy soil. Bushnell's Basin, *M. S. Baxter*, 1919 (R); near Irondequoit Bay, Webster, *M. S. Baxter*, 1924 (R).
- Carex saltuensis** Bailey. (*C. vaginata* of Gray's Man., ed. 7, and of House.) Powder Mills, Perinton, *M. S. Baxter*, 1921 (R); Riga, *M. S. Baxter*, 1921 (NYS). According to Mackenzie (North Amer. Flora 18: 241. 1935.) Bergen Swamp, Genesee Co., is the type locality for this species.
- Carex Sartwellii** Dewey. Marsh meadows, Mendon Ponds Park (R), *M. S. Baxter*, 1917 (R), 1921, cited by House (N. Y. State Mus. Bull. 243-244: 38. 1923.). Previously listed as rare in Monroe Co.
- Carex scabrata** Schw. Swampy woods, Riga, *W. A. Matthews*, 1940 (WAM). Previously listed from Rich's Dugway.

- Carex siccata** Dewey. Dry sandy soil. Penfield, *M. S. Baxter*, 1897 (R); Mendon Ponds, *M. S. Baxter*, 1920 (R); Inspiration Point, Webster, *M. S. Baxter*, 1921 (R); East Rochester, Pittsford (R). Previously listed from Penfield.
- Carex strictior** Dewey. (Mackenzie, North Amer. Flora 18: 404. 1935.) (Probably *C. stricta*, in part, of Monroe Co. List.) Mendon, *M. S. Baxter*, 1896 (R). Fide F. J. Hermann.
- Carex substricta** (Kükenth.) Mack. (Rydberg, Flora Rocky Mts. 139. 1917.) (*C. aquatilis*, in part, of Gray's Man., ed. 7, and of Monroe Co. List.) Marsh meadows, Mendon Ponds Park (R); Round Pond, *H. D. House* (N. Y. State Mus. Bull. 254: 192. 1924.).
- Carex tetanica** Schk. Mendon Ponds, *G. T. Fish*, 1868 (R), *H. D. House* (N. Y. State Mus. Bull. 254: 178. 1924.); Woolston's, Perinton, *M. S. Baxter*, 1917 (R).
- Carex tonsa** (Fern.) Bickn. (*C. umbellata* var. *tonsa* of Gray's Man., ed. 7; *C. umbellata*, in part, of Monroe Co. List.) Dry sandy soil. East Rochester, *M. S. Baxter*, 1911 (R), cited by *House* (N. Y. State Mus. Bull. 254: 176. 1924.); Penfield, *M. S. Baxter*, 1918 (R); Jaeschke's Mill, Bushnell's Basin, *E. P. Killip*, 1919 (R).
- Carex trisperma** Dewey var. **Billingsii** Knight. Sphagnum bog, Mendon Ponds Park (R), *M. S. Baxter*, 1906 (R), *H. D. House* (N. Y. State Mus. Bull. 243-244: 38. 1923.).
- Carex Tuckermani** Boott. Low woods near Mendon Center, *W. A. Matthews*, 1941 (R). Previously listed from Charlotte, Chili, and Penfield.
- Carex umbellata** Schk. Dry sandy soil, east side of Irondequoit Bay, *G. T. Fish*, 1865 (R). Previously listed as infrequent.
- Carex virescens** Muhl. Upland woods. Palmer's Glen, *E. P. Killip*, 1917 (R), *M. S. Baxter*, 1921 (R); near Braddock Bay, Greece (R). Previously listed from near Rochester and from Adams Basin.
- Carex Woodii** Dewey. (*C. tetanica* var. *Woodii* of Gray's Man., ed. 7, and of Monroe Co. List.) East Rush, *W. A. Matthews*, 1930 (R); Burroughs-Audubon Station, near Powder Mill Park, *E. P. Killip*, 1936 (R).

ARACEAE

- Arisaema Stewardsonii** Britt. (Britton & Brown, Ill. Flora, ed. 2, 1: 443. 1913.) Boggy woods, Mendon Ponds Park (R). This form has been reduced to a variety of the former *A. triphyllum* (see Fernald's note to this effect in *Rhodora* 23: 136. 1921.), but in view of the recent change in name of *A. triphyllum* to *A. atrorubens*, Fernald's more recent treatment of this group (*Rhodora* 42: 247-254. 1940.) has been followed here.

LEMNACEAE

- Wolffia columbiana** Karst. (*Bruniera columbiana* of House.) COMMON WOLFFIA. Irondequoit Bay (R), Buck Pond, pond on the River Campus of the University of Rochester, Mendon Ponds (R). Previously listed from Irondequoit Bay.
- Wolffia punctata** Griseb. (*Bruniera punctata* of House; *W. brasiliensis* of Monroe Co. List.) DOTTED WOLFFIA. Irondequoit Bay, Round Pond, Buck Pond, Long Pond, Braddock Bay, mouth of Sandy Creek, Mendon Ponds (Clausen, 1940). Previously listed from Irondequoit Bay.

JUNCACEAE

- Juncus alpinus** Vill. var. *rariflorus* Hartm. (*Rhodora* 35: 233. 1933.) (*J. alpinus* var. *insignis* of Gray's Man., ed. 7, of House, and of Monroe Co. List.) Marshes and sandy shores. Hamlin, *M. S. Baxter*, 1894 (R); sandbar, Braddock Bay, *E. P. Killip*, 1915 (R); sandbar, Irondequoit Bay, *M. S. Baxter*, 1916 (R). Previously listed from the mouth of the Genesee River and Long Pond.
- Juncus articulatus** L. Gravelly shore, Mendon Ponds Park (R); gravel pit southeast of Parma, Greece (R); Brighton (R); Robertson Road, Riga (R); beach at Charlotte (R); sandbar, Braddock Bay (R). Previously listed from near the shores of Lake Ontario.
- Juncus balticus** Willd. var. *littoralis* Engelm. Wet meadows, Mendon Ponds Park (R). Previously listed from the sandy shores of Lake Ontario, where it is not uncommon.
- Juncus brachycephalus** (Engelm.) Buch. Marly meadows, Mendon Ponds Park (R). Previously reported from Mumford by *E. J. Hill* (*Bull. Torrey Bot. Club* 8: 47. 1881.).
- Juncus Dudleyi** Wieg. Wet shores and pastures. Mendon Ponds Park (R); Chili (R); Robertson Road, Riga (R).
- Juncus Torreyi** Coville. (*J. nodosus* var. *megacephalus* of Monroe Co. List.) Riga (R); sandbar, Braddock Bay (R). Previously listed from the wet sandy shore of Lake Ontario and from Long Pond.

LILIACEAE

- Chamaelirium luteum** (L.) Gray. (*C. carolinianum* of Monroe Co. List.) DEVIL'S BIT. BLAZING STAR. Beech woods, on steep gravelly slopes, Mendon Ponds Park, *G. T. Fish*, 1867 (R). This station still persists. Previously listed from the sandy ridges around Irondequoit Bay.
- Trillium cernuum** L. var. *macranthum* Wieg. (*Rhodora* 25: 191. 1923.) Rich moist woods, Coldwater Swamp, Gates, *K. M. Wiegand*, 1924 (C). The typical form of the species has previously been collected and reported from this station.

ORCHIDACEAE

SERAPIAS HELLEBORINE L. (*Epipactis Helleborine* of Monroe Co. List.) Shaded lawns, gardens, roadsides, thickets and woodlands; generally distributed throughout the county, our only weedy orchid. According to House (1924) this species was first recorded from New York State near Syracuse in 1879. It was probably originally introduced from Europe on account of supposed medicinal value. First collected in Monroe Co. near Rochester in 1894, it was subsequently listed from Webster, Forest Lawn, North Rush and South Henrietta and, in 1917, from the east side of Irondequoit Bay, Rattlesnake Point and Hamlin. A note in 1917 (Proc. Roch. Acad. Sci. 5: 63. 1917.) states that this species "in 1910 . . . was still considered scarce" . . . but that in 1917 ". . . it is being found in so many places that we are beginning to consider it almost common." The following additional stations are now reported, but the species can probably be found in a majority of the woodlots within the county. Highland Park, Genesee Valley Park, Rochester; Brighton; Fairport, Bushnell's Basin, Powder Mill Park, Baker Hill, Perinton; Mendon Ponds Park; Greece (R).

SALICACEAE

Salix petiolaris J. E. Smith. Round Pond, *E. P. Killip*, 1917 (R); Mendon Ponds (R), *A. J. Eames*, 1917 (C), *K. M. Wiegand*, 1918 (C); Coldwater Swamp, Gates, *K. M. Wiegand*, 1924 (C). Previously reported from Seneca Park.

Salix serissima (Bail.) Fern. AUTUMN WILLOW. Swamps, Mendon Ponds Park (R), *K. M. Wiegand*, 1918 (C). Previously reported from near Spencerport.

MYRICACEAE

Myrica carolinensis Mill. (*M. cerifera* of Monroe Co. List.) BAY-BERRY. Local in bogs and marly meadows, rarely on upland sites. Northeast corner of Ogden; Attridge Road bog, Riga; Mendon Ponds Park; southeastern Mendon. Previously reported from Seneca Park, Parma, Wheatland and Adams Basin.

BETULACEAE

Betula lenta L. SWEET BIRCH. BLACK BIRCH. Map 6. Frequent on the Lake Iroquois plain, north of the Ridge, where it was a characteristic though minor constituent of the hemlock-northern hardwood forest. South of the Ridge it is very infrequent, and usually occurs in bogs or areas of recent bog history. A comparison with the distribution of hemlock (Map 5) indicates the high degree of fidelity to the hemlock-northern hardwood forest type exhibited by this species.

Betula lutea Michx. f. YELLOW BIRCH. Although yellow birch is also a characteristic associate of hemlock in the hemlock-northern hardwood type, and is generally a more important constituent of these mixed stands than sweet birch, it is much less restricted in its distribution. It is known to occur in every town in the county. South of the Ridge it is largely restricted to bogs and swamps, but north of the Ridge it occurs on the upland as well.

FAGACEAE

Castanea dentata (Marsh.) Borkh. (*C. sativa* var. *americana* of Monroe Co. List.) CHESTNUT. Map 3. This species not only shared dominance in the oak-chestnut-pine forests north of Rochester but also occurred as a minor constituent of the more mesophytic forests of adjacent Greece and Webster, the Mendon Ponds region and the kame region of Perinton. Outlying stations occurred on local sand deposits, such as the area near Lawrence Road in Clarkson, Chestnut Ridge in Chili, and the scattered sandy knolls in Brighton. The chestnut has been almost completely eliminated as a forest tree by the chestnut blight during the last twenty years, but some trees continue to sprout and occasionally bear fruit.

Quercus bicolor Willd. SWAMP WHITE OAK. Widely distributed in the better-drained phases of the swamp forest, frequently associated with bur oak and shagbark hickory. Recorded from every town, but infrequent near the lake, in the Irondequoit Bay area and the kame area of southern Perinton.

Quercus macrocarpa Michx. BUR OAK. MOSSYCUP OAK. Widely distributed in the better-drained phases of the swamp forest and occasional on dry sites in the more open oak forests of southern Monroe County. Recorded from every town except Irondequoit but very infrequent near the lake and in the eastern towns.

Quercus montana Willd. (Rhodora 17: 40. 1915.) (*Q. Prinus* of Gray's Man., ed. 7, and of Monroe Co. List.) CHESTNUT OAK. Local on dry hills in the southeastern part of the county in association with white, black and red oaks. Recorded only from the kame area of southern Perinton and the Hopper Hills of southeastern Mendon. Previously listed from "banks of the Genesee river, ravines and hillsides; infrequent." The Genesee River report is supported by a collection from Seneca Park, *M. S. Baxter*, 1906 (R), but other former collections assigned to this species proved to be *Q. Muhlenbergii*.

Quercus Muhlenbergii Engelm. YELLOW OAK. Local in the better-drained phases of the swamp forest and on limestone outcrops. Recorded most frequently from the towns of Wheatland, Rush, Mendon, Riga, Chili, and Henrietta; also on thin soils overlying

the Lockport dolomite north of the Ridge, Clarkson; west of Brockport, Sweden; southwest corner of Ogden; west of Elmgrove, Greece; and south of East Rochester, Pittsford. Previously listed from the west bank of the Genesee River, Rochester.

Quercus velutina Lam. (*Q. coccinea* var. *tinctoria* of Monroe Co. List.) BLACK OAK. Widely distributed on dry slopes and uplands. Abundant in the oak forests of the southern part of the county, the Irondequoit valley and town of Irondequoit. Elsewhere infrequent, being absent from typical beech-maple or swamp forest stands. Recorded from every town, but infrequently from Hamlin, Clarkson, Sweden, Parma and Henrietta and the eastern parts of Webster and Penfield.

ULMACEAE

Ulmus racemosa Thomas. (*U. Thomasi* of House.) CORK ELM. ROCK ELM. Widely distributed in the county but of infrequent occurrence except in the southern parts of Rush and Mendon near the Onondaga escarpment. Apparently restricted to calcareous sites, it is the rarest of our three native elms. Not recorded from Clarkson, Ogden, Gates, Irondequoit or Webster. Previously listed from Brighton, Henrietta, and Sweden.

Celtis occidentalis L. HACKBERRY. Principally on low ground near streams in the southwest quarter of the county: near Black Creek in Chili and Riga; near Oatka Creek, Wheatland; near Honeoye Creek, Rush; and near the Genesee River in Wheatland and Henrietta. Previously listed from the east shore of Irondequoit Bay, Webster, where it still occurs, and near the Genesee River, Rochester.

URTICACEAE

Boehmeria cylindrica (L.) Sw. var. **Drummondiana** Wedd. (Rhodora 12: 10. 1910.) (*B. cylindrica* var. *scabra* of Gray's Man., ed. 7.) Marshes, Mendon Ponds Park (R), common. House (N. Y. State Mus. Bull. 243-244: 39. 1923.) cites a specimen collected by *M. S. Baxter*.

SANTALACEAE

Comandra Richardsiana Fern. A previous report of this species from Irondequoit (N. Y. State Mus. Bull. 254: 285. 1924.) should be referred to *C. umbellata*, fide H. D. House.

CHENOPODIACEAE

CORISPERMUM HYSSOPIFOLIUM L. BUG-SEED. Adventive along railroad. East Rochester, *M. S. Baxter*, 1921 (R), cited by House (N. Y. State Mus. Bull. 243-244: 40. 1923.).

AMARANTHACEAE

FROELICHIA GRACILIS (Hook.) Moq. Western adventive along the railroad tracks, East Rochester, *W. A. Matthews*, 1920 (WAM), *D. M. White*, cited by House (N. Y. State Mus. Bull. 243-244: 39. 1923; 254: 303. 1924.).

CARYOPHYLLACEAE

SPERGULA SATIVA Boenn. SPURRY. Adventive in lawn, Rochester (R).
DIANTHUS ARMERIA L. DEPTFORD PINK. Roadside escape. Rochester, *E. P. Killip*, 1913 (R); Mendon Ponds Park (R). Previously listed from Penfield and Gates.

RANUNCULACEAE

Ranunculus hispidus Michx. BRISTLY BUTTERCUP. Sandy upland woods. Irondequoit Bay, *H. C. Maine*, 1881 (R), *D. M. White*, 1917, cited by House (N. Y. State Mus. Bull. 243-244: 39. 1923.); Mendon Ponds Park (R); Bushnell's Basin, *M. S. Baxter*, 1921 (R), cited by House (loc. cit.). Both the species and its var. *falsus* Fern. (*Rhodora* 22: 30. 1920.) occur at these stations.

Thalictrum revolutum DC. WAXY MEADOW RUE. Dry sandy woods, east side of Irondequoit Bay, *K. M. Wiegand & M. S. Baxter*, 1921 (R), cited by House (N. Y. State Mus. Bull. 243-244: 40. 1923.).

MAGNOLIACEAE

Magnolia acuminata L. CUCUMBER TREE. Rare in the mesophytic upland woods of southeastern Mendon. Recorded from five woodlots, all less than a mile from the county line. Previously reported from Parma in the original land survey notes (Smith, 1805) and in the Monroe Co. List, *M. S. Baxter*, 1878 (R), but it has not been recorded from there in recent years.

Liriodendron Tulipifera L. TULIP TREE. TULIP POPLAR. Map 4. Infrequent but widely distributed throughout the county in mesophytic woods. Recorded from every town in the county, but there are no records from most of Riga, the southern part of Sweden or the southern part of Rush.

ANONACEAE

Asimina triloba (L.) Dunal. PAWPAW. Moist woods, principally near streams, in the western part of the county. Recorded from twenty-seven stations in the towns of Clarkson, Sweden, Parma, Ogden, Riga, and Greece. Previously listed as rare, from Greece, Parma, Brockport, and Adams Basin.

CRUCIFERAE

- LEPIDIUM PERFOLIATUM** L. PERFOLIATE PEPPERGRASS. Adventive along railroad, Pittsford, *F. S. Boughton*, 1921 (R), *M. S. Baxter*, 1921 (NYS), cited by House (N. Y. State Mus. Bull. 243-244: 40. 1923; 254: 360. 1924.).
- CAMELINA MICROCARPA** Andrz. FALSE FLAX. Dry fields and roadsides. Riga (R); Mendon (R); Irondequoit, *H. D. House*, 1916 (N. Y. State Mus. Bull. 197: 55. 1918.). Listed from Bergen under the name *C. sativa* (L.) Crantz (Proc. Roch. Acad. Sci. 3: 46. 1896.). No specimen has been found to confirm the report of *C. sativa* from Rochester by Vollertsen (Proc. Roch. Acad. Sci. 5: 85. 1917.).
- Rorippa islandica** (Oed.) Borbás var. **hispida** (Desv.) Butters & Abbe. (Rhodora 42: 26. 1940.) *Radicula palustris* var. *hispida* of Gray's Man., ed. 7; *Radicula hispida* of House; *Nasturtium palustre* var. *hispida* of Monroe Co. Lists.) HISPID YELLOW CRESS. Sandbar, Braddock Bay, *E. P. Killip*, 1914 (R), *H. D. House*, 1917 (N. Y. State Mus. Bull. 205-206: 25. 1919.). Previously listed from Long Pond and Brighton.
- BERTEROA INCANA** (L.) DC. HOARY ALYSSUM. Roadside, west of Five Points, Rush (R); Bushnell's Basin, *W. A. Matthews*, 1927 (WAM).
- LUNARIA ANNUA** L. HONESTY. Roadside escape, Rochester, *R. Warner*, 1942 (R).

ROSACEAE

- Spiraea alba** DuRoi. (*S. salicifolia*, in part, of Gray's Man., ed. 7, and of Monroe Co. List.) MEADOW-SWEET. Two miles south of Ogden (R). Previously listed from Hamlin, Long Pond, Brighton, and Mendon Ponds.
- Amelanchier amabilis** Wieg. (Wiegand & Eames, Flora Cayuga Lake Basin, 1926: 247.) (*A. canadensis* var. *rotundifolia*, in part, of Monroe Co. List: *A. grandiflora* Wieg.) Along the Genesee River in the Rochester Parks, *B. H. Slavin*, cited by Wiegand (Rhodora 22: 149. 1920); crest of an esker, Mendon Ponds Park (R).
- Amelanchier intermedia** Spach. (Rhodora 22: 147. 1920.) Marshes, Mendon Ponds Park (R), *W. A. Matthews*, 1935 (C).
- Amelanchier sanguinea** (Pursh) DC. (Rhodora 14: 138. 1912.) (*A. spicata* of Gray's Man., ed. 7; *A. canadensis* var. *rotundifolia*, in part, of Monroe Co. List.) Swamps and gravelly crests of the eskers, Mendon Ponds Park (R), *A. J. Eames*, 1917 (C), *B. H. Slavin*, 1922 (HP). Previously listed from the banks of the Genesee River and Irondequoit Bay.
- Amelanchier stolonifera** Wieg. (Rhodora 14: 144. 1912.) Dry sandy woods. Durand Eastman Park, *K. M. Wiegand*, 1921 (C); Irondequoit Bay at Inspiration Point, *K. M. Wiegand*, 1921 (C), and

at Sea Breeze, *K. M. Wiegand*, 1924 (C). Previously listed from Mendon.

Potentilla fruticosa L. SHRUBBY CINQUEFOIL. Calcareous bogs and marshes. Recorded from east of Trabold Road, Gates; frequent in the town of Sweden. Previously listed from Perinton and Mendon, where still abundant, and from Greece.

Sanguisorba canadensis L. (*Poterium canadense* of Monroe Co. List.) CANADIAN BURNET. Swampy thickets. Mendon Ponds Park (R); Powder Mill Park. Previously listed from the following localities: the head of Irondequoit Bay, Penfield; Brighton; two miles east of Pittsford; and one mile west of Fairport.

LEGUMINOSAE

CYTISUS SCOPARIUS (L.) Link. (*Sarothamnus scoparius* of House.) SCOTCH BROOM. Well established in a sandy field, Mendon Ponds Park, *R. Warner*, 1942 (R).

AMORPHA FRUTICOSA L. INDIGOBUSH. FALSE INDIGO. Now well established along the Genesee River at Genesee Valley Park (R), and forming extensive thickets in the Genesee Gorge below the Lower Falls, Rochester. Listed as an escape around Irondequoit Bay in 1896.

Astragalus neglectus (T. & G.) Sheldon. (*Phaca neglecta* of House; *A. Cooperi* of Monroe Co. List.) Open oak woods in gravelly soil, Mendon Ponds Park (R), rare. Previously listed from the bank of the Genesee River at Rochester.

VICIA TETRASPERMA (L.) Moench. Adventive in garden, *M. S. Baxter*, 1876 (R); base of sandy bank, Sea Breeze, Irondequoit Bay, *W. C. Muenscher*, *K. M. Wiegand* & *A. H. Wright*, 1924 (C).

VICIA VILLOSA Roth. HAIRY VETCH. WINTER VETCH. Near Fairport, *R. Warner*, 1942 (R); Mendon Ponds Park, *B. H. Leonard*, 1942 (R). Previously listed from Rochester; now a frequent escape.

Lathyrus ochroleucus Hook. CREAMCOLOR PEA. Charlotte, *J. Laird*, 1897 (R); Brighton, *M. S. Baxter*, 1895 (R); Ellison Park, *A. Slater*, 1942 (R). Previously listed from the banks of the Genesee River.

GERANIACEAE

GERANIUM PRATENSE L. Naturalized escape, Garbutt, Wheatland (R).

EUPHORBIACEAE

EUPHORBIA DENTATA Michx. Adventive along the railroad, East Rochester, *D. M. White*, cited by House (N. Y. State Mus. Bull. 243-244: 39. 1923.); East Rochester, *M. S. Baxter*, 1921 (R).

Euphorbia glyptosperma Engelm. Chili, *M. S. Baxter*, 1906 (R). Previously reported from Irondequoit.

ANACARDIACEAE

- Rhus Vernix** L. (*R. venenata* of Monroe Co. List.) POISON SUMAC. A characteristic bog species which invades open bogs and persists until shaded out by the bog forest. Recorded from the Pine Hill area of Parma and Ogden; the northeastern corner of Ogden; the Attridge Road bog, Riga; the Blue Pond area and east of Mumford, Wheatland; from the Mendon Ponds and Powder Mill areas and several bogs in the eastern edge of the town of Mendon.

AQUIFOLIACEAE

- Nemopanthus mucronata** (L.) Trel. (*Nemopantes fascicularis* of Monroe Co. List.) MOUNTAIN HOLLY. Bogs west of Harloff Road, Mendon. Previously listed from Mendon Ponds, margin of Irondequoit Bay, Penfield, and Adams Basin.

CELASTRACEAE

- Evonymus atropurpureus** Jacq. (*Euonymus* of House and of Monroe Co. List.) WAHOO. Stream banks and open areas, principally in the southern part of the county. Northwest and southwest corners of Riga; west of Belcoda, Wheatland; near the Genesee River in Wheatland and Rush; east of Honeoye Falls, Mendon; near Irondequoit Creek, Pittsford; Powder Mill Park, Perinton. Also previously listed from Seneca Park, Greece and Penfield.

ACERACEAE

- ACER GINNALA** Maxim. Escaping in the vicinity of Genesee Valley Park, Rochester (R).
- Acer Negundo** L. (*Negundo aceroides* of Monroe Co. List.) BOX ELDER. Well established along the Genesee River at Genesee Valley Park (R). Previously listed from Chili.
- Acer pennsylvanicum** L. STRIPED MAPLE. MOOSEWOOD. Recorded from seven woodlots in the hemlock-northern hardwood area between Phillips and Basket roads, Webster, and from the hemlock stand along Hobbie Creek, Irondequoit. Outlying stations occur east of Pine Hill near the south line of Parma and south of Crittenden Road, Brighton. The species is doubtfully native at the Brighton station. Previously listed from Seneca Park and Webster.

RHAMNACEAE

- Rhamnus alnifolia** L'Hér. ALDER-LEAVED BUCKTHORN. Bogs, principally over marl. Attridge Road bog, Riga; Thousand Acre Swamp and north of Roseland, Penfield; Henrietta, *G. T. Fish*, 1864 (R); Mendon Ponds Park (R) and bogs in the southeastern part of Mendon. Previously listed in swamps and marshy places.

VITACEAE

Parthenocissus inserta (Kerner) Fritsch. (Jour. Arnold Arboretum 20: 419. 1939.) (*Psedera vitacea* of Gray's Man., ed. 7, and of House; *Ampelopsis quinquefolia*, in part, of Monroe Co. List.) Fence along the roadside, Mendon, *K. M. Wiegand*, 1918 (C); Mendon Ponds Park (R).

HYPERICACEAE

Hypericum boreale (Britt.) Bickn. Bushnell's Basin, *M. S. Baxter*, 1910 (R); moist meadow, Greece, *W. A. Matthews*, 1937 (NYS).

Hypericum majus (Gray) Britt. (*H. canadense* var. *majus* of Monroe Co. List.) Moist pasture, Mendon Ponds, *K. M. Wiegand*, 1918 (C).

CISTACEAE

Helianthemum canadense (L.) Michx. FROSTWEED. Dry sandy oak opening, Mendon Ponds Park (R); Woolston's, Perinton, *E. P. Killip*, 1913 (R). Previously listed from the banks of the Genesee River, Irondequoit, Greece, and Penfield.

VIOLACEAE

Viola striata Ait. Powder Mill Park, *E. P. Killip*, 1915 (R). Previously listed from West Rush and Scottsville.

Viola triloba Schw. Mendon, *E. P. Killip*, 1917 (R), *H. D. House*, 1917 (N. Y. State Mus. Bull. 205-206: 28. 1919.).

THYMELAEACEAE

Dirca palustris L. LEATHERWOOD. Infrequent, but widely distributed in moist woods. Recorded 52 times from 13 towns. No records from Hamlin, Clarkson, Wheatland, Rush, Irondequoit or Webster.

ELAEAGNACEAE

Shepherdia canadensis (L.) Nutt. (*Lepargyrea canadensis* of House.) Rocky outcrops along Oatka Creek southwest of Garbutt, Wheatland. Previously listed from the banks of the Genesee River, the Pinnacle Hills, and the shores of Irondequoit Bay.

LYTHRACEAE

LYTHRUM SALICARIA L. PURPLE LOOSESTRIFE. Braddock Bay (R); barge canal, Brighton. Previously listed from Irondequoit Bay and Palmer's Glen.

CUPHEA PETIOLATA (L.) Koehne. (*Parsonsia petiolata* of House.) CLAMMY CUPHEA. Mendon Ponds, *W. A. Matthews*, 1921 (R), cited by House (N. Y. State Mus. Bull. 243-244: 41. 1923.).

ONAGRACEAE

- Epilobium densum** Raf. (*E. lineare* of House, and of Monroe Co. List.)
Marly marsh meadows, Mendon Ponds Park (R); Ogden, *G. Arnold*,
1910 (C). Previously listed from the banks of the Genesee River,
and from Chili.

HALORAGIDACEAE

- Myriophyllum exalbescens** Fernald. (*Rhodora* 21: 120. 1919.) (*M. spicatum* of Gray's Man., ed. 7, of House, and of Monroe Co. List.)
WATER MILFOIL. Round Pond, Buck Pond, Braddock Bay, mouth
of Sandy Creek, Mendon Ponds (R) (Clausen, 1940). Also pre-
viously listed from Irondequoit Bay (R).
- Myriophyllum heterophyllum** Michx. Round Pond and Braddock Bay,
rare (Clausen, 1940). Previously listed from Irondequoit Bay.
- Myriophyllum verticillatum** L. var. **pectinatum** Wallr. (*M. verticillatum*
of House, and of Monroe Co. List.) Mendon Ponds, *M. S. Baxter*,
1922 (R). Previously listed as rare in Irondequoit Bay.

CORNACEAE

- Nyssa sylvatica** Marsh. SOUR GUM. BLACK GUM. PEPPERIDGE. Rare,
but widely scattered, occurring in ten towns. Recorded from single
stations in Clarkson, Sweden, Gates and Rush, from two stations
each in Parma, Ogden and Mendon, and from four stations in
Greece. Previously listed from Seneca Park, Irondequoit, Gates,
Chili and Mendon. The Mendon material (R) appears to belong
to the var. **caroliniana** (Poir.) Fern. (*Rhodora* 37: 433-437. 1935.).

ERICACEAE

- Rhododendron nudiflorum** (L.) Torr. var. **roseum** (Loisel.) Wieg. (*Rho-*
dora 26: 4. 1924.) (*R. canescens* of Gray's Man., ed. 7; *Azalea*
periclymenoides of House; *R. nudiflorum* of Monroe Co. List.) PINK
AZALEA. PINXTER FLOWER. Widely distributed in the county,
occurring in swamps and bogs as well as on the acid soils of the
upland oak forests. Especially common in the Irondequoit valley,
the Mendon and Perinton kame regions and swampy woods in the
town of Gates. Not recorded from Hamlin, Clarkson, Sweden,
Greece or Rush.
- Epigaea repens** L. TRAILING ARBUTUS. MAYFLOWER. Recorded only
from the eastern half of the county where it is frequent on the acid
sands and slopes of the Irondequoit valley and the Mendon and
Perinton kame regions. Outlying stations occur in Pittsford, Perin-
ton and Penfield. Previously listed from the dry banks of the
Genesee River.

- Chiogenes hispidula** (L.) T. & G. (*C. serpyllifolia* of Monroe Co. List.)
 CREEPING SNOWBERRY. Swampy woods, Riga (R), rare.
- Vaccinium corymbosum** L. var. **glabrum** Gray. (*V. caesariense* of House.)
 Sphagnum bog, Mendon Ponds, *K. M. Wiegand*, 1918 (C).

PRIMULACEAE

- PRIMULA VERIS** L. var. **MACROCALYX** Koch. Naturalized and covering
 several acres three miles south of Pittsford, *M. S. Baxter*, 1920 (R).

OLEACEAE

- Fraxinus nigra** Marsh. (*F. sambucifolia* of Monroe Co. List.) BLACK
 ASH. Widely distributed in the area, occurring in bog forests and
 the wetter phases of the swamp forest, where the water table is
 continuously high. Red maple is its most constant associate. Not
 recorded from the town of Irondequoit and notably infrequent in the
 region adjacent to Irondequoit Bay and the valley of Irondequoit
 Creek.

GENTIANACEAE

- CENTAURIUM UMBELLATUM** Gilib. (*C. Centaurium* of House; *Erythraea*
Centaurium of Monroe Co. List.) CENTAURY. Turk's Hill, Perin-
 ton, *A. B. Hamman*, 1928 (NYS); Perinton (R). Previously listed
 from Cartersville, Pittsford.

APOCYNACEAE

- Apocynum cannabinum** L. var. **pubescens** (Mitchell) A. DC. (*A. pu-*
bescens of House.) INDIAN HEMP. Wet meadows, Mendon, *M. S.*
Baxter, 1912 (R).
- Apocynum hypericifolium** Ait. (*A. cannabinum* var. *hypericifolium* of
 Gray's Man., ed. 7; *A. sibericum* of House.) Margin of a bog,
 Mendon Ponds, *K. M. Wiegand*, 1918 (C).
- Apocynum medium** Greene. Dry fields, Mendon, *M. S. Baxter*, 1912
 (R). A recent investigation by Anderson (1936) has shown that the
 various forms of this "species" are in reality derived from crosses
 between *A. androsaemifolium* and *A. cannabinum*.

CONVOLVULACEAE

- Convolvulus spithameus** L. Fairport Road, Pittsford (R). Previously
 listed from the bank of the Genesee River, Rochester.

BORAGINACEAE

- MYOSOTIS MICRANTHA** Pall. Adventive in a cindered roadbed, Roch-
 ester, *W. Stepka*, 1940 (R).

Myosotis virginica (L.) BSP. (*M. verna* of Monroe Co. List.) Sandy hillside, Ellison Park, *A. Slater*, 1942 (R). Previously listed from Irondequoit Bay, Webster, and Penfield.

ECHIUUM VULGARE L. BLUE WEED. BLUE DEVIL. A weed of gravelly fields and banks. Hopper Hills, Mendon, *J. Laird*, 1900 (R); Pittsford, *F. S. Boughton*, 1914 (R); Powder Mill Park, *E. P. Killip*, 1915 (R); Baker Hill, Perinton; Mendon Ponds Park (R). Previously listed from Greece, Seneca Park, and Brockport. Considered rare in 1896; now locally abundant.

LABIATAE

SALVIA SYLVESTRIS L. SAGE. An escape on dry open slopes, Mendon Ponds Park (R, USNM).

Lycopus uniflorus Michx. (Apparently *L. virginicus* of Monroe Co. List.) BUGLE WEED. Marshes. Irondequoit Bay, *G. T. Fish*, 1864 (R); Rochester, *M. S. Baxter*, 1895 (R); Pittsford, *E. P. Killip*, 1907 (R); Woolston's, Perinton, *M. S. Baxter*, 1918 (R); Buck Pond, *M. S. Baxter*, 1921 (R); Mendon Ponds Park (R).

SCROPHULARIACEAE

LINARIA MINOR (L.) Desf. (*L. minus* of House.) Adventive along the railroad, East Rochester, *M. S. Baxter*, 1920 (R), *D. M. White*, 1920 (NYS).

PENSTEMON DIGITALIS Nutt. (*P. laevigatus* var. *Digitalis* of Gray's Man., ed. 7, and of Monroe Co. List.) FOXGLOVE PENSTEMON. BEARDTONGUE. Adventive, Mendon Ponds Park (R).

VERONICA BECCABUNGA L. (Including *V. Baxteri* House, N. Y. State Mus. Bull. 233-234: 11. 1921; see Pennell, Acad. Nat. Sci. Philadelphia Monogr. 1: 362. 1935.) EUROPEAN BROOKLIME. Wet meadows, Irondequoit, *M. S. Baxter*, 1915 (R), *A. Suydam*, 1916 (R).

VERONICA LONGIFOLIA L. (*V. maritima* of House.) An occasional garden escape. Mendon, *M. Francis* (R); Henrietta (R).

Pedicularis lanceolata Michx. SWAMP LOUSEWORT. Wet meadows, Mendon Ponds Park (R). Previously listed from the bank of the Genesee River, near Irondequoit Bay, and Irondequoit Creek.

LENTIBULARICAEAE

Utricularia intermedia Hayne. FLAT-LEAVED BLADDERWORT. Pools and sluggish streams in marsh meadows, Mendon Ponds Park (R), *E. P. Killip*, 1917 (R). The Killip collection was originally identified as *U. minor* and was so cited by Clausen (1940). It should be referred to *U. intermedia*, fide R. T. Clausen.

PLANTAGINACEAE

Plantago aristata Michx. (*P. patagonica* var. *aristata* of Monroe Co. Lists.) BRACKETED PLANTAIN. Dry sandy crests of the eskers, Mendon Ponds Park (R). Previously listed from Rochester and Woolston Road, Perinton.

RUBIACEAE

Galium boreale L. var. **typicum** Beck von Man. (Rhodora 30: 106–110. 1928.) NORTHERN BEDSTRAW. Mendon Ponds Park (R).

Galium boreale L. var. **hyssopifolium** (Hoffm.) DC. Mendon Ponds Park (R); Penfield, *M. S. Baxter*, 1913 (R).

Galium boreale L. var. **intermedium** DC. Mendon Ponds Park (R).

Galium circaezans Michx. WILD LICORICE. Fernald (Rhodora 39: 449–450. 1937.) distinguishes two varieties of this species: var. *typicum* with "larger leaves 1.5–2.5 cm. long and 0.7–1.4 cm. broad, their nerves beneath sparingly short-hispid to glabrous" and a southerly distribution; and var. *hypomalacum* with "larger leaves 2–5 cm. long and 1–2.5 cm. broad" and a more northerly range. These varieties cannot be clearly separated in Monroe Co. material. About half the specimens appear to be var. *hypomalacum* and the other half lack either the long-hirsute nerves or the large leaf size, but not both.

GALIUM MOLLUGO L. Adventive along the railroad, Egypt, Perinton, *E. P. Killip*, 1915 (R). Previously listed from Gates.

CAPRIFOLIACEAE

Lonicera dioica L. var. **glaucescens** (Rydb.) Butters. (*L. glaucescens* of Gray's Man., ed. 7, and of House; *L. Douglasii* of Monroe Co. List.) East side of Irondequoit Bay, *G. T. Fish*, 1865 (R); west side of Irondequoit Bay, *H. D. House* (N. Y. State Mus. Bull. 254: 651. 1924.); south of Charlotte, *J. Laird*, 1897 (R); Ellison Park, *A. Slater*, 1942 (R). Previously listed from the rocky bank of the Genesee River.

Lonicera oblongifolia (Goldie) Hook. SWAMP FLY HONEYSUCKLE. Bog east of Spencerport, Ogden (R). Previously listed from Adams Basin, Mendon, and Seneca Park.

LONICERA SEMPERVIRENS L. TRUMPET HONEYSUCKLE. Sandy roadside, Mendon Ponds Park (R). Previously listed from Mumford.

CAMPANULACEAE

Campanula rotundifolia L. var. **intercedens** (Witasek) Farw. (*C. rotundifolia* var. *arctica* and *C. rotundifolia*, in part, of Monroe Co. List.) HAREBELL. BLUEBELL. Roadside, Webster, *S. H. Burnett*,

1893 (C); Pittsford, *E. P. Killip*, 1912 (R); Mendon Ponds Park (R). Previously listed from the ridges west of Irondequoit Bay.

Campanula uliginosa Rydb. MARSH BELLFLOWER. Marshes, Mendon Ponds Park (R), *G. T. Fish*, 1866 (R). Much of the material previously reported as *C. aparinoides* should probably be referred to this species.

COMPOSITAE

GRINDELIA SQUARROSA (Pursh) Dunal. GUM PLANT. TAR WEED. Dry open pasture south of Woolston's, Perinton, *M. S. Baxter*, 1918 (R). Previously listed from Rochester.

Solidago altissima L. TALL GOLDENROD. Dry fields. Pittsford, *M. S. Baxter*, 1895 (R); Charlotte, *J. Laird*, 1897 (R); Irondequoit Bay, *E. P. Killip*, 1916 (R); Mendon Ponds Park (R).

Solidago canadensis L. var. **Hargerii** Fern. (*Rhodora* 17: 11. 1915.) (*S. canadensis*, in part, of recent authors.) Dry fields. Adams Basin, *M. S. Baxter*, 1895 (R); Egypt, Perinton, *M. S. Baxter*, 1911 (R); Mendon Ponds Park (R), *K. M. Wiegand*, 1918 (C).

Solidago ohioensis Riddell. Wet marly meadow, Mendon Ponds Park (R), *K. M. Wiegand*, 1918 (C). Previously reported from Rochester and Pittsford.

Helianthus grosseserratus Martens. SAWTOOTH SUNFLOWER. Sandy roadside, Gates (R).

HELIANTHUS SUBRHOMBOIDEUS Rydb. Adventive along the railroad, East Rochester, *D. M. White*, 1920 (R), cited by House (*N. Y. State Mus. Bull.* 243-244: 39. 1923.).

Bidens frondosa L. var. **anomala** Porter. Summerville, *W. A. Matthews* & *D. M. White*, 1939 (R).

ANTHEMIS TINCTORIA L. YELLOW CHAMOMILE. Waste land, Rochester, *W. Stepka*, 1940 (R); roadside, Mendon Ponds Park (R).

Petasites palmatus (Ait.) Gray. SWEET COLTSFOOT. Seneca Park, *W. A. Matthews*, 1922 (WAM); swampy woods, Riga, *W. A. Matthews*, 1940 (WAM). Previously listed from the Genesee Valley in the town of Irondequoit.

CENTAUREA JACEA L. var. **LACERA** Koch. Roadside, Mendon Ponds Park (R).

CENTAUREA JACEA L. var. **NIGRA** (L.) Briq. (*C. nigra* of Gray's *Man.*, ed. 7, of House, and of Monroe Co. List.) SPANISH BUTTONS. Manitou, 1912 (R); Riga, *F. Beckwith*, 1925 (R). Previously reported from Pittsford.

CENTAUREA JACEA L. var. **PRATENSIS** (Thuill.) Vis. East of Troutburg, Hamlin, *F. Beckwith*, 1920 (R).

PICRIS HIERACIOIDES L. Roadside weed, Mendon Ponds Park (R). Previously listed from Brighton.

TRAGOPOGON PRATENSIS L. × T. PORRIFOLIUS L. Waste ground, growing among both parent species at several places in Rochester (R, USNM). The characters of this hybrid are intermediate, but the color and size variation of the flowers suggests that back-crosses may occasionally occur. For a genetic study of this complex see Winge (1938).

TARAXACUM LAEVIGATUM (Willd.) DC. (*T. erythrospermum* of Gray's Man., ed. 7; *Leontodon laevigatus* of House.) RED-SEEDED DANDELION. Sandy soil, Braddock Bay (R).

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¹ All names in *italics* are synonyms.

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