

NEW ALGAL RECORDS FOR LAKE COUNTY, ILLINOIS

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ABSTRACT.--This paper lists seventy-four algal species previously unreported for Lake County, Illinois. A total of seventy-six species and varieties are listed, of which eight species are new records for the state.

INTRODUCTION

Britton (1944) reported eighty-seven algal species for Lake County. Taxa reported in this paper were observed by the author from January to May, 1973 in twenty-eight collections from twenty-three different locations in the county.

These new records, together with those reported earlier (Britton, 1944; Tiffany and Britton, 1952) now comprise a list of 161 recognized algal species for Lake County. Taxa in this list are arranged in annotated form according to Smith (1950). New records for the state of Illinois are preceded by an asterisk (\*). With each citation, collection site and date are given, followed by a reference which includes adequate illustration.

CHLOROPHYTA  
CHLOROPHYCEAE  
Volvocales

- \*Volvox tertius Meyer. Getz Pond, April 28, 1973. Prescott, 1962, Pl. 3, Fig. 12.  
Haematococcus lacustris (Girod) Rostafinski. Stanley Field Estate, Lake Bluff, March 11, 1973. Smith, 1950, Fig. 52.

Ulotrichales

- Ulothrix tenerrima Kuetzing. Ravine, Lake Forest College, May 9, 1973. Tiffany and Britton, 1952, Pl. 4, Fig. 38.  
\*Ulothrix tenuissima Kuetzing. Walden ravine, Lake Forest, April 8, 1973. Prescott, 1962, Pl. 67, Figs. 11, 12.

Cladophorales

- Cladophora glomerata (Linnaeus) Kuetzing. Walden ravine, Lake Forest, April 8, 1973. Tiffany and Britton, 1952, Pl. 13, Fig. 93.  
Rhizoclonium hieroglyphicum (Agardh) Kuetzing. Getz Pond, April 14, 1973. Tiffany and Britton, 1952, Pl. 13, Fig. 91.

Chlorococcales

- \*Pediastrum biradiatum Meyen. Dead River, Illinois Beach State Park, April 28, 1973. Prescott, 1962, Pl. 47, Figs. 5,6.  
Pediastrum boryanum (Turpin) Meneghini var. longicorne Raciborski. Sentinel Lake, Long Grove, February 4, 1973. Tiffany and Britton, 1952, Pl. 30, Fig. 297.  
Planktosphaeria gelatinosa G.M. Smith. Daniel Wright Forest Preserve, January 21, 1973. Prescott, 1962, Pl. 53, Fig. 23.

- Ankistrodesmus falcatus (Corda) Ralfs. Getz Pond, April 14, 1973. Tiffany and Britton, 1952, Pl. 31, Fig. 307.
- \*Scenedesmus hystrix Lagerheim. Getz Pond, April 14, 1973. Prescott, 1962, Pl. 63, Fig. 12.

#### Zygnematales

- Spirogyra porticalis (Mueller) Cleve. Dead River, Illinois Beach State Park, April 28, 1973. Tiffany and Britton, 1952, Pl. 44, Fig. 468.
- Spirogyra silvicola M.E. Britton. Dead River, Illinois Beach State Park, April 28, 1973. Tiffany and Britton, 1952, Pl. 43, Fig. 456.
- Spirogyra varians (Hass.) Kuetzing. Dead River, Illinois Beach State Park, April 28, 1973. Tiffany and Britton, 1952, Pl. 44, Fig. 464.
- Roya obtusa (Brébisson) W. and G.S. West. Stanley Field Estate, Lake Bluff, March 11, 1973. Tiffany and Britton, 1952, Pl. 51, Fig. 533.
- Closterium gracile Brébisson var. elongatum W. and G.S. West. Getz Pond, January 21, 1973. Tiffany and Britton, 1952, Pl. 52, Fig. 557.
- Closterium moniliferum (Bory) Ehrenberg. Getz Pond, January 21, 1973. Tiffany and Britton, 1952, Pl. 52, Fig. 549.
- Closterium strigosum Brébisson. Pistakee Lake, March 15, 1973. Tiffany and Britton, 1952, Pl. 51, Fig. 545.
- Pleurotaenium trabecula (Ehrenberg) Naegeli. Sentinel Lake, Long Grove, February 4, 1973. Tiffany and Britton, 1952, Pl. 55, Fig. 609.
- \*Cosmarium pseudoconnatum Nordst. Stanley Field Estate, Lake Bluff, March 11, 1973. West and West, 1908, Pl. LXVII, Figs. 19-21.
- Cosmarium reniforme (Ralfs) Archer. Roadside ditch, Hawley Street, east of Gilmer Road, Fremont, March 15, 1973. Tiffany and Britton, 1952, Pl. 53, Fig. 586.

#### EUGLENOPHYTA EUGLENOPHYCEAE Euglenales

- Euglena acutissima Lemmermann. Small pond along Brandenburg Road, 0.3 miles west of U.S. 12, March 15, 1973. Tiffany and Britton, 1952, Pl. 87, Fig. 1005.
- Euglena gracilis Klebs. Small pond along Brandenburg Road, 0.3 miles west of U.S. 12, March 15, 1973. Tiffany and Britton, 1952, Pl. 87, Fig. 1012.
- Euglena spiroides Lemmermann. Water-filled ditch north of EJ&E railroad tracks, Lake Forest, May 10, 1973. Tiffany and Britton, 1952, Pl. 87, Fig. 1016.
- Euglena tripteris (Dujardin) Klebs. Tower Lake, April 14, 1973. Tiffany and Britton, 1952, Pl. 87, Fig. 1014.
- Euglena viridis Ehrenberg. Cement pool, east of Lake Road, Lake Forest, April 22, 1973. Tiffany and Britton, 1952, Pl. 87, Fig. 1009.
- \*Phacus caudatus Huebner. Small pond along Brandenburg Road, 0.3 miles west of U.S. 12, March 15, 1973. Prescott, 1962, Pl. 87, Fig. 13.
- Phacus pyrum (Ehrenberg) Stein. Fox Lake, April 14, 1973. Tiffany and Britton, 1952, Pl. 88, Fig. 1021.
- Trachelomonas acanthostoma (Stokes) Deflandre. Large pond on west side of U.S. 12, between Sullivan Lake Road and Brandenburg Road, March 15, 1973. Weik and Mohlenbrock, 1963, Pl. I, Fig. 18.
- Trachelomonas coronata Swirenko. Small pond along Brandenburg Road, 0.3 miles west of U.S. 12, March 15, 1973. Weik and Mohlenbrock, 1963, Pl. I, Fig. 8.

- Trachelomonas intermedia Dangeard. Getz Pond, April 14, 1973. Weik and Mohlenbrock, 1963, Pl. I, Fig. 9.  
Trachelomonas lacustris Skvortzow. Volo Bog, May 2, 1973. Weik and Mohlenbrock, 1963, Pl. II, Fig. 31.

CHRYSOPHYTA  
XANTHOPHYCEAE  
Heterotrichales

- \*Tribonema affine G.S. West. Daniel Wright Forest Preserve, January 21, 1973. Prescott, 1962, Pl. 96, Figs. 7-9.  
Tribonema bombycinum (C.A. Agardh) Derbés and Solier. Daniel Wright Forest Preserve, January 21, 1973. Tiffany and Britton, 1952, Pl. 57, Fig. 648.  
Tribonema minus (Wille) Hazen. Daniel Wright Forest Preserve, January 21, 1973. Tiffany and Britton, 1952, Pl. 57, Fig. 650.  
Tribonema utriculosum (Kuetzing) Hazen. Water-filled ditch on west side of St. Mary's Road between Rt. 60 and Rt. 176, March 28, 1973. Tiffany and Britton, 1952, Pl. 57, Fig. 647.

Heterosiphonales

- Vaucheria geminata (Vaucher) DeCandolle. Water-filled ditch north of Beach Road, near entrance to Illinois Beach State Park, May 11, 1973. Tiffany and Britton, 1952, Pl. 37, Fig. 385.  
Vaucheria repens Hassall. Cement pool east of Lake Road, Lake Forest, April 22, 1973. Tiffany and Britton, 1952, Pl. 37, Fig. 383.

CHRYSOPHYCEAE  
Chrysoomonadales

- Synura uvella Ehrenberg. Getz Pond, January 21, 1973. Tiffany and Britton, 1952, Pl. 81, Figs. 393-940.

BACILLARIOPHYCEAE  
Centrales

- Melosira varians C.A. Agardh. Tower Lake, April 14, 1973. Tiffany and Britton, 1952, Pl. 59, Fig. 673.  
Stephanodiscus astraera (Ehrenberg) Grunow. Fox River, April 14, 1973. Tiffany and Britton, 1952, Pl. 60, Fig. 676.  
Stephanodiscus niagarae Ehrenberg. Pistakee Lake, March 15, 1973. Tiffany and Britton, 1952, Pl. 60, Fig. 680.  
Actinocyclus niagarae H.L. Smith. Pistakee Lake, March 15, 1973. Tiffany and Britton, 1952, Pl. 58, Fig. 666.

Pennales

- Tabellaria fenestrata (Lyngbye) Kuetzing. Tower Lake, April 14, 1973. Tiffany and Britton, 1952, Pl. 61, Figs. 691, 693.  
Meridion circulare (Greville) C.A. Agardh. Water-filled ditch east of C&NW railroad tracks, northwest of Sheridan and McKinley Roads, Lake Bluff, February 25, 1973. Tiffany and Britton, 1952, Pl. 61, Figs. 689-690.  
Diatoma hiemale (Lyngbye) Heiberg. Getz Pond, April 28, 1973. Tiffany and Britton, 1952, Pl. 61, Fig. 684.

- Diatoma vulgare Bory. Pistakee Lake, March 15, 1973. Tiffany and Britton, 1952, Pl. 61, Figs. 686-687.
- Fragilaria crotonensis Kitton. Water-filled ditch east of C&NW railroad tracks, northwest of Sheridan and McKinley Roads, Lake Bluff, February 25, 1973. Tiffany and Britton, 1952, Pl. 62, Fig. 703.
- Fragilaria pinnata Ehrenberg. Getz Pond, January 21, 1973. Tiffany and Britton, 1952, Pl. 62, Fig. 700.
- Fragilaria virescens Ralfs. Water-filled ditch east of C&NW railroad tracks, northwest of Sheridan and McKinley Roads, Lake Bluff, February 25, 1973. Tiffany and Britton, 1952, Pl. 62, Fig. 702.
- Synedra acus Kuetzing. Daniel Wright Forest Preserve. February 4, 1973. Tiffany and Britton, 1952, Pl. 63, Fig. 720.
- Synedra acus Kuetzing var. radians (Kuetzing) Hustedt. Getz Pond, April 14, 1973. Tiffany and Britton, 1952, Pl. 63, Fig. 721.
- Synedra tenera W. Smith. Tower Lake, April 14, 1973. Tiffany and Britton, 1952, Pl. 63, Fig. 719.
- Synedra ulna (Nitzsch) Ehrenberg. Daniel Wright Forest Preserve, February 4, 1973. Tiffany and Britton, 1952, Pl. 63, Fig. 713.
- Synedra ulna (Nitzsch) Ehrenberg var. aequalis (Kuetzing) Hustedt. Skokie Ditch, north of Rt. 176, Lake Bluff, February 25, 1973. Tiffany and Britton, 1952, Pl. 63, Fig. 714.
- Asterionella formosa Hassall. Pistakee Lake, March 15, 1973. Tiffany and Britton, 1952, Pl. 63, Fig. 709.
- Rhoicosphenia curvata (Kuetzing) Grunow. Small stream running under Rt. 176, Lake Bluff, February 25, 1973. Tiffany and Britton, 1952, Pl. 65, Fig. 753.
- Cocconeis placentula Ehrenberg var. lineata (Ehrenberg) Cleve. Dead River, Illinois Beach State Park, April 28, 1973. Tiffany and Britton, 1952, Pl. 64, Fig. 736.
- Navicula cuspidata Kuetzing. Water-filled ditch north of EJ&E railroad tracks, Lake Forest, May 10, 1973. Tiffany and Britton, 1952, Pl. 68, Fig. 789.
- Navicula rhyncocephala Kuetzing. Water-filled ditch east of C&NW railroad tracks, northwest of Sheridan and McKinley Roads, Lake Bluff, February 25, 1973. Tiffany and Britton, 1952, Pl. 67, Fig. 782.
- Pinnularia major (Kuetzing) Wm. Smith. Marshy area west of C&NW railroad tracks, northwest of Sheridan and McKinley Roads, Lake Bluff, February 25, 1973. Tiffany and Britton, 1952, Pl. 68, Fig. 795.
- Pinnularia viridis (Nitzsch) Ehrenberg. Volo Bog, May 2, 1973. Tiffany and Britton, 1952, Pl. 70, Fig. 809.
- Caloneis silicula (Ehrenberg) Cleve. var. gibberula (Kuetzing) Cleve. Marshy area west of C&NW railroad tracks, northwest of Sheridan and McKinley Roads, Lake Bluff, February 25, 1973. Tiffany and Britton, 1952, Pl. 65, Fig. 746.
- Caloneis trinodis (Lewis) Boyer. Marshy area west of C&NW railroad tracks, northwest of Sheridan and McKinley Roads, Lake Bluff, February 25, 1973. Tiffany and Britton, 1952, Pl. 79, Fig. 919.
- Gomphonema acuminatum Ehrenberg. Getz Pond, January 21, 1973. Tiffany and Britton, 1952, Pl. 72, Fig. 830.
- Cymbella cistula (Hemprich) Grunow. Pistakee Lake, March 15, 1973. Tiffany and Britton, 1952, Pl. 74, Fig. 861.
- Cymbella lanceolata (Ehrenberg) Van Heurck. Dead River, Illinois Beach State Park, April 28, 1973. Tiffany and Britton, 1952, Pl. 74, Fig. 872.

- Cymbella ventricosa Kuetzing. Large pond on west side of U.S. 12, between Sullivan Lake Road and Brandenburg Road, March 15, 1973. Tiffany and Britton, 1952, Pl. 74, Fig. 871.
- Epithemia turgida (Ehrenberg) Kuetzing. Pistakee Lake, March 15, 1973. Tiffany and Britton, 1952, Pl. 75, Fig. 876.
- Epithemia zebra (Ehrenberg) Kuetzing. Getz Pond, January 21, 1973. Tiffany and Britton, 1952, Pl. 75, Fig. 882.
- Rhopalodia gibba (Kuetzing) Mueller. Getz Pond, April 14, 1973. Tiffany and Britton, 1952, Pl. 75, Fig. 884.

PYRROPHYTA  
DINOPHYCEAE  
Peridinales

- Peridinium bipes Stein. Getz Pond, April 28, 1973. Tiffany and Britton, 1952, Pl. 85, Figs. 988-991.

CYANOPHYTA  
MYXOPHYCEAE  
Chroococcales

- Merismopedia convoluta Brébisson. Sentinel Lake, Long Grove, February 4, 1973. Tiffany and Britton, 1952, Pl. 91, Fig. 1051.

Oscillatoriales

- Oscillatoria amoena (Kuetzing) Gomont. Stanley Field Estate, Lake Bluff, March 11, 1973. Tiffany and Britton, 1952, Pl. 93, Fig. 1073.
- Oscillatoria geminata Meneghini. Getz Pond, January 21, 1973. Tiffany and Britton, 1952, Pl. 94, Fig. 1087.
- \*Oscillatoria subbrevis Schmidle. Getz Pond, January 21, 1973. Prescott, 1962, Pl. 107, Fig. 23.

LITERATURE CITED

- BRITTON, M.E. 1944. A Catalog of Illinois Algae. Northwestern University, Evanston, Illinois. 177 pp.
- PRESCOTT, G.W. 1962. Algae of the Western Great Lakes Area. Wm. C. Brown Co., Publishers, Dubuque, Iowa. 977 pp.
- SMITH, G.M. 1950. The Fresh-water Algae of the United States. McGraw-Hill Book Co., New York. 719 pp.
- TIFFANY, L.H. and M.E. BRITTON. 1952. The Algae of Illinois. University of Chicago Press, Chicago. 407 pp.
- WEIK, K.L. and R.H. MOHLENBROCK. 1963. Notes on the Algal Flora of Illinois II. The Genus Trachelomonas Ehrenberg of the Pine Hills, Union County, Illinois. Transactions of the American Microscopical Society LXXXII (4): 381-390.
- WEST, W. and G.S. WEST. 1908. A Monograph of the British Desmidiaceae. Volume III. The Ray Society, London. 274 pp.