FRELIMINARY ANNOTATED CHECKLIST OF THE VASCULAR PLANT SPECIES OF THE PORTER RANCH BOG, DEPARTMENT OF NATURAL RESOURCES, HOUGHTON LAKE WILDLIFE RESEARCH STATION, ROSCOMMON COUNTY, MICHIGAN.

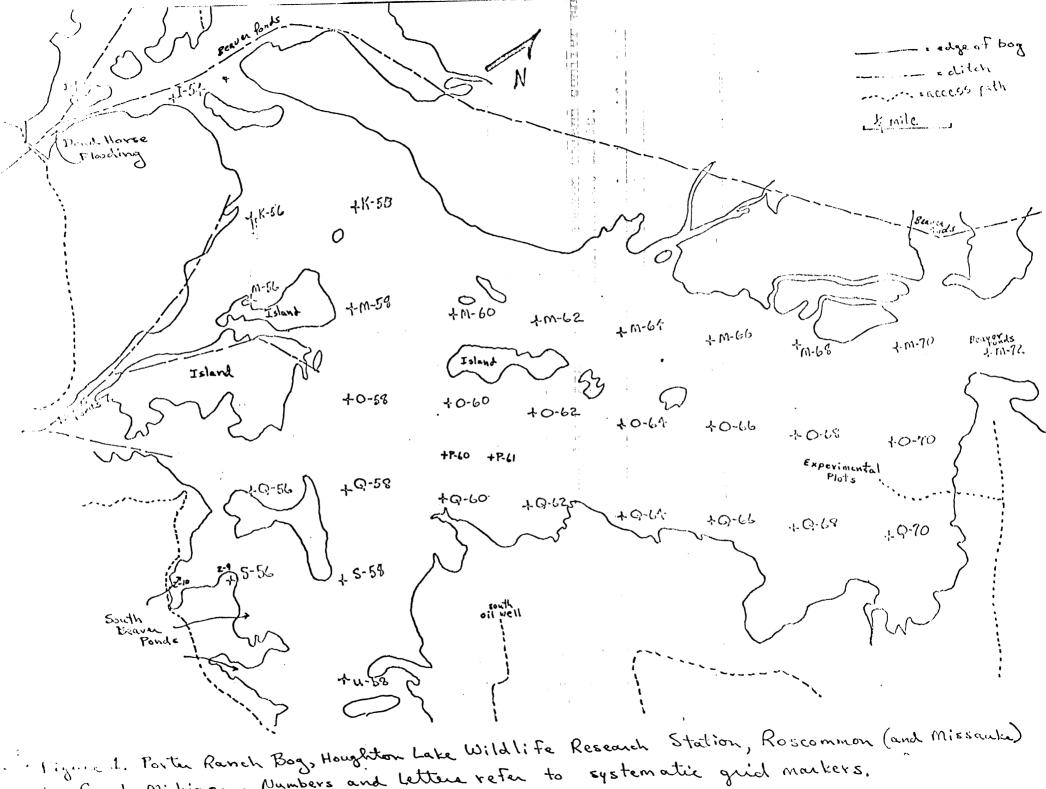
by W. Alan Wentz, School of Natural Resources, University of Michigan

The following checklist is based on collections which I made during the period 7 May to 12 August 1973. At present there are ± 162 species listed. It is probable that the list will include 200 or more species after additional field work during August and September 1973.

The vegetation of the Porter Ranch Bog has been systematically studied (see Figure 1 for grid marker locations and prominent collecting locations). The floristically rich edges of this bog-marsh have not yet been fully studied but they will receive more effort during August 1973 and the 1974 field season.

Voucher specimens for this study will eventually be deposited in the University of Michigan Herbarium. Scientific names follow Voss (1972, Michigan Flora, Cranbrook Institute of Science) for gymnosperms and monocots and Gleason and Cronquist (1963, Manual of Vascular Plants of Northeastern United States and Adjacent Canada, Van Nostrand Co.) for other groups.

This study is part of a study of the effects of sewage effluent on wetland ecosystems supported by the National Science Foundation (R. A. N. N. program; John Madlec and Robert Kadlec, principal investigators). Partial support for transportation was provided by the University of Michigan Biological Station.



County, Michigan. Numbers and lettere reter to systematic grid markers.

## EQUISETACEAE

Equisetum fluviatile L. Common throughout the area.

### OSMUNDACEAE

Osmunda cinnamomea L. Rare near M-72 and south beaver ponds.

O. regalis L. Common on beaver dams and occasional in southern end of area.

### POLYPODIACEAE

Dryopteris spp. Common -- at least two species present.

Onoclea sensibilis L. Common throughout area.

Thelypteris palustris Schott. Common throughout area.

### PINACEAE

Abies balsamea (L.)Mill. Several large trees near south beaver ponds. Small trees occasional.

Larix laricina (Du Roi)K. Koch. One small tree seen near experimental plots.

Picea mariana (Mill.)BSP. Common along east edge of marsh.

Pinus banksiana Lamb. Most common upland conifer and conice and conifer and conice and con

- P. resinosa Ait. Very common upland conifer and occasional in wet areas.
- P. strobus L. Common upland conifer and occasional in wet areas.

Tsuga canadensis (L.)Carr. Several trees seen along east edge.

### CUPRESSACEAE

Thuja occidentalis L. One small clump seen near south beaver ponds.

#### TYPHACEAE

Typha latifolia L. Found throughout the area, especially common near 6-70, drainage ditches, and beaver ponds. No extensive stands occur.

### SPARGANIACEAE

Sparganium chlorocarpum Rydb. Common about M-72 and south beaver ponds.

S. minimum (Hartman)Fries Common near M-72 and 0-70.

# POTAMOGETONACEAE

Potamogeton natans L. Common at Dead Horse Flooding.

- P. pusillus L. Abundant in south beaver ponds and near M-72.
- P. zosteriformis Fern. MISSAUKE CO. Muskegon River near Dead Horse Flooding.

Potamogeton spp. Additional species occur but have not yet been identified.

### JUNCAGINACEAE

Scheuchzeria palustris L. Abundant near P-60 and P-61.

# ALISMATACEAE

Alisma plantago-aquatica L. Uncommon, but seen near M-72, Dead Horse Flooding and south beaver-ponds.

Sagittaria latifolia Willdan Abundant near south beaver ponds.

HYDROCHARITACEAE C. gracillina School Chambon near south beaver

Elodea canadensis Michaux Uncommon in Dead Horse Flooding and beaver ponds.

#### GRAMINEAE

Alopecurus aequalis Sobol Common near south beaver ponds.

Bromus inermis Leysser Common at Dead H orse Flooding.

Calamagrostis canadensis (Michaux)Beauv. Common throughout predominantly sedge areas, north end and most beaver ponds.

Glyceria borealis (Nash) Butch. Common near M-72.

- G. canadensis (Michaux)Trin. Common near M-72 and south beaver ponds.
- G. grandis S. Watson Rare. Location unlmown.

Muhlenbergia glomerata (Willd.) Trin. Abundant near P-60, P-61, and throughout sedge areas at north end of bog.

Panicum implicatum (?) Britton Uncommon near M-72 and 0-70.

Phalaris arundinacea L. Common about Dead Horse Flooding and beaver ponds.

Additional species of Gramineae occur but have not been identified,

Carex aquatilis Wahl. Common throughout area but most abundant in areas near P-59 to P-62.

- C. buxbaumii Wahl. Abundant in localized areas such as near experimental plots.
- C. canescens L. Very common along 68 and 70, and 0 and Q transects.
  - C. crawfordii Fern. (?) Common throughout area, 70 tansect, P-60, P-61, and south beaver ponds.
  - C. crinita Lam. Common about south beaver ponds.
  - C. gracillima Schw. Uncommon near south beaver ponds.
  - C. hystericina Willd. Abundant about beaver ponds.
  - C. intumescens Rudge Common near M-72 and about beaver ponds.
  - C. lacustris Willd. Common about beaver ponds and areas with standing water such as M-72.
  - C. lasiocarpa Ehrh. Throughout the area- one of the most common species of plants.
  - C. livida (Wahl.)Willd.(?) Uncommon near Q-60 (in Sphagnum area with standing water).
  - C. oligosperma Michaux Common throughout the area.
  - C. retrorsa Schw. Common near beaver ponds.
  - C. stipata Willd. Common near beaver ponds.
  - C. trisperma Dewey Common near south beaver ponds.

4

Cladium mariscoides (Euhl.) Torrey Uncommon in south of area.

Dulichium arundinaceum (L.)Britton Uncommon about south beaver ponds.

Eleocharis acicularis (L.)R.&S. Sterile plants which are probably this species have been collected.

- E. obtusa (Willd.) Schultes Common near south beaver ponds.
- E. smallii Britton Common at north end of marsh area and around beaver ponds.

Eriophorum angustifolium Honck. Uncommon but wide-spread in low sedge-sphagnum areas along 0, P, & Q lines.

- E. spissum Fern. Uncommon seen only in outlying bogs in leatherleaf-sphagnum areas.
- E. tenellum Nutt. Rare in outlying marshy-bog at north end of main bog.

Rhynchospora alba (L.) Vahl. Abundant near P-60 and P-61.

R. fusca (L.)Ait. f. Abundant near P-60 and P-61.

Scirpus atrovirens Willd. Common about south beaver ponds.

- S. cyperinus (L.) Kunth Common near M-72, 0-70 and all beaver ponds. Occasional throughout other areas.
- S. hudsonianus (Michaux)Fern. Rare between 0-58 and Q-58.
- S. validus Vahl. Uncommon at 0-70 and south beaver ponds.

#### LEMNACEAE

Lemna minor L. Abundant about south beaver pends, M-72, 0-70, and Dead Horse Flooding.

Spirodela polyrhiza (L.)Schleiden Common at south beaver ponds.

JUNCACEAE

Juncus brevicaudatus (Engelm.)Fern. Common along south beaver bonds.

- J. canadensis La Hayse Uncommon about south beaver ponds.
- J. effusus L. Uncommon at 0-70, M-72, and Dead Horse.
- J. tenuis Willd. Common about trails and at edge of area.

and the mediantain I . Common along ald

## LILIACEAE

Maiantheum canadense Desf. Common along edges of area.

Trillium grandiflorum (Michaux)Salisb. Common along edges.

## IRIDACEAE

Iris virginica L. Abundant throughout area.

Sisyrinchium montanum Greene Rare near south oil well area.

# ORCHIADACEAE

Arethusa bulbosa L. Uncommon- a total of ca. 100 plants seen in area from P-59 to P-62.

Cypripedium acaule Aiton Rare-seen near south beaver ponds and Dead Horse Flooding.

Habenaria lacera (Michaux)Lodd. Very abundant throughout the northern half of the area- ca. 150 plants counted in ca. 80 m<sup>2</sup> near 0-68.

Malaxis unifolia Michaux Several plants seen in experimental plots. Probably scattered throughout area.

Pogonia ophioglossoides (L.)Ker Abundant throughout the southern half of the area.

## SALICACEAE

Populus deltoides Marsh. Rare in main bog.

- P. grandidentata Michaux Common about edges.
- P. tremuloides Michaux Common about edges.

Salix pedicellaris Pursh. Common throughout marsh.

S. pellita Anderss. Seemingly abundant in sedge areas.

Salix spp. Additional species occur but have not been identified.

## MYRICACEAE

Myrica asplenifolia L. Abundant about edges.

## EMPULACIAE

Eetula pumila L. Common throughout southern portion of area- usually associated with leatherleaf and often rivaling that species as the most common in the area.

#### CORYLACEAE

Alnus rugosa (Du Roi)Spreng. Abundant around edges.

# POLYGONACEAE

Polygonum amphibium sensu lat. Common throughout wet areas, particularly beaver ponds.

- P. hydropiperoides Michaux Common about south beaver ponds.
- P. sagittatum L. Common along south beaver ponds.

Rumex verticillatus L. Scattered throughout marshy areas, associated with sedges.

The second secon

TOTAL TELEPONOMIC TOTAL TELEPONOMIC TOTAL

right of the control of the

## NYMPHAEACEAE

Brasenia schreberi Gmel. Abundant about Z-9.

## RANUNCULACEAE

Anemone quinquefolia L. Common along edges.

Caltha palustris L. Common along alder and willow fringes (Q-60 to Q-66).

Ranunculus pensylvanicus L.f. Rare at Dead Horse and south beaver ponds.

## SARRACENIACEAE

Sarracenia purpurea L. Abundant from P-59 to P-62.

### DROSERACEAE ·

Drosera intermedia Hayne Common along 58 transect.

D. rotundifolia L. Common along O and P transects.

## SAXIFRAGACEAE

Ribes glandulosum Grauer Common in vicinity of experimental plots.

R. oxyacanthoides L. Common throughout area.

# ROSACEAE

Amelanchier sanguinea (Pursh) DC. Common along edges.

Aronia arbutifolia (L.)Ell. Probably present but not yet confirmed.

A. melanocarpa (Michaux)Ell. Common throughout area, particularly southern half.

Fragaria virginiana Duchesne Abundant along edges and in drv areas in bog

Potentilla fruticosa L. Uncommon near M-68.

P. palustris (L.)Scop. Uncommon near 0-58, Q-58, and south beaver ponds.

Rosa palustris L. Common throughout marsh.

Rubus spp. Common in fringes and scattered throughout area.

The second secon

Spiraea alba-latifolia (?) Common throughout the area.

### POLYGALACEAE

Polygala paucifolia Willd. Rare along edges.

#### CALLITRICHACEAE

Callitriche sp. probably occurs but not yet collected.

#### ACERACEAE

Acer rubrum L. Common along edges.

## BALSAMINACEAE

Impatiens biflora Willd. Common along south beaver ponds.

## SUDDIFFERE

Hypericum virginicum L. Common throughout area.

#### VIOLACEAE

Viola nephrophylla Greene Very common throughout area, occurs on high spots, beaver dams, anthills.

# ONAGRACEAE

Ludwigia palustris (L.)Ell. Fertile plants not yet seen.

## HALORAGIDACEAE

Proserpinaca palustris L. Abundant near M-72, 0-70, and beaver ponds.

### UMBELLIFERAE

Cicuta bulbifera L. Common in wet areas, north part and beaver ponds.

Sium suave Walt. Common at north end and in beaver ponds.

### CORNACEAE

Cornus canadensis L. Common along edges.

C. stolonifera Michaux Throughout the area but nowhere common.

BOLONOM CHICHERTH LA LANGUE WARE WARE

# FRICACEAE

Andromeda glaucophylla Link. Abundant from P-59 to P-64.

Chamaedaphne calyculata (L.) Moench. Abundant throughout the southern portion-forming dense stands.

Gaultheria procumbens L. Abundant about edges.

Kalmia polifolia Wang Common but scattered in predominantly leatherleaf-bog birch areas.

Ledum groenlandicum Oeder Rare inditch near south oil well. \*\*

Pyrola asarifolia Michaux Common near M-72.

Vaccinium angustifolium Ait. Common along edges.

V. macrocarpon Ait. Abundant from P-59 to P-64.

# PRIMULACE'S

Lysimachia terrestris (L.)BSP. Common throughout north end.

Lysimachia thyrsiflora L. Common about edges.

Trientalis borealis Raf. Common along edges.

# GENTIANACEAE

Menyanthes trifoliata L. Rare- Q-60 and vicinity.

## VERBENACEAE

Verbena hastata L. Rare- seen in northern part only (along St. Rt. M-55).

### LABIATAE

Lycopus uniflorus Michaux Common throughout the area.

Mentha arvensis L. Common throughout the area.

Mentha spp. other species are probably present.

Scutellaria epilobiifolia Hamilton Abundant throughout the area.

S. lateriflora L. Common along south beaver ponds and scattered throughout other areas.

### SOLANACEAE

Solanum dulcamara L. BoCommon about south beaver ponds tong of

## SCROPHULARIACEAE

Castilleja coccinea (L.) Spreng. Uncommon along edges.

Chelone glabra L. Uncommon in experimental plots and along 58 transect.

Pedicularis canadensis L. Common along edges.

Veronica scutellata L. Uncommon near 0-70.

#### **LENTIBULARIACEAE**

Utricularia intermedia Hayne Abundant near 0-70, M-72, and in beaver ponds.

- U. minor L. Common in south beaver ponds, Z-9, and M-72.
- U. vulgaris L. Common in beaver ponds and at M-72.

### RUBIACEAE

P

∢′

4

٧

Galium trifidum L. Abundant throughout the area.

G. triflorum Michaux Common about south beaver ponds.

## CAPRIFOLIACEAE

Sambuscus canadensis L. Common about south beaver ponds.

Lonicera villosa (Michaux)R.&S. Common in northeast part and occasional throughout other areas.

## CAMPANULACEAE

Campanula aparinoides Pursh. Abundant throughout the area.

Aster junciformis Rydb. One of the most common plants in all areas of the bog.

Aster spp. other species occur but have not yet been identified.

Bidens cernua L. location unknown

B. tripartita L. Uncommon along edges of ponds.

Boltonia asteroides (L.)L'Her. Common along outflow streams.

Cirsium muticum Michaux (?) Several plants seen at south beaver ponds.

Eupatorium maculatum L. Abundant near M-72 and north part.

 ${\mathbb E}$ . perfoliatum  ${\mathbb L}$ . Common near M-72 and north part.

Solidago spp. several species are present but none have been identified.

Taraxacum officinale Weber A rare exotic that survives in small numbers only due to its tenacity.