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Freshwater Algae of Arkansas II. New Additions

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The Freshwater Algae of Arkansas

II. New Additions

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INTRODUCTION

This paper is the second in a series reporting the algal flora of Arkansas. A previous paper (Meyer, 1969) reviewed the published literature and recent additions to this little known flora. Thirty-two genera and 82 species or varieties are presented in this inventory. These include 24 Chlorophyceae, 4 Conjugatophyceae, 9 Xanthophyceae, 14 Chrysophyceae, 1 Bacillariophyceae, 5 Pyrrophyceae, 25 Euglenophyceae, 4 Cryptophyceae, 4 Cyanophyceae and 1 Rhodophyceae. Except for *Porphyrosiphon notarisii* (Menegh.) Kutz. et Gom.; each of these taxa have not previously been reported from the State of Arkansas. Daily (1958) noted that an Arkansas collection of this species is on deposit in the Chicago Natural History Museum.

Annotations accompanying each species gives a brief description of the habitat and subcommunity in which the organism was collected. The aquatic subcommunities described by Round (1965) are indicated in the text by letters. The subcommunities recognized include the eu-

plankton (P), neuston (N), epipelagic (EP), epilithic (EL), epiphytic (ET) and epizoid (EZ). Metaphyton (M) is used in the sense of Behre (1956) and refers to those algae, especially desmids and flagellates, which occur in close association with epiphytes but are not attached to them.

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Division Chlorophyta

Class Chlorophyceae

Order Volvocales

The nomenclature used within this order is that of Huber-Pestalozzi (1961).

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- Gonium sociale* (Duj.) Warm.
Eutrophic lakes and ponds. (P)
- Phacotus angulosa* Lemm.
Organically rich ponds. (P)
- Volvox globator* L.
Organically rich pond. (P)
Order Tetrasporales
- Chlorophysemia inertis* (Korsch.) Pasch.
Eutrophic ponds. (ET)
- Elaktothrix viridis* (Printz) Snow
Organically rich pond. (P)
Order Chlorococcales
- Actinastrum hantzschii* Lagerh.
Eutrophic pond. (P)
- Ankistrodesmis falcatus* var. *acicularis* (Braun) G. West
Eutrophic pond. (P)
- Coelastrum microporum* Naeg.
Eutrophic lakes (P)
- C. sphaericum* Naeg.
Eutrophic lakes
- Crucigenia quadrata* Morren
Eutrophic and organically rich pools. (P)
- C. rectangularis* (Braun) Gray
Organically rich pools. (P)
- Francia droescheri* (Lemm.) G. M. Smith
Organically rich pond. (P)
- Gloeocystis gigas* (Kuetz.) Lagerh.
Eutrophic pond. (P)
- G. vesiculose* Naeg.
Eutrophic lake. (P)
- Kirchneriella obesa* var. *major* (Bern.) G. M. Smith
Eutrophic ponds. (P)
- Oocystis solitaria* Whitt.
Eutrophic lake. (P)
- Pediastrum simplex* var. *duodenarium* (Bailey) Rabenh.
Eutrophic lake. (P)
- Quadrigula lacustris* (Bohlin) Printz
Organically rich ponds. (P)
- Tetraedron caudatum* (Corda) Hansg.
Organically rich ponds. (P)
- T. multicum* (Braun) Hansg.
Eutrophic lake. (P)
- T. regulare* Kuetz.
Organically rich ponds. (P)
Order Ulotrichales
- Microspora elegans* Hansg.
Eutrophic pond. (ET)
Order Chaetophorales
- Draparnaldia plumosa* (Vauch.) C. Agordh.
Slowly running water. (EL)
Order Cladophorales
- Basicladia chelonum* (Collins) Hoff. et Tilden
On *Chrysemys picta*. (EZ)
Class Conjugatophyceae
Order Zygnematales
- Hyalotheca mucosa* (Dillw.) Ehrbg.
Quiet pools in river and pasture pools. (M)
- Spirogyra farlowii* Trans.
Eutrophic pond. (EL)
- Staurastrum chaetoceros* (Shrod.) G. M. Smith
Eutrophic lake. (P)
- Staurodesmus dickei* (W. et W.) Teil.
Eutrophic pond. (P)
Division Chrysophyta
Class Xanthophyceae
The nomenclature used within this class is that of Pascher (1939).
Order Heterococcales
- Characiopsis elegans* Ettl
Eutrophic Pd. (ET)
- C. longipes* (Rabenh.) Borzi
Organically rich pool. (ET)
- C. turgida* W. et W.
Organically rich pool. (ET)
- Goniochloris trigona* Pasch.
Organically rich pond. (P)
- Mischococcus confervoides* Naeg.
Eutrophic lakes and ponds. (ET)
- Ophiocytium arbuscula* Rabenh.
Eutrophic pond. (ET)
- Tetraplektron acuminatum* (Pasch.) Fott
Organically rich pond. (P)
Order Heterotrichales
- Tribonema subtilissima* Pasch.
Organically rich pond. (ET)
Order Heterosiphonales
- Vaucheria hamata* (Vauch.) DeCand.
Eutrophic Lake. (EL)
Class Chrysophyceae
Order Chrysomonadales

- Chrysococcus diaphanus* skuja
Organically rich pond. (P)
- Chrysosphaerella longispina* Laut.
Organically rich pond. (P)
- Dinobryon bavaricum* Imh.
Eutrophic lake. (P)
- D. cylindricum* Imh.
Eutrophic lake. (P)
- D. cylindricum* var. *alpinum* (Imh.) Bachm.
Eutrophic lake. (P)
- D. cylindricum* var. *palustre* Lemm.
Eutrophic lake. (P)
- Mallomonas akromonas* var. *parvula* Conrad
Eutrophic lake. (P)
- M. fagtigata* Zach.
Eutrophic pond. (P)
- M. pseudo-coronata* Press.
Eutrophic lake. (P)
- Ochromonas crenulata* Klebs
Mesotrophic lake. (P)
- Uroglena sonica* Conrad
Mesotrophic lakes. (P)
- U. volvox*
Mesotrophic lake. (P)
Order Rhizochrysidales
- Stylochrysalis parasitica* (Stein) em. Meyer et Brook
Mesotrophic lake. (ET)
Order Chrysocapsales
- Chrysocapsa paludosa* (Korsch.) Bour.
Mesotrophic lake. (P)
Class Bacillariophyceae
Order Centrales
- Cyclotella meneghiana* (Kuetz.)
Eutrophic lake. (P)
Division Pyrrhophyta
Class Dinophyceae
The nomenclature followed within this class is that
of Schiller (1933-35).
Order Gymnodiniales
- Gymnodinium lacustre* Schil.
Eutrophic lake. (P)
Order Peridinales
- Hemidinium bernardinense* (Chod.) H-P.
Organically rich pond. (P)
- H. nasutum* var. *tatricum* Wol.
Mesotrophic lake. (P)
- Peridinium cunningtonia* (Lemm.) Lemm.
Eutrophic lake. (P)
Order Dinococcales
- Phytodinedria coconiforme* Baum.
Mesotrophic lake. (ET)
Division Euglenophyta
The nomenclature used within this division is that
of Huber-Pestalozzi (1955).
Clas Euglenophyceae
Order Euglenales
- Astasia klebsii* Lemm.
Eutrophic lake. (P)
- Entosiphon sulcatum* (Duj.) Stein
Organically rich pond. (P)
- Euglena ehrenbergii* var. *torta* Ped.-Stscheg.
Eutrophic lake. (P)
- E. oxyuris* Schmarda
Eutrophic lake. (P)
- E. torta* Stokes
Eutrophic lake. (P)
- E. tripteris* (Duj.) Klebs
Eutrophic lake. (P)
- Lepocinclis acicularis* France
Organically rich pond. (P)
- L. ovum* var. *dimidio-minor* Defl.
Organically rich pond. (P)
- L. radiata* Chad.
Eutrophic lake. (P)
- L. texta* (Duj.) Lemm. em. Con.
Eutrophic pond. (P)
- Phacus granum* Drez.
Organically rich pond. (P)
- P. longicaudata* (Ehrbg.) Duj.
Eutrophic lake. (P)
- P. platalea* var. *tizae* Hortb.
Mesotrophic pond. (P)
- P. suecica* Lemm.
Eutrophic lake. (P)
- Trachelomonas benardinensis* Visch. em. Defl.
Eutrophic lake. (P)
- T. cervicula* Stokes
Organically rich pond. (P)
- T. curta* DaCunha
Organically rich pond. (P)

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- T. curta* var. *castrensis* (Palmer) Defl.
Organically rich pond. (P)
- T. granulosa* var. *oblonga* Ulayf.
Eutrophic lake. (P)
- T. horrida* Palmer
Organically rich pond. (P)
- T. oblonga* Lemm.
Organically rich pond. (P)
- T. raciborskii* Wol.
Eutrophic lake. (P)
- T. raciborskii* var. *roggiea* Skv.
Eutrophic lake. (P)
- T. umbilicoforme* var. *deflandrei* Conrad
Organically rich pond. (P)
- T. volvocina* var. *papilopunctata* Skv.
Organically rich pond. (P)
Class Cryptophyceae
Order Crytomonadales
- Chroomonas nordstedtii* Hansg.
Rivers and eutrophic lake. (P)
- Cryptomonas ozolini* Skuja
Organically rich pond. (P)
- C. tetrapyrenoidosa* Skuja
Eutrophic lake. (P)
Order Chloromonadales
- Gonyostomon semen* (Ehrbg.) Diesing
Mesotrophic lake. (P)
Division Cyanophyta
Class Cyanophyceae
The nomenclature used in this class is that of
Geitler (1931-32).
Order Chroococcales
- Coleosphaerium kuetzingianum* Naeg.
Eutrophic lakes. (P)
- C. naeglianum* (Lemm). Ung.
Eutrophic lakes. (P)
Order Oscillatoriales
- Porphyrosiphon notarisi* (Menegh.) Kutz. et. Gam.
On soil. (EL)
- Raphidiopsis curvata* Fritsch
Organically rich vernal pool. (P)

Spirulina okensis (C. Meyer) Geit.
Eutrophic lake. (P)

Division Rhodophyta

Class Rhodophyceae

Order Nemaionales

Lemanea australis Atk.
Rapidly flowing river. (EL)

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