

Palmer; Jackson Co., 1930, Palmer; Jefferson Co., 1925, Markle; Jennings Co., 1930, Deam; Lawrence Co., 1930, Palmer; Owen Co., 1923, Bladyes.³

All of the six species are of the *Eu-Lemanea* group, there being none of the subgenus *Sacheria*.

The genus *Lemanea* seems not to have been found as yet in Michigan and Illinois. There are a few records of it in Kentucky and Ohio. Its present known distribution in Indiana is in agreement with the usual statement concerning the habitat of the plant, that is, that it tends to be restricted to streams with a swift current, which are of course frequent in the hilly area of the state.

ALGAE OF INDIANA: SECOND LIST OF ADDITIONS TO THE 1875-1928 CHECK LIST

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The original check list of Indiana algae was published in volume 38 of *The Proceedings of the Indiana Academy of Science*;¹ and in volume 40 a list of additions was published.² Since then four more papers listing algae of the state, which were published before 1928, have been found. Three counties (Franklin, Vanderburgh, and St. Joseph) not represented in the original check list nor the first additional list have algae recorded for them. Several species are new for the check list.

The discovery of these four papers brings the total notations of algae for Indiana to 894, published up to and including 1928. Since 1928, however, several papers have appeared giving algae of various counties of the state and as a result we now have a total of 2,105 notations. Since 1928, the number of counties represented has increased from twenty-two to forty-three, although thirteen of these have only one alga apiece. The counties with the largest number of notations of algae to date are: Monroe Co. 489, Vigo Co. 320, Marion Co. 303, Morgan Co. 153, and Marshall Co. 135. No other counties yet have over 100 entries. Such counties as Brown, Madison, Steuben, and Carroll are still in the zero column.

Three more corrections should be made to the original check list: page 110, line 13, the phrase "*Cylindrocapsa. C. geminella. Monroe Co. 1909*" should be removed to page 117 between lines 15 and 16; page 119, line 19, change "*Spaerocystis*" to "*Sphaerocystis*"; page 117, line 37, change date after "*Morgan Co.*" from "1910" to "1913." In the (1930) 1931 additions to the check list, the following correction should be made: page 107, in map (Fig. 1), place a figure "1" in Owen Co.

³ Smith, B. H. The algae of Indiana. *Proc. Ind. Acad. Sci.* 41:177-206. 1931 (1932).

¹ Palmer, C. M. Algae of Indiana—A classified check list of those published between 1875 and 1928. *Proc. Ind. Acad. Sci.* 38:109-121. 1928 (1929).

² Palmer, C. M. Algae of Indiana: Additions to the 1875-1928 check list. *Proc. Ind. Acad. Sci.* 40:107-109. (1930) 1931.

The algae of Indiana recorded in the four additional papers are given in the following classified list:

ALGAE OF INDIANA—ADDITIONS TO THE 1875-1928 CHECK LIST

GROUP 1. BLUE GREEN ALGAE (CYANOPHYCEAE): (NO ADDITIONS)

GROUP 2. DESMIDS

Closterium. St. Joseph Co. 1909. **Cosmarium.** *C. bioculatum* Breb. St. Joseph Co. 1909. *C. botrytis* Menegh. St. Joseph Co. 1909. *C. costatus* Wolle. Franklin Co. 1885. *C. intermedium.* St. Joseph Co. 1909. *C. pseudobroomii* Wolle. Franklin Co. 1885. **Penium.** *P. margaritaceum.* St. Joseph Co. 1909. **Staurastrum.** *S. polymorphum* Breb. St. Joseph Co. 1909. *S. rugulosum* Breb. St. Joseph Co. 1909.

GROUP 3. DIATOMS

Asterionella. Vanderburgh Co. 1913. **Cocconeis.** *C. pediculus.* Franklin Co. 1885. **Cyclotella.** *C. menighiniana* Vorce. Franklin Co. 1885. **Cymatopleura.** *C. solea.* Franklin Co. 1885. **Cymbella.** *C. gastroides* Van Heurck. Franklin Co. 1885. *C. helvetica* Van Heurck. Franklin Co. 1885. *C. lanceolata* Ehr. Franklin Co. 1885. **Dimeniogramma.** Franklin Co. 1885. **Epithemia.** *E. gibba.* Franklin Co. 1885. *E. granulata.* Franklin Co. 1885. **Eunotia.** *E. parallela.* Franklin Co. 1885. **Fragillaria.** *F. ungeriana* Grunow. Franklin Co. 1885. **Gomphonema.** Franklin Co. 1885. *G. acuminatum* Van Heurck. Franklin Co. 1885. *G. capitatum.* Franklin Co. 1885. *G. constrictum* Ehr. Franklin Co. 1885. *G. curvatum.* Franklin Co. 1885. *G. dicotoma.* Franklin Co. 1885. *G. geminatum.* Franklin Co. 1885. **Homeocladia (Nitzschia).** *H. sigmoidea.* Franklin Co. 1885. **Meridion.** *M. constrictum.* Franklin Co. 1885. **Navicula.** *N. affinis.* Franklin Co. 1885. *N. amphirynechus.* Franklin Co. 1885. *N. angustata.* Franklin Co. 1885. *N. borealis* Ehr. Franklin Co. 1885. *N. cryptocephala.* Franklin Co. 1885. *N. dicephala* Vorce. Franklin Co. 1885. *N. lanceolata* Pritch. Franklin Co. 1885. *N. obtusata.* Franklin Co. 1885. *N. placentula.* Franklin Co. 1885. *N. timodis.* Franklin Co. 1885. *N. viridis.* Franklin Co. 1885. **Nitzschia.** *N. amphioxys.* Franklin Co. 1885. *N. bicephala.* Franklin Co. 1885. *N. vivax.* Franklin Co. 1885. **Pinnularia (Navicula).** *P. major.* Franklin Co. 1885. **Pleurosigma (Gyrosigma).** *P. spencerii.* Franklin Co. 1885. **Rhabdonema.** *R. minuta.* Franklin Co. 1885. **Surirella.** *S. limosa.* Franklin Co. 1885. *S. linearis.* Franklin Co. 1885. *S. minuta.* Franklin Co. 1885. *S. ablonga.* Franklin Co. 1885. *S. ovata,* var. *minor.* Franklin Co. 1885. **Synedra.** *S. arcus.* Franklin Co. 1885. *S. obtusa.* Franklin Co. 1885. *S. parallelogram.* Franklin Co. 1885. **Tabellaria.** Franklin Co. 1885. **Tryblionella (Nitzschia).** *T. gracilis.* Franklin Co. 1885.

GROUP 4. ALL OTHER ALGAE (CHLOROPHYCEAE,
PIGMENTED FLAGELLATA, ETC.)

Bulbochaete. St. Joseph Co. 1909. **Ceratium.** *C. macroceras* Schrenk. Marshall Co. 1918. *C. tripos.* Kosciusko Co. 1918. **Chaetophora.** *C. elegans* Ag. St. Joseph Co. 1909. **Dinobryon.** Marshall Co. 1918. **Draparnaldia.** *D. glomerata* (Vauch.) D. C. St. Joseph Co. 1909. **Euglena.** *E. viridis* Ehrenberg. Marshall Co. 1918. **Mougeotia.** *M. mirabilis* Al. Br. St. Joseph Co. 1909. *M. scalaris* Hass. St. Joseph Co. 1909. **Oedogonium.** St. Joseph Co. 1909. **Palmella.** *P. hyalina* Breb. 1909. **Peridinium.** *P. tabulatum* (Ehrenberg). Marshall Co. 1918. **Spirogyra.** *S. tenuissima* (Hass.) Kütz. St. Joseph Co. 1909. **Vaucheria.** *V. dichotoma* (Lyngb.) Ag. St. Joseph Co. 1909. *V. geminata* (Vauch.) D. C. St. Joseph Co. 1909. *V. sessilis* (Vauch.) D. C. St. Joseph Co. 1909. **Volvox.** *V. aureus* (Ehrenberg). Marshall Co. 1918. **Zygnema.** *Z. insigne* (Hass.) Kütz. St. Joseph Co. 1909.

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(Titles Additional to the Original Check List and First Supplement)

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2. 1909. Nieuwland, J. A. Resting spores of *Cosmarium bioculatum*, Breb. Am. Midland Nat. 1:4-8.
3. 1913. Durbin, W. H. Micro-Organisms in water at Evansville. Engineering Record 67:676.
4. 1918. Evermann, B. W. and Clark, H. W. Notes on certain protozoa and other invertebrates of Lake Maxinkuckee. Proc. Ind. Acad. Sci. 28:236-244.