

# Additions to the filamentous Myxophyceae of Indiana, Kentucky and Ohio

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The Butler University Botanical Studies journal was published by the Botany Department of Butler University, Indianapolis, Indiana, from 1929 to 1964. The scientific journal featured original papers primarily on plant ecology, taxonomy, and microbiology.

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**Butler University**  
**Botanical Studies**  
(1929-1964)

*Edited by*

**Ray C. Friesner**

The *Butler University Botanical Studies* journal was published by the Botany Department of Butler University, Indianapolis, Indiana, from 1929 to 1964. The scientific journal featured original papers primarily on plant ecology, taxonomy, and microbiology. The papers contain valuable historical studies, especially floristic surveys that document Indiana's vegetation in past decades. Authors were Butler faculty, current and former master's degree students and undergraduates, and other Indiana botanists. The journal was started by Stanley Cain, noted conservation biologist, and edited through most of its years of production by Ray C. Friesner, Butler's first botanist and founder of the department in 1919. The journal was distributed to learned societies and libraries through exchange.

During the years of the journal's publication, the Butler University Botany Department had an active program of research and student training. 201 bachelor's degrees and 75 master's degrees in Botany were conferred during this period. Thirty-five of these graduates went on to earn doctorates at other institutions.

The Botany Department attracted many notable faculty members and students. Distinguished faculty, in addition to Cain and Friesner, included John E. Potzger, a forest ecologist and palynologist, Willard Nelson Clute, co-founder of the American Fern Society, Marion T. Hall, former director of the Morton Arboretum, C. Mervin Palmer, Rex Webster, and John Pelton. Some of the former undergraduate and master's students who made active contributions to the fields of botany and ecology include Dwight W. Billings, Fay Kenoyer Daily, William A. Daily, Rexford Daudenmire, Francis Hueber, Frank McCormick, Scott McCoy, Robert Petty, Potzger, Helene Starcs, and Theodore Sperry. Cain, Daudenmire, Potzger, and Billings served as Presidents of the Ecological Society of America.

Requests for use of materials, especially figures and tables for use in ecology text books, from the *Butler University Botanical Studies* continue to be granted. For more information, visit [www.butler.edu/herbarium](http://www.butler.edu/herbarium).

# ADDITIONS TO THE FILAMENTOUS MYXOPHYCEAE OF INDIANA, KENTUCKY AND OHIO<sup>1</sup>

By WILLIAM A. DAILY  
The Eli Lilly Company

During the past several years, numerous specimens of the Myxophyceae from Indiana, Kentucky and Ohio have accumulated in the herbaria cited below. Some of these species presumably have not previously been reported for this region and are now placed on record.

It is known that many collections of algae, the bases for previous reports, have been lost or are inaccessible. It is the desire of the writer and of other students of the herbarium that all published works on the algae be based only upon permanently preserved specimens (represented in private and established herbaria).

I wish to acknowledge the generous aid of Dr. Francis Drouet in placing at my disposal the facilities of the Cryptogamic Herbarium of the Chicago Natural History Museum; of Dr. Ray C. Friesner for making available the facilities of the Botany Department of Butler University; and Dr. C. M. Palmer, and Fay K. Daily for kindnesses rendered.

Herbaria in which specimens cited are to be found are indicated by means of the following abbreviations: Da, Herbarium of W. A. Daily (on file in the Herbarium of Butler University); CM, Cryptogamic Herbarium, Chicago Natural History Museum; P, Herbarium of C. Mervin Palmer (on file in the Herbarium of Butler University).

Italicized collection numbers unless accompanied by the name of a collector are my own.

## STIGONEMATACEAE

*FISCHERELLA AMBIGUA* (B. & F.) Gom.—KENTUCKY: WOLFE COUNTY: On sandstone in Tight Hollow near Pine Ridge, *A. T. Cross, J. Tucker & W. A. Daily 773*, Sept. 1940 (Da, CM).

*FISCHERELLA THERMALIS* (B. & F.) Gom.—INDIANA: LA PORTE COUNTY: On soil in old fields east of Smith Station, 8 miles

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<sup>1</sup>A contribution in recognition of the 25th Anniversary of the Botany Department of Butler University.

north of La Porte, *P. D. Voth & F. Drouet 2438*, Oct. 1938 (Da, CM).

STIGONEMA MAMILLOSUM (Lyngb.) Ag. ex B. & F.—OHIO: HOCKING COUNTY: On sandstone, Cantwell Cliff State Park, *F. K. & W. A. Daily 686*, Aug. 1940 (Da, CM).

STIGONEMA MINUTUM (Ag.) Hass. ex B. & F.—KENTUCKY: POWELL COUNTY: On sandstone, Natural Bridge State Park, *F. K. & W. A. Daily 396*, June 1940 (Da, CM).

STIGONEMA PANNIFORME (Ag.) B. & F.—OHIO: CENTRAL PART: With *Schizothrix purpurascens* on dry prairie, *C. E. Taft*, 15 Oct. 1938 (CM).

HAPALOSIPHON PUMILUS (Kütz.) Kirchn. ex B. & F.—INDIANA: STEUBEN COUNTY: Attached and floating at margin of Failing lake, *C. M. Palmer B 1020*, 28 July 1933 (CM, P). Cited as *Oscillatoria geminata* Menegh. by C. M. Palmer, *Butler Univ. Bot. Stud.* 3: 103 April (1934).

### NOSTOCACEAE

NOSTOC ELLIPSOSPORUM (Desmaz.) Rabenh. ex B. & F.—OHIO: HAMILTON COUNTY: On moist hard soil, Addyston ponds, Addyston, *L. Lillick 242*, 4 Aug. 1934 (CM); on damp soil, Hazelwood preserve, Cincinnati, *I. H. Hoskins & W. A. Daily 233b*, Nov. 1939 (CM). ATHENS COUNTY: From limestone rock on Wilson's farm near Athens, *135, 137*, 1939 (CM).

NOSTOC HUMIFUSUM Carm. ex B. & F.—KENTUCKY: TODD COUNTY: Pond on Russellville road 2 miles from Guthrie, *B. B. Mc-Inteer 573*, 15 Aug. 1929 (CM).

NOSTOC MACROSPORUM Menegh. ex B. & F.—INDIANA: JENNINGS COUNTY: With *Anacystis rupestris* on limestone in canyon, Muscatatuck State Park, Vernon, *F. K. & W. A. Daily 1106*, May 1942 (Da, CM). PARKE COUNTY: On moist sandstone cliff by Sugar creek northeast of Turkey Run Inn, *F. Drouet & D. Richards 2485*, 16 June 1939 (CM), on sandstone cliffs, Falls canyon, *F. Drouet & D. Richards 2474*, 16 June 1939 (CM).

NOSTOC PARMELIODES Kütz. ex B. & F.—INDIANA: JENNINGS COUNTY: Attached to limestone in stream above Hinchman's cave, Vernon, *58*, early spring, 1934 (Da, CM).

NODULARIA HARVEYANA (Thw.) Thur. ex B. & F.—INDIANA: MARION COUNTY: On wet mud in lane through Bacon's Swamp, Indianapolis, *C. M. Palmer, R. N. Webster, R. Prettyman, D. Webster & F. Drouet 2518*, 17 Aug. 1939 (P, CM).

*ANABAENA CIRCINALIS* (Kütz.) Rab. ex B. & F.—INDIANA: MARION COUNTY: Bloom in Fish Hatchery pond, Riverside, Indianapolis, *F. K. Daily*, 31 May 1941 (Da. CM).

*ANABAENA OSCILLARIOIDES* Bory ex B. & F.—KENTUCKY: WOLFE COUNTY: On wet sandy soil near Torrent, *R. Kosanke, F. K. & W. A. Daily* 462, July 1940 (Da, CM).

*ANABAENA OSCILLARIOIDES* var. *STENOSPORA* B. & F.—INDIANA: VIGO COUNTY: from a swamp in Otter township, Terre Haute, *H. H. Welch* 1, 9 Aug. 1940 (CM).

*ANABAENA VARIABILIS* Kütz. ex B. & F.—OHIO: COSHOCTON COUNTY: In ditch by Fresno road near N.A.E.W., *L. J. King* 1026, 30 May 1943 (CM), collected near the station, N.A.E.W., *L. J. King* 1024, May 1943 (CM).

*ANABAENA SPIROIDES* Klebahn—OHIO: HAMILTON COUNTY: Bloom in lake of the Church of the Little Flower, Cincinnati, 432, July 1940 (Da, CM), bloom in pond of Lakeview fish hatchery, Cincinnati, 433, July 1940 (Da, CM).

*CYLINDROSPERMUM MAJUS* Kütz. ex B. & F.—KENTUCKY: WOLFE COUNTY: On sandstone near Torrent, *R. Kosanke, F. K. & W. A. Daily* 458, July 1940 (Da, CM).

*RAPHIDIOPSIS CURVATA* Fritsch & Rich.—OHIO: MERCER COUNTY: With *Merismopoedia glauca*, Beaver creek near Celina, *J. B. Lackey*, Aug. 1940 (Da, CM). HAMILTON COUNTY: A bloom in Inwood Park lake, Cincinnati, 139, Oct. 1939 (Da, CM). This species is distinguished by its evaginate and sharply pointed trichomes which are usually curved or spiraled.

#### RIVULARIACEAE

*CALOTHRIX ADSCENDENS* (Näg.) B. & F.—KENTUCKY: POWELL COUNTY: With *Scytonema Hofmannii* on limestone cliff near Slade, *A. T. Cross, J. Tucker & W. A. Daily* 754, Sept. 1940 (Da, CM).

*CALOTHRIX BRAUNII* B. & F.—INDIANA: MARION COUNTY: With *Amphithrix janthina* B. & F., on wood submersed in a small pond near Fall creek at Keystone ave., Indianapolis, *F. Drouet, E. R. Hupp, C. M. Palmer, F. K. & W. A. Daily* 942, 16 Aug. 1942 (Da, CM). JENNINGS COUNTY: Brownish coating on rock, *C. M. Palmer* 155, 24 Feb. 1934 (P, CM), from a rock in Vinegar Mills canyon in Muscatatuck State Park, Vernon, 20, 30 April 1939 (Da, CM).

DICHOTHRIX BAUERIANA (Grun.) B. & F.—INDIANA: BARTHOLOMEW COUNTY: With *Schizothrix lardacca* Gom., on limestone at water-line in quarry south of Scenic Falls, Hartsville, C. Kenoyer, F. K. & W. A. Daily 1134, 19 Sept. 1943 (Da, CM). SHELBY COUNTY: With *Schizothrix laterita* Gom., on limestone in quarry No. 3 at water-line and below near St. Paul, F. K. & W. A. Daily 1141, 3 Oct. 1943 (Da, CM).

DICHOTHRIX GYPSOPHILA (Kütz.) B. & F.—KENTUCKY: CARTER COUNTY: With *Scytonema Myochrous* B. & F., on a limestone cliff, Carter's Caverns, L. Walp, fall, 1940 (CM).

### SCYTONEMATACEAE

HASSALLIA BYSSOIDEA (Berk.) Hass. ex B. & F.—OHIO: HOCKING COUNTY: On rock, Cantwell Cliffs State Park, F. K. & W. A. Daily 686, Aug. 1940 (Da, CM). WARREN COUNTY: On limestone near Foster, J. H. Hoskins & W. A. Daily 228, Nov. 1939 (Da, CM). SCIOTO COUNTY: On rocks along Spruce creek, 154, Oct. 1939 (Da, CM). VINTON COUNTY: On limestone, 5 miles east of McArthur, 125, Oct. 1939 (Da, CM).

SCYTONEMA CRUSTACEUM Ag. ex B. & F.—OHIO: ERIE COUNTY: Quarry pool, Kelley's Island, L. H. Tiffany, 9 June 1931 (CM).

SCYTONEMA FIGURATUM Ag. ex B. & F.—OHIO: OTTOWA COUNTY: In Kelley Isle quarry, 1 mile west of Lakeside near Marblehead, Catawba Island, F. K. & W. A. Daily 588, July 1940 (Da, CM). HIGHLAND COUNTY: With some *Scytonema alatum* B. & F., on Cedarville dolomite near Baker's Fork of Ohio Brush creek, near Fort Hill, A. T. Cross & J. Lambert, Sept. 1941 (Da, CM). ADAMS COUNTY: On dolomite in falls below east side of Buzzard's Roost Rock, 146, Oct. 1939 (Da, CM). CHAMPAIGN COUNTY: With *Schizothrix lacustris* Gom. & *Scytonema Myochrous*, Urbana Bog, M. S. Markle 8, 1938 (Da, CM). HAMILTON COUNTY: On the side-walls of Eden Park reservoir, Cincinnati, J. B. Lackey, Sept. 1942 (CM).

SCYTONEMA HOFMANNII Ag. ex B. & F.—KENTUCKY: POWELL COUNTY: With *Calothrix adscendens*, on limestone cliffs near Slade, A. T. Cross, J. Tucker & W. A. Daily 754, Sept. 1940 (Da, CM).

SCYTONEMA JAVANICUM Born. ex B. & F.—INDIANA: MARION COUNTY: On side of flower pot in Pahud's greenhouse, Indianapolis, F. K. & W. A. Daily 1177, 20 May 1944 (Da, CM). OHIO: HAMILTON COUNTY: On wet bricks in greenhouse, University of Cincin-

nati, Cincinnati, 267, April 1940 (Da, CM); on rock in Eden Park Conservatory, Cincinnati, 181, Oct. 1939 (Da, CM).

SCYTONEMA OCELLATUM Lyng. ex B. & F.—KENTUCKY: WOLFE COUNTY: On rock beneath falls, Torrent, R. Kosanke, F. K. & W. A. Daily 496, July 1940 (Da, CM).

### OSCILLATORIAEAE

PORPHYROSIPHON NOTARISII (Menegh.) Kütz. ex Gom.—OHIO: ADAMS COUNTY: On soil in a prairie patch near Seaman, 289, May 1940 (Da, CM). For a discussion of this species see F. Drouet, Amer. Jour. Bot. 24 (9): 601 (1937).

SCHIZOTHRIX FASCICULATA (Näg.) Gom.—INDIANA: STEUBEN COUNTY: Attached to submerged stones, Fox lake, C. M. Palmer 152, 28 July 1933 (P, CM). MARSHALL COUNTY: On stones near depot, Lake Maxinkuckee, H. W. Clark & B. W. Evermann 250, 30 Aug. 1906 (CM), near the shore at the depot, H. W. Clark & B. W. Evermann 153, 30 Oct. 1906 (CM).

SCHIZOTHRIX FUSCESCENS Kütz. ex Gom.—OHIO: OTTAWA COUNTY: In shallow water in Kelley Isle quarry, Marblehead, Catawba Island, F. K. & W. A. Daily 583, July 1940 (CM).

SCHIZOTHRIX LAMYI Gom.—OHIO: HAMILTON COUNTY: With *Schizothrix purpurascens*, on soil, Brickyard fish pond adjoining Arlington Cemetery, Cincinnati, 425, July 1940 (Da, CM).

SCHIZOTHRIX LACUSTRIS A. Br. ex Gom.—OHIO: OTTAWA COUNTY: With *Nostoc Muscorum* & *Fischerella ambigua*, Marblehead quarry near Marblehead, Catawba Island, F. K. & W. A. Daily 591 A, July 1940 (Da, CM). CHAMPAIGN COUNTY: With *Scytonema figuratum* & *S. Myochrous*, Urbana Bog, M. S. Markle 8, 1938 (Da, CM), J. H. Hoskins, 1926 (Da, CM); with undeveloped *Scytonema Myochrous* & *S. figuratum*, J. H. Hoskins, 1926 (Da, CM).

SCHIZOTHRIX PULVINATA (Kütz.) Gom.—INDIANA: STEUBEN COUNTY: Fox lake, C. M. Palmer 1019, July 1933 (CM).

PLECTONEMA PURPUREUM Gom.—OHIO: WASHINGTON COUNTY: In a near-dry pool in Constitution, H. Noland, F. K. & W. A. Daily 894, Oct. 1941 (Da, CM).

PLECTONEMA ROSEOLUM (Richt.) Gom.—OHIO: HAMILTON COUNTY: In culture jar, University of Cincinnati greenhouse, Cincinnati, 740, Sept. 1940 (Da, CM); dense mat on top of culture from University of Cincinnati greenhouse, Cincinnati, L. Lillick 720, 13 March 1935 (CM); dense mat on top of culture from University of



Cincinnati greenhouse, Cincinnati, *L. Lillick & I. Lee* 614, 2 March 1934 (CM).—This specimen is cited as *Oscillatoria terebriformis* Ag. by *L. Lillick & I. Lee*, Amer. Midl. Nat 15: 718 (1934). WASHINGTON COUNTY: In a submerged gelatinous layer on sandstone rocks in the Hocking Sandstone quarry pond near Constitution, *H. Noland, F. K. & W. A. Daily* 896, Oct. 1941 (Da, CM).

PLECTONEMA TOMASINIANUM (Kütz.) Born. ex Gom.—INDIANA: MARION COUNTY: Fall Creek pumping station, Indianapolis, *C. M. Palmer* 156, July 1933 (P, CM). KOSCIUSKO COUNTY: Floating in canal near Warsaw, *C. M. Palmer* *Id.* 173, 23 Aug. 1935 (CM). STEUBEN COUNTY: With *Coelosphaerium Kuetzingianum*, floating at margin of Hog-back lake, *C. M. Palmer* 150, July 1933 (P, CM).

SYMPLOCA DUBIA (Näg) Gom.—KENTUCKY: POWELL COUNTY: near Slade, *A. T. Cross, J. Tucker & W. A. Daily* 761, Sept. 1940 (Da, CM). OHIO: LORAIN COUNTY: On iron pipe in the Cleveland Sandstone quarry No. 6, South Amherst, *F. K. & W. A. Daily* 607, July 1940 (Da, CM). ATHENS COUNTY: In scum on sandstone near falls, Asylum ponds, Athens, *A. H. Blickle* 3, June 1941 (Da, CM).

SYMPLOCA ELEGANS Kütz. ex Gom.—KENTUCKY: POWELL COUNTY: On sandstone near tunnel on Sky Bridge road near Nada, 843, Oct. 1940 (Da, CM).

LYNGBYA GUISEPPEI Drouet.—OHIO: ATHENS COUNTY: In shallow water, Wilson's farm near Athens, 128, Oct. 1939 (Da, CM). See *F. Drouet*, Field Mus. Bot. Ser. 20: 135, pl. 2, l. 8. 1942.

LYNGBYA OCHRACEA (Kütz.) Thur. ex Gom.—OHIO: LORAIN COUNTY: With *Tribonema Bombycinum* in small pond in woods, east branch of Vermillion river, *P. Smith* 26, 20 April 1939 (CM).

LYNGBYA VERSICOLOR (Wartn.) Gom.—INDIANA: MARION COUNTY: Lakeside lake near New Augusta, *F. K. & W. A. Daily* 1036, Sept. 1942 (Da, CM). St. JOSEPH COUNTY: In shallow water of Lake Marion, St. Mary's College, Holy Cross, *D. Parker*, 20 July 1940 (CM). MARSHALL COUNTY: Near depot grounds, Lake Maxinkuckee, *H. W. Clark & B. W. Evermann* 141, 28 Aug. 1906 (CM), South end of Lake Maxinkuckee, *H. W. Clark & B. W. Evermann* 71, 191, 262, 11 Aug. 1906 (CM). KENTUCKY: CARTER COUNTY: On rocks in spray of water-fall at Carter caves, *D. Parker*, 16 May 1942 (CM).

PHORMIDIUM FAVOSUM (Bory) Gom.—INDIANA: JENNINGS COUNTY: In rapid-stream, *C. M. Palmer* 144, Feb. 1934 (P). KEN-

TUCKY: MADISON COUNTY: With *Phormidium autumnale*, on wet overhanging rocks, Kentucky river near Richmond, *C. M. Palmer* 40, March 1932 (P, CM). BOONE COUNTY: On rock in rushing stream, *L. Lillick* 61, 7 April 1933 (CM), attached to rocks in stream, *L. Lillick* 162, 7 April 1933 (CM). OHIO: ERIE COUNTY: Blue Hole of Castalia, Castalia, *F. K. & W. A. Daily* 592, July 1940 (Da, CM). ADAMS COUNTY: Light green mass attached to leaves and mud in swift flowing streams, *L. Lillick* 100, 29 April 1933 (CM). Thin mat on wet rocks in running water near Cincinnati, *L. Lillick* and *I. Lee* 602, 1932 (CM). In running water near Columbus, *W. A. Kellerman* B 23, 5 May 1892 (CM).

PHORMIDIUM LUCIDUM (Ag.) Kütz. ex Gom.—OHIO: HAMILTON COUNTY: On submerged mud in University of Cincinnati greenhouse, Cincinnati, *L. Lillick & I. Lee* 611, 3 Nov. 1933 (Da, CM).

PHORMIDIUM SETCHELLIANUM Gom.—INDIANA: CARROLL COUNTY: On sluiceway of Lake Shafer dam, Monticello, 867, July 1941 (Da, CM). OHIO: ERIE COUNTY: From the Blue Hole of Castalia, Castalia, *F. K. & W. A. Daily* 601, July 1940 (Da, CM).

PHORMIDIUM SUBFUSCUM (Ag.) Kütz. ex Gom.—OHIO: HAMILTON COUNTY: On dam in Sharon Woods. Sharonville, *C. Botts, F. K. & W. A. Daily* 302, June 1940 (Da, CM).

OSCILLATORIA ARTICULATA Gardn.—INDIANA: STEUBEN COUNTY: With *Merismopoedia glauca*, stream east of Snow lake, *C. M. Palmer* B 34, Sept. 1933 (Da, CM). ST. JOSEPH COUNTY: On mud in pool, St. Mary's College, Holy Cross, *D. Parker, E. M. Reed, D. Richards & J. C. Strickland* 584, 11 May 1940 (CM). MARSHALL COUNTY: With *Anacystis peniocystis*, Lake Maxinkuckee, near the northwest shore by Culver, *H. W. Clark & B. W. Evermann* 123, 28 Aug. 1906 (CM). MARION COUNTY: On submerged mud, drainage ditch, *C. M. Palmer* Id. 85, 5 Aug. 1931 (CM).

OSCILLATORIA CORTIANA Menegh. ex Gom.—INDIANA: SHELBY COUNTY: In small pool in limestone quarry, St. Paul, *F. K. & W. A. Daily* 879, Aug. 1941 (Da, CM).

OSCILLATORIA CURVICEPS Ag. ex Gom.—INDIANA: MARION COUNTY: Floating in pools, Bacon's Swamp, Indianapolis, *C. M. Palmer, R. N. Webster, R. Prettyman, D. Webster & F. Drouet* 2512, Aug. 1939 (Da, CM, P), Fall creek and Keystone ave., Indianapolis, *F. Kenoyer & W. A. Daily* 261, Feb. 17, 1940 (Da, CM). GRANT COUNTY: Floating in masses, Lake Galatia near Fowlerton, 101,

Aug. 1939 (Da, CM). KENTUCKY: KENTON COUNTY: South of Dudley Pike on Lexington road, south of Erlanger, *J. H. Hoskins & W. A. Daily* 245, Dec. 1939 (Da, CM); with *O. tenuis* & *Spirulina major*, along creek on Lexington road, north of Erlanger, *J. H. Hoskins & W. A. Daily* 246, Dec. 1939 (Da, CM).

OSCILLATORIA PROLIFICA (Grev.) Gom.—KENTUCKY: FAYETTE COUNTY: Lexington, *B. B. McInteer*, (Da, CM). OHIO: HAMILTON COUNTY: Pond east of the mausoleum of Otto Armleder, Spring Grove cemetery, Cincinnati, *J. H. Hoskins & W. A. Daily* 208, Nov. 1939 (Da, CM)

OSCILLATORIA RUBESCENS D. C. ex Gom.—INDIANA: CASS COUNTY: With *Chroococcus limneticus*, *Coelosphaerium Kuetzingianum* & *Lyngbya Birgei*, Lake Cicott, *F. K. & W. A. Daily* 1024, 10 Sept. 1942 (Da, CM). SHELBY COUNTY: Planktonic in Burnsides Gravel pit, Shelbyville. *F. K. & W. A. Daily* 1164, 1163, Oct. 1943 (Da, CM). BARTHOLOMEW COUNTY: Planktonic in limestone quarry pit near Scenic falls, Hartsville, *C. Kenoyer, F. K. & W. A. Daily* 1170, 19 Sept. 1943 (Da, CM). LA PORTE COUNTY: South Pine lake, *M. E. Britton*, Aug. 1939 (CM).

OSCILLATORIA SANCTA var. CALDARIORUM (Hauck) Lagerh. ex Gom.—INDIANA: MARION COUNTY: A brownish black extensive layer on moist soil in Garfield Park conservatory, Indianapolis, *C. M. Palmer* 47, March 1932 (P, CM).

OSCILLATORIA TENUIS var. NATANS (Kütz.) Gom.—OHIO: As *Oscillaria natans?* Neils Run, *W. A. Kellerman E* 23, 29 April 1892 (CM).

OSCILLATORIA TENUIS var. TERGESTINA (Kütz.) Gom.—OHIO: HAMILTON COUNTY: Floating in clumps on pond in Spring Grove cemetery, Cincinnati, 266, April 1940 (Da, CM).