

INSTITUTE FOR FISHERIES RESEARCH
UNIVERSITY MUSEUMS
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Report No. 36

SURVEY OF FRAIN'S LAKE, WASHTENAW COUNTY, WITH REMARKS ON
REPORTS FOR CURRENT LAKE EXAMINATIONS

In response to a special request for a report on Frain's Lake, Washtenaw County, we have made an examination of this lake, following the method developed in the Kalkaska County work.

On sending in the cards for Frain's Lake, it seems desirable to discuss our new and intensified lake survey. It will be noted that our records give far more information about the lake than the older surveys obtained.

Our information for each is given on a series of cards.

(1) The summary sheet we propose to furnish for every lake. This will contain a general description of the lake, with emphasis on the features of shore, vegetation, etc., especially those which have been or may be modified either to the advantage or detriment of the fish supply. It will give also a general discussion of the present fish population of the lake, and a digest of the best information we can obtain of the past conditions of fish life in the lake. Then, of course, recommendations for improving the fishing conditions.

(2) The examination sheets now, as they really should always have been, are restricted to actual examinations of one part of the lake, or to a net set. These would ordinarily not be consulted unless one were revising the summary cards.

The general confusion which we have made between examination and summary records is illogical, and does not bring the greatest usefulness out of the system, nor does not make the cards easily read and interpreted. We are working on a revision of the card system, and hope to have a conference on the matter when we get our ideas fixed.

(3) Map. This new development we look upon as a real forward step. A good colored map carries a better idea of a lake than pages of description. A little study of our map shows the depth conditions, the bottom material and the weed beds (including kinds involved and their abundance).

(4) Station check-list. These give further information as to the species of plants and their abundance. We are using the L.E.S. forms temporarily, but will put the blanks onto a 6x9 card of a distinctive color soon, so as to facilitate filing. We suggest that the Department file copies of our check-lists, especially as these have a strong bearing on the duck conditions as well as on the fish conditions.

(5) Water analyses. The chemical and physical data on each lake are being entered on 6x9 gray cards. This information tells a lot about the character of the water, and like all the details now being recorded, will mean more as we learn more about lakes in general.

INSTITUTE FOR FISHERIES RESEARCH

Carl L. Hubbs
Director

MICHIGAN LAND ECONOMIC SURVEY

LAKE MAPPING - STATION CHECK LIST

1930

AQUATIC VEGETATION
FOR
MARSH AND LAKE

COUNTY Washtenaw STA. NO. IV

LAKE Frain's TYPE _____

EMERGENT VEGETATION TYPE

Water Plantain (<i>Alisma</i> sp.)	Blue Flag (<i>Iris</i> sp.)	Arrow Leaf
Blue Joint Grass (<i>Calamagrostis canadensis</i>)	Arrow Arum (<i>Peltandra virginica</i>)	(<i>Sagittaria</i> sp.)
Sedge Tail - 3 cornered	Cane or Reed (<i>Phragmites communis</i>)	Bur-reed (<i>Sparganium</i> sp.)
Sedge-Low - 3 cornered	Pickereel Weed (<i>Pontederia cordata</i>)	Cattail (<i>Typha latifolia</i>)
Bulrush (Large round stems)		Wild Rice (<i>Zizania</i> sp.)
Bulrush (Small round stems)		

SURFACE VEGETATION TYPE

Yellow Water Lily (<i>Nymphaea</i> sp.)	Water Shield (<i>Brasenia Schreberi</i>)	Duckweed (<i>Lemna</i> sp.)
White Water Lily (<i>Castalia</i> sp.)	Water Smartweed (<i>Polygonum amphibium</i>)	Pondweeds-Potamogeton (<i>Potamogeton natans</i>) (<i>P. americanus</i>) (<i>P. amplifolius</i>)

SUBMERGED VEGETATION TYPE

Pondweeds-Potamogeton (<i>P. Crispus</i>) (<i>P. epihydrus</i>) (<i>P. perfoliatus</i>) (<i>P. praelongus</i>) (<i>P. heterophyllus</i>) (<i>P. angustifolius & lucens</i>)	[] Sago (<i>Potamogeton pectinatus</i>) Mud Plantain (<i>Heteranthera dubia</i>) [] Coontail or Hornwort (<i>Ceratophyllum</i> sp.) Water Milfoil (<i>Myriophyllum</i> sp.)	[] Elodea or Waterweed (<i>Elodea</i> sp.) Wild Celery (<i>Vallisneria spiralis</i>) Water Marigold (<i>Bidens</i> sp.) [] Green algae.
[] (<i>P. compressus</i>) (<i>P. Robbinsii</i>) (<i>P. obtusifolius</i>)		

BOTTOM VEGETATION TYPE

Muskgrass (<i>Chara</i> sp.) Bushy Pondweed (<i>Najas flexilis</i>)	Water Moss Arrow Leaf (<i>Sagittaria</i> sp.)	Bladderwort (<i>Utricularia</i> sp.)
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Date Checked: Day 2 Month Oct. 19 30

NOTE: Use back of sheet for
description of Station and
Remarks

By L. M. Ashley

Station IV. Frain's Lake is located on the middle of the S. E. shore just to the S. W. of the sandy point. The vegetation here is thick. The soil merges from a sandy loam to fibrous peat and pulpy peat in deeper water.

This entire S. E. shore was dredged within the past year, much vegetation and peat being carried onto shore. It was formerly marshy here.

MICHIGAN LAND ECONOMIC SURVEY

LAKE MAPPING - STATION CHECK LIST

1930

AQUATIC VEGETATION
FOR
MARSH AND LAKE

COUNTY Washtenaw STA. NO. V

LAKE Frain's TYPE _____

EMERGENT VEGETATION TYPE

Water Plantain (<i>Alisma</i> sp.)	Blue Flag (<i>Iris</i> sp.)	Arrow Leaf
Blue Joint Grass (<i>Calamagrostis canadensis</i>)	Arrow Arum (<i>Peltandra virginica</i>)	(<i>Sagittaria</i> sp.)
Sedge Tail - 3 cornered	Cane or Reed (<i>Phragmites communis</i>)	Bur-reed (<i>Sparganium</i> sp.)
Sedge-Low - 3 cornered	Pickrel Weed (<i>Pontederia cordata</i>)	Cattail (<i>Typha latifolia</i>)
Bulrush (Large round stems)		Wild Rice (<i>Zizania</i> sp.)
Bulrush (Small round stems)		

SURFACE VEGETATION TYPE

Yellow Water Lily (<i>Nymphaea</i> sp.)	Water Shield (<i>Brasenia Schreberi</i>)	Duckweed (<i>Lemna</i> sp.)
['] White Water Lily (<i>Castalia</i> sp.)	Water Smartweed (<i>Polygonum amphibium</i>)	Pondweeds-Potamogeton (<i>Potamogeton natans</i>) (<i>P. americanus</i>) ['] (<i>P. amplifolius</i>)

SUBMERGED VEGETATION TYPE

Pondweeds-Potamogeton (<i>P. Crispus</i>) (<i>P. epihydrus</i>) (<i>P. perfoliatus</i>) (<i>P. praelongus</i>) (<i>P. heterophyllus</i>) (<i>P. angustifolius & lucens</i>)	['] Sago (<i>Potamogeton pectinatus</i>) Mud Plantain (<i>Heteranthera dubia</i>) Coontail or Hornwort (<i>Ceratophyllum</i> sp.) ['] Water Milfoil (<i>Myriophyllum</i> sp.)	['] Elodea or Waterweed (<i>Elodea</i> sp.) Wild Celery (<i>Vallisneria spiralis</i>) Water Marigold (<i>Bidens</i> sp.) ['] Algae (green)
['] (<i>P. compressus</i>) (<i>P. Robbinsii</i>) (<i>P. obtusifolius</i>)		

BOTTOM VEGETATION TYPE

Muskgrass (<i>Chara</i> sp.)	Water Moss	Bladderwort (<i>Utricularia</i> sp.)
['] Bushy Pondweed (<i>Najas flexilis</i>)	Arrow Leaf (<i>Sagittaria</i> sp.)	

Date Checked: Day 2 Month Oct. 19 30

NOTE: Use back of sheet for
description of Station and
Remarks

By L. M. Ashley

Station V. Frain's Lake located on S. E. shore just N. E. of the sandy point. The vegetation here is rather thick, the soil merges from a sandy loam to a marl with some fibrous peat. A little clay was found near shore at this location.

This entire S. E. side of the lake has been dredged during the past year. Much brush and peat being carried up onto shore. This side used to be mostly marshy.

MICHIGAN LAND ECONOMIC SURVEY

LAKE MAPPING - STATION CHECK LIST

1930

AQUATIC VEGETATION
FOR
MARSH AND LAKE

COUNTY Washtenaw STA. NO. III

LAKE Train's TYPE _____

EMERGENT VEGETATION TYPE

Water Plantain (<i>Alisma</i> sp.)	Blue Flag (<i>Iris</i> sp.)	Arrow Leaf
Blue Joint Grass (<i>Calamagrostis canadensis</i>)	Arrow Arum (<i>Peltandra virginica</i>)	(<i>Sagittaria</i> sp.)
Sedge Tail - 3 cornered	Cane or Reed	Bur-reed (<i>Sparganium</i> sp.)
Sedge-Low - 3 cornered	(<i>Phragmites communis</i>)	[] Cattail
Bulrush (Large round stems)	Pickereel Weed	(<i>Typha latifolia</i>)
Bulrush (Small round stems)	(<i>Pontederia cordata</i>)	Wild Rice
[] Loose strife (<i>Decadon virticilatis</i>)		(<i>Zizania</i> sp.)

SURFACE VEGETATION TYPE

[] Yellow Water Lily (<i>Nymphaea</i> sp.)	Water Shield (<i>Brasenia Schreberi</i>)	[] Duckweed (<i>Lemna</i> sp.)
[] White Water Lily (<i>Castalia</i> sp.)	Water Smartweed (<i>Polygonum amphibium</i>)	Pondweeds-Potamogeton (<i>Potamogeton natans</i>) (<i>P. americanus</i>) (<i>P. amplifolius</i>)

SUBMERGED VEGETATION TYPE

Pondweeds-Potamogeton (<i>P. Crispus</i>) (<i>P. epihydrus</i>) (<i>P. perfoliatus</i>) (<i>P. praelongus</i>) (<i>P. heterophyllus</i>) (<i>P. angustifolius & lucens</i>)	[] Sago (<i>Potamogeton pectinatus</i>) Mud Plantain (<i>Heteranthera dubia</i>) [] Coontail or Hornwort (<i>Ceratophyllum</i> sp.) [] Water Milfoil (<i>Myriophyllum</i> sp.)	Elodea or Waterweed (<i>Elodea</i> sp.) Wild Celery (<i>Vallisneria spiralis</i>) Water Marigold (<i>Bidens</i> sp.)
[] (<i>P. compressus</i>) (<i>P. Robbinsii</i>) (<i>P. obtusifolius</i>)		

BOTTOM VEGETATION TYPE

Muskgrass (<i>Chara</i> sp.) Bushy Pondweed (<i>Najas flexilis</i>)	Water Moss Arrow Leaf (<i>Sagittaria</i> sp.)	Bladderwort (<i>Utricularia</i> sp.)
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Date Checked: Day 2 Month Oct. 1930

NOTE: Use back of sheet for
description of Station and
Remarks

By L. M. Ashley

Station III. Frain's Lake located at N. W. corner of lake.
Vegetation here is quite dense. The bottom is fibrous to
pulpy peat.

MICHIGAN LAND ECONOMIC SURVEY

LAKE MAPPING - STATION CHECK LIST

1930

AQUATIC VEGETATION
FOR
MARSH AND LAKE

COUNTY Washtenaw STA. NO. II

LAKE Frain's TYPE _____

EMERGENT VEGETATION TYPE

Water Plantain (<i>Alisma</i> sp.)	Blue Flag (<i>Iris</i> sp.)	Arrow Leaf
Blue Joint Grass (<i>Calamagrostis canadensis</i>)	Arrow Arum (<i>Peltandra virginica</i>)	(<i>Sagittaria</i> sp.)
Sedge Tail - 3 cornered	Cane or Reed	Bur-reed (<i>Sparganium</i> sp.)
Sedge-Low - 3 cornered	(<i>Phragmites communis</i>)	Cattail
['] Bulrush (Large round stems)	['] Pickerel Weed	(<i>Typha latifolia</i>)
['] Bulrush (Small round stems)	(<i>Pontederia cordata</i>)	Wild Rice
['] Loose strife (<i>Decadon virticilatis</i>)		(<i>Zizania</i> sp.)

SURFACE VEGETATION TYPE

['] Yellow Water Lily (<i>Nymphaea</i> sp.)	Water Shield (<i>Bresenia Schreberi</i>)	Duckweed (<i>Lemna</i> sp.)
White Water Lily (<i>Castalia</i> sp.)	Water Smartweed (<i>Polygonum amphibium</i>)	Pondweeds-Potamogeton (<i>Potamogeton natans</i>)
		(<i>P. americanus</i>)
		(<i>P. amplifolius</i>)

SUBMERGED VEGETATION TYPE

Pondweeds-Potamogeton (<i>P. Crispus</i>)	Sago	['] Elodea or Waterweed
(<i>P. epihydrus</i>)	(<i>Potamogeton pectinatus</i>)	(<i>Elodea</i> sp.)
(<i>P. perfoliatus</i>)	Mud Plantain	['] Wild Celery
['] (<i>P. praelongus</i>)	(<i>Heteranthera dubia</i>)	(<i>Vallisneria</i>
(<i>P. heterophyllus</i>)	['] Coontail or Hornwort	<i>spiralis</i>)
(<i>P. angustifolius & lucens</i>)	(<i>Ceratophyllum</i> sp.)	Water Marigold
['] (<i>P. compressus</i>)	['] Water Milfoil	(<i>Bidens</i> sp.)
(<i>P. Robbinsii</i>)	(<i>Myriophyllum</i> sp.)	
(<i>P. obtusifolius</i>)		

BOTTOM VEGETATION TYPE

['] Muskgrass (<i>Chara</i> sp.)	Water Moss	Bladderwort
['] Bushy Pondweed (<i>Najas flexilis</i>)	Arrow Leaf (<i>Sagittaria</i> sp.)	(<i>Utricularia</i> sp.)

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description of Station and
Remarks

By L. M. Ashley

Station II. Frain's Lake located at N. W. side of Lake.
Shore of sand, gravel, and fibrous peat. The two former
at small patches, the later all along. Vegetation is here
quite thick.