

NOTES ON THE DIATOM FLORA OF LAKE AND MCHENRY
COUNTIES, ILLINOIS

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This paper lists seventy-two diatom species in the algal flora of Lake and McHenry Counties, of which fifty-eight are new records for McHenry County and thirty-nine for Lake County.

In the past few years, papers by Grady (1974) and Lipsey (1975) have added a number of taxa to the diatom flora of Illinois. Yet, for the most part, the recording of the Illinois diatom flora has been minimal and incomplete.

To date, forty-seven species of algae have been reported from McHenry County (Britton, 1944) and one hundred sixty-one from Lake County (Britton, 1944; Tiffany and Britton, 1952; Grady, 1974). The diatom flora of McHenry County is poorly known with but a single, apparent, published record, Melosira granulata (Britton, 1944). Lake County now contains slightly more than thirty species in the published literature (Britton, 1944; Grady, 1974). With the species listed in the present report, the total number of algal species, including their varieties, for McHenry and Lake Counties now stands at one hundred five and two hundred, respectively.

The following records were obtained from collections made under the direction of Jerrold H. Zar for a Federal Highway Administration environmental impact statement, supported by the Illinois Department of Transportation.

ANNOTATED CHECKLIST

Nomenclature in this list follows that of Hustedt (1930), Tiffany and Britton (1952), Cleve-Euler (1951-1955), Patrick and Reimer (1966), and Stoermer and Yang (1969). In each citation, the county in which the collection was made is indicated in upper case, followed by the collection locale(s) and month of sampling.

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CHRYSOPHYTA
BACILLARIOPHYCEAE

Centrales

- Melosira ambigua (Grun.) O. Mull. LAKE: Marsh west of U.S. Route 12 - Illinois Route 59, between Brandenburg Road and Sullivan Lake Road, September 1974; Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974; Unnamed stream on Nippersink Road, flowing between Wooster Lake and Fish Lake, September 1974; Volo Bog drain at Sullivan Lake Road, September 1974. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974; Dutch Creek at Illinois Route 31, September 1974; Nippersink Creek east of Keystone Road, October 1974; Small creek entering Nippersink Creek from the west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974.
- M. granulata var. angustissima Mull. LAKE: Unnamed stream on Nippersink Road, flowing between Wooster Lake and Fish Lake, September 1974; Volo Bog drain at Sullivan Lake Road, September 1974. MCHENRY: Nippersink Creek east of Keystone Road, October 1974.
- M. varians C. A. Ag. LAKE: Wilson Bog drain at Sullivan Lake Road, September 1974. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974; Dutch Creek at Illinois Route 31, September 1974.
- Cyclotella Meneghiniana Kutz. LAKE: Marsh west of U. S. Route 12 - Illinois Route 59, between Brandenburg Road and Sullivan Lake Road, September 1974; Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974; Unnamed stream on Nippersink Road, flowing between Wooster Lake and Fish Lake, September 1974; Volo Bog drain at Sullivan Lake Road, September 1974. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974; Dutch Creek at Illinois Route 31, September 1974; Nippersink Creek east of Keystone Road, October 1974; North branch of Nippersink Creek at Illinois Route 173, October 1974; North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.
- Stephanodiscus minutus Grun. ex Cleve and Mull. LAKE: Unnamed stream on Nippersink Road, flowing between Wooster Lake and Fish Lake, September 1974. MCHENRY: Nippersink Creek east of Keystone Road, October 1974.
- S. niagarae Ehrenberg. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974; Dutch Creek at Illinois Route 31, September 1974; Nippersink Creek east of Keystone Road, October 1974.

Pennales

- Diatoma vulgare Bory var. vulgare. MCHENRY: Nippersink Creek east of Keystone Road, October 1974.

- Fragilaria brevistriata Grun. var. brevistriata. LAKE: Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974.
- F. construens (Ehr.) Grun. var. construens. LAKE: Unnamed stream on Nippersink Road, flowing between Wooster Lake and Fish Lake, September 1974.
- F. leptostauron (Ehr.) Hust. var. leptostauron. LAKE: Squaw Creek at Nippersink Road, September 1974.
- Synedra acus Kutz. var. acus. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974.
- S. delicatissima W. Sm. var. delicatissima. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974; Marsh at south end of Ridgeway Road, October 1974.
- S. delicatissima var. angustissima Grun. MCHENRY: Nippersink Creek east of Keystone Road, October 1974.
- S. ulna (Nitz.) Ehr. var. ulna. MCHENRY: Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974.
- Eunotia curvata (Kutz.) Lagerst. var. curvata. LAKE: Marsh west of U.S. Route 12 - Illinois Route 59, between Brandenburg Road and Sullivan Lake Road, September 1974. MCHENRY: Wilson Bog drain at Illinois Route 134, September 1974; Marsh at south end of Ridgeway Road, October 1974.
- Achnanthes exigua var. constricta (Grun.) Hust. LAKE: Volo Bog drain at Sullivan Lake Road, September 1974.
- A. hungarica (Grun.) Grun. var. hungarica. LAKE: Volo Bog drain at Sullivan Lake Road, September, 1974. MCHENRY: Wilson Bog drain at Illinois Route 134, September 1974.
- A. lanceolata (Breb.) Grun. var. lanceolata. LAKE: Marsh west of U.S. Route 12 - Illinois Route 59, between Brandenburg Road and Sullivan Lake Road, September 1974; Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974; Dutch Creek at Illinois Route 31, September 1974; Marsh at south end of Ridgeway Road, October 1974.
- A. microcephala (Kutz.) Grun. var. microcephala. LAKE: Volo Bog drain at Sullivan Lake Road, September 1974. MCHENRY: Dutch Creek at Illinois Route 31, September 1974; Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974.

- Cocconeis pediculus Ehr. var. pediculus. LAKE: Unnamed stream on Nippersink Road, flowing between Wooster Lake and Fish Lake, September 1974. MCHENRY: Nippersink Creek east of Keystone Road, October 1974; Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974; North branch of Nippersink Creek at Illinois Route 173, October 1974.
- C. placentula var. lineata (Ehr.) V.H. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974; Dutch Creek at Illinois Route 31, September 1974; Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974; North branch of Nippersink Creek at Illinois Route 173, October 1974; North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.
- Rhoicosphenia curvata (Kutz.) Grun. ex Rabh. var. curvata. MCHENRY: Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974; North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.
- Caloneis lewisii var. inflata (Schultze) Patr. comb. nov. LAKE: Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974. MCHENRY: Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974.
- Gyrosigma acuminatum (Kutz.) Rabh. var. acuminatum. LAKE: Squaw Creek at Nippersink Road, September 1974.
- G. attenuatum (Kutz.) Rabh. var. attenuatum. MCHENRY: North branch of Nippersink Creek at Illinois Route 173, October 1974.
- G. scalproides (Rabh.) Cl. var. scalproides. LAKE: Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974.
- G. sciotense (Sulliv. & Wormley) Cl. var. sciotense. LAKE: Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974.
- Navicula capitata Ehr. var. capitata. LAKE: Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974; Dutch Creek at Illinois Route 31, September 1974; Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974; North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.
- N. cryptocephala Kutz. var. cryptocephala. LAKE: Marsh west of U.S. Route 12 - Illinois Route 59, between Brandenburg Road and Sullivan Lake Road, September 1974; Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974; Unnamed stream on Nippersink Road, flowing between Wooster Lake and Fish Lake, September 1974;

Volo Bog drain at Sullivan Lake Road, September 1974; Squaw Creek at Nippersink Road, September 1974. MCHENRY: Wilson Bog drain at Illinois Route 134, September 1974; Lily Lake drain at Sullivan Lake Road, September 1974; Dutch Creek at Illinois Route 31, September 1974; Marsh at south end of Ridgeway Road, October 1974; Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974; North branch of Nippersink Creek at Illinois Route 173, October 1974; North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.

- N. cryptocephala var. veneta (Kutz.) Rabh. LAKE: Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974. MCHENRY: Dutch Creek at Illinois Route 31, September 1974; North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.
- N. decussis Østr. var. decussis. LAKE: Unnamed stream on Nippersink Road, flowing between Wooster Lake and Fish Lake, September 1974. MCHENRY: North branch of Nippersink Creek at Illinois Route 173, October 1974.
- N. gottlandica Grun. var. gottlandica. LAKE: Marsh west of U.S. Route 12 - Illinois Route 59, between Brandenburg Road and Sullivan Lake Road, September 1974; Volo Bog drain at Sullivan Lake Road, September 1974. MCHENRY: Marsh at south end of Ridgeway Road, October 1974.
- N. graciloides A. Mayer var. graciloides. LAKE: Marsh west of U.S. Route 12 - Illinois Route 59, between Brandenburg Road and Sullivan Lake Road, September 1974; Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974; Unnamed stream on Nippersink Road, flowing between Wooster Lake and Fish Lake, September 1974; Volo Bog drain at Sullivan Lake Road, 1974; Squaw Creek at Nippersink Road, September 1974. MCHENRY: Dutch Creek at Illinois Route 31, September 1974; Nippersink Creek east of Keystone Road, October 1974; North branch of Nippersink Creek at Illinois Route 173, October 1974; North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.
- N. heufleri var. leptocephala (Breb. ex Grun.) Patr. comb. nov. MCHENRY: Marsh at south end of Ridgeway Road, October 1974.
- N. minima Grun. var. minima. MCHENRY: Marsh at south end of Ridgeway Road, October 1974.
- N. muralis Grun. var. muralis. MCHENRY: Marsh at south end of Ridgeway Road, October 1974.
- N. mutica var. tropica Hust. MCHENRY: Nippersink Creek east of Keystone Road, October 1974.
- N. pupula Kutz. var. pupula. MCHENRY: Dutch Creek at Illinois Route 31, September 1974; Small creek entering Nippersink Creek from

west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974.

- N. rhynchocephala Kutz. var. rhynchocephala. MCHENRY: Dutch Creek at Illinois Route 31, September 1974; Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974, October 1974; North branch of Nippersink Creek at Illinois Route 173, October 1974.
- N. seminulum var. hustedtii Patr. MCHENRY: Marsh at south end of Ridgeway Road, October 1974.
- N. tripunctata (O.F. Mull.) Bory var. tripunctata. MCHENRY: Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974.
- N. tripunctata var. schizonemoides (V.H.) Patr. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974.
- N. viridula (Kutz.) emend. V.H., var. viridula. MCHENRY: North branch of Nippersink Creek at Illinois Route 173, October 1974; North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.
- Pinnularia braunii var. amphicephala (A. Mayer) Hust. MCHENRY: Marsh at south end of Ridgeway Road, October 1974.
- P. microstauron (Ehr.) Cl. var. microstauron. MCHENRY: Wilson Bog drain at Illinois Route 134, September 1974.
- Stauroneis obtusa Lagerst. var. obtusa. LAKE: Marsh west of U.S. Route 12 - Illinois Route 59, between Brandenburg Road and Sullivan Lake Road, September 1974.
- Gomphonema acuminatum Ehr. MCHENRY: Wilson Bog drain at Illinois Route 134, September 1974.
- G. constrictum Ehr. MCHENRY: Wilson Bog drain at Illinois Route 134, September 1974.
- G. olivaceum (Lyngbye) Kutz. LAKE: Unnamed stream on Nippersink Road, flowing between Wooster Lake and Fish Lake, September 1974. MCHENRY: Marsh at south end of Ridgeway Road, October 1974; Nippersink Creek east of Keystone Road, October 1974.
- G. parvulum (Kutz.) Grunow. LAKE: Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974; Unnamed stream on Nippersink Road, flowing between Wooster Lake and Fish Lake, September 1974; Volo Bog drain at Sullivan Lake Road, September 1974. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974; Dutch Creek at Illinois Route 31, September 1974; Nippersink Creek east of Keystone Road, October 1974; Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from

Keystone Road, October 1974; North branch of Nippersink Creek at Illinois Route 173, October 1974; North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.

G. parvulum var. genuinum Mayer. LAKE: Marsh west of U.S. Route 12 - Illinois Route 59, between Brandenburg Road and Sullivan Lake Road, September 1974.

Amphora ovalis Kutz. LAKE: Marsh west of U.S. Route 12 - Illinois Route 59, between Brandenburg Road and Sullivan Lake Road, September 1974; Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974. MCHENRY: Wilson Bog Drain at Illinois Route 134, September 1974; Nippersink Creek east of Keystone Road, October 1974; North branch of Nippersink Creek at Illinois Route 173, October 1974.

A. ovalis var. pediculus Kutz. MCHENRY: Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974.

Cymbella affinis Kutz. MCHENRY: North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.

C. Ehrenbergii Kutz. LAKE: Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974.

C. turgida (Gregory) Cleve. LAKE: Marsh west of U.S. Route 12 - Illinois Route 59, between Brandenburg Road and Sullivan Lake Road, September 1974.

Rhopalodia gibba (Ehr.) O. Mull. MCHENRY: Wilson Bog drain at Illinois Route 134, September 1974.

Nitzschia acicularis W. Smith. LAKE: Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974; Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974; North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.

N. acuta Hantzsch. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974; North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.

N. amphibia Grun. LAKE: Unnamed stream on Nippersink Road, flowing between Wooster Lake and Fish Lake, September 1974. MCHENRY: Wilson Bog drain at Illinois Route 134, September 1974.

N. amphibia var. intermedia Mayer. MCHENRY: Nippersink Creek east of Keystone Road, October 1974.

N. latestriata (Østr.) A. Cl. LAKE: Squaw Creek at Nippersink Road, September 1974.

- N. linearis W. Smith. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974; Dutch Creek at Illinois Route 31, September 1974; Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974; North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.
- N. palea (Kutz.) W. Smith. LAKE: Marsh west of U. S. Route 12 - Illinois Route 59, between Brandenburg Road and Sullivan Lake Road, September 1974; Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974; Unnamed stream on Nippersink Road, flowing between Wooster Lake and Fish Lake, September 1974; Volo Bog drain at Sullivan Lake Road, September 1974. MCHENRY: Wilson Bog drain at Illinois Route 134, September 1974; Lily Lake drain at Sullivan Lake Road, September 1974; Marsh at south end of Ridgeway Road, October 1974; Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974; North branch of Nippersink Creek at Illinois Route 173, October 1974; North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.
- N. sigmoidea (Ehr.) W. Smith. LAKE: Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974.
- N. vermicularis (Kutz.) Grun. MCHENRY: Dutch Creek at Illinois Route 31, September 1974; Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974; North branch of Nippersink Creek at Illinois Route 173, October 1974; North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.
- Cymatopleura elliptica (Brebisson) W. Smith. LAKE: Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974.
- C. solea (Brebisson) W. Smith. LAKE: Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974. MCHENRY: Lily Lake drain at Sullivan Lake Road, September 1974.
- Surirella ovata Kutz. LAKE: Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974. MCHENRY: Dutch Creek at Illinois Route 31, September 1974; Small creek entering Nippersink Creek from west and paralleling Northern Pump Company farm entrance road east from Keystone Road, October 1974; North-south drain into Nippersink Creek where it crosses Grove Road, October 1974.
- S. ovata var. crumena (Brebisson) van Heurck. MCHENRY: Nippersink Creek east of Keystone Road, October 1974.
- S. robusta var. splendida (Ehr.) van Heurck. MCHENRY: Dutch Creek at Illinois Route 31, September 1974.
- S. spiralis Kutz. LAKE: Squaw Creek at Illinois Route 120 (Belvidere Road), September 1974.

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