

METROPOLITAN RESERVATIONS FLORA.

Mr. Geo. E. Davenport, 67 Valley street, Medford has consented to take charge of the special work on the following families:

EQUISETACEAE
FILICES
LYCOPODIACEAE
ISOETES
MARSILIACEAE

The primary object in collecting the Pteridophytes being to ascertain the character and extent of their distribution within the limits of the reservations, only sufficient material is required to insure positive identification, and for permanent preservation in herbarium form for future reference and record.

It being the intention to preserve specimens existing and to restore original conditions as far as possible, discretion should be exercised in collecting specimens of rare plants so as not to jeopardise the continued existence of the plant by disturbing root-growth.

It is not likely that many forms will be found within these limits whose character may not be accurately ascertained from published descriptions, or specimens in existing herbaria so that the necessity for securing many duplicate specimens does not exist. In the case of fern-forms single fronds will often suffice, although complete plants are always more satisfactory whenever it is possible to have them.

Two new fern-forms ought to be found and are to be sought for within our limits. One, a hybrid between *Aspidium marginale* and *Aspidium cristatum* is to be looked for in the same locality with these two species, and may be described briefly as a form of *cristatum* with the long acuminate upper pinnae and rootstock of *marginale*. The other is intermediate between *Aspidium Thelypteris* and *Aspidium Nova-boracense*, and has apparently already been collected once--a single frond only-- somewhere near Bear Hill in Stoneham by the late E. H. Hitchings. It has the texture and venation of *Nova-boracense* but the lower pinnae are scarcely shorter than those of *Thelypteris*.

These and other forms may reward a diligent searcher.

For collecting nothing can be better than a portfolio filled with old soft newspapers interspersed with sheets of plain soft white paper for delicate plants between which the specimen should be carefully arranged with a ticket on which should be written at the time of collecting, the date, locality, character of locality, characteristics of the plant, abundant or otherwise, with such information as may help determine extent of distribution, or one might book under the number given to a specimen the information and in that way be able to add a note every time the same plant was met with and so enable its frequency or scarcity to be determined with greater certainty.

Specimens may be sent for identification at any time, and assistance and information will be cheerfully given whenever needed.

METROPOLITAN RESERVATIONS FLORA

Mr. Frank S. Collins Malden, Mass., has consented to take charge of the special work on the following family:

ALGAE

Collectors may send specimens to him for determination and preservation and all communications concerning such specimens and this family may be addressed to him 97 Dexter street, Malden. Ultimately all observations on this family will be placed in his hands so that he may prepare the report upon it.

Mr. Collins has prepared the following suggestions for collectors:-

Algae are to be found wherever there is moisture; on wet rocks, moist ground; even on the bark of trees; but much the larger number of species actually under water. In early spring, running brooks are the most promising localities; later in the season, a more abundant flora will be found in ponds. In still water, loose floating masses of varying shades of green are found; only the practised collector can distinguish the different kinds at sight, and even then only vaguely, careful microscopic examination is necessary for their determination.

Other species will be found forming fringes on various objects sticks, water-plants etc., these are generally different from the loosely floating forms. Others grow on stones, often as a dense coating, sometimes as scattered gelatinous masses, from almost invisible size to half an inch in diameter; color varying from pale green to almost black.

In hot weather especially, a scum is often formed on ponds, consisting of inconceivable numbers of extremely minute algae. Wet rocks especially when facing the North, or so sheltered as not to be exposed to the sunshine, often have in places a gelatinous coating, consisting of algae, usually of the lower types.

These different algae require different kinds of treatment for preservation as specimens; but it is a universal rule that for purposes of study and identification, fresh material is much better than any preparation.

Nearly all fresh water algae will keep in fair condition for a day or two if put in clean water; a small bottle can be sent by mail if securely closed and packed in a tin or wooden box; or a small block of wood can be used, a round hole bored in it to just admit the bottle, the mouth of the hole closed by a cork; this block can be mailed without packing.

Where sending this way would take so much time that the material would probably spoil, instead of water use a mixture of equal parts of water and alcohol; this destroys the color, but preserves the structure for examination at any time

Species belonging to the Nostocaceae, using this word with the same extension as in the "Middlesex Flora", can be examined quite well after being dried in a thin layer on paper or mica; but such herbarium specimens of other algae are generally unsatisfactory the shape of the cell and the arrangement of its contents being much changed in drying. It is well, however, to have such specimens in addition to fresh or alcohol material.

Sterile specimens of species of Vaucheria, Oedogoniaceae and Conjugata generally are worthless for determination, but it is always difficult, often impossible to tell whether a plant is in fruit except by microscopic examination. It may be noted however that usually the plant in its vegetative (sterile) condition is of a deeper and richer green, and is generally a handsomer object than in the fruiting condition. As it is so difficult to tell what is and what is not of value, the safest way, in case of doubt, is to collect too much rather than too little.

Algae growing on moist and dripping rocks should be carefully scraped off with a knife, they are usually of kinds that can be preserved to advantage on paper or mica.

Every specimen should be accompanied by a record of the name of the collector, and of the exact locality and date of collection; the character of the station should also be indicated, for instance; clear running brook; dripping rock; swamp; bark of white oak; etc., etc.

OLMSTED, OLMSTED & ELIOT,
LANDSCAPE ARCHITECTS.

EDWARD D. BOLTON,
SUPERINTENDENT OF CONSTRUCTION.

WARREN H. MANNING,
SUPERINTENDENT OF PLANTING.

BROOKLINE, MASS.

May, 25, 1894.

METROPOLITAN RESERVATIONS FLORA.

Dr. Chas. W. Swan, No. 79 Worcester, St. Boston, Mass., has consented to take charge of the special work on the following families:-

Juncaceae	Rush Family
Cyperaceae	Sedge Family
Graminaeae	Grass Family

Collectors may send specimens to him for determination and preservation and all communications concerning such ~~specimens~~ specimens and these families may be addressed to him. Ultimately all observations on these families will be placed in his hands so that he may prepare the report upon them.

Dr. Swan has prepared the following suggestions for collectors:-

Grasses should be collected in flower; sedges and rushes in fruit, and all with roots or rootstocks except in the case of heavy tussocks when the entire culm will suffice. Over-ripe specimens may be collected additionally for perfect fruit.

The best method is to collect in moderately thin folded sheets in the portfolio, and several specimens of a kind should be preserved

If the sheets are too thin their flaccidity makes difficult handling, and handling is further facilitated by a single stiff sheet which marks the place of deposit of the last filled sheet, and is drawn from under and placed upon each accession, the process being begun at the back of the book. Some attempt should be made at arrangement having in view the size of an herbarium sheet ($11\frac{1}{2}$ x $16\frac{1}{2}$ inches), and the leaves should be laid as flat as possible. Driers in the portfolio are injurious, as they take up moisture before pressure and are liable to cause shrivelling. The portfolio should be treated not as a press, but as a vasculum. Plants should be transferred in the original sheets to driers and moderate pressure on the evening of the day of collection, and so ultimately dried before being sent to the curator.

Upon the sheet containing each plant should be written the date of collection, name of collector, precise geographical locality, geological characteristics, nature of the soil, whether high or low, dry, moist or submersed, rocky, sandy, loamy or peaty, by human habitation or far from them, by roadsides or in fields, in sun or shade or depth of forest, frequency of occurrence, whether solitary or with fellows, mode of occurrence, whether tufted or individually, and remarks may be made upon the association of the species.

It is not expected that the collector shall be burdened with all these details in every instance, but that he shall give such of them as he is conveniently able to do as varietal differences frequently depend upon habitat. Plants may also be sent unprepared in a moist box when time presses or at the choice of the collector. When other means are not at hand, specimens may be placed in the folds of a

dampened newspaper which should then be folded or rolled for convenient mailing and sent promptly.

Identification will be furnished, not always at once, if difficult, to those desiring their contributions named. If the amount of material sent in should prove very large, detailed work upon it may have to be deferred till the collecting season is over.

OLMSTED, OLMSTED & ELIOT,
LANDSCAPE ARCHITECTS.

EDWARD D. BOLTON,
SUPERINTENDENT OF CONSTRUCTION.

WARREN H. MANNING,
SUPERINTENDENT OF PLANTING.

BROOKLINE, MASS.

May, 25, 1894.

Dear Sir:- By direction of Messrs. Olmsted, Olmsted & Eliot, Landscape Architects to the Metropolitan Park Commission, I am collecting the material for a forest survey, flora and fauna of the Blue Hills, Middlesex Fells, Stony Brook and Beaver Brook reservations. You have kindly offered to assist in the preparation of the flora and I am sending with this a set of maps of the above reservations and a permit to collect.

To secure uniformity, brevity and economy of space, abbreviations indicating the following terms are recommended to be used:-
c. common; f. frequent; o. occasional; r. rare.

It is understood that the terms are to have the following meaning when used in referring to plants.

Common (c) having a nearly even distribution over all surfaces of a similar character, within the area specified.

Frequent (f) found frequently in masses or as individual plants but not evenly distributed over surfaces of a similar character within the area specified.

Occasional (o) found only occasionally in different parts of the reservation where the conditions are favorable.

Rare (r) found only in one or a few places within the reservation.

If a plant is common (c), frequent (f) or occasional (o) through the area referred to, where the conditions are favorable, nothing more than the abbreviation and indication of the locality will be required. If it is common in one locality and not in another this should be specified. The locality for rare plants should be specified (not necessarily for publication).

The maps are marked with 500 foot squares and reference letters and numbers which can be used to locate the position of the area occupied by a plant approximately if it cannot be indicated briefly by reference to the topographical features. Usually, localities and areas can be identified by referring to well known features which are indicated on the plan (or which should be added to it), together with with the abbreviations for the points of the compass, N., S.? E., W., etc. For example, "throughout valley " between certain hills, or along a certain stream, or on the W. slope of a certain hill ,etc.

It will be the aim to include in the flora all plants that are now growing, or that are known to have been found growing, within the reservations, including adventives. The history of exterminated and adventive plants with authorities for the same, and a reference to an existing plant in some herbarium should be given if possible.

It is desirable that herbarium specimens shall be preserved of all the plants found growing in the reservations, and it is deemed essential that specimens of rare plants or those that run any chance of being exterminated shall be preserved.

Mr. N. T. Kidder of Milton, Mass., has very kindly offered to preserve the identity of specimens from the Blue Hills and Stony Brook reservations, and to care for them in his herbarium which will ultimately be deposited with some well established society.

Mr. Frank S. Collin of Malden, Mass., who is the custodian of the Middlesex Institute herbarium, on which the Middlesex Flora is based has kindly consented to preserve the identity of species from the Fells and Beaver Brook reservations and to place them in this herbarium.

The importance and value of the flora which it is proposed to prepare will be recognized when it is understood that it is to be made in connection with a study of the soil and rock formation and geological history of the areas included as well as the forest conditions and the fauna.

In the forest study the distribution, character and condition of the forest trees and ground cover, and the natural and artificial influences and conditions that are responsible for this distribution and condition are to be considered and from the information thus gained it is to be determined how best to manage the material on the grounds so that Nature will be assisted in the restoration of a permanently good and attractive forest and ground cover.

Any information as to the flora will have a direct bearing upon this study. It should be distinctly the purpose in all these observations and notes on whatever lines directed, to determine as accurately as possible the present condition of and the present life and its distribution on the reservations, and the reasons for this condition and distribution so that a comparison may be made in the years to come to determine how far an intelligent effort to prevent the destruction of Nature's work will have changed the character and present distribution, and added to the life upon these areas, and also to study the directions and the reasons for any such changes that may take place.

With all this in view it will be desirable that particulars like the following shall be noted in connection with the preparation of the flora.

Is a plant increasing or decreasing in numbers? If so, why?

If a plant known to have been growing in previous years has been exterminated, state year of extermination and cause of same.

How and in what year were adventive or introduced plants brought in?

Make note of plants found in unnatural conditions as to soil or situation with apparent reason for same.

Do certain plants appear periodically with an interval of more than one year.

Note abnormal forms of any plants and their constancy.

Note year and season of any fires, cuttings or clearings in any part of reservations and the dates when any cultivated or pasture lands were abandoned; also when and where home settlements were made and when they were abandoned, etc.etc.

The value of the proposed flora and fauna of the Metropolitan Park Reservations will be much enhanced if reports, notes and lists pertaining to the various branches are prepared by specialists and if there is at the same time an understanding among the naturalists who assist in the undertaking that specimens and notes pertaining to such special work are to be sent to the individual in charge of it.

By such an arrangement the work can be better organized for those assisting will be more likely to concentrate their efforts upon the lines of work they were best prepared to undertake. They can, at the same time, collect and forward specimens and notes pertaining to the work of the specialists which would not otherwise be collected if they could not be thus definitely disposed of to advantage. This

would give general collectors an opportunity to add to their knowledge and they would thus secure credit for the collection of specimens which they would not ordinarily secure, and the specialists would be able to secure more assistance, more material and better results. Such an arrangement would also permit of the separation and publication of such special reports for distribution independently of the Park Commissioners' reports if it was deemed to be advisable.

There will be sent to all who are to collect specimens and notes the names of those who are willing to undertake such special work, and these specialists will be asked to prepare brief instructions for collecting specimens to guide those who are to assist them.

Occasional meetings of those who are directly connected with the work will be called for reports of progress, for discussion and for exchange of specimens and notes.

I shall be much pleased to receive any suggestions that will facilitate, or in any way improve the work proposed.

It is hoped that it will be possible to bring together enough information within a year to prepare a preliminary list of plants.

Any assistance will be fully appreciated and every effort will be made to so conduct the work and to secure such results that those taking part will secure an adequate return for the time devoted to the work.

Yours truly,

OLMSTED, OLMSTED & ELIOT,
LANDSCAPE ARCHITECTS.

EDWARD D. BOLTON,
SUPERINTENDENT OF CONSTRUCTION

WARREN H. MANNING,
SUPERINTENDENT OF PLANTING.

BROOKLINE, MASS.

METROPOLITAN RESERVATIONS FLORA.

Meeting at Beaver Brook reservation May, 26, 1894.

Mrs. P. D. Richards, Miss C. M. Endicott, Messrs N. T. Kidder, Chas. W. Swan, Wm. P. Rich, T. O. Fuller, E. L. Rand, F. S. Collins, L. L. Dame, S. Burrage, G. L. Chandler, Chas. Eliot, H. Horton, W. H. Manning were present.

A statement as to the extent of the reservations that had been taken, the intention of the Commission with reference to their maintenance, and remarks as to the maps showing the topography, roads and paths and the preliminary lists pertaining to the Flora and Fauna which it is intended to include in the next annual Report of the Commission were made by Mr. Eliot.

It was suggested that notes on the cards be turned in as they were made from time to time without attempting to correct repetitions or to re-write, leaving this to be done by the editors. This is a matter however that would be governed by the preferences of each botanist.

It was decidedly the sentiments of the majority of those present that it was best to have in view the ultimate preparation of a complete herbarium of the plants growing in each of the reservations.

Those present occupied themselves in botanizing within the reservation.

In view of the decision that it was advisable to make complete collections, it seems best that each one taking part in this work should give their especial attention to and be responsible for the collection of the members of a family or families, until they are all assigned. In this way the collection of many duplicates will be avoided.

It is expected that all collectors will send specimens of, or call attention to rare plants in any family, to those who may have the family in charge.

At present the following assignments have been made and accepted.

Equisetaceae

Filices

Lycopodiaceae

Isoeteae

Marsiliaceae

-----Mr. Geo. E. Davenport,
67 Valley St. Medford, Mass.

Compositae

-----Mr. Merritt Lyndon Fernald,
Gray Herbarium, Cambridge, Mass.

Algae -----Mr. Frank S. Collins,
97 Dexter St. Malden, Mass.

Juncaceae
Cyperaceae -----Dr. Chas. W. Swan,
79 Worcester St. Boston, Mass.

Gramineae

Ericaceae -----C. G. French,
Brookline, Mass.

I would be obliged if each one to whom this is addressed who has not already offered to be responsible for special work would indicate families which they are willing to give their special attention to.

Yours truly,

N. B. The following abbreviations are recommended for use:-
c. common; f. frequent; o. occasional; r. rare (See letter explaining purpose of flora for meaning of terms.)
E. East; W. West; N. North; S. South; etc.

B. Blue Hills; B. B. Beaver Brook; M. Middlesex Fells; S. Stony Brook.

fl. flower fr. fruit; lf. leaf; rt. root.

OLMSTED, OLMSTED & ELIOT,
LANDSCAPE ARCHITECTS.

EDWARD D. BOLTON,
SUPERINTENDENT OF CONSTRUCTION.

WARREN H. MANNING,
SUPERINTENDENT OF PLANTING.

BROOKLINE, MASS.

METROPOLITAN RESERVATIONS FLORA.

Meeting at the "Cascade", Middlesex Fells, Aug. 4, 1894.

Miss C. M. Endicott, Miss Agnes W. Lincoln, Messrs. E. T. Kidder, Geo. E. Davenport, Frank S. Collins, Charles W. Jenks, Warren H. Manning and Herbert A. Horton were present.

Reports of progress were made and a walk of about four miles was taken; a list of all species met with was prepared and the less common ones were collected.

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It is desired that each collector send at an early date ^{a list of} the specimens they have preserved from each reservation so that a list may be prepared for distribution at or before the next meeting to guard against the collection of duplicates.

It is intended that the next meeting will be an "all day" one on Labor Day in the Blue Hills with about an eight mile walk, notice of which with details will be sent later.

Warren H. Manning
by H. Horton

OLMSTED, OLMSTED & ELIOT,
LANDSCAPE ARCHITECTS.

EDWARD D. BOLTON,
SUPERINTENDENT OF CONSTRUCTION.

WARREN H. MANNING,
SUPERINTENDENT OF PLANTING.

BROOKLINE, MASS.

Anything of those interested in the Metropolitan Park Flora is called for Labor Day, September 3d, to be held in the Blue Hills Reservation.

The train leaving the Old Colony Depot at 8:17 for West Quincy will be the one taken.

From West Quincy the walk will be through the Reservation to Houghton's Pond via: Bunker Hill Lane, Babel Rock, south end of Rattlesnake and Wampatuck Hills to the Quincy and Braintree bound; thence along the swamp to the Blue Hill River and up the Blue Hill River valley to Houghton's or Housiowhick Pond to the Club House where a barge will meet the party in time to catch the 5:38 train at Hyde Park for Boston.

This route has been selected because the swamps are so dry they can be easily examined.

The walk will be about six miles long; the first third over the hills and the balance over level ground.

Each member of the party is expected to provide his own lunch.

If the day is wet the meeting will be held in the library of the Horticultural Rooms at 9 o'clock in the morning.

At this meeting a list of plants of which herbarium specimens have been collected in the various Reservations will be handed to each member so as to guard against the collecting of duplicate specimens.

Warren H. Manning,
by H. A. Horton.

METROPOLITAN RESERVATIONS FLORA.

Meeting at Blue Hill Reservation, September 3rd, 1894.

Miss C/ M. Endicott, Miss Frances Zirngiebel Messrs. Geo. E. Davenport, Wm. P. Rich, T. O. Fuller, Severance Burrage, H. A. Purdy, Charles W. Jenks, Dr. J. R. Webster, E. F. Williams, Dr. Kennedy, Charles G. French, W. W. Gay, P. Gallagher and Warren H. Manning were present.

Reports from members indicate that a large amount of work has been done and that it will be practicable to bring together preliminary the material for the preparation of a list during the coming Fall and Winter.

The most interesting botanical discovery was *Aspidium simulatum* made by Mr. Davenport, a new species a description of which he is about to publish.

Yours truly,

Warren H. Manning,
by H. A. Horton.

METROPOLITAN RESERVATIONS FLORA.

Dec. 15th, 1894.

Will you please complete your metropolitan Flora notes at an early date on one of the sets of cards, if you have one, and forward to me. Those who have not yet been supplied with cards will receive them as soon as sets are turned in.

If there are notes of localities that you would prefer not to have generally known, please place a red ink cross in the right hand upper corner of the card or note and I will see that they are not distributed.

If it is easier for you to turn in your notes in manuscript please do so and they will be transferred to cards here.

It is proposed to compile a preliminary manuscript list to be issued before the collecting season opens. As this involves considerable labor it is very desirable that the notes be all turned in at an early date in one form or another.

A meeting will be called in January to discuss the nature of this preliminary list and to talk over the coming seasons work during which we must make our notes as complete as practicable so that the results may be published in the Metropolitan Park Commissioners Report a year from this time.

A summary of the suggestions contained in the letter of May 25th, 1894 is added:

Flora to include all plants now growing, or known to have been growing in each reservation including adventives.

Maps sent out are marked with 500feet squares, reference letters and numbers to locate position of the area occupied by a plant approximately if it cannot be indicated briefly by reference to the topographical features.

Note If a plant growing in previous years is exterminated with year of extermination and cause of same.

How and when were adventive or introduced plants brought in?

Note plants found in unnatural conditions as to soil or situation with apparent reason.

Note if any plants appear periodically with intervals of more than one year.

Note abnormal forms and their constancy. *etc, etc*

Abbreviations recommended for use.

c. common; f. frequent; o. occasional; r. rare;

E. East; W. West; N. North; S. South;

B. Blue Hills; B. B. Beaver Brook; M. Middlesex Fells; S. Stony Brook;

fl. flower; fr. fruit; lf. leaf; rt. root.

Yours truly,

Warren H. Manning,

by H. A. Horton.

June 7, 1895.

Metropolitan Reservations Flora.

Please meet at the Tower on Bellevue Hill, Stony Brook Reservation at one P. M., June 17th.

The edge of the Reservation is about ten minutes walk (via: River and Cleveland Streets) from Hyde Park station on the N. Y., N. H. & H. R. R. Bellevue Hill is about forty minutes walk from the same station and fifteen minutes from Central (Dedham Branch).

It is suggested that those arriving in the A. M. walk up the east side of Reservations.

J. W. Blankenship, 11 Line St., Cambridge, Mass. has agreed to become responsible for the determination of the Characeae.

Dr. B. C. Robinson, Gray Herbarium, Cambridge, Mass.
Miss Cora H. Clark, Jamaica Plains, Mass.
Mr. Herman Schrenk, 8 Garden St., Cambridge, Mass.
have consented to assist in the Reservation Flora work.

Warren H. Manning,
Caretaker.

OLMSTED, OLMSTED & ELIOT,
LANDSCAPE ARCHITECTS.

EDWARD D. BOLTON.
SUPERINTENDENT OF CONSTRUCTION.

WARREN H. MANNING.
SUPERINTENDENT OF PLANTING

BROOKLINE, MASS.

-----O-----
METROPOLITAN RESERVATIONS FLORA.

July 9th 1895.

A meeting is called for Saturday July 13th. Leave Union Station at 2 PM. change at Winchester arrive at Cross st. at 2:24. From Cross st. will include No. Dam, Willow Spring, Great Neck, Cedar Swamp, North Meadow, Cubby Hole, Wamomet Hill, Emerson st. to Melrose Station; -a tramp of about five miles. Ample opportunity to collect in meadows for those having rubber-boots.

-----O-----
Fifteen were present at the meeting in Stony Brook Reservation, June/13th. The most interesting finds were made by Mrs. Patterson and Mrs. Seymour, who detected a fungus belonging to a group which had not before been found in America on the leaves of Alnus, and other rare and interesting species.

-----O-----
Miss Clara E. Cummings, Wellesley, Mass., has consented to become responsible for the determination of the lichens found within the Metropolitan Reservations.

-----O-----
Miss Cora H. Clarke, Magnolia, Mass., will be responsible for the determination of the Hepaticae.

-----O-----
Mrs. Cora E. Pease, Malden, Mass., Phanerogams,
Miss Jennie F. Conant, Melrose, Mass., Cryptogams,
Mr. Robert K. Macadam, Nantasket Beach, Mass., Fleshy Fungi,
will assist in the preparation of the Metropolitan Reservations Flora.

-----O-----
Warren H. Manning:

OLMSTED, OLMSTED & ELIOT,
LANDSCAPE ARCHITECTS.

EDWARD D. BOLTON,
SUPERINTENDENT OF CONSTRUCTION.

BROOKLINE, MASS.

WARREN H. MANNING,
SUPERINTENDENT OF PLANTING.

METROPOLITAN RESERVATIONS FLORA .

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October 8th 1895 .

Will you please send in at an early date any plants that you may have collected for the Metropolitan Reservations Flora so that I may distribute them, when necessary to those who are to be responsible for the determination of the different families . Will you also make your notes in the Preliminary List which you have and return the list as soon as you are able, so that a compilation may be made for the forthcoming Annual Report of the Metropolitan Commissioners . In making your notes kindly supply omissions and correct errors in the present list .

Yours truly,

Warren H. Manning,
by O. K.

- Alopecurus geniculatus*, L. Swamps.
M., o.
- Alopecurus pratensis*, L., Open fields.
BB., f., coll.
- Alyssum maritimum*, Planted.
B., r.
- Amarantus retroflexus*, L., Roadsides & about buildings.
B., r., coll. fl. M., o.,
- Ambrosia artemisiaefolia*, L.
B., c., coll. fl. M., o.
- Amelanchier Canadensis*, Torr. & Gray., Plants scattered in wet & dry land.
B., f., Herb. GJK. M., f., coll. fr. S., o., BB., o.
- Amelanchier Canadensis*, Torr. & Gray, var. *oblongifolia*, Gray.
B., f., Herb. JRC. M., o.
- Ampelopsis quinquefolia*, Michx., Rocky moist woods.
B., f. M., f. S., o. BB., o.
- Amphicarpaea monoica*, Ell., Woods.
B., f., coll. M., f. S., o., coll.
- Anaphalis margaritacea*, B. & H., Dry open woods and fields.
B., c., coll. fl. M., f., coll. fl.
- Andreaea petrophila*, Ehrhart.
B., r., Herb. T. & C. E. F.
- Andreaea rupestris*, Turner.
B., r. S., r.
- Andromeda ligustrina*, Muhl. Thin woods and moist land.
B., c., coll. fr. M., c. S., c. BB., c.
- Andropogon furcatus*, Muhl.
B., o., Herb. GJK.
- Andropogon scoparius*, Michx., Hills, poor fields.
B., f., coll. M., o., Herb. M. I.
- Andropogon Virginicus*, L.
B., r., Herb. JRC.
- Anomodon attenuatus*, Hueben.
B., c.
- Anomodon obtusifolius*, Br. & Schimp.
S., r.
- Anomodon rostratus*, Schimper.
B., c. S., c.



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A LIST OF HERBARIUM SPECIMENS WHICH HAVE

BEEN COLLECTED IN THE METROPOLITAN PARK RESERVATIONS.

- 3. Little Falls
- 11. Middlesex Falls
- 12. East Brook
- 13. B. Beaver Brook

- Asclepias Virginica* B.
- Asclepias tuberosa* B.
- Asclepias speciosa* var. *nigra* B.
- Asclepias tuberosa* B. B.
- Asclepias tuberosa* B. B.
- Adiantum pedatum* B.
- Agrostis Hyemalis* B.
- Allium Pennsylvanicum* var. *Americana* B.
- Ambrosia artemisiifolia* B.
- Andropogon furcatus* B. S.
- Andropogon ligularis* B.
- Andropogon Virginicus* B. M.
- Andropogon scoparius* B.
- Antennaria plantaginifolia* B.
- Anemone hepatica* B.
- Apocynum androsaemifolium* B. fr. S. fl.
- Aquilegia canadensis* B. B. fl.
- Aralia nudicaulis* B.
- Aralia nudicaulis* B. lf. B. l. fl.
- Aralia nudicaulis* B. M. fl.
- Arenaria serpyllifolia* B. fr.
- Arenaria lateriflora* B. B. fl.
- Arenaria serpyllifolia* B. B.
- Arisaema triphyllum* B. B. fl.
- Asclepias incarnata* var. *pulchra* B. fr. fl. S. fl.
- Asclepias physaloides* B. lf. fr.
- Aspidium convallarioides* B. lf.
- Aspidium adnigrum* B.
- Aspidium marginale* B.
- Aspidium Thelypteris* B.
- Asplenium adnigrum* B.
- Asplenium Thelypteris* B.
- Aster multiflorus* B.
- Aster multiflorus* B.
- Aster multiflorus* S. B.
- Aster multiflorus* B.
- Aster multiflorus* S. fl.
- Baptisia tinctoria* B. fr.
- Barbarea vulgaris* B. B. fl. fr.
- Barbarea vulgaris* B.
- Betula lenta* S. fr.
- Betula nigra* B. lf. fr.
- Betula nigra* B.
- Betula Virginiana* B. lf.
- Ceanothus corymbosus* S. fr.
- Ceanothus americanus* S. fr.
- Ceanothus americanus* B. lf.
- Cephalanthus occidentalis* B. fl.
- Chamaecrista nictitans* B.
- Chamaecrista nictitans* B.
- Chamaecrista nictitans* S.
- Chamaecrista nictitans* B.
- Chamaecrista nictitans* B.

Cirsium discolor L. fr.
Clematis virginiana L. fl.
Clethra alnifolia B. fl. S. fl.
Cnicus lanceolatus L.
Comandra umbellata B. fl. S. fl.
Cephaelis trifida L.
Cornus canadensis S. fl.
Cornus circinata B. lf. M. fr.
Cornus florida S. lf.
Cornus sericea B. fr. S. lf.
Corydalis glauca B. M.
Crataegus oxyantha B. M. fl.
Cuscuta Groenovi L. S.
Cyrtandra aculeata B. fr.
Danthonia Canadensis L. fl.
Desmodium nudiflorum L.
Desmodium nudiflorum white var. M.
Desmodium paniculatum L.
Desmodium rigidum L.
Desmodium rotundifolium S. L.
Detrychium ternatum L.
Dicksonia pilosiuscula M. lf.
Diervilla trifida B. fr.
Drosera rotundifolia L.
Elaeagnus angustata L. fr. S.
Epilobium angustifolium L. fl. S. fl.
Epilobium coloratum S.
Epilobium palustre var. *lineare* T. M.
Equisetum sylvaticum B. lf.
Erechtites hieracifolia L. fl.
Erigeron bellidifolius L. fl. D.D.
Erigeron strigosus L. fl.
Eriogonum septemangulare L.
Eupatorium sessilifolium L.
Eupatorium purpureum L. fl.
Eupatorium tomentosifolium L.
Euphorbia maculata L.
Fragaria Virginiana L. B. fl.
Fraxinus sambucifolia L.
Galceopsis Texensis L.
Galium lanceolatum L. M.
Galium trifidum M. fr.
Galium triflorum L.
Gaultheria procumbens B. fl.
Gaylussacia frandosa L. fr.
Gaylussacia resinosa L. fr. S. fl.
Geranium Car. Linianum L.
Geranium maculatum L. fl. D.D.
Geranium hebertianum L.
Gerardia flava L. S. M.
Gerardia pedicularia B. S.
Gerardia purpurea var. *paupercula* L. fl.
Gerardia tenuifolia S.
Gerardia quercifolia L.
Gnaphalium accurans L.
Gnaphalium polycephalum B. fl. M.
Gnaphalium uliginosum L.
Goodyera repens L. lf.
Gratiola aurea B.

Habenaria fimbriata L. fr.
 Habenaria psychodes L. fl.
 Hedysarum pulegioides B.
 Helianthus divaricatus S.
 Helianthus maximiliani C. fr.
 Hieracium Gronovii S.
 Hieracium paniculatum B.
 Hieracium scaberrimum B.
 Hieracium venosum B.
 Hostia coccinea B.
 Hydrocotyle Americana L.
 Hypericum Canadense L. fr. fl.
 Hypericum malacilium B.
 Hypericum perforatum L. fr.
 Hypoxis aurea L. fl.
 Ilex glabra L. fl.
 Ilex verticillata L. fr. S. fr.
 Impatiens fulva B. fl.
 Iris prismatica L. fr.
 Iris versicolor B. fl.
 Juglans nigra L.
 Juglans regia L. B. S.
 Kalmia angustifolia S. fl.
 Kalmia latifolia L. fr.
 Kraigia Virginica B. fl.
 Lactuca Canadensis B.
 Lechea major B.
 Lechea minor B. fl.
 Lechea tenuifolia B.
 Leontodon autumnalis B. fl.
 Leonurus Cardiacus B. fl.
 Lepidium Virginicum B. fl.
 Lespedeza capitata B.
 Lespedeza polystachya B.
 Lespedeza procumbens B.
 Lespedeza Souvei B.
 Lespedeza violacea S. fr. B.
 Leucochea racemosa B. fr.
 Ligustrum vulgare B. fr.
 Liliun Philadelphicum B. fr. S. fl.
 Linaria Canadensis B. fr.
 Lindera Benzoin B. fr.
 Linum Virginianum B.
 Lobelia cardinalis B. fl.
 Lobelia inflata B. fl.
 Lycopodium clavatum B.
 Lycopodium dendroideum B.
 Lycopodium lucidulum B.
 Lycopus cinereus B.
 Lycopus Virginicus B. fl.
 Lysimachia quadrifolia B. fr. S.
 Lythrum hyssopifolium B.
 Medicago lupulina B. B.
 Melampyrum Americanum B.
 Menck Canadensis L. fl.
 Mikania scandens B. fl.
 Mimulus ringens B.
 Mitchellia repens B. fr.
 Monotropa uniflora B. fr. fl.
 Myosotis palustris B. B. fl.
 Myosotis verna B. B.

Myrica asplenifolia B. lf.
 Myrica carifera B. bud
 Myrica Gale B. fl.
 Nanephanthes Canadensis B. lf.
 Nepeta Glechoma B. lf.
 Nysa Multiflora S. lf.
 Osmorhiza longistylis B. B. fl.
 Osmunda regalis B. lf.
 Ostrya Virginica B. fr.
 Oxalis corniculata var. stricta B.
 Pastinaca sativa B.
 Pedicularis Canadensis B. lf.
 Peltandra undulata B. B. lf.
 Phegopteris hexagonopteris B.
 Phegopteris polypodioides B. lf.
 Phytolacca decandra B. fl.
 Pilea pumila B.
 Pirus arbutifolia var. erythrocarpa
 Pirus arbutifolia var. melanocarpa
 Pirus communis B. B. lf.
 Plantago lanceolata B. B. fl.
 Plantago major M.
 Polygala sanguinea B. M.
 Polygala verticillata B.
 Polygonatum biflorum B.
 Polygonum amphibium B.
 Polygonum arifolium M.
 Polygonum avicularia B.
 Polygonum sagittatum B. fl.
 Polygonum tenue B.
 Potentilla Canadensis B. fl. B.
 Prenanthes alba B. S. M.
 Procrepinaca palustris M.
 Prunus pumila B. lf.
 Prunus Virginiana B. fl.
 Pycnanthemum incanum B.
 Pycnanthemum linifolium B.
 Pyrola elliptica B. fr.
 Pyrola rotundifolia S.
 Quercus ilicifolius B. fl.
 Quercus prinoides B. lf.
 Quercus tinctoria S. lf.
 Ranunculus acris B. B. fl.
 Ranunculus abortivus B. B.
 Ranunculus Pennsylvanica M. fr.
 Ranunculus repens B.
 Reseda lutea B.

Rhamnus catharticus B. fr. B.B. fl.
 Rhexia Virginica B.
 Rhododendron viscosum B. fr. S. fl.
 Rhododendron viscosum var. glaucum B. lf. S. fr.
 Rhus copallina B. fl.
 Rhus glabra B. lf. B.B. fr.
 Rhus Toxicodendron B. lf.
 Rhus venenata B. lf.
 Rosa lucida B. fr. M. fr.
 Rubus Canadensis B.B.
 Rubus occidentalis B. fr. B.B. fl.
 Rubus triflorus B. fl.
 Rubus villosus B.B. fl.
 Salix discolor B. lf.
 Salix humilis B. lf.
 Salix tristis B. lf. S. fr.
 Sambucus Canadensis S. fr.
 Sambucus racemosa B. bud
 Sanguinaria Canadensis B. lf. B.B. fr.
 Sanicula Marylandica B. fr.
 Scutellaria lateriflora B. M. fl.
 Senecio aureus B.B. fl.
 Silene antirrhina B. fr.
 Silene Pennsylvanica B.B. fl.
 Sisyrinchium angustifolium B.B. fl.
 Sium cicuracifolium M. fl.
 Smilacina biflora B.B. fl.
 Smilacina racemosa B.B. fl.
 Smilax rotundifolia B.B. fl.
 Solanum Dulcamara B. B.B. fr.
 Solanum lycopersium B. lf.
 Solidago bicolor var. concolor B. fl.
 Solidago Canadensis var. procera B. fl.
 Solidago juncea B.
 Solidago lanceolata B. fl.
 Solidago latifolia B. fl.
 Solidago odora B.
 Solidago serotina B.
 Solidago ulmifolia B.
 Spiranthes gracilis B. fl.
 Spiraea salicifolia B. fr. S. fl.
 Steironema ciliatum B.
 Steironema lanceolatum S. fl.
 Stellaria graminea B.B.
 Tanacetum vulgare B. fl.
 Taraxacum officinale B.B.
 Thalictrum cornuti S. fr.
 Trifolium agrarium B.
 Trifolium arvense B.
 Trifolium hybridum B.B. fl.
 Trifolium pratense B.B. fl.
 Typha angustifolia B.
 Vaccinium corymbosum B.B. fl.
 Vaccinium macrocarpon S. fl.
 Vaccinium Pennsylvanicum B. fr.
 Vaccinium vacillans B. S. fr.
 Veratrum viridie B.B. fl.

Veronica scutellata B. B.B.
 Veronica serpyllifolia B. B.B.
 Viburnum acerifolium B. fr. S. fr.
 Viburnum cassinoides S. fr.
 Viburnum dentatum B. fr. B.B. lf.
 Viburnum lentago B. fl. B.B. fl. M. lf.
 Viburnum nudum B. fr.
 Vicia Cracca S. fl.
 Viola blanda B. fr. B.B. fl.
 Viola cucullata white var. B. fl. fr. B.B. fl.
 Viola lanceolata B. fr. B.B. fl.
 Viola prillifolia B. fr. B.B. fl.
 Viola pubescens B. fr. B.B. fl.
 Viola sagittata B. fr.
 Woodsia ilvensis B.
 Woodwardia angustifolia B.
 Woodwardia virginica B.
 Xyris Caroliniana B.

Note:

Complete specimens have no mark following the name except the abbreviation of the Reservation where found. Those having only fruit, flower or leaf are followed by the abbreviation as

follows:

fr. fruit

fl. flower

lf. leaf