

THE FRESH-WATER ALGAE OF
SOUTHEASTERN UNITED STATES;
A TAXONOMIC AND HISTORICAL
SUMMARY

Thesis for the Degree of M. S.
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This is to certify that the

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The Fresh-water Algae of Southeastern United States:
A Taxonomic and Historical Summary

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G. W. Prescott
Major professor

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THE FRESH-WATER ALGAE OF
SOUTHEASTERN UNITED STATES:
A TAXONOMIC AND HISTORICAL SUMMARY

by
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INTRODUCTION

When the writer first became interested in the study of algae, a certain challenge immediately presented itself in the possibility for pioneer work in the field. His home country, the Tennessee Valley, had scarcely been mentioned in publications in respect to algae, although excellent studies in other plant groups had been made there, revealing a most interesting flora. The search for reference material naturally led to observations of studies made of the entire region, Southeastern United States.

It seemed easy to understand, at first, why so few studies had been made. There was no "Small's Manual" for the algae, and the existing literature was scattered and not easily obtainable. Furthermore, as a group, the algae seemed to require a greater degree of perception, judgment, and discrimination than many other plants. Nevertheless, so many interesting possibilities for investigation appeared that a study of some phase of the algae seemed very worthwhile.

During the writer's four year's absence from civilian life, several good and substantial papers were contributed toward a knowledge of the phycology of the Southeast, and the writer felt that a greater purpose could be served by integrating available material along with his own contributions rather than concentrating on an intensive study bearing little relation to other studies. Perhaps it was both an individual philosophy of interest in the broader aspects of knowledge, and a plain regional pride that prompted a study encompassing approximately the southeastern quarter of the country.

The method of approach used was to find out what species within the

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heterogenous assemblage called algae had been found in the region, where, by whom and when. Very soon a study of synonymy became necessary in order that the data should become meaningful, and finally it became clear that names were only as good as authorities made them and should, therefore, be linked to a concrete reference by a leading authority.

About twenty-five hundred species and varieties, the largest number to have been included in a single American study, have been considered by the writer for the attainment of the objectives stated below.

There have been three main objectives in the study:

- (1) To obtain a distributional pattern of the species reported from various sources, so as to furnish a base for ecological and geographical studies for the writer and other students in the future.
- (2) To interpret the nomenclature used in the light of modern opinion, so that there may be less confusion and duplication than now exists in the literature of the region.
- (3) To make a contribution toward more complete information on the algae of the region in the belief that a perspective of knowledge can be obtained from a broad view which will be of aid to more intensive studies.

The degree of attainment of the first objective was limited by its very enormity, and the lack of a record which would support valid conclusions about most of the species. Although the real work of interpretation must wait, the distributional data presented here will be an aid toward future ecological study. Presented here for the first time is

the known distributional pattern of every species reported from a broad area of the United States.

The other objectives are believed to have been achieved to a more exact degree. Almost every name has been referred to a recognizable entity vouched for in a modern standard publications by the leading authors in the field. It is recognized that most taxonomic studies have and will continue to look to these larger volumes by leading authors, rather than to original sources, for identification and interpretation, so what might be termed, "Authoritative references," are listed immediately after species names. It is true, to be sure, that some of the authoritative references used are not yet published, one, G. W. Prescott's *Desmid Iconograph* is not of a publishable nature, and, furthermore, other authoritative references are to articles in journals.

The last stated objective, a synthesis into a broader piece of knowledge, involved some compilations. It was fully realized at the beginning of this study that compilation is chiefly a dull task at times, looked upon with high disdain by judges of research standards. The writer was fully convinced, however, that in any field of study "time out" must be taken occasionally to put the field in order. It is true of the phycology of the Southeast, as it is true of many other portions of biology, that the snarl of synonymy and the pure weight of numbers and inaccessability of various contributions tend to make study, especially by a young student, thoroughly discouraging, and even the expert probably finds the field completely cumbersome.

In the following pages are almost twenty-five hundred species known from the Southeast including many unpublished reports from collections, some of which were made by the writer during 1941-2 and 1946-7, and others which were observed in the herbaria of the University of Tennessee

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and the Chicago Museum of Natural History. In the literature, direct references to Southeastern algae number over one hundred. In addition there are several works which have at least an indirect bearing on the algae of the region and are, therefore, necessary references for corroboration of species.

The arrangement into families most nearly approximates Smith (1938) but includes judgements made from the publications of Fritsch and the Pascher series of handbooks. Within the family, genera are listed in alphabetical order for convenience.

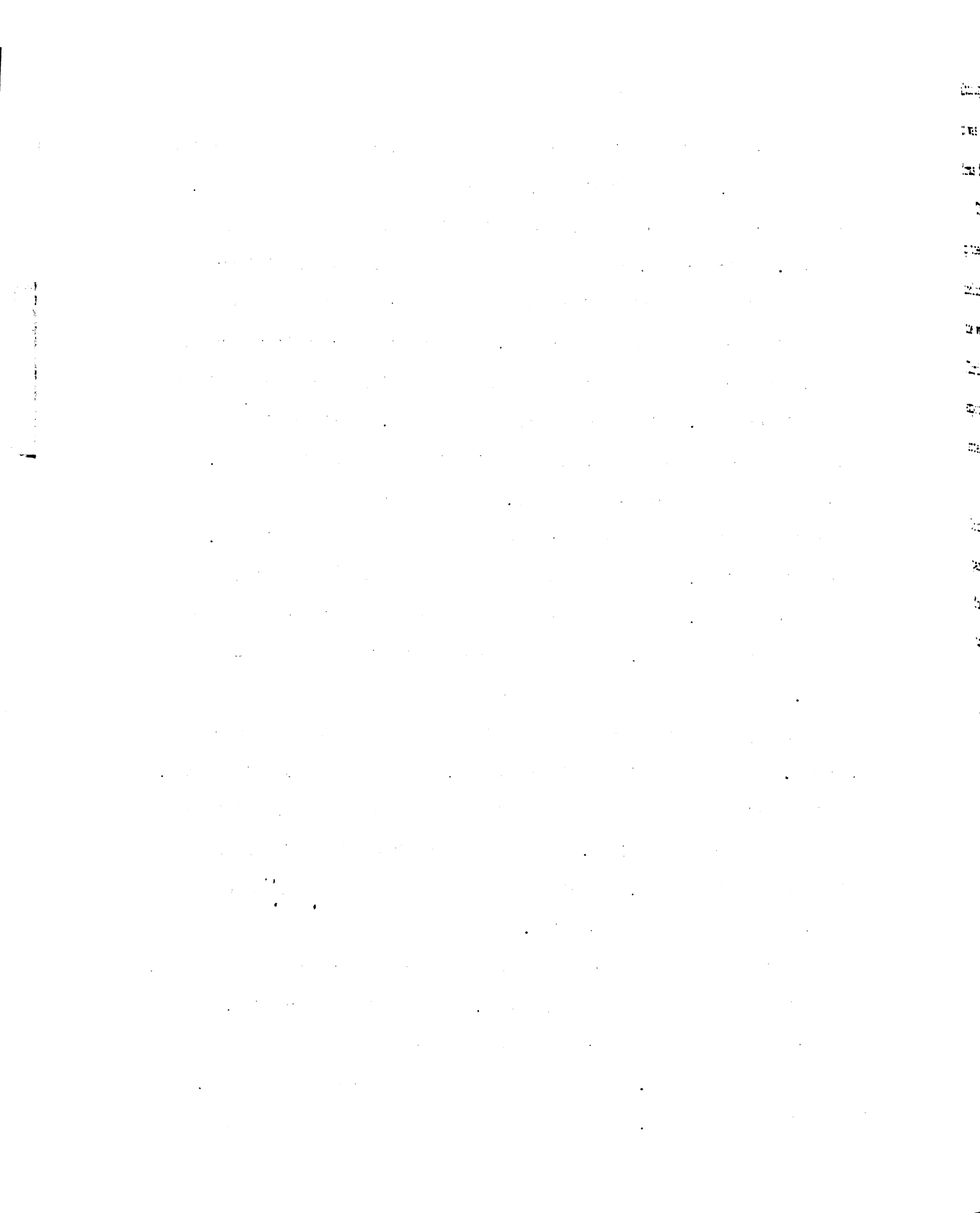
An explanation of the form, symbols, and abbreviations found in this writing will be found in the ~~next~~^{third} section.

A REVIEW OF FRESH-WATER PHYCOLOGICAL RESEARCH IN SOUTHEASTERN UNITED STATES

The real beginning in research on fresh-water algae of southeastern United States, although incidental reports have been made previously, was the trip which Jacob Bailey took for his health during the winter of 1849-50. This professor of Chemistry at the United States Military Academy enjoyed his trip and related the pleasure of being in the collecting grounds of South Carolina, Georgia and Florida in a personal chatty manner that has at some time since then disappeared from scientific literature. His microscopical observations, published in the second volume of the Smithsonian Contributions to Knowledge (1851), included not only fresh-water forms, but marine as well and some organisms that are now considered definitely of the animal kingdom. From sixty sites, only a half dozen filamentous ~~greens~~^{forms} were listed under the name "Algae", but there were over one hundred desmids and about the same number of diatoms, less than a quarter of which were fresh-water forms.

Bailey had hopes that his beginning would stimulate further research. As he put it in his introduction, "I offer the following notes, hoping that if they have no other interest they may serve to point out to the southern naturalists, and the numerous intelligent invalids who hibernate in the South, how rich a field of amusement and instruction surrounds them even in mid-winter."

It took over eighty years for the southern naturalists to accept fully the suggestion for further study, although in the meantime, they collected for outside naturalists who have contributed to the knowledge of southeastern algae. At present almost twenty-four hundred algae, including all classes, have been added to those on Bailey's list,



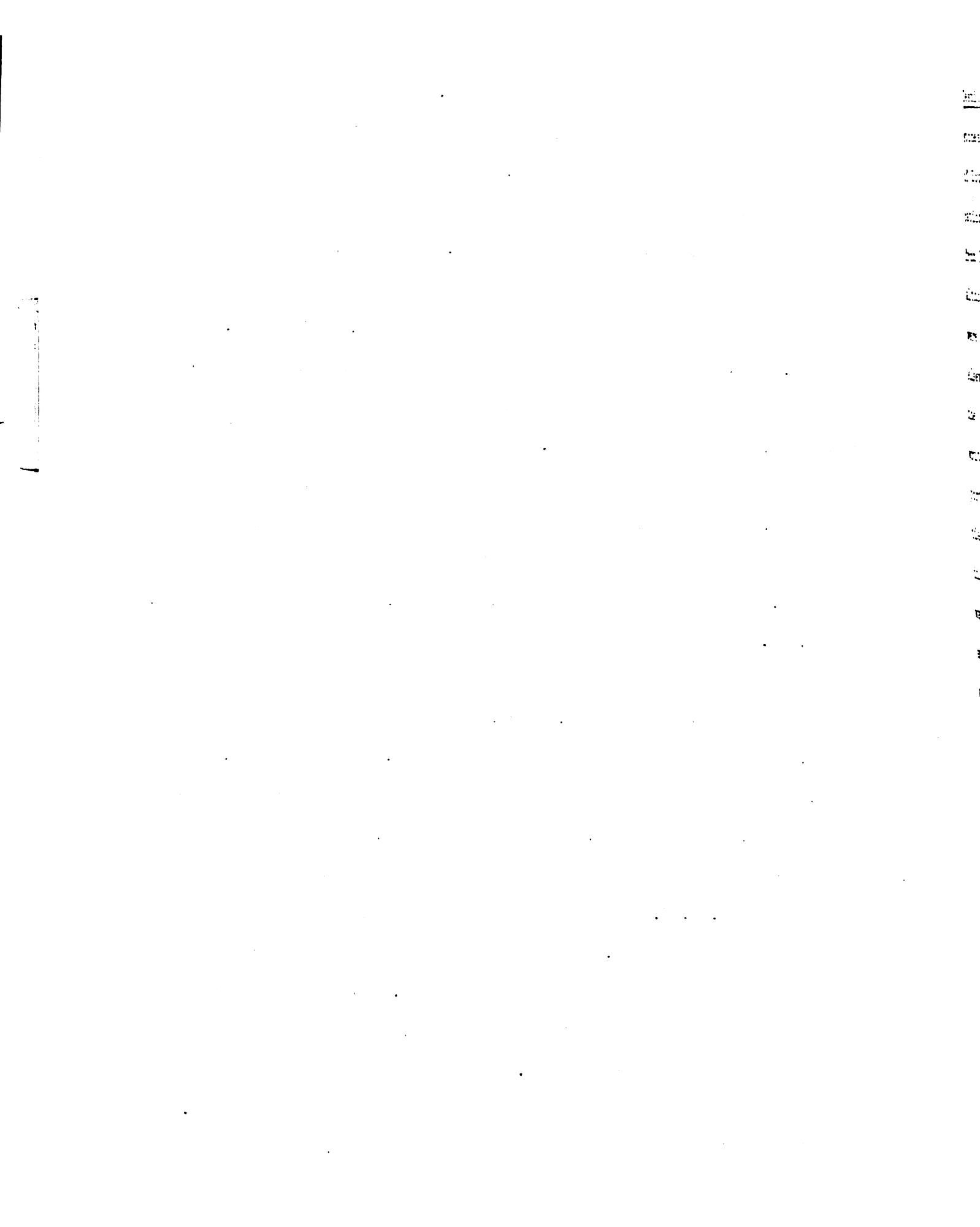
although certain groups have been neglected. In the case of the diatoms it was not until 1944 that a list, longer than Bailey's, of fresh-water forms from the section was published.

The area here called "Southeastern" includes the ten states making up the southeastern quarter of the country. Virginia and Kentucky are included and form the northern boundary, and the Mississippi River is the western boundary although the whole of Louisiana_x is included. Florida, for climatic reasons appreciated by Professor Bailey and since expounded by the Chamber of Commerce, has received by far the greatest attention, and Alabama the least.

Of the different groups of the algae which are most common in the Southeast, the Desmids, partly because of their asethetic qualities and partly because the acid swamps of Florida are a favorable hunting ground for them, have been studied most and the diatoms, as previously mentioned, the least.

There were no sectional studies in the Southeast during the last half of the nineteenth century, which, it seems hardly necessary to state, included the Civil War and Reconstruction. In this period, however, was the first attempted comprehensive treatise on American fresh-water algae, a report by Dr. Horatio Wood in 1874, in which the southeast was represented by collections made for the Philadelphia Physician and Botanist by Dr. J. S. Billings of the Army in Florida, and^{by} Professor Ravenel of South Carolina. The latter collector sent Georgia and Texas material in addition to that from his own state. Wood freely asserted that he did not go over all of Bailey's papers, but he did include the desmids from the 1850 observations.

The second comprehensive American phycological study was the Rev. Francis Wille's Fresh-water Algae of the United States, 1887 and his



Desmids of the United States, 1884 and 1892, the third of the foundation stones upon which later workers in the Southeast might build. Ravenel, of South Carolina, again made many of the collections for Wolle's publications and a Captain J. Donnell Smith sent over seven hundred specimens from Florida. About these Florida collections, Wolle remarked that although desmids were not numerous, there were species included which were not found elsewhere. Wolle's observation on "specimens not found elsewhere" is still a valid statement for Florida desmids. In spite of the considerable attention that they have received, an examination by the writer of only ten collections included twenty-five not previously reported from the Southeast and possibly up to five new species or varieties. It seems a bit strange that ^{J.}Donnell Smith's Florida collections did not contain numerous desmids, since subsequent collections from soft water sites there contain such a rich variety and huge quantity as to amaze observers, among them the Wests of England who published in 1898 a list of some desmids of the United States, using material which had been sent by Wolle. Florida algae were again considered by a foreign writer, Borge of Sweden, in 1909. A substantial number of his one hundred and fifty listed species were desmids, as might be expected.

After Borge, it was not until 1930 that another list of Florida desmids was published, by Helen Jean Brown of Ohio State University. This paper, Desmids of the Southeastern Coastal Plain Region of the United States, is a notable one. It was the first of the present series of writings by various phycologists which is building toward a substantial knowledge of the algae of the region. And it was the first report for the area to attempt an interpretation of the algal flora in relation to ecological factors. In addition to the Florida desmids, Brown included desmids and other algae from Louisiana, Mississippi,

Alabama, and Montvale Springs in Tennessee, which, however, is not in the coastal plain.

Studies of Florida desmids also were made by Johnson, 1895, Salisbury, 1936, and Whelden, 1941, and they have also been included in the treatises on the genera Microsterias and Euastrum, in 1942 and 1945 respectively by Prescott and Scott.

Florida is also the subject of the only other algal group study made in the Southeast; the Oedogoniales of Florida by Tiffany in 1944. The only Southeastern papers on soil algae, Smith and Ellis, 1943, and Smith, 1944, are from there, and endophytic and pathogenic algae have received attention too.

Early collections were made in the state of Virginia by L. D. von Schweinitz between 1812 and 1821 (Drouet, 1938), ^{and} Wolle observed Virginia material ~~and Turner, 1885, a few desmids,~~ ^{but} where there were no further reports until The Algae of Charlottesville and Vicinity, Lewis, Zirkle, and Patrick, 1933. The Oscillatoriaceae of that state were covered by Strickland (1940) who has also written on the entire Myxophyceae group, but does not, at this writing, consider his work ready for publication.

North Carolina ranks after Florida in the extent of publications for any one state and has consistently been the chief center of research within the Southeast. One of the two efforts to write a state freshwater algal flora was made there in a doctor's thesis by L. A. Whitford, now of North Carolina State College, in 1942, after he had previously written of some rare and little known species of North Carolina. Whitford included some diatoms. The only other recent list of algae of any size is included in Philson's study of North and South Carolina algae, 1939, but species from the state have been mentioned in various places, including a report on a lake study by Brown in 1911, and Josephine

Tilden's American Algae in 1898. Even earlier, 1888, Poteat had described eighty desmids from a limited region in Carolina.

In the near future E. C. Cocke of Wake Forest College is scheduled to publish the results of his intensive studies on North Carolina Myxophyceae, making another substantial contribution to the knowledge of the algae of the state.

South Carolina algae had been included in published reports since the early days because of the collections of Ravenel, and more recent studies have been made by Philson and by W. C. Frohne, 1939.

Reports from Georgia in this century are limited to the 1939 and 1942 papers of Frohne. Most of the knowledge of Kentucky algae is contained in the various papers by B. B. McInteer, beginning with a preliminary report in 1930 and including a survey as a doctor's thesis in 1933. One of these papers related the distribution of algae in that state to soil types. Kentucky algae are also considered by Dailey in his papers on Chroococcus and filamentous Myxophyceae, Lillick and Lee 1934, and Brinley and Katsin, 1942.

In Tennessee, after the study by Brown in 1930, there were subsequent papers in connection with Reelfoot Lake studies, a general cryptogram paper by Schwartz in 1933, in which only genera were identified, and a plankton study by Eddy, 1930. Lackey in his plankton studies of the Tennessee Rivers included the second recent listing of diatoms of the Southeast. In 1941, the writer made collections in the Great Smoky Mountains of Eastern Tennessee which were identified by Dr. Francis Drouet and Dr. Ruth Patrick. Although there were only a hundred species in the limited survey, fifteen of these were rare, or had not been reported from the Southeast, and the examination of only a few 1946 collections revealed eight more. The Tennessee specimens give a hint of the rich possibilities

for study.

The papers of Lackey (1942) and Brinley and Katzin (1942) deserve a special mention: Not only because they contain diatoms, but include a host of exceedingly rare planktonic forms. It is most unfortunate that species authors are not listed and so several names are difficult or impossible even to verify.

Mohr's Plant Life of Alabama, 1901, contained some algae, Brown in 1939, and Collins in 1909, mentioned some Alabama species and there were reports on the red algae which shall be discussed separately.

For Mississippi, there are the 67 species listed by Brown and a 1942 paper by Prescott and Scott, which describes close to two hundred desmids.

From Louisiana, we have Prescott's paper on the algae of Louisiana in 1942 and the record of some Zygnemataceae and Oedogoniaceae by Taft in 1946. Taft's study is the latest addition to the considerable number of papers on Southeastern fresh-water algae by representatives of Ohio State University. These include Brown, Whitford, McInteer, Salisbury, Transeau, and Taft.

Louisiana is the scene of studies now in progress on fresh-water red algae. Dr. Lewis H. Flint, of Louisiana State University, who has contributed two papers recently, is the only active American specialist in this field since C. Marvin Palmer of Butler University is in India. The contribution of Palmer has been considerable, and he hopes to resume his work on his return, according to a conversation before his departure. At the time, he expressed an interest in correlating the distribution of Lemanea with geological formations and other factors in Kentucky and Tennessee. Before Palmer took up the study of Lemanea, there had been no original reports of red algae except for a single mention in Collins,

1909, and George F. Atkinson's posthumously published notes, 1931, since Rev. Cox identified a half dozen from Alabama in 1901. The foundation for a study of the Lemnaceae had already been firmly laid by Atkinson in his excellent monograph in 1890. Most of the Southeastern States contributed specimens which were mentioned by him. Still earlier, the type specimen for the genus Tuomeya had been collected in Alabama and named by William Harvey for Professor Tuomey of the University of Alabama.

Group studies by two investigators have included a liberal sprinkling of Southeastern records. Tiffany's monograph, the Oedogoniaceae, 1930, and The Oedogoniales of North America, 1937, especially the latter, contain mentions of collections from half of the southeastern states, as does The Fresh-water Cladophoraceae by H. Phinney, 1945.

For no group of algae, however, is there a general comprehensive work which can serve as a ready reference to the ^Southeastern ^Phycologist. It is true that the somewhat cosmopolitan nature of many algae makes it possible to use a combination of well written and illustrated manuals compiled for other sections of this country or for foreign countries. Although as high as four-fifths of Southeastern species in certain groups, may be found in these works, in no case is there a very high degree of correlation between the total algal flora of the region covered by a manual, and the Southeast. For instance, most of the recorded Southeastern species of a given Cyanophyta group may be found in the writings of Geitler or Frémy, but they must be sorted out from among many others.

Further research may reveal a higher degree of correlation between algae of the Southeast and published floras than appears at present, but enough differences are indicated that a general comprehensive work of ^Southeastern algae seems desirable. There is every indication, however,

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that not only is the primary task of identification a long way from a reasonable degree of completion, but also that the ecological picture, which might well be an exceedingly interesting one, is scarcely taking form. Therefore, the time for a general comprehensive writing on South-eastern algae has not arrived. Several more studies must be added to those already made, and then the desirable, and much needed, compilation should follow as a matter of course.

EXPLANATION OF USE AND ABBREVIATIONS

The use of this writing can best be explained by referring to the hypothetical genus ^{eva} given below, because none of the actual cases cover all of the abbreviations commonly required. The Index to Pages for Genera and Higher Groups should be the starting place in using this list. Because the species of a genus are in alphabetical order they may be easily found. The standard form below contains the name of the species, the species author, authoritative references, the states in which it has been found in the Southeast, the name of the writer who reported it, the date of the publication to the extent that will identify it in the bibliography, or the collection record of unpublished material, and the name under which the species was published, if differing from the name in current usage.

Below the standard form is a detailed explanation of every part of it, taken up in the usual order of reading.

SAMPLEALGANA (obsolete)1. Alganasplendida (Suess.) Saur

see PHYCOS TERRIFICUS var. SPLENDIDUS (Suess.) Heiss

PHYCOS Heiss 1847

1. PHYCOS TERRIFICUS var. SPLENDIDUS (Suess.) Heiss (Smith) (Nordstedt) (Prescott (f)) (Geitler, 25, 30(f)) (Drouet, 42b(p)) (Tiffany)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Poteat, 1888; Whitford, 1943; Bold collection (UT record) - SO.

CAROLINA Philson, 1939 - GEORGIA Bailey, 1851 as Cryptama

splendida Suess.; Wollé, 1884; Wood, 1874 both as Algana

splendida (Suess.) Saur - FLORIDA Brannon, 1945; {# F 5,6(GP)

- KENTUCKY McInteer, 1938, 1939, 1944 - TENNESSEE Silva
 # 256, 273 etc. (UT)(CM)(LSU) - ALABAMA Drouet, 1939 from
 a Wolle specimen labeled Oogamus incognitus Katz; Wood, 1874
 as Algana splendida - MISSISSIPPI (CM) - LOUISIANA Phinney,
 1945.

DETAILED EXPLANATION

1. "ALGANA" - name of the genus, "(obsolete)" indicating that it is not the latest authoritatively recommended name.
2. "Alga^{ova}~~er~~ splendida (Suess.) Saur" - this species title is in lower case because it is not the latest authoritatively approved name for the plant which it was meant to represent - the author of the name and the name from which it was derived of course follow it.
3. "see PHYCOS TERRIFICUS var. SPLENDIDUS (Suess.) Heiss." - self explanatory - in some cases redirections are made because of misidentification, but most are because of regrouping or reassignment.
4. "PHYCOS Heiss 1847" - the latest apparently valid genus name for the group of species followed by the author and the date of the genus description.
5. "PHYCOS TERRIFICUS var. SPLENDIDUS (Suess.) Heiss" - in upper case will be found in almost all ^{instances} cases the LATEST AUTHORITATIVE NAME PUBLISHED for a given plant, other cases being explained in the text - upper case is retained for names which seem to be valid in themselves, but wrongly applied to the plant in question.
6. "(Smith)" - always refers to The Fresh-water Algae of the United States, 1933, G. M. Smith - other references by the same

author bear a date with which they can be identified in the bibliography, as in "(Drouet, 42b(p))" - the lack of an "(f)" or "(p)" after the name "Smith" indicates that merely the name appears, not a figure or photograph.

7. "(Nordstedt)" - always refers to O. Nordstedt's Index Desmidiacearum cum Supplementum.
8. "(Prescott (f))" - always refers to the unpublished manuscript of The Central Great Lakes Region The Fresh-water Algae of Wisconsin and Michigan, by G. W. Prescott - "(f)" indicates that a figure of the species is included.
9. "(Geitler, 25, 30(f))" - refers to two Geitler publications, both found in the bibliography - it is indicated by the "(f)" that the 1928 publication contains a figure.
10. "(Drouet, 42b(p))" - refers to the second Drouet 1942 article mentioned in the bibliography, the "(p)" indication a photograph of the plant.
11. "(Tiffany)" - represents L. H. Tiffany's 1937 publication.
12. "VIRGINIA" and the other nine states listed indicate the distribution ⁱⁿ of the area of this study.
13. "Lewis, Zirkle & Patrick, 1933" - refers to the publication which reported the species from the state - it may be found in the bibliography.
14. "NO. CAROLINA Poteat, 1888; Whitford, 1943" - here again, state and bibliography references - the authors of publications from any one state are listed alphabetically, not chronologically.
15. "Bold collection (UT record)" - refers to records made by H. C. Bold, now in the custody of the writer - the records are a

permanent possession of the herbarium of the University of Tennessee - unpublished observations are listed after the published ones in this study.

16. "SO. CAROLINA Philson, 1939" - the same as Virginia.
17. "GEORGIA Bailey, 1851 as Cryptama splendida Suess.;" - the name under which the species was published, inasmuch as it is different from that used latest, either as a result of re-grouping, redescription, or misidentification.
18. "Wolle, 1884, Wood, 1874 both as Algana splendida (Suess.) Saur" - as stated, Wood and the preceding Wolle reference both used the name - in certain instances, "all the preceding," will be found too, or, "all of the Bailey references," etc.
19. "FLORIDA Brannon, 1945; # F 5,6(GP)" - the first part is the same as the Virginia reference - "# F 5,6(GP)" means that the species was found in numbers five and six of Florida collections in the herbarium of G. W. Prescott, identifications being the writer's own.
20. "KENTUCKY McInteer, 1938, 1939, 1944" - here three references by the same author will be found in the bibliography - this practice is not followed in the case of the almost identical Wolle Demids of the United States editions, only the earliest reference is listed.
21. "TENNESSEE Silva # 256, 273 etc. (UT)(CM)(LSU)" - the numbers refer to the writer's collections, and in parenthesis it is indicated that specimens are present in the herbaria, respectively, of the University of Tennessee, Chicago Museum of Natural History, and Louisiana State University.
22. "ALABAMA Drouet, 1939 from a Wolle specimen labeled Oogamus

incognitus Katz;" - this refers to F. Drouet's article on Francis Wolle's Filamentous Myxophyceae and the specimen he discusses - the same Drouet paper is also referred to in certain cases as Drouet (Wolle), 1939.

23. "Wood as Algana splendida" - the species author is not repeated in assemblage of data for a species.
a single species data group.
24. "MISSISSIPPI (CM)" - the species has not been reported in the literature from this state, but is present in a collection in the Chicago Museum Herbarium.
25. "LOUISIANA Phinney, 1945" - same as the Virginia reference.

A SYSTEMATIC LIST OF THE KNOWN FRESH-WATER ALGAE OF THE
SOUTHEASTERN UNITED STATES

common abbreviations

Silva # 1,2, etc. - the writer's collections

F 5,6, etc. (GP) - G. W. Prescott's Florida collections, the

writer's identifications

CM - Chicago Museum of Natural History Herbarium

LSU - Louisiana State University Herbarium

UT - University of Tennessee Herbarium

(p) - photograph

(f) - figure

(I) - Iconograph, of Prescott, volume numbers of Fritsch and of Cooke

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PHYLUM CYANOPHYTA

CLASS MYXOPHYCEAE

ORDER 1 Chroococcales

FAMILY 1 Chroococcaceae

Within the last decade this family has undergone considerable revision by specialists, so that neither species validity, genus names, nor even the bounds of the family can be stated with certainty at this writing. Much of the revision found in literature is given below, but some recent additional implied changes by students of the group are not included, pending published statements about them. Drouet and Dailey have promised (Lloydia, March 1948) their revision of this family and the Chamaesiphonaceae in the near future.

ANACYSTIS Meneghini 1837

1. *Anacystis elabens* (Menegh.) Setch. & Gard.
see COCCOCHLORIS ELABENS (Bréb.) Drou. & Dail.
2. ANACYSTIS FIRMA (Kuetz.) Drou. & Dail. (Drouet & Dailey, 1948)
(Geitler, 25 as Microcystis firma Schm.)
NO. CAROLINA (CM) - SO. CAROLINA Philson # 1 (CM) -
FLORIDA (CM) - KENTUCKY (CM).
3. ANACYSTIS MARGINATA Menegh. (Dailey, 1942) (Prescott (f))
(Geitler, 25(f) as Aphanothese saxicola Naeg.)
NO. CAROLINA Bold # 157, 158(UT record) - SO. CAROLINA
Philson # 1 (CM) - FLORIDA Brannon, 1945 - KENTUCKY
Dailey, 1942; McInteer, 1939 as Microcystis marginata
(Menegh.) Kuetz. - TENNESSEE Silva & Sharp, 1944; Bold
(UT record) as Microcystis marginata.
4. *Anacystis Peniocystis* (Kuetz.) Drou. & Dail.
see COCCOCHLORIS PENIOCYSTIS (Kuetz.) Drou. & Dail.
5. ANACYSTIS ROSEANA (DeBary) Drou. & Dail. (Drouet and Dailey, 48)
TENNESSEE Silva # 477(CM)(UT).

This is a rare species apparently for there is no
mention of it, even under its better known name of
Aphanocapsa^c_A Roseana DeBary, in the literature available to
the writer.

The herbarium specimens mentioned above were filed
under the latter title.
6. *Anacystis rupestris* (Lyngb.) Drou. & Dail.
see COCCOCHLORIS STAGNINA f. RUPESTRIS (Lyngb.) Drou. & Dail.

APHANOCAPSA Naegeli 1849

1. APHANOCAPSA BIFORMIS A. Braun (Geitler, 25)

KENTUCKY McInteer, 1939.

This is one of the few American records of this species, another being Van Dersal & Cartledge, 1933, Pennsylvania.

2. *Aphanocapsa Brunnea* Naeg. (Geitler, 25 who says that this is *Aphanocapsa Grevillei* (Hass.) Rabenh., which may be found in Prescott (f) and elsewhere) and see COCCOCHLORIS PENIOCYSTIS (Kuetz.) Drou. & Dail.
3. *APHANOCAPSA DELICATISSIMA* West & West (Smith) (Geitler, 25(f)) NO. CAROLINA Whitford, 1943.
4. *APHANOCAPSA ELACHISTA* West & West (Smith) (Geitler, 25(f)) VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford, 1943.
5. *Aphanocapsa Grevillei* (Hass.) Rabenh. see GLOEOCYSTIS GREVILLEI (Berk.) Drou. & Dail. in Tetrasporaceae.
6. *APHANOCAPSA PULCHRA* (Kuetz.) Rabenh. (Smith) (Prescott (f)) (Geitler, 25(f)) NO. CAROLINA Whitford, 1943 - FLORIDA Whelden, 1941 - KENTUCKY McInteer, 1939.
7. *APHANOCAPSA RICHTERIANA* Hieron. (Dailey, 42) TENNESSEE Silva # 194(UT)(CM).
Two other reports for this species are Wolle, 1884, Puerto Rico, and Dailey, 1942, the latter ^{an} annotation of a _^ C. M. Palmer collection from Indiana.
8. *Aphanocapsa* ^e*Roseana* DeBary. _A
see ^E*ANACYSTIS ROSEANA* (DeBary) Drou. & Dail.
9. *APHANOCAPSA VIRESCENS* (Hass.) Rabenh. (Smith) (Geitler, 25(f))

FLORIDA Smith & Ellis, 1943.

The only Southeastern record is from one of the few studies made on soil algae.

APHANOTHECE Naegeli 1949

1. *Aphanothece Castagnei* (Bréb.) Rabenh.

see COCCOCHLORIS CASTAGNEI (Kuetz.) Drou. & Dail.

2. *APHANOTHECE CLATHRATA* West & West (Prescott (f))

FLORIDA # F 1,10(GP).

3. *APHANOTHECE CONFERTA* ^{P. Richt.} ~~Richter~~ (Smith) (Prescott) (Geitler, 25)

NO. CAROLINA Philson, 1939; Whitford, 1943.

4. *APHANOTHECE MICROSPORA* (Menegh.) Rabenh. (Prescott (f)) (Geitler, 25(f))

FLORIDA # F 6(GP).

5. *Aphanothece microscopica* Naeg. (Prescott (f)) (Geitler, 25(f))

see COCCOCHLORIS STAGNINA f. RUPESTRIS (Lyngb.) Drou. & Dail.

The disposal of this species by the specialists is uncertain to the writer. It was considered to be Anacystis rupestris (Lyngb.) Drou. & Dail. by Dailey, 1942, although it was not at all clear whether he referred to certain specimens or to the entire species. In Drouet and Dailey, 1948, where Anacystis rupestris was made Coccochloris stagnina f. rupestris, there was no mention of Aphanothece microscopica.

6. *APHANOTHECE PALLIDA* (Kuetz.) Rabenh. (Smith) (Prescott) (Geitler, 25)

NO. CAROLINA Philson, 1939; Whitford, 1943.

7. *Aphanothece saxicola* Naeg.

see ANACYSTIS MARGINATA (Menegh.) Drou. & Dail.

8. *Aphanothece stagnina* (Spreng.) A. Braun

see Anacystis rupestris var. prasina (A. Braun) Drou. & Dail. to which specimens of this species and Anacystis prasina A. Braun were referred by Dailey, 1942, and see COCCOCHLORIS STAGNINA Spreng. to which the last named species is now probably referable. The final disposition is uncertain.

CHROOCOCCUS Naegeli 1849

1. *Chroococcus decorticans* A. Braun

see GLOEOCAPSA DECORTICANS (A. Braun) P. Richt.

This transfer apparently has not been accepted by American students inasmuch as both of the references included here, McInteer, 1939, and Whitford, 1943, have retained the older name.

2. *CHROOCOCCUS DISPERUS* (V. Keissler) Lemm. (Smith) (Prescott (f)) (Geitler, 25(f))

NO. CAROLINA Whitford, 1943.

3. *CHROOCOCCUS GIGANTEUS* W. West (Smith) (Prescott (f)) (Geitler, 25(f))

NO. CAROLINA Bold # 95(UT record) - KENTUCKY Lillick & Lee, 1934 actually an encysted flagellate - Dailey, 1942; McInteer, 1939.

4. *CHROOCOCCUS LIMNETICUS* Lemm. (Smith (f)) (Prescott (f)) (Geitler, 25(f))

NO. CAROLINA Whitford, 1943.

5. *CHROOCOCCUS MINOR* (Kuetz.) Naeg. (Smith) (Prescott (f)) (Geitler, 25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA # F 1,2,5(GP).

6. CHROOCOCCUS MINUTUS (Kuetz.) Naeg. (Smith) (Prescott (f))

(Geitler, 25(f))

NO. CAROLINA Whitford, 1943; Bold # 106(UT record) -

FLORIDA # F 4,7,9(GP).

7. Chroococcus multicoloratus Wood

The present writer doubts the validity of this species, although there are at least two other reports of it, Morington, Utah, 1925; and Van Dersal & Cartledge, Penn., 1933, in addition to the one listed below. Dr. Francis Drouet has expressed the opinion that it is Chroococcus rufescens (Kuetz.) Naeg. and Wolle, 1887, gives it as a synonym of Chroococcus turgidus (Kuetz.) Naeg.

NO. CAROLINA Whitford, 1943.

8. CHROOCOCCUS PALLIDUS Naeg. (Smith) (Prescott (f)) (Geitler, 25)

NO. CAROLINA Whitford, 1943.

9. CHROOCOCCUS PRESCOTTII Drou. & Dail. (Prescott (f))

FLORIDA # F 7(GP).

10. CHROOCOCCUS RUFESCENS (Kuetz.) Naeg. (Smith) (Geitler, 25)

(Dailey, 42(p))

VIRGINIA (CM) - NO. CAROLINA Whitford, 1943 as Chroococcus multicoloratus Wood; (CM) - FLORIDA (CM) - KENTUCKY Dailey, 1942; (CM).

11. CHROOCOCCUS RUBRAPUNCTUS Wolle (Tilden)

This is another American species of infrequent occurrence which has been subjected to little critical study. It may be entirely valid, however.

FLORIDA Smith & Ellis, 1943.

12. CHROOCOCCUS TURGIDUS (Kuetz.) Naeg. (Smith (f)) (Prescott (f))

(Geitler, 25(f))

VIRGINIA (CM) - NO. CAROLINA Bold # 235(CM); Philson, 1939;
Whitford, 1943 - SO. CAROLINA Bold # 126(CM); Philson, 1939 -
FLORIDA (CM); # F 1,5,7(GP); Smith & Ellis, 1943 - KENTUCKY
Dailey, 1942, McInteer, 1939 - TENNESSEE Silva & Sharp, 1944;
Bold # 352 etc. (UT record).

This is quite common and undoubtedly occurs throughout
the entire southeastern area.

13. CHROOCOCCUS TURICENSIS (Naeg.) Hansg. (Geitler, 25(f))

FLORIDA Smith & Ellis, 1943 the species authorship is listed
simply Naegeli.

Another American report of this soil species was from
Indiana by C. M. Palmer, 1934.

14. Chroococcus varius A. Braun (Prescott (f))

see PLEUROCAPSA VARIA (A. Braun) Drou. & Dail.

Dailey, 1942, published this change, and included
Pleurocapsa, before considered the type genus of Pleuro-
capsaceae in the Chamaesiphonales, in the Chroococcaceae
without further comment. Pending clarification, the records
of Chroococcus varius are included with Pleurocapsa in the
Pleurocapsaceae, although the assignment of the genus undoubt-
edly will be the Chroococcaceae.

COCCOCHLORIS Sprengler 1807

1. COCCOCHLORIS CASTAGNEI (Kuetz.) Drou. & Dail. (Drouet & Dailey, 48)

(Smith etc. as Aphanthece Castagnei (Bréb.) Rabenh.)

FLORIDA Whelden, 1941 (as A. Castagnei) - LOUISIANA (CM).

2. COCCOCHLORIS ELABENS (Bréb.) Drou. & Dail. (Drouet & Dailey, 48)

(Prescott as Microcystis elabens (Menegh.) Kuetz.) (Dailey,

42 as Anacystis elabens (Menegh.) Setch. & Gard.) - SO.

CAROLINA (CM) as Anacystis elabens not yet annotated.

TENNESSEE Silva # 477(UT)(CM) as A. elabens not yet annotated.

3. COCCOCHLORIS PENIOCYSTIS (Kuetz.) Drou. & Dail. (Drouet & Dailey, 48) (Prescott etc. as Gloeocapsa Peniocystis Kuetz.) (Dailey, 42 as Anacystis Peniocystis (Kuetz.) Drou. & Dail. - FLORIDA # F 4(GP) - KENTUCKY Dailey, 1942 as Anacystis Peniocystis including a re-identification of McInteer's Aphanocapsa brunnea Naeg. - TENNESSEE Silva # 413(UT)(CM) as A. Peniocystis, not yet annotated.

4. COCCOCHLORIS STAGNINA Spreng. (Chicago Museum specimens labeled by Drouet) (Smith (f) etc. as Aphanothece stagnina (Spreng.) A. Braun)
NO. CAROLINA (CM) - FLORIDA Patrick # 10(CM); # F 10(GP) - KENTUCKY McInteer, 1939 - TENNESSEE Bold (UT)(CM) all as Aphanothece stagnina.

5. COCCOCHLORIS STAGNINA f. RUPESTRIS (Lyngb.) Drou. & Dail. (Drouet & Dailey, 48) (Dailey, 42(p) as Anacystis rupestris (Lyngb.) Drou. & Dail.) (Prescott etc. as Gloeothece rupestris (Lyngb.) Born. and perhaps Aphanothece microscopica Naeg.)
NO. CAROLINA Bold # 271(UT record) as Aphanothece microscopica; Whitford, 1943 as Gloeothece rupestris - SO. CAROLINA Philson, 1939 as A. microscopica - KENTUCKY, McInteer, 1939 as Gloeothece membranacea (Rabenh.) Brunn.

CLATHROCYSTIS (obsolete)

This is Microcystis of Smith, Prescott, and Geitler, Polycystis as revived by Dailey, 1942, and presumably

Diplocystis, revived by Drouet and Dailey, 1948.

1. *Clathrocystis aeruginosa* (Kuetz.) Henfry

see POLYCYSTIS AERUGINOSA Kuetz.

COELOSPHAERIUM Naegeli 1849

1. COELOSPHAERIUM DUBIUM Grun. (Smith) (Prescott (f))

KENTUCKY McInteer, 1939.

2. COELOSPHAERIUM KUETZINGIANUM Naeg. (Smith (f)) (Prescott (f))

It will be noted that the distribution for Coelosphaerium Naegelianum Unger is included with this species on the basis of Dailey, 1942, and a considerable discussion is given on the matter in The Myxophyceae of Eastern California and Western Nevada, Bot. Ser. Field Mus. Vol. 20 No. 7, 1943, by Drouet. The inclusion has not been universally accepted. NO. CAROLINA Whitford, 1943 as C. Naegelianum; Bold collection (UT record) as C. Kuetzingianum - SO. CAROLINA Metcalf, 1947 as C. Kuetzingianum - FLORIDA Whelden, 1941 as C. Naegelianum and C. Kuetzingianum - TENNESSEE Bold collection (UT record) C. Naegelianum and C. Kuetzingianum.

3. COELOSPHAERIUM PALLIDUM Lemm. (Prescott (f))

FLORIDA # F 5(GP).

DACTYLOCOCCOPSIS Hansgrig 1888

1. DACTYLOCOCCOPSIS RAPIDIDIODES Hansg.

FLORIDA Brannon # 397(CM).

2. DACTYLOCOCCOPSIS POTEATII Leatherwood (Leatherwood (f)) (Whitford, 43)

NO. CAROLINA Leatherwood, 1942; Whitford, 1943 (same report).

DIPLOCYSTIS Trevis

As stated above this is the latest name to be revived

for the genus commonly known as Microcystis. Only one species has appeared in print as Diplocystis, and is included below, the others which are implied inclusions are listed only under their last name used in modern literature, until verified as Diplocystis.

1. DIPLOCYSTIS INCERTA (Lemm.) Drou. & Dail. (Drouet & Dailéy, 48) (Dailéy, 42 as Polycystis incerta Lemm.) (Smith, and in Prescott as Microcystis incerta Lemm.) (Geitler, 25 as pulvera var. incerta (Lemm.) Crow)
NO. CAROLINA Bold # 62(UT record) as Microcystis stagnalis Lemm. - SO. CAROLINA Philson, 1939 as Microcystis pulverea (Wood) Forti - FLORIDA Whelden, 1941 as M. pulverea (Wood) Migula; # F 9(GP) - KENTUCKY Dailéy, 1942 as Polycystis incerta.

GLAUCOCYSTIS Itzigsohn 1854

1. GLAUCOCYSTIS NOSTOCHINEARUM Itzig. (Smith (f)) (Prescott (f)) listing the author as (Itzig.) Rabenhorst)
FLORIDA # F 10(GP).

GLOEOCAPSA Kützting 1843

1. GLOEOCAPSA ALPICOLA (Lyngb.) Born.
VIRGINIA (CM) - NO. CAROLINA (CM) - SO. CAROLINA (CM) - GEORGIA (CM) - FLORIDA (CM) - KENTUCKY (CM) - TENNESSEE
Silva # 194, 309, etc (UT) (CM).

Judging from annotations at the Chicago Museum this name is now preferred for many of the plants listed as Gloeocapsa magna Kütz. The inclusion is not made here pending a thorough check.

2. GLOEOCAPSA ALPINA (Naeg.) Brand (Geitler, 30(f))

W. 2.

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FLORIDA Borge, 1909.

3. *Gloeocapsa atrata* (Turp.) Kuetz. (Geitler, 25(f))

see *GLOEOCAPSA NIGRESCENS* Naeg.

Dailly, 1942 is followed in making this transfer.

4. *GLOEOCAPSA AURATA* Stizenb. (Prescott (f)) (Geitler, 25(f))

(Geitler, 30 as a synonym for *Gloeocapsa Kuetzingiana* Naeg.)

KENTUCKY Dailly, 1942.

5. *GLOEOCAPSA CONGLOMERATA* Kuetz. (Geitler, 25(f)) (Geitler, 30(f))

who says that the species is based on "Nannocyten,"

interpreted as being small cells of something else.)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Bold

217(UT record); Whitford, 1943; Philson, 1939.

6. *GLOEOCAPSA DECORTICANS* (A. Braun) P. Richt. (Geitler, 25, 30)

(Tilden as *Chroococcus decorticans* A. Braun)

NO. CAROLINA Whitford, 1943 as *Chroococcus decorticans* -

KENTUCKY McInteer, 1939 as *C. decorticans*.

7. *GLOEOCAPSA GIGAS* West & West (Prescott (f))

KENTUCKY McInteer, 1933, 1939.

8. *GLOEOCAPSA GRANULOSA* (Berk.) Kuetz. (Geitler, 30(f))

KENTUCKY Lillick, Lee, 1934; McInteer, 1939.

9. *GLOEOCAPSA MAGMA* (Bréb.) Kuetz. (Smith (f))

NO. CAROLINA Bold # 321(UT record) - SO. CAROLINA Bold # 159

(UT record) - KENTUCKY Dailly, 1942; McInteer, 1941 -

TENNESSEE Bold # 349; Silva & Sharp, 1944.

10. *GLOEOCAPSA NIGRESCENS* Kuetz. (Dailly, 42(f)) (Geitler, 25(f) as

Gloeocystis atrata (Turp.) Kuetz.)

NO. CAROLINA Bold # 91(UT record) as *Gloeocapsa atrata*

(Turp.) Kuetz. - KENTUCKY Dailly, 1942.

The inclusion of Gloeocapsa atrata follows Dailý, 1942.

11. Gloeocapsa Peniocystis Kuetz.

see COCCOCHLORIS PENIOCYSTIS (Kuetz.) Drou. & Dail.

12. GLOEOCAPSA SPARSA Wood (Hylander, 28(f)) (Tilden)

NO. CAROLINA Philson, 1939; Whitford, 1943.

GLOEOTHECE Naegeli 1849

1. Gloeotheca linearis Naeg.

see COCCOCHLORIS PENIOCYSTIS (Kuetz.) Drou. & Dail.

The writer is uncertain about this reassignment. It is made on the basis of Dailý, 1942, who states that Anacystis Peniocystis (Kuetz.) Drou. & Dail. was referred to in recent literature as Gloeotheca linearis. Anacystis Peniocystis is listed as one of the synonyms for the resurrected Coccochloris peniocystis, but G. linearis is not; although its variety purpurea Bréb. is.

2. GLOEOTHECE MEMBRANACEA (Rabenh.) Born. (Smith) (Geitler, 25)

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer see

Coccochloris stagnina f. rupestris (Lyngb.) Drou. & Dail. as this specimen has been referred to Anacystis rupestris (Lyngb.) Drou. & Dail. by Dailý, 1942.

3. Gloeotheca rupestris (Lyngb.) Born. (Prescott (f)) (Geitler, 30(f))

see COCCOCHLORIS STAGNINA f. RUPESTRIS (Lyngb.) Drou. & Dail.

GOMPHOSPHERIA Kuetzing 1836

1. GOMPHOSPHERIA APONINA Kuetz. (Smith (f)) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Borge, 1909 - KENTUCKY Dailý, 1942; McInteer, 1944.

2. GOMPHOSPHERIA APONINA var. CORDIFORMIS Wille (Prescott (f)) (Geitler, 30(f))

FLORIDA Whelden, 1941.

3. GOMPHOSPHERIA APONINA var. DELICATULA Virieux (Prescott (f))
(Geitler, 30)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Philson, 1939.

4. GOMPHOSPHERIA LACUSTRIS Chod. (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

HOLOPEDIUM Lagerheim 1883

1. HOLOPEDIUM IRREGULARE Lagerh. (Smith (f)) (Geitler, 25)

NO. CAROLINA Bold # 16(UT record).

MERISMOPIEDIA Meyen 1839

1. MERISMOPIEDIA AERUGINEA Bréb. (Prescott (f)) (Geitler, 30 as part of
Merismopedia glauca (Ehr.) Naeg.)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

2. MERISMOPIEDIA CONVOLUTA Bréb. (Prescott (f)) (Geitler, 25)

FLORIDA (CM) - KENTUCKY Dailly, 1942; McInteer, 1939 -

TENNESSEE (CM) - LOUISIANA Prescott, 1942; (CM).

3. MERISMOPIEDIA ELEGANS A. Braun (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Metcalf, 1947 -

FLORIDA Whelden, 1941.

4. MERISMOPIEDIA GLAUCA (Ehr.) Naeg. (Smith) (Prescott (f))

(Geitler, 30(f))

NO. CAROLINA Brown, 1911 - FLORIDA Borge, 1909; (CM); # F

4(GP) - KENTUCKY Dailly, 1942 listed (Ehr.) Kuetz.

5. MERISMOPIEDIA GLAUCA var. FONTINALIS Hansg. (Geitler, 30 who
challenges the variety as being the typical deep form)

KENTUCKY McInteer, 1939.

6. MERISMOPIEDIA MAJOR (G. M. Smith) Geit. (Smith) (Prescott (f)) as

Merismopedia elegans var. major G. M. Smith)

NO. CAROLINA Whitford, 1943 with species authorship just G.
M. Smith.

7. *MERISMOPEDIA PUNCTATA* Meyen (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - FLORIDA Whelden, 1941; # F 8(GP)
- KENTUCKY McInteer, 1939.

8. *MERISMOPEDIA TENUISSIMA* Lemm. (Smith) (Prescott (f)) (Geitler, 30(f))

NO. CAROLINA Whitford, 1943 - FLORIDA # F 1,5(GP) - KENTUCKY
McInteer, 1939, 1944 - TENNESSEE Lackey, 1942.

MICROCYSTIS Kuetzing 1833

The revival of *Polycystis* to replace the name most common to the literature of this century is explained in Dailey, 1942, but a discussion of the reason why this name, too, is invalid is given in Prescott. Diplocystis is the largest legal heir to be brought forward, Drouet and Dailey, 1948. Because various species are in the process of being assigned to different genera, those for which there is no record of transfer are simply retained here for the sake of order.

1. *Microcystis aeruginosa* (Kuetz.) Elenkin (Prescott (f)) (Smith (f))
etc. with authorship Kuetz.)
see *POLYCYSTIS AERUGINOSA* Kuetz.

Presumably this will become Diplocystis aeruginosa but such a name has not been published.

2. *Microcystis aeruginosa* var. *major* (Wittr.) G. M. Smith (Prescott)
see *POLYCYSTIS AERUGINOSA* Kuetz.

The variety is recognized by Prescott but not by Drouet.

3. *Microcystis elabens* Kuetz.

see *COCCOCHLORIS ELABENS* (Kuetz.) Drou. & Dail.

4. *Microcystis firma* Schm.

see ANACYSTIS FIRMA (Kuetz.) Drou. & Dail.

5. *Microcystis flos-aquae* (Wittr.) Kirch. (Prescott) (Geitler, 28(f))

see POLYCYSTIS AERUGINOSA Kuetz.

Drouet and Dailey have followed Elenkin, the monographer of the group in including this species with Microcystis aeruginosa (Kuetz.) Elenkin, but Prescott feels that the question is still open since there are in nature two apparently distinct colony forms, globular and compact ones being typical for M. flos-aquae; clathrate and perforated ones for M. aeruginosa.

6. *Microcystis incerta* Lemm.

see DIPLOCYSTIS INCERTA (Lemm.) Drou. & Dail.

7. *Microcystis marginata* (Menegh.) Kuetz.

see ANACYSTIS MARGINATA Menegh.

8. *Microcystis robusta* (Clark) Smith (probably in a Florida publication)

FLORIDA Smith & Ellis, 1943.

Neither a description nor an authoritative reference has been seen by the writer.

9. *Microcystis pulverea* (Wood) Forti

see DIPLOCYSTIS INCERTA (Lemm.) Drou. & Dail.

This transfer is made on the basis of the statement in Dailey, 1942, which is reiterated in Prescott, that Microcystis incerta Lemm. has popularly been reported as Microcystis pulverea. Drouet has replaced the latter by Diplocystis incerta.

10. *Microcystis stagnalis* Lemm. (Geitler, 25)

see DIPLOCYSTIS INCERTA (Lemm.) Drou. & Dail.

Again, this transfer is because the species is considered

a synonym of Microcystis incerta Lemm. by Dailey, 1942.

POLYCYSTIS (obsolete)

The use of this generic name was revived and explained in Dailey, 1942, but subsequently has apparently proven to be invalid. Species of Microcystis and consequently Clathrocystis were included here.

1. POLYCYSTIS AERUGINOSA Kuetz. (Smith (f) as Microcystis aeruginosa Kuetz.) (Prescott (f) as M. aeruginosa) here including Microcystis flos-aquae (Wittr.) Kirch.

VIRGINIA Lewis, Zirkle & Patrick, 1933 as Clathrocystis aeruginosa (Kuetz.) Henfry; (CM) - NO. CAROLINA Leatherwood, 1942 as Microcystis flos-aquae (Wittr.) Kirch.; Whitford, 1943 - SO. CAROLINA (CM) - FLORIDA Borge, 1909 as M. aeruginosa; Brannon, 1945; Smith & Ellis, 1943 as M. aeruginosa; # F 2(GP) - KENTUCKY Dailey, 1942; McInteer, 1938, 1939 as M. aeruginosa and, 1939 as M. flos-aquae - TENNESSEE Drouet & Dailey, 1939; Lackey, 1942; Bold (UT record) - LOUISIANA Prescott, 1942 all as Microcystis aeruginosa; (CM).

2. Polycystis incerta Lemm. (Smith (f) and in Prescott (f) both as Microcystis incerta Lemm.) (Geitler, 25(f) as Microcystis pulvera var. incerta (Lemm.) Crow.)

see DIPLOCYSTIS INCERTA (Lemm.) Drou. & Dail.

SYNECHOCOCCUS Naegeli 1849

1. SYNECHOCOCCUS AERUGINOSUS Naeg. (Smith (f)) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford, 1943 - KENTUCKY Dailey, 1942 - TENNESSEE Bold (UT record); Silva # 675(UT)(CM).

2. SYNECHOCOCCUS ^{OR} ~~CEC~~ODORUM Sauvag. (Geitler, 25)

LOUISIANA (CM).

SYNECHOCYSTIS Sauvageau 1892

1. SYNECHOCYSTIS AQUATILIS Sauvag. (Smith (f)) (Prescott) (Geitler, 25(f))

FLORIDA Smith & Ellis, 1943; Brannon # 397(CM).

The cells in the Brannon collection measure only 4.5 u which is a little smaller than any of the descriptions (5 u minimum) of the species.

FAMILY 2 Entophysalidaceae

This is a separate order Entophysalidales in Geitler, 1925.

ENTOPHYSALIS Kuetzing 1843

1. ENTOPHYSALIS CORNUANA Sauvag. (Geitler, 25 (f) as Radiosa Cornuana Sauvag.)
NO. CAROLINA (CM) - TENNESSEE Silva # 462(UT)(CM).
2. ENTOPHYSALIS RIVULARIS (Kuetz.) Drou. (Drouet, 43b) (Smith (f) and in Geitler, 30(f) as Oncobyra^{so}a rivularis Kuetz. emed. Geitler)
NO. CAROLINA Silva #200(UT)(CM) - TENNESSEE Silva # 448(UT)(CM)
- LOUISIANA (CM).

ORDER 2 Chamaesiphonales

The ordinal rank here is not universally accepted.

Drouet and Dailey give only family rank, while Geitler makes separate orders out of most of the included families, and at least one genus in the group, Pleurocapsa, has been put into the Chroococcaceae, by Dailey, 1942.

FAMILY 1 Pleurocapsaceae

CLASTIDIUM Kirchner 1880

3. CLASTIDIUM SETIGERUM Kirch. (Geitler, 25(f))

LOUISIANA Flint collection dated 11 Oct. 1946, epiphytic on
Batrachospermum macrospermum Mont.

The writer was unable to find setae on the plants, otherwise they corresponded to the description of this species.

DERMOCARPA Crouan 1858

This genus is in a separate order (Dermocarpales) and family, which included Clastidium, according to Geitler, 1925.

1. DERMOCARPA GARDNERIANA Drou. (Drouet, 1942)

FLORIDA Drouet, 1942.

PLEUROCAPSA Thuret 1885

In Geitler, 1925, this genus will be found in Pleurocapsales (Pleurocapsaceae) which includes Hyella, Oncobyrsa and other genera. However Dailey included the genus in the Chroococcaceae. Obviously, a careful study of and a complete redistribution within this entire group (Coccoconeae) is highly desirable.

2. PLEUROCAPSA VARIA (A. Braun) Drou. & Dail. (Dailey, 42) (Prescott (f))
as Chroococcus varius A. Braun)

VIRGINIA Lewis, Zirkle & Patrick, 1933 as Chroococcus varius -
NO. CAROLINA Whitford, 1943 as C. varius - SO. CAROLINA Bold
126 (UT record) - KENTUCKY Dailey, 1942 a re-identification
of Pleurocapsa minor, McInteer, 1941.

1. PLEUROCAPSA MINOR Hansg. (Smith (f))

see PLEUROCAPSA VARIA (A. Braun) Drou. & Dail. - a case of re-identification.

SIPHONONEMA Geitler 1925

1. SIPHONONEMA POLONICUM (Racib.) Geit. (Geitler, 30(f))

LOUISIANA Flint collection made 13 October 1947 (CM) and labeled Dermocarpa, the above identification was tentatively made by the

writer.

STICHOSIPHON Geitler 1931

According to Fritsch I, this genus belongs near Clastidium and Dermocarpa.

1. STICHOSIPHON FILAMENTOSUS (Ghose) Geit. (Whelden, 41) (Geitler, 30(f))

NO. CAROLINA Silva # 200 as Chamaesiphon filamentosus Ghose

Apparently Drouet, who identified the collection, does not accept Geitler's genus determination. The Geitler name is capitalized as the last designated in print.

FAMILY 2 Chamaesiphonaceae

CHAMAESIPHON A. Braun & Grunow 1865

1. CHAMAESIPHON CURVATUS Nordst. (Prescott (f)) (Geitler, 25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - TENNESSEE Silva

448(UT) on a plant that resembles the European Audouinella chalybea (Geitler, 1925 as Chantransia chalybea (Lyngb.) Fries).

2. Chamaesiphon filamentosus Ghose (Geitler, 25(f))

see STICHOSIPHON FILAMENTOSUS (Ghose) Geit.

3. CHAMAESIPHON INCRUSTANS Grun. (Smith (f)) (Prescott (f))

VIRGINIA (CM) - NO. CAROLINA Whitford, 1943; (CM) - FLORIDA

Whelden, 1941; (CM) - TENNESSEE Silva # 418, 642 etc. (UT)(CM)

643 was epiphytic on Desmonema Wrangelii (Agardh) Born. & Flah.

4. CHAMAESIPHON POLONICUS (Rostaf.) Hansg. (Geitler, 25(f))

VIRGINIA (CM) - FLORIDA (CM) - TENNESSEE Silva # 60, 317

(UT)(CM).

5. CHAMAESIPHON ROSTAFINSKII Hansg. (Geitler, 25)

see LOEFGRENIA ANOMALA Gom. in Loeftgreniaceae immediately

preceeding Rivulariaceae in this list.

This is a case of re-identification, not reassignment.

ORDER 3 Hormogonales

SUB-ORDER 1 Homocystineae

FAMILY 1' Oscillatoriaceae

ARTHROSPIRA Sitzenberger 1852

1. ARTHROSPIRA JENNERI Gom. (Smith (f)) (Prescott (f))

SO. CAROLINA (CM) - FLORIDA Brannon # 289(CM)

This species is probably far more common than the South-eastern records indicate, at least it is of widespread occurrence in other sections of the country.

BEGGIATOIA (bacterial)

This genus is now understood to be bacterial, whereas at one time this species, at least, was considered an Oscillatoria. DeToni, Syl. Algorum, 1889 referred the species below to Oscillatoria leptiformis Kuetz. Fritsch II says that the genus is not like Oscillatoria and implies bacteria, and Drouet is of the opinion that bacteria were collected when this genus appears in published lists.

1. Beggiatoia leptomitiformis (Meneg.) Trévis

FLORIDA Wille, 1887.

HYPHEOTHRIX (obsolete)

1. Hypheothrix aeruginosa Kuetz.

see SCHIZOTHRIX CALCICOLA (Agardh) Gom.

LEPTOTHRIX (bacterial)

1. Leptothrix herbacea Kuetz.

see SCHIZOTHRIX CALCICOLA (Agardh) Gom.

2. Leptothrix ochracea Kuetz.

see LYNGBYA OCHRACEAE (Kuetz.) Thur.

3. *Leptothrix tenax* Wollé

see LYNGBYA VERSICOLOR (Wartm.) Gom.

LYNGBYA Agardh 1824

1. *Lyngbya aeruginosa* Agardh

see LYNGBYA AESTUARII (Mert.) Lieb.

2. LYNGBYA AERUGINEO-CAERULEA (Kuetz.) Gom. (Prescott (f)) (Geitler, 25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Philson, 1939; Whitford, 1943 - FLORIDA Whelden, 1941 - KENTUCKY McInteer, 1941.

3. LYNGBYA AESTUARII (Mert.) Lieb. (Prescott (f)) (Geitler, 25(f))

VIRGINIA Strickland, 1940 - NO. CAROLINA Philson, 1942; Whitford, 1943 - FLORIDA Whelden, 1941; Wollé, 1879 as L. aeruginosa Agardh re-identified by Drouet, and 1887; Brannon # 367(CM); # F 2(GP) - KENTUCKY McInteer, 1939 - TENNESSEE Silva # 481(UT)(CM).

Widespread and rather common, usually on soil near the water.

4. LYNGBYA ARACHNOIDEA Kuetz. (Prescott)

see OSCILLATORIA LIMOSA (Roth) Agardh.

5. LYNGBYA BIRGEI G. M. Smith (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

6. LYNGBYA CONTORTA Lemm. (Smith (f)) (Prescott (f))

FLORIDA Brannon # 253(CM).

Although this has been reported several times from plankton in other parts of the country, this is the first report from the Southeast. The writer was unable to find it

among the unusually long and contorted strands of Raphidiopsis curvata Fritsch & Rich, in the same collection, which had been given both names by Drouet.

7. LYNGBYA DIGUETII Gom. (Prescott (f)) (Geitler, 25)

VIRGINIA Lewis, Zirkle & Patrick, 1933; Strickland, 1940 -
NO. CAROLINA Bold # 93(UT record) - FLORIDA Brannon, 1945 -
KENTUCKY McInteer, 1941.

8. LYNGBYA EPIPHYTICA Hieron. (Prescott (f)) (Geitler, 25)

FLORIDA Whelden, 1941.

9. LYNGBYA FERRUGINEA G. S. West (Tilden (f)) (Geitler, 30 (same figure))

NO. CAROLINA Whitford, 1943.

10. Lyngbya gigantea Lewis, Zirkle & Patrick

see OSCILLATORIA PRINCEPS Vauch.

11. LYNGBYA JULIANA Menegh.

FLORIDA Wolle, 1887 - ALABAMA Wolle, 1887.

Drouet found Wolle's collection bearing this name in an unrecognizable state and excluded it from his study of Wolle's filamentous Myxophyceae. The only other report available to the writer is a mention by Palmer, 1929, of a 1908 collection in Indiana.

12. LYNGBYA LAGERHEIMII (Moebius) Gom. (Smith) (Prescott (f)) (Geitler, 25(f))

SO. CAROLINA Philson # 1 labeled by Drouet, the writer could not find it - KENTUCKY McInteer, 1939.

13. LYNGBYA LUTEA (Agardh) Gom. (Tilden (f)) (Geitler, 30(f))

VIRGINIA Strickland, 1940.

14. LYNGBYA MAGNIFICA Gard. (Geitler, 30)

FLORIDA Whelden, 1941.

15. LYNGBYA MAJOR Menegh. (Prescott (f)) (Geitler, 30(f))

NO. CAROLINA Humm # 6a(CM) - FLORIDA Whelden, 1941; Brannon
213; # F 9(CM).

16. LYNGBYA MARTENSIANA Menegh. (Prescott (f)) (Geitler, 30(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 re-identified as
Oscillatoria tenuis⁷⁴ Agardh - NO. CAROLINA Philson, 1942;
Whitford, 1943 - FLORIDA Smith & Ellis, 1943; Whelden 1941.

17. LYNGBYA NANA Tilden (Tilden (f)) (Geitler, 25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 re-identified as
Phormidium tenue (Menegh.) Gom. - NO. CAROLINA Whitford, 1943.

18. LYNGBYA NORDGARDHII Wolle (Prescott (f)) (Geitler, 30)

FLORIDA Whelden, 1941.

19. *Lyngbya obscura* Wolle (Drouet, 39)

Drouet has identified some of the FLORIDA material with
this label as being Lyngbya aestuarii (Mert.) Lieb. but the
rest of the samples, including FLORIDA and ALABAMA collections
with the name consist of L. aestuarii, L. versicolor (Wartm.)
Gom. and Oscillatoria limosa (Roth) Agardh.

20. LYNGBYA OCHRACEA (Kuetz.) Thur. (Smith) (Geitler, 25 as (Kuetz.)
Gom.) (Geitler, 30(f))

VIRGINIA (CM) - NO. CAROLINA Whitford, 1943 - SO. CAROLINA
(CM) - FLORIDA (CM) - TENNESSEE Silva & Sharp, 1944; Silva
376(UT)(CM) - MISSISSIPPI (CM) - and Mass. to FLORIDA by
Wolle, 1887 as Leptothrix ochracea Kuetz.

21. LYNGBYA PATRICKIANA Drouet (Drouet, 42b)

FLORIDA Brannon, 1945; Drouet, 1942b.

22. LYNGBYA PUTEALIS Mont. (Geitler, 25(f), 30)

VIRGINIA Strickland, 1940 - GEORGIA Drouet, 1942b re-identifying *Lyngbya subtorulosa* (Br  b.) Wolle of Wolle, 1887, - FLORIDA Brannon, 1945; Drouet, 1942b re-identifying Lyngbya subtorulosa of Wolle, 1887; # F 4(GP) - KENTUCKY McInteer, 1939 - TENNESSEE Silva & Sharp, 1944 - MISSISSIPPI (CM) - LOUISIANA Prescott, 1942; (CM).

23. LYNGBYA SPIRULINOIDES Gom. (Prescott) (Geitler, 25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer, 1939.

24. LYNGBYA SUBTILIS W. West (Smith) (Geitler, 30)

KENTUCKY McInteer, 1939, 1941.

25. *Lyngbya subtorulosa* (Br  b.) Wolle

see LYNGBYA PUTEALIS Mont.

26. LYNGBYA TAYLORII Drou. & Strick. (Prescott (f))

VIRGINIA Strickland - SO. CAROLINA (CM) - FLORIDA Brannon, 1945 - TENNESSEE Silva # 356, 365 etc. (UT)(CM).

27. LYNGBYA VERISCOLOR Gom. (Prescott (f)) (Geitler, 30(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 see Schizothrix Friesii (Agardh) Gom. for Strickland's re-identification - NO. CAROLINA Silva & Sharp, 1944; (CM) - FLORIDA Brannon, 1945; Whelden, 1941 - TENNESSEE Silva & Sharp, 1944; Silva # 483, 686(UT)(CM) - LOUISIANA (CM).

28. *Lyngbya vulgaris* (Kuetz.) Kirch.

Wolle, 1887, gives the distribution as Maine to FLORIDA but his packets have been checked by Drouet, 1939, as Symploca muscorum (Agardh) Gom., Phormidium autumnale (Agardh) Gom., and Phormidium Retzii (Agardh) Gom.

1. MICROCOLEUS ACUTISSIMUS Gard. (Gardner, 27)

VIRGINIA (CM) - FLORIDA Drouet, 1939 from a Wolle herbarium specimen.

2. MICROCOLEUS LACUSTRIS A. Braun (Smith) (Prescott (f))

VIRGINIA Strickland, 1940 - NO. CAROLINA Whitford, 1943; Bold # 48(UT)(CM) - SO. CAROLINA Drouet, 1939 from a Wolle herbarium specimen - FLORIDA Brannon, 1945.

3. MICROCOLEUS PALUDOSUS (Kuetz.) Gom. (Smith) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Brannon # 235 - TENNESSEE Silva & Sharp, 1944; Silva # 481, 576(UT)(CM).

4. MICROCOLEUS RUPICOLA (Tild.) Drou. (herbarium of Chicago Museum)

(Tilden, as Schizothrix rupicola Tild.)

FLORIDA Brannon # 218, 374 etc. (CM) - TENNESSEE Silva # 576 (UT)(CM).

5. MICROCOLEUS SUBTORULOSUS (Bréb.) Gom. (Smith) (Geitler, 25 (f))

FLORIDA Smith & Ellis, 1943; # F 2(GP).

The authorship of the species is given as Kuetzing in the Smith & Ellis report so this writer assumes that a misprint was made.

6. MICROCOLEUS VAGINATUS (Vauch.) Gom. (Smith) (Geitler, 25 (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933; Strickland, 1940 - NO. CAROLINA Philson, 1939; (CM) - FLORIDA Brannon # 218, 235 (CM) - KENTUCKY McInteer, 1939 - TENNESSEE Silva & Sharp, 1944; Silva # 342, 576(UT)(CM) - MISSISSIPPI (CM) - LOUISIANA Prescott, 1942.

7. MICROCOLEUS VAGINATUS var. MONTICOLA Gom. (Geitler, 25)

VIRGINIA Strickland # 1362(CM).

1. *OSCILLATORIA ACUTISSIMA* Kuff. (Geitler, 25(f))
FLORIDA # F 19(GP).
2. *OSCILLATORIA AGARDHII* Gom. (Prescott (f)) (Geitler, 25(f))
FLORIDA Brannon, 1945 - KENTUCKY Lillick & Lee, 1934;
McInteer, 1939 - TENNESSEE (CM).
3. *OSCILLATORIA AMOENA* (Kuetz.) Gom. (Prescott (f)) (Geitler, 25(f))
NO. CAROLINA Whitford, 1943 - FLORIDA (CM).
4. *OSCILLATORIA AMPHIBIA* Agardh (Smith) (Prescott (f))
NO. CAROLINA Whitford, 1943 - FLORIDA Whelden, 1941; (CM) -
KENTUCKY McInteer, 1939 - TENNESSEE Bold collection (UT record)
- LOUISIANA Prescott, 1942.
5. *OSCILLATORIA ANGUINA* (Bory) Gom. (Prescott (f)) (Geitler, 25(f))
VIRGINIA (CM) - FLORIDA Brannon, 1945; Wollé, 1887 -
TENNESSEE (CM).
6. *OSCILLATORIA ANGUSTA* Koppe (Prescott (f)) (Geitler, 25)
FLORIDA # F 12(GP).
7. *OSCILLATORIA ANIMALIS* Agardh (Geitler, 30(f))
SO. CAROLINA Drouet, 1939 from a Wollé herbarium specimen.
8. *OSCILLATORIA ANNAE* Van Goor (Prescott) (Geitler, 25)
KENTUCKY McInteer, 1939.
9. *OSCILLATORIA ARTICULATA* Gard. (Prescott) (Geitler, 30(f))
KENTUCKY Lillick & Lee, 1934.
10. *OSCILLATORIA BORYANA* Bory (Geitler, 25(f), 30(f))
VIRGINIA Lewis, Zirkle & Patrick, 1933 re-identified as
Phormidium autumnale (Agardh) Gom. - FLORIDA Whelden, 1941 -
KENTUCKY Lillick & Lee, 1934.
11. *OSCILLATORIA BREVIS* (Kuetz.) Gom. (Smith) (Geitler, 30(f))
VIRGINIA Strickland, 1940 - FLORIDA Whelden, 1941 with the

species authorship of Kuetzing only - LOUISIANA (CM).

12. *OSCILLATORIA CHALYBEA* Mert. (Smith) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 re-identified as
Oscillatoria tenuis Agardh - NO. CAROLINA Whitford, 1943 -
FLORIDA Drouet, 1939 from a Wollé herbarium specimen -
KENTUCKY McInteer, 1939 - LOUISIANA (CM).

13. *OSCILLATORIA CHLORINA* Kuetz. (Smith) (Prescott) (Geitler, 30)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Brannon,
1945 - KENTUCKY McInteer, 1939 - LOUISIANA Prescott, 1942.

14. *OSCILLATORIA CURVICEPS* Agardh (Prescott (f)) (Geitler, 30(f))

VIRGINIA Strickland, 1940 - FLORIDA Whelden, 1941 - KENTUCKY
(CM).

15. *OSCILLATORIA FORMOSA* Bory (Smith (f)) (Prescott (f))

VIRGINIA Strickland # 1112(CM) - NO. CAROLINA Whitford, 1943
- FLORIDA Brannon # 414(CM) - KENTUCKY McInteer, 1939 -
MISSISSIPPI (CM) - LOUISIANA Prescott, 1942.

16. *OSCILLATORIA GEMINATA* Menegh. (Prescott (f)) (Geitler, 25(f))

VIRGINIA (CM) - NO. CAROLINA Whitford, 1943.

17. *OSCILLATORIA GRANULATA* Gard. (Prescott (f))

LOUISIANA Flint # 3(CM).

18. *OSCILLATORIA GRUNOWIANA* var. *ARTICULATA* (Gard.) Drou. (Drouet, 37b)

LOUISIANA Prescott, 1942.

19. *Oscillatoria imperator* Wood

It is *OSCILLATORIA PRINCEPS* Vauch. according to Tilden,
1910. Wollé gives a distribution of Maine to FLORIDA.

20. *OSCILLATORIA IRRIGUA* Kuetz. (Geitler, 25(f), 30(f))

KENTUCKY Lillick & Lee, 1934; McInteer, 1939.

21. *OSCILLATORIA JENENSIS* Schm. (Geitler, 25(f), 30(f))

KENTUCKY McInteer, 1939.

22. *OSCILLATORIA LAETEVIRENS* (Crouan) Gom. (Geitler, 25(f))

VIRGINIA (CM).

23. *OSCILLATORIA LAUCUSTRIS* Geit. (Geitler, 25(f), 30(f))

NO. CAROLINA Whitford, 1943.

24. *OSCILLATORIA LIMNETICA* Lemm. (Prescott (f)) (Geitler, 25, 30(f))

FLORIDA Whelden, 1941; # F 2(GP).

25. *OSCILLATORIA LIMOSA* Agardh (Smith (f)) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933; Strickland, 1940

including re-identification of Lewis, Zirkle & Patrick,

1933, Lyngbya arachnoidea Kuetz. - NO. CAROLINA Whitford,

1943; Bold # 8(UT)(CM) - GEORGIA Bold # 290(UT) - SO. CAROLINA

(CM) - FLORIDA Smith & Ellis, 1943; Brannon # 65(CM) -

TENNESSEE Silva & Sharp, 1944; Silva # 465 etc. (UT)(CM) -

LOUISIANA Prescott, 1942.

26. *OSCILLATORIA LUDOVICIANA* Flint & Prescott (Flint & Prescott, 44(f))

LOUISIANA Flint & Prescott, 1944.

27. *OSCILLATORIA MESLINI* Frémy (Frémy)

NO. CAROLINA Whitford, 1943.

28. *Oscillatoria minnesotensis* (Tild.)

see *PHORMIDIUM MINNESOTENSIS* (Tild.) Drou.

29. *OSCILLATORIA OKENI* (Agardh) Gom. (Geitler, 25(f), 30(f))

KENTUCKY McInteer, 1939.

30. *OSCILLATORIA ORNATA* Kuetz. (Prescott (f)) (Geitler, 25(f))

VIRGINIA (CM) - FLORIDA (CM) - KENTUCKY McInteer, 1939 -

MISSISSIPPI (CM).

31. *Oscillatoria percursa* Kuetz.

see *OSCILLATORIA PRINCEPS* Vauch.

32. *OSCILLATORIA PRINCEPS* Vauch. (Smith (f)) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 under this name and as *Lyngbya gigantea* Lewis, Zirkle & Patrick (CM) - NO.

CAROLINA Philson, 1939; Whitford, 1943; Bold # 202(UT record); (CM) - SO. CAROLINA (CM) - FLORIDA Borge, 1909; Brannon, 1945; Drouet, 1939 reporting from Wolle specimens under the name, Oscillatoria percursa, in part, and Scytonema polymorphum Kuetz. reported by Wolle, 1879 - KENTUCKY McInteer, 1938 - TENNESSEE Silva & Sharp, 1944; Bold # 7(UT record) - ALABAMA (CM) - MISSISSIPPI (CM) - LOUISIANA Prescott, 1942 this is described as O. Ludoviciana Flint & Prescott, in 1944.

33. *OSCILLATORIA PRINCEPS* var. *CRASSISSIMA* Rabenh.

KENTUCKY McInteer, 1939.

34. *OSCILLATORIA PROBOSCIDEA* Gom. (Geitler, 25(f), 30(f))

FLORIDA Whelden, 1941; (CM) - LOUISIANA Prescott, 1942.

35. *OSCILLATORIA PROLIFICA* (Grev.) Gom. (Smith) (Prescott (f))

(Geitler, 25(f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer collection (CM).

36. *OSCILLATORIA RUBESCENS* DeCand. (Prescott) (Geitler, 25(f))

VIRGINIA Strickland # 177(CM) - FLORIDA Brannon # 177(CM).

37. *OSCILLATORIA SANCTA* Kuetz. (Smith) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933; Strickland, 1940 - NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939 - TENNESSEE Silva # 349(UT)(CM).

38. *OSCILLATORIA SPLENDIDA* Grev. (Smith (f)) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933; Strickland, 1940 including a re-identification of Lewis, Zirkle & Patrick,

1933, Phormidium subuliforme Gom. - NO. CAROLINA Leatherwood,
1942 perhaps re-identified by Whitford as O. splendida var.
unicinata Setch. & Gard., in 1943; (CM) - SO. CAROLINA (CM) -
FLORIDA Borge, 1909; Whelden, 1941; Brannon # 367(CM); # F
1(GP) - KENTUCKY McInteer, 1939; (CM) - LOUISIANA (CM).

39. *OSCILLATORIA SPLENDIDA* var. *UNICINATA* Setch. & Gard. (Tilden)
(Setchell & Gardner, 1903)

NO. CAROLINA Whitford, 1943 apparently a re-identification
of the species report by Leatherwood, 1942.

40. *OSCILLATORIA SUBTILISSIMA* Kuetz. (Prescott) (Geitler, 25, 30)

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

Geitler wonders whether this form is not identical with

O. minima Gickl.

41. *OSCILLATORIA TENUIS* Agardh (Smith) (Prescott (f)) (Geitler, 25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933; Strickland, 1940

including re-identifications of Lewis, Zirkle & Patrick *O.*

ohalybea Mert. and Lyngbya Martensiana Menegh.; (CM) - NO.

CAROLINA Whitford, 1943; (CM) - SO. CAROLINA (CM) - FLORIDA

Borge, 1909; Drouet, 1939 from a Wolle herbarium specimen;

Brannon # 65(CM) - KENTUCKY McInteer, 1939 - TENNESSEE Silva

& Sharp, 1944; Silva # 397, 578 etc. (UT)(CM) - LOUISIANA

Prescott, 1942; (CM).

42. *OSCILLATORIA TENUIS* var. *NATANS* Gom. (Prescott (f))

FLORIDA Brannon # 370(CM) - TENNESSEE Clebsch # 4(UT)(CM).

43. *OSCILLATORIA TENUIS* var. *TERGESTINA* (Kuetz.) Rabenh. (Prescott (f))

(Geitler, 25(f))

NO. CAROLINA Whitford, 1943 - FLORIDA Brannon # 370(CM) -

TENNESSEE Silva # 401(UT)(CM).

44. OSCILLATORIA TEREBRIFORMIS Agardh (Prescott) (Geitler (f))

FLORIDA Bailey, 1851 from a sulfur spring.

45. OSCILLATORIA VIOLACEA (Wallroth) Hass. (Geitler, 25)

FLORIDA Smith & Ellis, 1943.

At least it is assumed that this is the species reported.

The species authorship was given as Wallroth. Geitler does not fully accept the species, stating that it is "genau unbekannt" (not known exactly).

46. OSCILLATORIA WILLEI Gard. (Geitler, 25(f))

FLORIDA Brannon # 367(CM) - LOUISIANA Prescott, 1942.

PHORMIDIUM Kuetzing 1843

1. PHORMIDIUM AMBIGUUM Gom. (Prescott (f)) (Geitler, 25(f))

KENTUCKY McInteer, 1939.

2. PHORMIDIUM ANGUSTISSIMA West & West (Geitler, 25, 30)

NO. CAROLINA Philson, 1939; Whitford, 1943.

Geitler does not relegate the species to synonymy, but does say that it is identical with P. Treleasei Gom. without stating which name he preferred.

3. PHORMIDIUM AUTUMNALE (Agardh) Gom. (Smith (f)) (Prescott)

(Geitler, 25(f))

VIRGINIA Strickland, 1940 including re-identification of Lewis, Zirkle & Patrick, 1933, Oscillatoria Boryana Bory; (CM) - NO. CAROLINA Drouet (Wolle), 1939; Philson, 1939; Whitford, 1943; Bold # 222(UT)(CM) - FLORIDA Borge, 1909; Brannon, 1945 - KENTUCKY McInteer, 1939 - TENNESSEE Silva & Sharp, 1944.

4. PHORMIDIUM CALIDUM (K. B. H.) Gom. (Geitler, 25(f))

FLORIDA Brannon # 38(CM).

5. PHORMIDIUM CORIUM (Agardh) Gom. (Smith) (Prescott (f)) (Geitler, 25(f))
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Philson, 1939; Whitford, 1943 - TENNESSEE Silva # 404, 418 etc. (UT)(CM).
6. PHORMIDIUM CROUANI Gom. (Geitler, 25(f), 30(f))
NO. CAROLINA Philson, 1939; Whitford, 1943.
7. PHORMIDIUM FOVEOLARUM (Mont.) Gom. (Geitler, 25(f), 30(f))
see PHORMIDIUM TENUE (Menegh.) Gom.
8. PHORMIDIUM FAVOSUM (Bory) Gom. (Prescott (f)) (Geitler, 25(f))
VIRGINIA (CM) - NO. CAROLINA Drouet (Wolle), 1939; Philson, 1939; Whitford, 1943 - TENNESSEE Silva # 398(UT)(CM) - MISSISSIPPI (CM).
9. PHORMIDIUM INUNDATUM Kuetz. (Prescott (f)) (Geitler, 25(f))
VIRGINIA Strickland, 1940 - NO. CAROLINA Bold # 12(UT)(CM) - SO. CAROLINA (CM) - FLORIDA (CM) - TENNESSEE Silva # 451, 674 etc. (UT)(CM).
10. PHORMIDIUM LAMINOSUM (Agardh) Gom. (Smith) (Prescott (f)) (Geitler, 25(f))
KENTUCKY McInteer, 1939 - MISSISSIPPI (CM).
11. PHORMIDIUM LURIDUM (Kuetz.) Gom. (Geitler, 25(f))
LOUISIANA Drouet (Hollenburg) # 212(CM).
12. PHORMIDIUM MINNESOTENSE (Tild.) Drou. (Drouet, 42b) (Prescott (f)) as Oscillatoria minnesotense Tild.)
VIRGINIA (CM) - FLORIDA (CM) - TENNESSEE Drouet, 1942b; Silva # 687(UT)(CM).
13. PHORMIDIUM PAPYRACEUM (Agardh) Gom. (Geitler, 25(f))
VIRGINIA Drouet (Wolle), 1939; Strickland, 1940 - NO. CAROLINA (CM) - FLORIDA Borge, 1909; (CM) - KENTUCKY

McInteer, 1939 - TENNESSEE Silva & Sharp, 1944; Silva # 339, 426(UT)(CM).

14. PHORMIDIUM PURPURASCENS (Kuetz.) Gom. (Geitler, 25(f), 30(f))

FLORIDA Whelden, 1941.

15. PHORMIDIUM RETZII (Agardh) Gom. (Smith) (Prescott (f)) (Geitler, 25(f))

VIRGINIA Drouet (Wolle), 1939; Strickland, 1940 - NO.

CAROLINA Philson, 1939; Whitford, 1943 - SO. CAROLINA

Drouet (Wolle), 1939; Wolle, 1879; (CM) - FLORIDA Whelden,

1941 - KENTUCKY McInteer, 1939 - TENNESSEE Silva & Sharp,

1944; Silva # 398, 659 etc. (UT)(CM) - MISSISSIPPI (CM).

16. PHORMIDIUM RUBRUM Tild. (Tilden (f)) (Geitler, 25)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

17. PHORMIDIUM SETCHELLIANUM Gom. (Geitler, 25(f))

VIRGINIA Strickland (Lewis) collection (CM).

18. PHORMIDIUM SUBFUSCUM Kuetz. (Geitler, 25(f))

VIRGINIA Strickland, 1940; Iltis # 3687(UT)(CM) - NO.

CAROLINA Whitford, 1943; Bold # 12, 15(UT record) -

TENNESSEE Silva # 403, 590(UT)(CM).

19. PHORMIDIUM SUBULIFORME Gom. (Geitler, 25(f))

see OSCILLATORIA SPLENDIDA Grev.

20. PHORMIDIUM TENUE (Menegh.) Gom. (Smith) (Prescott (f)) (Geitler, 25(f))

VIRGINIA Strickland, 1940 including re-identifications of

Lewis, Zirkle & Patrick, 1933, P. valderianum (Delp.) Gom.

and Lyngbya nana Tild. - NO. CAROLINA Silva # 449(UT)(CM) -

SO. CAROLINA Drouet (Wolle), 1939 - FLORIDA (CM); # F 1(GP) -

KENTUCKY McInteer, 1939, 1944 - MISSISSIPPI (CM).

21. PHORMIDIUM TINCTORUM Kuetz. (Geitler, 25(f))

MISSISSIPPI Flint # 1(CM).

22. PHORMIDIUM UNCINATUM (Agardh) Com. (Smith) (Geitler, 25(f))

VIRGINIA Strickland, 1940 - NO. CAROLINA Whitford, 1943;
 Bold # 191(UT)(CM) - SO. CAROLINA (CM) - FLORIDA (CM) -
 KENTUCKY McInteer, 1939; (CM) - TENNESSEE Silva & Sharp,
 1944; Silva # 704, 706(UT)(CM) - MISSISSIPPI (CM).

23. PHORMIDIUM VALDERIANUM (Delp.) Gom. (Geitler, 30(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933, re-identified as
Phormidium tenue (Menegh.) Gom. - NO. CAROLINA Whitford,
 1943 - FLORIDA (CM).

PORPHYROSIPHON Kuetzing 1850

1. PORPHYROSIPHON NOTARISII (Menegh.) Kuetz. (Smith (f)) (Geitler, 25, 30(f))

VIRGINIA Drouet (Wolle), 1939; Strickland, 1940; Iltis
 # 3686(UT)(CM) - NO. CAROLINA Drouet (Wolle), 1939; Whitford,
 1940; (CM) - SO. CAROLINA Drouet (Wolle), 1939; Green, 1897
 in *Phycotheca Boreali-Americana* (specimen) Vo. 9 # 402;
 (CM) - GEORGIA (CM) - FLORIDA Drouet (Wolle), 1939 re-identi-
 fying Scytonema Notarisii Menegh. of Wolle, 1897; Wolle,
 1897, 1887 as Scytonema Notarisii - LOUISIANA Drouet (Wolle),
 1939; Prescott, 1942.

SCHIZOTHRIX Kuetzing 1843

1. SCHIZOTHRIX ACUMINATA (Gard.) Drou. (Drouet, 42a)

VIRGINIA Strickland # 1282(CM).

2. Schizothrix aikenensis (Wolle) Philson

see SCHIZOTHRIX ARENARIA (Berk.) Gom.

3. SCHIZOTHRIX ARENARIA (Berk.) Gom. (Geitler, 25(f), 30(f))

VIRGINIA Strickland, 1940 - NO. CAROLINA Drouet (Wolle), 1939 re-identifying S. aikenensis (Wolle) Philson, Philson, 1939, repeated also by Whitford, 1943; Bold # 77(UT record) - SO. CAROLINA Drouet (Wolle), 1939, including Scytonema thermale Kuetz. of Wood, 1874, and Wolle, 1887 - FLORIDA Drouet (Wolle), 1939.

4. SCHIZOTHRIX CALCICOLA (Agardh) Gom. (Smith) (Prescott) (Geitler, 25 (f))

VIRGINIA Drouet (Wolle), 1939; Strickland, 1940 - SO. CAROLINA Drouet (Wolle), 1939 from Hypheothrix aeruginosa Kuetz. of Wolle, 1879, Scytonema thermale Kuetz. of Wolle 1879, and Wood, 1874 in part (same report), and Leptothrix herbaceae Kuetz. of Wolle, 1887 - GEORGIA Drouet (Wolle), 1939 - FLORIDA (CM) - TENNESSEE Silva # 313(UT)(CM).

5. SCHIZOTHRIX FRAGILIS (Kuetz.) Gom. (Smith) (Geitler, 25(f))

SO. CAROLINA a Wolle herbarium specimen collected by Ravenel and labeled Schizothrix lacustris A. Braun, annotated by Drouet (CM).

6. SCHIZOTHRIX FRIESII (Agardh) Gom. (Smith) (prescott (f)) (Geitler, 25(f))

VIRGINIA Strickland, 1940 - NO. CAROLINA Philson, 1939; Whitford, 1943; Bold collection (UT)(CM) - SO. CAROLINA Drouet (Wolle), 1939; Bold collection (UT record) - GEORGIA (CM) - FLORIDA Drouet (Wolle), 1939; Drouet # 73382(CM) - TENNESSEE Silva & Sharp, 1944.

7. SCHIZOTHRIX HEUFLERI Gom. (Geitler, 25(f))

VIRGINIA (CM) - FLORIDA (CM).

8. SCHIZOTHRIX LACUSTRIS A. Braun (Smith) (Prescott) (Geitler, 25(f))

- NO. CAROLINA Bold # 249(UT record) - SO. CAROLINA Drouet (Wolle), 1939 - TENNESSEE Silva # 627, 632(UT)(CM).
9. SCHIZOTHRUX LAMYI Gom. (Geitler, 25(f) as S. Lampi Gom., 30(f))
VIRGINIA (CM) - NO. CAROLINA Bold collection (UT)(CM) - SO. CAROLINA Drouet (Wolle), 1939; (CM) - FLORIDA (CM) - TENNESSEE Silva # 186(UT)(CM).
10. SCHIZOTHRUX LARDACEA† (Cesati) Gom. (Smith) (Geitler, 25(f), 30(f))
VIRGINIA Strickland, 1940 - NO. CAROLINA Bold # 378(UT)(CM) - MISSISSIPPI (CM).
11. SCHIZOTHRUX LUTEA Frémy (Geitler, 30(f))
FLORIDA Whelden, 1941.
12. SCHIZOTHRUX MELLEA Gard.
VIRGINIA (CM) - FLORIDA (CM) - TENNESSEE Sharp # A 1(UT)(CM).
13. SCHIZOTHRUX MUELLERI Gom. (Smith) (Prescott (f)) (Geitler, 25(f))
VIRGINIA Strickland, 1940 - NO. CAROLINA Bold # 401(UT)(CM) - SO. CAROLINA (CM) - TENNESSEE Silva & Sharp, 1944; Silva # 55 (UT)(CM).
14. SCHIZOTHRUX PENICILLATA (Kuetz.) Gom. (Geitler, 25(f), 30(f))
VIRGINIA Strickland, 1940 - KENTUCKY (CM) - TENNESSEE (CM).
15. SCHIZOTHRUX PURPURESCENS (Kuetz.) Gom. (Smith (f)) (Geitler, 30(f))
VIRGINIA Strickland, 1940 - SO. CAROLINA (CM) - TENNESSEE Silva # 520(UT)(CM).
16. SCHIZOTHRUX PURPURESCENS var. CRUENTA (Léspin.) Gom. (Frémy)
SO. CAROLINA Drouet (Wolle), 1939 - FLORIDA Drouet (Wolle), 1939.
17. SCHIZOTHRUX RIVULARIS (Wolle) Drou. (Drouet, 42) (Tilden as Symploca muscorum var. rivularis (Wolle) Tild.
VIRGINIA Drouet, 1942; Strickland # 1003.

18. SCHIZOTHRIX ROSEOLA (Gard.) Drou. (Drouet, 42) (Gardner, 27 as
Symploca roseola Gard.)

ALABAMA Drouet, 1942.

19. SCHIZOTHRIX STRICKLANDII Drou. (Drouet, 43a)

VIRGINIA Drouet, 1943; Iltis # 3715(UT)(CM) - NO. CAROLINA
Drouet, 1943 - FLORIDA (CM) - KENTUCKY Drouet, 1943 -
TENNESSEE Silva # 528(UT)(CM).

20. SCHIZOTHRIX VAGINATA (Naeg.) Gom. (Geitler, 25(f), 30(f))

VIRGINIA (CM) - NO. CAROLINA Bold # 87(UT record) - SO.
CAROLINA Drouet (Wolle), 1939 - FLORIDA (CM) - KENTUCKY
McInteer, 1939.

SPIRULINA Turpin 1827

1. SPIRULINA ABBREVIATA Lemm. (Geitler, 25, 30(f))

KENTUCKY McInteer, 1939.

2. SPIRULINA LAXA G. M. Smith (Smith) (Prescott (f))

NO. CAROLINA Whitford, 1943 - FLORIDA # F 10(GP).

3. SPIRULINA LAXISSIMA G. S. West (Geitler, 25(f), 30(f))

FLORIDA Whelden, 1941.

4. SPIRULINA MAJOR Kuetz. (Smith (f)) (Prescott (f))

VIRGINIA (CM) - NO. CAROLINA Whitford, 1943; (CM) - FLORIDA
Whelden, 1941; (CM) - MISSISSIPPI (CM) - LOUISIANA Prescott,
1942.

5. SPIRULINA NORDSTEDTII Gom. (Smith) (Prescott (f)) (Geitler, 30(f))

FLORIDA Drouet, 1939, re-identification of Wolle, 1887,

Spirulina tenuissima Kuetz. from a sulfur spring; # F 7,9(GP).

6. SPIRULINA PRINCEPS (West & West) G. S. West (Smith (f)) (Prescott
(f))

VIRGINIA Strickland, 1940 - NO. CAROLINA Whitford, 1943 -

FLORIDA Whelden, 1941.

7. SPIRULINA STAGNICOLA Drou. (Drouet, 37)

FLORIDA Brannon # 65(CM).

8. SPIRULINA SUBSALSA Oerst. (Prescott (f)) (Geitler, 30(f))

VIRGINIA Strickland, 1940 - FLORIDA Drouet (Wolle), 1939;

F 9(GP).

This species is marine or brackish, although it is reported from Wisconsin and perhaps other inland sites. The # F 9 from G. W. Prescott's collection seems to be this species from a fresh-water site.

9. Spirulina tenuissima Kuetz.

see SPIRULINA NORDSTEDTII Gom.

Geitler lists S. tenuissima in synonymy.

SYMPLOCA Kuetzing 1843

1. SYMPLOCA BOREALIS Rabenh. (Geitler, 30)

NO. CAROLINA Whitford, 1943

Geitler questions the species as being identical with

S. Flotowiana Kuetz.

2. SYMPLOCA CARTILAGINEA Gom. (Geitler, 25(f), 30(f))

VIRGINIA Strickland, 1940 - GEORGIA (CM).

3. SYMPLOCA DUBIA (Naeg.) Gom. (Geitler, 25, 30(f))

VIRGINIA Strickland, 1940 - KENTUCKY (CM).

4. SYMPLOCA ELEGANS Gom. (Geitler, 25)

VIRGINIA Strickland # 245(CM) - KENTUCKY Dailey # 845(CM).

5. SYMPLOCA KIENERI Drou. (Drouet, 43)

FLORIDA Drouet, 1943.

6. SYMPLOCA MURALIS Kuetz. (Smith) (Geitler, 25(f), 30(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 ^{re}43-identified as

Schizothrix Friezii (Agardh) Gom.; Strickland, 1940 - NO.

CAROLINA Silva & Sharp, 1944; Bold # 196(UT record) - SO.

CAROLINA Drouet (Wolle), 1939 - GEORGIA Drouet (Wolle), 1939

- FLORIDA (CM) - TENNESSEE Silva & Sharp, 1944; Silva # 473
(UT)(CM).

7. SYMPLOCA MUSCORUM (Agardh) Gom. (Smith (f)) (Prescott (f))

VIRGINIA Strickland, 1940; Iltis # 3689 - NO. CAROLINA Bold

343(UT)(CM) - SO. CAROLINA Drouet (Wolle), 1939; Bold # 31

(UT)(CM) - GEORGIA (CM) - FLORIDA Drouet (Wolle), 1939 -

KENTUCKY McInteer, 1939 - TENNESSEE Silva & Sharp, 1944;

Silva # 472(UT)(CM); Clebsch # 1(UT)(CM) - LOUISIANA (CM).

8. ^ASYMPLOCA PZRIETINA (A. Braun) Gom. (Geitler, 25, 30)

VIRGINIA Strickland, 1940.

SUB-ORDER 2 Heterocystineae

FAMILY 1 Nostocaceae

ANABAENA Bory 1822

1. ANABAENA AEQUALIS Borge (Prescott (f)) (Geitler, 30)

FLORIDA Whelden, 1941.

2. ANABAENA AFFINIS Lemm. (Prescott (f)) (Geitler, 25(f))

NO. CAROLINA Whitford, 1943 - FLORIDA # F 2(GP) - KENTUCKY

McInteer, 1939.

3. ANABAENA AZOLIAE Strasburger (Prescott (f)) (Geitler, 25)

NO. CAROLINA Whitford, 1943.

4. ANABAENA CATENULA (Kuetz.) Born. & Flah. (Prescott (f)) (Geitler,
25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Whelden,

1941 - KENTUCKY McInteer, 1939.

5. ANABAENA CIRCINALIS Rabenh. (Prescott (f)) (Geitler, 25(f))

NO. CAROLINA Whitford, 1943 - FLORIDA Brannon, 1945.

6. *ANABAENA CYCADEAE* Reinke (Geitler, 25(f))

NO. CAROLINA Philson, 1939; Whitford, 1943.

7. *ANABAENA FLOS-AQUAE* (Lyngb.) Bréb. (Prescott (f)) (Geitler, 25(f))

NO. CAROLINA Whitford, 1943 - FLORIDA Brannon, 1945; Whelden,
1941 - KENTUCKY McInteer, 1939.

8. *ANABAENA FLOS-AQUAE* var. *GRACILIS* Klebahn (Geitler, 25, 30)

NO. CAROLINA Brown, 1911 - KENTUCKY McInteer, 1939.

9. *ANABAENA FLOS-AQUAE* var. *TRELESEI* Born. & Flah. (Prescott (f))
(Geitler, 25(f))

KENTUCKY McInteer, 1939.

10. *ANABAENA INAEQUALIS* (Kuetz.) Born. & Flah. (Prescott (f)) (Geitler,
25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer,
1939.

11. *Anabaena hallensis* (Jancz.) Born. & Flah.

see *ANABAENA VARIABILIS* Kuetz.

12. *ANABAENA IRREGULARIS* Lewis, Zirkle & Patrick (Lewis, Zirkle &
Patrick, 1933(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

This is the only report.

13. *ANABAENA LAXA* (Rabenh.) A. Braun (Prescott (f) with (A. Braun) Born.
& Flah. as author) (Geitler, 25(f) as A. Braun author)

NO. CAROLINA Philson, 1939 - Whitford, 1943.

14. *ANABAENA OSCILLARIOIDES* Bory (Prescott (f)) (Geitler, 25)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford,
1943; Bold # 195(UT record) - GEORGIA Drouet (Wolle) 1939 -
FLORIDA Brannon, 1945; Whelden, 1941.

15. *ANABAENA OSCILLARIOIDES* var. *STENOSPORA* Born. & Flah. (Geitler, 25)

SO. CAROLINA Ravenel collection, with Wolleea saccata (Wolle)
Born. & Flah.

16. *Anabaena parva* Philson

see *NOSTOC PISCINALE* Born. & Flah.

17. *ANABAENA SPHAERICA* Born. & Flah. (Prescott) (Geitler, 25)

LOUISIANA Prescott, 1942.

18. *ANABAENA SPIROIDES* Kleb. (Prescott) (Geitler, 25)

KENTUCKY McInteer, 1939 - TENNESSEE Lackey, 1942.

19. *ANABAENA SPIROIDES* var. *CONTRACTA* Kleb. (Geitler, 25, 30)

KENTUCKY McInteer, 1939.

20. *ANABAENA SPIROIDES* var. *CRASSA* Lemm. (Prescott (f)) (Geitler, 25(f))

KENTUCKY McInteer, 1939.

21. *ANABAENA TORULOSA* (Carm.) Lagerh. (Geitler, 25(f))

NO. CAROLINA Philson, 1939; Whitford, 1943 - KENTUCKY McInteer,
1939.

22. *ANABAENA UNISPORA* Gard. (Prescott) (Geitler, 25(f))

KENTUCKY McInteer, 1939.

23. *ANABAENA VARIABILIS* Kuetz. (Prescott (f)) (Geitler, 25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Whelden, 1941 -
KENTUCKY McInteer, 1939, including the report at the same time of
Anabaena hallensis (Jancz.) Born. & Flah. if Geitler is followed
in his placing of this species in synonymy with A. variabilis -
TENNESSEE Silva & Sharp, 1944.

APHANIZOMENON Morren 1888

1. *APHANIZOMENON FLOS-AQUAE* (L) Ralfs (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939; (CM) -
TENNESSEE Eddy, 1930.

((1) insert (1) .

→ (10) :#551, 1989: 10

CYLINDROSPERMUM Kuetzing 1843

1. CYLINDROSPERMUM ALATOSPORUM Fritsch (Geitler, 25(f), 30(f))
NO. CAROLINA Philson, 1939; Whitford, 1943 - KENTUCKY McInteer,
1939.
2. CYLINDROSPERMUM CATENATUM Ralfs. (Smith) (Prescott (f)) (Geitler, 25)
VIRGINIA Lewis, Zirkle & Patrick, 1939; (CM) - NO. CAROLINA
Whitford, 1943; (CM) Bold # 380 (UT)(CM) - KENTUCKY McInteer,
1939, 1944; Walp collection (CM).
3. CYLINDROSPERMUM LICHENIFORME (Bory) Kuetz., (Smith) (Prescott) (Geitler,
25)
VIRGINIA Strickland # 763(CM) - NO. CAROLINA Bold # 380(UT)(CM) -
SO. CAROLINA (CM) - FLORIDA Drouet (Wolle), 1939; (CM) - KENTUCKY
McInteer, 1939 - TENNESSEE (CM).
4. *CylindrospERMUM macrosporum* Kuetz.
see CYLINDROSPERMUM STAGNALE (Kuetz.) Born. & Flah.
5. CYLINDROSPERMUM MAJUS Kuetz. (Smith) (Prescott (f)) (Geitler, 25(f))
VIRGINIA Lewis, Zirkle & Patrick, 1933; Strickland, 1940 - NO.
CAROLINA Bold # 190(UT)(CM) - SO. CAROLINA Drouet (Wolle), 1939 -
FLORIDA (CM) - SO. CAROLINA Drouet (Wolle), 1939 - FLORIDA (CM) -
KENTUCKY (CM).
6. CYLINDROSPERMUM MINUTISSIMUM Collins (Smith) (Prescott (f)) (Geitler,
25)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer,
1944.
7. CYLINDROSPERMUM MINUTUM Wood (Tilden) (Hylander (f))
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford,
1943.
8. CYLINDROSPERMUM MUSCICOLA Kuetz. (Smith (f)) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Philson, 1939; Whitford, 1943 - GEORGIA Drouet (Wolle), 1939 - FLORIDA Drouet (Wolle), 1939; (CM) - KENTUCKY McInteer, 1939.

9. CYLINDROSPERMUM STAGNALE (Kuetz.) Born. & Flah. (Smith) (Prescott (f)) (Geitler, 25(f))
NO. CAROLINA Whitford, 1943; Bold # 325(CM) - SO. CAROLINA Wood, 1874 as C. macrospermum Kuetz.

The writer was unable to find this species in the Bold collection.

10. CYLINDROSPERMUM TRICHOTOSPERMUM Frémy (Geitler, 30(f))

NO. CAROLINA Philson, 1939; Whitford, 1943.

NODULARIA Mertens 1822

1. NODULARIA HARVEYANA (Thwaites) Thur. (Smith) (Prescott) (Geitler, 30(f))
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.
2. NODULARIA PALUDOSA Wolle (Prescott (f))
KENTUCKY McInteer, 1939.
3. NODULARIA SPHAEROCARPA Born. & Flah. (Smith) (Prescott) (Geitler, 30(f) as N. Harveyana var. sphaerocarpa) (Born. & Flah.) Elenkin)
KENTUCKY McInteer, 1939 - TENNESSEE (CM).
4. NODULARIA SPUMIGENA Mertens (Smith (f)) (Prescott (f))
NO. CAROLINA Whitford, 1943 - FLORIDA Whelden, 1939; (CM).

NOSTOC Vaucher 1803

1. NOSTOC CALCICOLA Agardh (Geitler, 25 with the species authorship of Brébisson, the writer assuming, perhaps wrongly, that the same species is referred to)

SO. CAROLINA Wolle, 1887.

This record is among those considered by Drouet, 1939, but a specimen is lacking and he expressed doubt that it represented anything that was not described elsewhere under another name.

2. NOSTOC CARNEUM Agardh (Prescott (f)) (Geitler, 25)
FLORIDA (CM) - TENNESSEE Bold # 145(UT) - MISSISSIPPI (CM)-
LOUISIANA (CM).
3. NOSTOC COMMINUTUM Kuetz. (Prescott (f))
KENTUCKY Lillick & Lee, 1934.
4. NOSTOC COMMUNE Vauch. (Smith) (Prescott (f)) (Geitler, 25(f))
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford,
1943; Curtis, 1911 with the species authorship given as Agardh;
(CM) - FLORIDA Drouet (Wolle), 1939 - TENNESSEE Silva & Sharp,
1944; Silva # 525, 573(UT)(CM) - LOUISIANA Prescott, 1942;
(CM).
5. NOSTOC COMMUNE var. FLAGELLIFORME (Berk. & Curt.) Born. & Flah.
(Geitler, 25, 30) - both have only a habit illustration.
KENTUCKY McInteer, 1939.
6. NOSTOC COMMINTUM Kuetz. (Prescott (f))
KENTUCKY McInteer, 1939.
7. NOSTOC CUTICULARE (Bréb.) Born. & Flah. (Geitler, 25, 30)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Brannon
277(CM).
8. NOSTOC ELLIPSOSP~~ORI~~ORUM (Dezmaizieres) Rabenh. (Geitler, 25(f), 30(f))
VIRGINIA (CM) - SO. CAROLINA (CM) - KENTUCKY McInteer -
TENNESSEE (CM) - LOUISIANA Flint collection from soil at a
sulfur spring (CM).

9. NOSTOC ELLIPSOSPORUM var. MINIMUM Philson (Philson, 39(f))

SO. CAROLINA Philson, 1939.

This is the only report.

10. NOSTOC FOLIACEUM Mougeot (Geitler, 25)

FLORIDA Smith & Ellis, 1943.

11. NOSTOC GELATINOSUM Schousb. (Geitler, 25(f), 30(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Bold
378(CM).

12. NOSTOC GLOMERATUM Kuetz. (Tilden (f))

KENTUCKY McInteer, 1939.

13. NOSTOC HEDERULAE Menegh.

NO. CAROLINA Bold # 257(UT) - FLORIDA Brannen # 57 (CM).

This species is recognized by Drouet. It is listed as a
synonym of N. punctiforme (Kuetz.) Harv. by Tilden and others.

14. NOSTOC HUMIFUSUM Carm. (Prescott (Geitler, 25(f))

VIRGINIA (CM) - NO. CAROLINA (CM) - SO. CAROLINA (CM) - FLORIDA
Brannen #23(CM) - TENNESSEE (CM).

15. NOSTOC LINCKIA Born. & Flah. (Prescott (f)) (Geitler, 25(f))

FLORIDA Brannen # 211A(CM).

16. NOSTOC MACROSPORUM Menegh. (Geitler, 25) (Tilden (f))

NO. CAROLINA Bold # 217(UT record).

17. NOSTOC MICROSCOPICUM Carm. (Smith) (Prescott (f)) (Geitler, 25)

VIRGINIA (CM) - NO. CAROLINA Whitford, 1943; Bold collection
(UT) (CM) - SO. CAROLINA Bold collection (UT record)(CM) -
KENTUCKY McInteer, 1939 - TENNESSEE Silva & Sharp, 1944.

18. NOSTOC MUSCORUM Agardh (Smith) (Prescott (f)) (Geitler, 25(f))

VIRGINIA Iltis # 3708(UT)(CM); (CM) - NO. CAROLINA Philson,
1939; Whitford, 1943; Blomquist #13703(CM) - SO. CAROLINA

(CM) - FLORIDA Brannon, 1945; Smith & Ellis, 1943 - KENTUCKY McInteer, 1939, 1944 - TENNESSEE Silva & Sharp, 1944; Bold collection (UT record) - LOUISIANA (CM).

19. NOSTOC PALUDOSUM Kuetz. (Prescott (f)) (Geitler, 25(f))

NO. CAROLINA Philson, 1939; Whitford, 1943 - KENTUCKY Lillick & Lee, 1934; McInteer, 1939.

20. NOSTOC ^IPARMELIODES Kuetz. (Smith) (Geitler, 25, 30(f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1941.

21. NOSTOC PELTIGERAE Letell.

NO. CAROLINA Whitford, 1943.

22. NOSTOC PISCINALE Kuetz. (Prescott) (Geitler, 25, 30(f))

SO. CAROLINA Drouet, on a herbarium sheet, annotated in 1943, of Anabaena parva Philson, 1939 - KENTUCKY McInteer, 1939.

23. NOSTOC PRUNIFORME (L) Agardh (Prescott (f)) (Geitler, 25(f))

KENTUCKY Bishop #26(CM).

24. NOSTOC PUNCTIFORME (Kuetz.) Hariot (Prescott (f)) (Geitler, 25(f))

NO. CAROLINA Philson, 1939; Whitford, 1943 - FLORIDA Brannon # 57(CM).

25. NOSTOC RIVULARE Kuetz. (Prescott) (Geitler, 25)

FLORIDA Drouet (Wolle), 1939 - KENTUCKY McInteer, 1939.

26. NOSTOC SPHAERICUM Vauch. (Prescott (f)) (Geitler, 25(f))

VIRGINIA (CM) - NO. CAROLINA Whitford, 1943; (CM) - LOUISIANA Prescott, 1942; (CM).

27. NOSTOC SPONGIIFORME Agardh (Prescott (f)) (Geitler, 25)

FLORIDA Brannon # 118.

28. NOSTOC VERRUCOSUM (L) Vauch. (Prescott (f)) (Geitler, 25(f))

VIRGINIA Strickland # 494(CM).

1. *Wolleea saccata* (Wolle) Born. & Flah. (Smith (f)) (Prescott (f))

SO. CAROLINA Ravenel collection (CM).

FAMILY 2 Scytonematacea

DESMONEMA Berkley and Thwaites 1849

1. *Desmonema Wrangelii* Born. & Flah. (Smith (f)) (Geitler, 25(f))

TENNESSEE Silva # 20, 642, 643 etc. (UT)(CM).

DIPLOCOLON Naegeli 1857

Although Scytonema Heppii (Naeg.) Wolle which Drouet, 1939, considers to be a synonym of Diplocolon Heppii Naeg. was listed by Wolle, 1887 from FLORIDA, the particular specimen actually was Scytonema crustacea (Agardh) Born. & Flah. So even if Geitler is not followed in combining Diplocolon Heppii with Scytonema crustacea, this genus is still unrepresented in Southeastern collections.

HASSALIA Berkley 1845

Drouet recognizes this genus although it has generally been considered a part of Tolpothrix.

1. ^I*HASSALIA BYSSODEA* (Berk.) Hass. (Smith and in Geitler, 25(f) as Tolpothrix byssoidea (Berk.) Kirch.)

VIRGINIA (CM) - NO. CAROLINA Bold # 200(UT)(CM) - SC. CAROLINA

Drouet (Wolle), 1939 from Wolle, 1879 Scytonema truncicola

Rabenh., 1887 Hapalosiphon byssoidea (Berk.) Hass. and

Tolpothrix truncicola (Rabenh.) Wolle; Setchell, 1896 -

GEORGIA Drouet (Wolle), 1939 - FLORIDA (CM) - TENNESSEE Silva &

Sharp, 1944 - LOUISIANA (CM).

PLECTONEMA Thuret 1875

1. *PLECTONEMA BATTERSII* Gom. (Geitler, 30)

NO. CAROLINA Whitford, 1943 reported from wet soil on an island.

2. PLECTONEMA NOSTOCORUM Born. (Prescott (f)) (Geitler, 25(f))

VIRGINIA Strickland, 1940 - NO. CAROLINA Bold collection (UT)(CM)
 - SO. CAROLINA (CM) - FLORIDA Brannon, 1945 - KENTUCKY McInteer,
 1941 - TENNESSEE Silva & Sharp, 1944; Silva # 413, 440 etc.
 (UT)(CM) - MISSISSIPPI (CM).

3. PLECTONEMA PURPUREUM Gom. (Geitler, 25(f))

FLORIDA Brannon #41(CM) - MISSISSIPPI (CM).

4. PLECTONEMA ROSEOLUM Gom. (Geitler, 30)

KENTUCKY McInteer, 1939 - MISSISSIPPI (CM) - LOUISIANA (CM).

Geitler states that this species probably belongs under
Plectonema carneum (Kuetz.) Lemm. but Drouet recognizes it as
 entity.

5. PLECTONEMA TOMASINIANUM Gom. (Smith (f)) (Geitler, 25(f))

VIRGINIA Strickland, 1940 - FLORIDA Borge, 1909 - TENNESSEE
 Silva & Sharp, 1944.

6. PLECTONEMA WOLLEI Farlow (Smith) (Prescott (f)) (Geitler, 25(f))

VIRGINIA Strickland, 1940 - FLORIDA Drouet (Wolle), 1939,
 Whelden, 1941 - MISSISSIPPI (CM) - LOUISIANA (CM).

SCYTONEMA Agardh 1824

1. SCYTONEMA ALATUM (Carm.) Borzi (Smith) (Prescott (f))

TENNESSEE Silva # 677.

G. M. Smith states that this species is located at limestone
 cliffs, so it is interesting to note that this collection was
 made in the spray at the bottom of Falls Creek Falls, Tennessee
 on loose boulders which are probably sandstone, inasmuch as the
 entire face of the falls is the sandstone of the Cumberland
 Plateau.

2. Scytonema ambiguum Agardh

see FISHERELLA AMGIBUA (Born. & Flah.) Gom.

3. SCYTONEMA ARCANGELII Born. & Flah. (Smith (f)) (Prescott (f))

FLORIDA Whelden, 1941.

4. Scytonema Austinii Wood (Prescott) (Geitler, 30)

see SCYTONEMA FIGURATUM Agardh

Drouet, 1939, states this is S. figuratum; Geitler included it dubiously, and Prescott also includes it as a species.

5. Scytonema calotrichoides Kuetz.

see SCYTONEMA FIGURATUM Agardh

Tilden gives this name as a synonym of S. mirabile (Dillw.) Born. to which by Geitler's interpretation S. figuratum belongs. Drouet, 1939, explains the case for accepting S. figuratum as the valid name.

The original description, which has not been checked, may use the spelling "calothrichoides."

6. SCYTONEMA ^OCARLIN^AANUM Philson (Philson, 1939(f))

NO. CAROLINA Philson, 1939; Whitford, 1943.

The same record is referred to in both references and is the only one.

7. Scytonema chrysochlorum Kuetz.

see SCYTONEMA VARIUM Kuetz.

8. SCYTONEMA CINCINNATUM (Kuetz.) Thur. (Smith) (Geitler, 30)

VIRGINIA (CM) - SO. CAROLINA (CM) - FLORIDA Drouet (Wolle), 1939 - KENTUCKY McInteer, 1939 as S. circinnatum, but a misprint is assumed - LOUISIANA (CM).

Geitler lists the species in synonymy with S. crispum (Agardh) Born., but Drouet does not agree.

9. SCYTONEMA COACTILE Mont. (Prescott (f)) (Geitler, 25(f))

FLORIDA # F 5(GP) - MISSISSIPPI Hollenburg collection (CM).

10. Scytonema cortex Wood

see SCYTONEMA HOFMANNII Agardh.

11. Scytonema cortex f. corrugata Wolle

see SCYTONEMA HOFMANNII Agardh.

12. SCYTONEMA CRASSUM Naeg.

NO. CAROLINA Bold # 302(CM).

13. SCYTONEMA CRUSTACEUM (Agardh) Born. & Flah. (Smith) (Geitler, 30(f))

VIRGINIA (CM) - SO CAROLINA Drouet (Wolle), 1939; Philson,
1939 - FLORIDA Drouet (Wolle), 1939 as a re-identification of
S. Heppii (Naeg.) Wolle and S. mirabile Wolle, Wolle, 1879.

Drouet gives the species authorship as (Agardh) Born. &
Flah.

14. SCYTONEMA CRISPUM (Agardh) Born. (Prescott (f)) (Geitler, 25, 30(f))

SO. CAROLINA Philson, 1939 - FLORIDA Coe*

If Geitler is followed in placing S. cincinnatum (Kuetz.)
Thur. synonymy with this species, the distribution given under
that name belongs here too.

* This reference is from the files of G. W. Prescott. The
writer has been unable to obtain any further information about
the author or publication.

15. SCYTONEMA DENSUM (A. Braun) Born. (Smith)

VIRGINIA Strickland # 145(CM).

16. SCYTONEMA FIGURATUM Agardh (Smith) (Prescott (f) and in Geitler, 25
(f) as S. mirabile (Dillw.) Born.)

VIRGINIA Lewis, Zirkle & Patrick, 1939 as S. Austinii Wood re-
identified by Drouet, 1939; Iltis # V 3(UT)(CM) - NO. CAROLINA

Whitford, 1943; Bold # 166(UT record) - SO. CAROLINA Drouet (Wolle), 1939 re-identification of the same collection referred to as S. simplice Wood. It is listed by Drouet as S. simplex but is undoubtedly the same; Wood, 1874 as S. calotrichoides Kuetz.; Bold collection (UT record) - GEORGIA (CM) - FLORIDA Drouet (Wolle), 1939 including S. turfosum Kuetz. from Wolle, 1879 - KENTUCKY (CM) - TENNESSEE Silva & Sharp, 1944; Silva # 370, 412; Bold collection (UT record).

If Drouet's acceptance of S. figuratum instead of S. mirable (Dillw.) Born. is followed, then the distribution of the latter species should be added to the above. This includes: NO. CAROLINA Whitford, 1943 - FLORIDA Borge, 1909.

Geitler considers this species a synonym of S. mirable (Dillw.) Born. Drouet's case for considering S. figuratum the valid name is stated in Drouet, 1939.

17. SCYTONEMA GUYANENSE (Mont.) Born. & Flah. (Smith) (Geitler, 30(f))

VIRGINIA (CM) - NO. CAROLINA Whitford, 1943 - SO. CAROLINA Drouet (Wolle), 1939; Wood, 1874 as S. Ravenelii Wood, the name being placed in synonymy by Tilden - TENNESSEE Silva & Sharp, 1944; Silva # 513.

18. Scytonema Heppii (Naeg.) Wolle

see SCYTONEMA CRUSTACEUM (Agardh) Born. & Flah. and the comments under Diplocolon.

19. SCYTONEMA HOFMANNII Agardh (Smith) (Prescott) (Geitler, 25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford, 1943 - SO. CAROLINA, GEORGIA, FLORIDA Drouet (Wolle), 1939 including re-identifications for S. cortex Wood, S. cortex f. corrugata Wolle, and Siposiphon scytonematoides (Wood) Wolle

from SO. CAROLINA by Wood, 1874 and Wolle, 1887, Scytonema cortex from GEORGIA by Wolle, 1887, S. cortex from FLORIDA Wolle, 1887, and S. cortex f. corrugata from FLORIDA by Wolle, 1879, 1887 - TENNESSEE Silva # 340, 593(UT)(CM).

20. SCYTONEMA INSIGNE West & West (Geitler, 25, 30)

NO. CAROLINA Philson, 1939; Whitford, 1943.

21. SCYTONEMA INTERTEXTUM (Kuetz.) Rabenh.

KENTUCKY McInteer, 1939.

22. SCYTONEMA JAVANICUM (Kuetz.) Born.

SO. CAROLINA (CM) - FLORIDA (CM).

23. Scytonema minutum Agardh.

see STIGONEMA MINUTUM (Agardh) Hass. in the Stigonematacae.

24. Scytonema mirable Wolle

see SCYTONEMA CRUSTACEUM (Agardh) Born.

This is for the specimen only.

25. Scytonema mirable (Dillw.) Born. (Prescott (f)) (Geitler, 25(f))

see SCYTONEMA FIGURATUM Agardh

Most modern authorities consider Scytonema mirable (Dillw.) Born. to be the valid species with S. figuratum the synonym. Drouet, 1939, considers S. figuratum to be valid, and explains the fate of Scytonema mirable Wolle.

26. SCYTONEMA MYOCHROUS (Dillw.) Agardh (Smith) (Prescott (f)) (Geitler (f))

VIRGINIA (CM) - NO. CAROLINA Curtis, 1867; Leatherwood, 1942; Wolle, 1887, all reports of a single collection by Ravenel; Bold # 370(UT) - GEORGIA (CM) - FLORIDA (CM) - KENTUCKY (CM) - TENNESSEE (CM).

27. Scytonema Notarisii Menegh.

see PORPHYROSIPHON NOTARISII Menegh.

28. *SCYTONEMA OCELLATUM* Lyngb. (Smith) (Prescott (f)) (Geitler, 30(f))

VIRGINIA (CM) - NO. CAROLINA Bold # 374(UT)(CM) - SO. CAROLINA
(CM) - GEORGIA Drouet (Wolle), 1939 - FLORIDA Brannon, 1945;
(CM) - KENTUCKY (CM) - TENNESSEE Silva # 574(UT)(CM).

29. *Scytonema ossocolo* Berk. & Curt.

NO. CAROLINA Curtis, 1867.

The writer has been unable to find a discription of, or
any other reference to this species.

30. *Scytonema polymorphum* Kuetz.

see PORPHYROSIPHON NOTARISII (Menegh.) Kuetz. in the
Oscillatoriaceae.

31. *Scytonema Ravenelii* Wood

see SCYTONEMA GUYANENSE (Mont.) Born. & Flah.

32. *Scytonema simplicie* Wood

see SCYTONEMA FIGURATUM Agardh.

33. *SCYTONEMA STUPIDOSUM* (Kuetz.) Born. (Geitler, 25, 30(f))

VIRGINIA (CM) - NO. CAROLINA Bold # 269(UT) - SO. CAROLINA
(CM) - FLORIDA Drouet (Wolle), 1939.

34. *Scytonema thermale* Kuetz.

see SCHIZOTHRIX ARENARIA (Berk.) Gom. in the Oscillatoriaceae.

35. *SCYTONEMA TOLYPOTHRICHOIDES* Kuetz. (Smith) (Prescott (f)) (Geitler, 25)

VIRGINIA (CM) - NO. CAROLINA - Bold # 147 (UT)(CM) - FLORIDA
Drouet (Wolle), 1939 re-identifying Wolle, 1879, Schizosiphon
Meneghinianus Kuetz. # F 10(GP) - TENNESSEE Silva & Sharp, 1944.

36. *Scytonema truncicola* Rabenh.

see HASALLIA BYSSCIDEA (Berk.) Hass.

37. *SCYTONEMA TURFACEUM* Cooke (Cooke I (f))

GEORGIA Bold # 303(UT record).

38. *Scytonema turfosum* Kuetz.

see SCYTONEMA FIGURATUM Kuetz.

39. SCYTONEMA VARIUM Kuetz. (Smith) (Geitler, 30)

FLORIDA Drouet (Wolle), 1939 re-identifying Wolle, 1879, S. chrysochlorum Kuetz.

SCHIZOSIPHON (obsolete)

1. Schizosiphon Meneghinianus Kuetz.

see SCYTONEMA TOLYPOTHRICHOIDES Kuetz.

The genus name itself is usually given as a synonym of *Dichothrix*, but this particular case is as noted above.

SIROSIPHON (obsolete)

1. *Sirosiphon scytonematoides* (Wood) Wolle

see SCYTONEMA HOFMANNII Agardh.

SYMPHOSIPHON (obsolete)

1. *Symphosiphon Bornetianum* Wolle

This is in Drouet, 1939, *Inquirenda*. The genus name is a synonym for *Scytonema*.
SO. CAROLINA Wolle, 1887;
TOLYPOTHRIX Kuetzing 1843

1. TOLYPOTHRIX DELICATULA Philson (Philson, 1939)

SO. CAROLINA Philson, 1939.

This is the only report.

2. TOLYPOTHRIX DISTORTA Kuetz. (Smith) (Prescott (f)) (Geitler, 25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - SO. CAROLINA Philson, 1939 - GEORGIA Bailey, 1851 - LOUISIANA Featherman, 1871; Prescott, 1942; (CM).

3. TOLYPOTHRIX LANATA (Desv.) Wartm. (Smith (f)) (Prescott (f)) (Geitler, 25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford,

17 12 44 21

1943 - KENTUCKY McInteer, 1941.

4. TOLYPOTHRIX PENICILLATA (Agardh) Thur. (Smith) (Prescott (Geitler, 30)
VIRGINIA (CM) - NO. CAROLINA Whitford, 1943.

Geitler considers this species synonymous with Tolypothrix distorta Kuetz., but none of the American authorities agree.

5. Tolypothrix Ravenelii Wolle

GEORGIA Wolle, 1879 - FLORIDA Wolle, 1887

This species is in the Inquirenda of Drouet, 1939, and
Geitler states that it is poorly known and poorly described.

6. TOLYPOTHRIX RECHINGER (Wolle) Geit. (Geitler, 25(f), 30(f))

NO. CAROLINA Philson, 1939, Whitford, 1943.

7. Tolypothrix rupestris Wolle

see TOLYPOTHRIX TENUIS Kuetz.

8. TOLYPOTHRIX TENUIS Kuetz. (Smith (f)) (Prescott) (Geitler, 30(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 including a report under
the name of T. rupestris Wolle, re-identified by Drouet, 1939 -
NO. CAROLINA Whitford, 1943 - FLORIDA Whelden, 1941; (CM) -
KENTUCKY McInteer, 1939, 1944.

9. Tolypothrix trunicola (Rabenh.) Wolle

see HASSALIA BYSSOIDEA (Berk.) Hass.

FAMILY 3 Microchaetaceae

This family is not used in the classification followed by
Smith and by Prescott but is found in Geitler.

AULOSIRA Kirchner 1878

Geitler is followed in placing this genus in Lemmermann's
Microchaetaceae. It will be found in Prescott in the Nostocaceae.

1. AULOSIRA IMPLEXA Born. & Flah. (Geitler, 25(f)) (Dailey, 43(f))

SO. CAROLINA (CM) - FLORIDA Brannon, 1945; Dailey, 1943 -

LOUISIANA Prescott, 1942; (CM).

FREMYELLA DeToni 1936

The genus author, who is followed by Drouet, pointed out that the name Microchaete is preoccupied. Fremyella replaces it.

1. FREMYELLA DIPLOSIPHON (Born. & Flah.) Drou. (Prescott (f) and as in Geitler Microchaete diplosiphon Gom.)

FLORIDA Brannon, 1945 - KENTUCKY McInteer, 1941.

2. FREMYELLA STRIATULA (Hy) Drou. (Drouet, 42b)(Hy as Microchaete striatula Hy)

NO. CAROLINA Bold # 168(CM)

3. FREMYELLA TENERA (Born. & Flah.) DeToni (DeToni, 1936) (Smith (f) and in Prescott (f) as Microchaete tenera Thur.)

VIRGINIA (CM) - NO. CAROLINA Whitford, 1943 - FLORIDA Borge, 1909; (CM) both as Microchete tenera.

MICROCHAETE Thuret 1875

Although the genus name is invalid, it is a widely used one while Fremyella is as yet rather unfamiliar.

1. Microchaete tenera Thur.

see FREMYELLA TENERA (Born. & Flah.) DeToni

FAMILY 4 Stigonemataceae

CAPSOSIRA Kuetzing 1848

1. CAPSOSIRA BREBISSONII Kuetz. (Smith (f)) (Geitler (f))

FLORIDA Wolle, 1879

This report is uncertain inasmuch as Drouet, 1939, in his examination of the packet found only poorly preserved material of what was possibly Entophysalis sp.

FISCHERELLA (Bornet & Flahault) Gom. 1895

1. FISCHERELLA AMBIGUA (Born. & Flah.) Gom. (Smith as Scytonema ambiguum

Kuetz.) (Geitler, 25(f))

VIRGINIA Iltis # 3688(UT)(CM); (CM) - NO. CAROLINA Bold collection (UT)(CM) - SO. CAROLINA Drouet (Wolle), 1939 from Wolle, 1879, Scytonema ambiguum; Bold # 129(UT record); (CM) - FLORIDA Brannon, 1945 - KENTUCKY (CM) - TENNESSEE Silva & Sharp, 1944; Silva # 478(UT)(CM).

2. FISCHERELLA MAJOR Gom. (Geitler, 25(f), 30(f))

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Drouet (Wolle), 1939.

3. FISCHERELLA THERMALIS (Born. & Flah.) Gom. (Geitler, 25(f), 30(f))

VIRGINIA (CM) - NO. CAROLINA Bold # 224(UT)(CM) - SO. CAROLINA Drouet (Wolle), 1939 from part of Wolle, 1879, Hapalosiphon Braunii Naeg.; (CM) - FLORIDA Drouet (Wolle), 1939.

HAPALOSIPHON Naegeli 1849

1. HAPALOSIPHON AUREUS West & West (Smith) (Prescott (f)) (Geitler, 25)

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1944.

2. Hapalosiphon Braunii Naeg.

see HAPALOSIPHON PUMILIS (Kuetz.) Hansg. and FISCHERELLA THERMALIS (Born. & Flah.) Gom.

3. Hapalosiphon Brebissonii Kuetz.

see HAPALOSIPHON PUMILIS (Kuetz.) Hansg.

4. HAPALOSIPHON FLEXUOSUS Borzi (Prescott (f)) (Geitler, 25)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer, 1939.

5. Hapalosiphon fontinalis (Agardh) Born.

see HAPALOSIPHON PUMILIS (Kuetz.) Hansg.

The writer follows the common American practice in considering H. pumilis the valid species in this case, Geitler assigning it to H. fontinalis.

6. HAPALOSIPHON HIBERNICUS West & West (Smith) (Prescott (f)) (Geitler, 25(f))

NO. CAROLINA Philson, 1939; Whitford, 1943, the same rather questionable identification being referred to in both cases - FLORIDA Whelden, 1941; # F 8,10(GP).

7. *HAPALOSIPHON PUMILIS* (Kuetz.) Hansg. (Smith (f)) (Prescott (f))

VIRGINIA (CM) - NO. CAROLINA Leatherwood, 1942 the same Whitford collection which Whitford listed, 1943 as H. fontinalis; Bold # 422(UT)(CM) - SO. CAROLINA Drouet (Wolle), 1939 - GEORGIA Frohne, 1942 - FLORIDA Borge, 1909 as H. fontinalis; # F 1,2,3 etc. (GP); (CM) - TENNESSEE (CM).

8. *Hapalosiphon tenuissimus* Grun. (Tilden as H. fontinalis var. tenuissimus (Grun.) Coll. & Setch.)

Wolle, 1887, mentioned this species from FLORIDA and said that it was widely distributed, but Drouet, 1939 could not find the material and doubts if it represents anything that does not appear under another name. The variety described in Tilden is supposed to be smaller than the species with thinner sheathes.

9. *HAPALOSIPHON WELWITSCHII* West & West (Geitler, 25(f), 30(f))

NO. CAROLINA Philson, 1939; Whitford, 1943.

NOSTOCHOPSIS Wood 1869

The genus was reported in Wolle, 1879 from FLORIDA, but Drouet, 1939 remarks that it was probably an underdeveloped Hapalosiphon.

1. *NOSTOCHOPSIS LOBATUS* Wood (Smith (f)) (Geitler, 25(f))

VIRGINIA Lewis collection (CM).

SIROSIPHON (obsolete)

This genus is considered a part of Stigonema now, nevertheless its occurrence was reported from N. Carolina Brown, 1911, and Tennessee Lackey, 1942.

1. *Sirosiphon acervatus* Wood

see *STIGONEMA MINUTUM* (Agardh) Hass.

2. *Sirosiphon argillaceus* Wood

see *STIGONEMA PANNIFORME* (Agardh) Born.

3. *Sirosiphon compactus* Kuetz.

see *STIGONEMA PANNIFORME* (Agardh) Hass.

4. *Sirosiphon guttula* Wood

see *STIGONEMA INFORME* Kuetz.

5. *Sirosiphon lignicola* Wood

see *STIGONEMA MINUTUM* (Agardh) Hass.

6. *Sirosiphon ocellatus* Kuetz.

see *STIGONEMA OCELLATUM* (Dillw.) Thur.

7. *Sirosiphon pellucidulus* Wood

see *STIGONEMA OCELLATUM* (Dillw.) Thur.

STIGONEMA Agardh 1824

1. *STIGONEMA FLEXUOSUM* West & West (Geitler, 30)

FLORIDA Whelden, 1941.

2. *STIGONEMA HORMOIDES* (Kuetz.) Born. & Flah. (Smith) (Prescott)

(Geitler, 30(f))

VIRGINIA (CM) - NO. CAROLINA Philson, 1939; Whitford, 1943;

Bold collection (UT)(CM) - SO. CAROLINA Bold collection (UT)(CM)

- KENTUCKY Lillick,⁴ Lee, 1934; McInteer, 1939.

3. *STIGONEMA INFORME* Kuetz. (Smith) (Geitler, 25(f))

NO. CAROLINA Philson, 1939; Whitford, 1943; Wood, 1874 as

Sirosiphon guttula Wood according to Tilden; Bold # 98(UT record)

- SO CAROLINA Setchell, 1896 - KENTUCKY (CM).

4. *STIGONEMA MAMILLOSUM* (Lyngb.) Agardh (Smith) (Prescott (f)) (Geitler,

25(f))

NO. CAROLINA Whitford, 1943; Bold # 348(UT)(CM) - KENTUCKY
McInteer, 1941, 1944 - TENNESSEE Silva # 669(UT)(CM) -
LOUISIANA (CM).

5. STIGONEMA MINUTUM (Agardh) Hass. (Smith) (Geitler, 25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Curtis,
1911 as Scytonema minutum Agardh; Whitford, 1943; Bold # 350
(UT)(CM) - SO. CAROLINA Drouet (Wolle), 1939 from Wood, 1874
Sirosiphon acervatus Wood; Bold collection (UT record) -
KENTUCKY (CM) - TENNESSEE Silva & Sharp, 1944; Silva # 417
(UT)(CM) - LOUISIANA (CM).

6. STIGONEMA OCELLATUM (Dillw.) Thur. (Smith) (Prescott (f)) (Geitler,
25(f))

FLORIDA Borge, 1909; Wolle, 1879 as Sirosiphon ocellatus; Wood,
1874 as Sirosiphon pellucidulus Wood according to Tilden; # F
4,5,8(GP).

The Wolle collection was merely listed from wet swampy
places, but it was included in this writing as probably having
been collected in FLORIDA.

7. STIGONEMA PANNIFORME (Agardh) Born. & Flah. (Geitler, 30(f))

VIRGINIA (CM) - NO. CAROLINA Philson, 1939; Whitford, 1943 -
SO. CAROLINA Drouet, 1939 including Wolle, 1887, Sirosiphon
eompactus Kuetz. and Wood, 1874, Sirosiphon argillaceus Wood.

8. STIGONEMA TURFACEUM (Berk.) Cooke (Smith) (Prescott (f)) (Geitler,
25(f))

VIRGINIA (CM) - NO. CAROLINA Philson, 1939, Whitford, 1943;
Bold # 312(UT)(CM) - GEORGIA (CM).

FAMILY 5 Loeffgreniaceae

LOEFGRENIA Gomont 1885

1. LOEFGRENIA ANOMOLA Gom. (Geitler, 25(f))

TENNESSEE as Chamaesiphon Rostafinskii Hansg. in Silva & Sharp,
1944 annotated in the Chicago Museum herbarium

This is the only report of this plant since the species was
first described, so far as the writer can discover.

FAMILY 6 RivulariaceaeAMPHITHRIX Kuetzing 1843

1. AMPHITHRIX JANTHINA (Mont.) Born. & Flah. (Smith (f)) (Geitler, 25(f))

VIRGINIA (CM) - NO. CAROLINA (CM) - FLORIDA (CM) - KENTUCKY

McInteer, 1941 - TENNESSEE Silva & Sharp, 1944; Silva # 332, 403
(UT)(CM) - MISSISSIPPI (CM).

CALOTHRIX Agardh 18241. CALOTHRIX ADSCENDENS Born. & Flah. (Smith) (Prescott (f)) (Geitler,
25(f))

FLORIDA (CM) - KENTUCKY (CM) - ALABAMA Flint (Caylor) # 3(CM)

The Flint collection plants have cells far shorter than
those described for the species, and the writer does not under-
stand how they could be the above species unless he and the
original determiner were examining different plants.

2. CALOTHRIX BRAUNII Born. & Flah. (Smith) (Geitler, 25(f))

VIRGINIA (CM) - NO. CAROLINA Philson, 1939; Whitford, 1943 -
GEORGIA (CM) - FLORIDA Whelden, 1941.

3. CALOTHRIX BRAUNII var. MAXIMA Philson (Philson, 39(f))

SO. CAROLINA Philson, 1939.

This is the only report.

4. CALOTHRIX CAESPITOSA Rabenh. (Geitler, 25, 30 as Homoeothrix
caespitosa (Rabenh.) Kirch.)

LOUISIANA Featherman, 1871.

The genus Homoeothrix is considered a section of
Calothrix by American authorities.

5. CALOTHRIX EPIPHYTICA West & West (Smith) (Prescott (f)) (Geitler, 25)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Whelden, 1941 -
KENTUCKY McInteer, 1941.
6. CALOTHRIX FUSCA (Kuetz.) Born. & Flah. (Smith) (Prescott (f)) (Geitler,
25(f))
NO. CAROLINA Whitford, 1943 - TENNESSEE Silva & Sharp, 1944.
7. CALOTHRIX JULIANA (Menegh.) Born. & Flah. (Smith)
NO. CAROLINA Whitford, 1943 - FLORIDA Whelden, 1941 in which the
species author is recorded as Kirchner, but this is probably a
missprint - TENNESSEE Silva # 471(UT)(CM).
8. CALOTHRIX PARIETINA (Naeg.) Thur. (Smith) (Prescott (f)) (Geitler,
25(f))
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA (CM) -
SO. CAROLINA Bold collection (UT)(CM) - GEORGIA (CM) - FLORIDA
Brannon, 1945 - KENTUCKY McInteer, 1941 - TENNESSEE Silva &
Sharp, 1944; Silva # 440 etc. - MISSISSIPPI (CM) - LOUISIANA (CM).

It may be interesting to observe here that there have been
published records from only four states, while collections are
present from every southeastern state except Alabama.

9. CALOTHRIX PULVINATA (Mert.) Agardh (Tilden)
GEORGIA Drouet, 1939, re-identifying Mastigonema aerugineum
(Kuetz.) Kirch. of Wolle, 1887.
10. CALOTHRIX SCYTONEMICOLA Tild. (Smith) (Geitler, 25(f))
NO. CAROLINA Whitford, 1943.
11. CALOTHRIX STELLARIS Born. & Flah.
NO. CAROLINA Bold # 39(UT)(CM) - FLORIDA Brannon, 1945.

DICHOTHRIX Zanardini 1858

1. DICHOTHRIX sp.

Leatherwood, 1942 described a new species Dichothrix epiphytica, but Whitford, shortly afterward mentioned the collection only Dichothrix sp.

2. DICHOTHRIX BAUERIANA (Grun.) Born. & Flah. (Smith) (Geitler, 25)

NO. CAROLINA Bold # 173(UT)(CM) - FLORIDA Drouet, 1939, re-identifying Wollé, 1879, Schizosiphon Baueriana Grun.

3. DICHOTHRIX COMPACTA (Agardh) Born. & Flah. (Smith) (Geitler, 25(f))

NO. CAROLINA Bold # 408(UT)(CM).

4. DICHOTHRIX GYPSOPHILA Born. & Flah. (Smith) (Geitler, 25(f))

KENTUCKY Walp collection (CM).

GLOEOTRICHIA Agardh 1842

1. GLOEOTRICHIA ECHINULATA (J. E. Smith) P. Richt. (Smith) (Prescott (f)) (Geitler, 25(f))

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Philson, 1939 - KENTUCKY McInteer, 1939.

2. GLOEOTRICHIA NATANS (Hedw.) Rabenh. (Smith) (Prescott (f)) (Geitler, 25(f))

VIRGINIA (CM) - SO. CAROLINA Drouet (Wollé), 1939 - LOUISIANA Prescott, 1942.

3. GLOEOTRICHIA PISUM (Agardh) Thur. (Smith) (Prescott (f)) (Geitler, 25(f))

FLORIDA Borge, 1909.

MASTIGONEMA (obsolete)

1. Mastigonema aerugineum (Kuetz.) Kirch.

see CALOTHRIX PULVINATA (Mert.) Agardh.

RAPHIDIOPSIS Fritsch & Rich 1929

2. *RAPHIDIOPSIS CURVATA* Fritsch & Rich (Fritsch II(f))

FLORIDA Pierce collection (CM).

This genus is a rare one, and the species has been reported from South Africa, where described, and then Brazil and Europe.

RIVULARIA Roth 1797 emend. Agardh 1812

1. *RIVULARIA BAISOLETTIANA* Menegh. (Geitler, 25(f))

If Geitler, 1925 is followed in placing *R. minutula* (Kuetz.) Born. & Flah. in synonymy with this species, its record properly belongs here.

2. *RIVULARIA BECCARIANA* (DeNot.) Born. & Flah. (Geitler, 25(f))

NO. CAROLINA Bold # 165(UT record); Bold # 177(CM).

3. *RIVULARIA DURA* Roth (Smith (f)) (Geitler, 25(f))

NO. CAROLINA Bold # 8(UT).

4. *RIVULARIA GLOBICEPS* G. S. West (Prescott) (Geitler, 25(f), 30(f))

NO. CAROLINA Whitford, 1943.

5. *RIVULARIA MINUTULA* (Smith) (Geitler, 25(f) as *Rivularia Baisolettiana* Menegh.)

VIRGINIA Strickland # 146(CM).

GALLIONELLA (bacterial)

1. *Gallionella aurichales* Ehr.

SO. CAROLINA and GEORGIA Bailey, 1851.

Phylum CHRYSOPHYTA

Class HETEROKONTAE

ORDER 1 RhizochloridalesFAMILY 1 Stipitococcaceae

STIPITOCOCCUS West & West 1898

1. STIPITOCOCCUS URCEOLATUS West & West (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943.

ORDER 2 HeterocapsalesFAMILY 1 Chlorosaccaceae

CHLOROSACCUS Luther 1899

1. CHLOROSACCUS FLUIDUS Luther (Smith (f)) (Pascher, 25(f))

NO. CAROLINA Whitford, 1943.

ORDER 3 HeterococcalesFAMILY 1 Botryococcaceae

BOTRYOCOCCUS Kuetzing 1849

The writer notes that this genus is said to be a member of the Chlorophyta, but it is being retained here until a proper confirmation can be made of its position.

1. BOTRYOCOCCUS BRAUNII Kuetz. (Smith (f)) (Prescott (f))

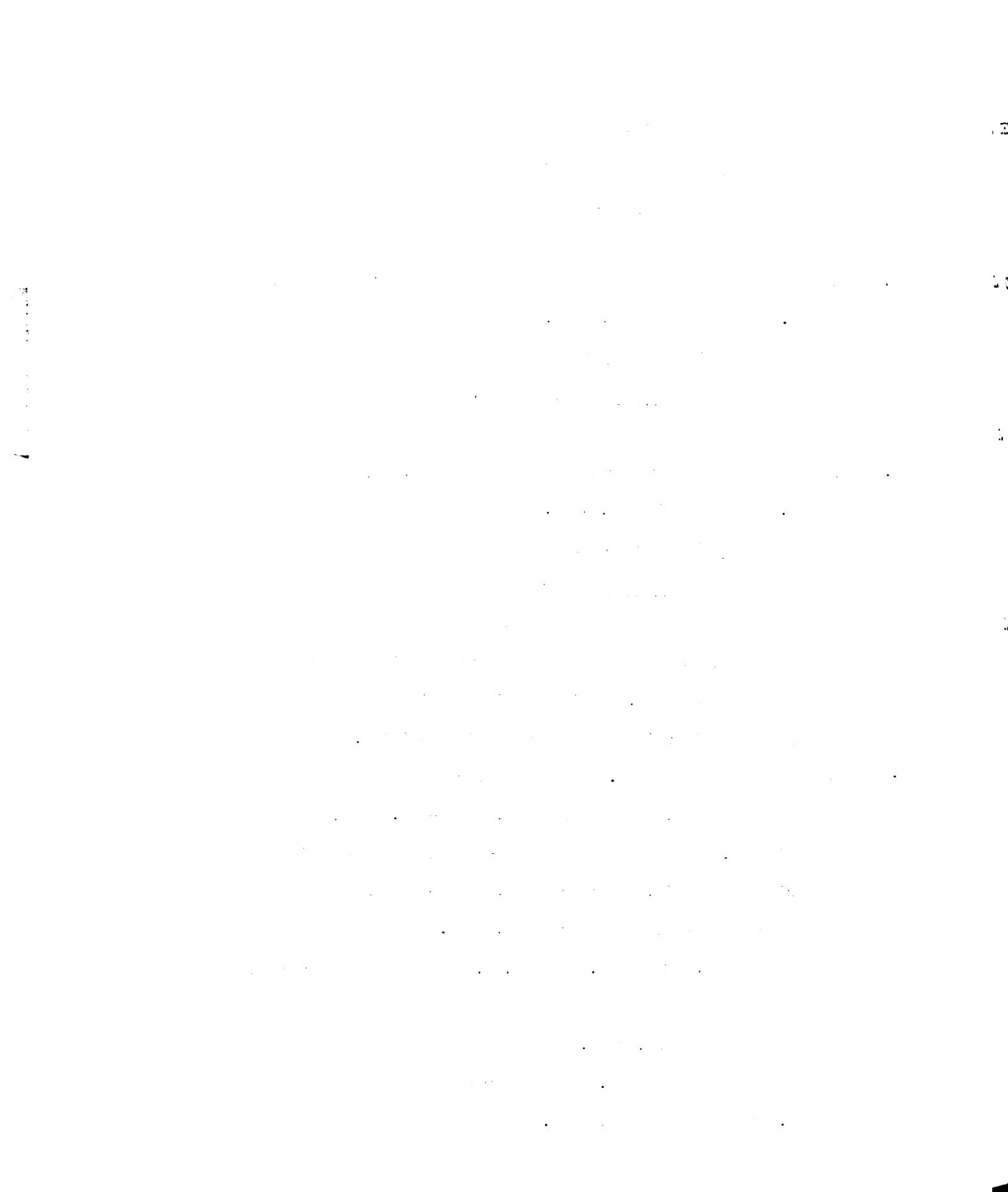
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford, 1943; Bold (UT record) - FLORIDA (CM) - KENTUCKY Brinley & Katzin, 1942; McInteer, 1939 - TENNESSEE Bold (UT record) - LOUISIANA Prescott, 1942.

2. BOTRYOCOCCUS PROTUBERANS var. MINOR G. M. Smith (Smith) (Prescott (f))

KENTUCKY McInteer, 1939.

3. BOTRYOCOCCUS SUDETICUS Lemm. (Smith) (Prescott (f))

NO. CAROLINA Whitford, 1943.



CENTRITRACTUS Lemmermann 1900

1. CENTRITRACTUS BELANOPHORUS (Schm.) Lemm. (Pascher, 25(f)) (Fritsch I (f))

TENNESSEE Lackey, 1942.

CHARACIOPSIS Borzi 1895

1. CHARACIOPSIS MINUTA (A. Braun) Borzi (Smith) (Prescott (f))
(Pascher, 25(f))

FLORIDA Borge, 1909 as Characium minutum A. Braun

The synonymy is reported in Pascher, 1925.

2. CHARACIOPSIS SUBLATA (A. Braun) Borzi (Smith) (Prescott)
(Pascher, 25(f))

FLORIDA Borge, 1909 as Characium sublatum A. Braun

The synonymy is reported in Pascher, 1925.

PERONIELLA Gobi 1887

1. PERONIELLA PLANCTONICA G. M. Smith (Smith (f)) (Prescott (f))
(Pascher, 25(f))

NO. CAROLINA Whitford, 1943.

FAMILY 2 Ophiocytaceae

OPHIOCYTIUM Naegeli 1849

1. OPHIOCYTIUM ARBUSCULUM (A. Braun) Rabenh. (Smith (f)) (Prescott (f))
(Pascher, 25(f))

KENTUCKY McInteer, 1939.

2. OPHIOCYTIUM BICUSPIDATUM (Borge) Lemm. (Smith) (Prescott (f))
(Pascher, 25(f))

FLORIDA Borge, 1909; Collins, 1918 repeating Borge.

3. OPHIOCYTIUM CAPITATUM Wolle (Smith (f)) (Prescott (f)) (Pascher,
25(f))

NO. CAROLINA Whitford, 1943 - FLORIDA Whelden, 1941 -

TENNESSEE Lackey, 1942.

4. OPHIOCYTIUM CAPITATUM var. LONGISPINUM (Moebius) Lemm. (Prescott (f))
(Pascher, 25(f))

NO. CAROLINA Whitford, 1943.

5. OPHIOCYTIUM COCHLEARE A. Braun (Smith (f)) (Prescott (f))
(Pascher, 25(f))

NO. CAROLINA Whitford, 1943 - TENNESSEE Bold # 3936 (UT record).

6. OPHIOCYTIUM GRACILIPES (A. Braun) Rabenh. (Prescott) (Pascher, 25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

7. OPHIOCYTIUM MAJUS Naeg. (Smith) (Prescott (f)) (Pascher, 25(f))
KENTUCKY McInteer, 1939.

8. OPHIOCYTIUM PARVULUM (Perty) A. Braun (Smith (f)) (Prescott (f))
(Pascher, 25(f))

NO. CAROLINA Whitford, 1943 - FLORIDA Borge, 1909; # F 10(GP)
- KENTUCKY McInteer, 1939 - TENNESSEE Bold # 3936 (UT record).

ORDER 3 Heterotrichales

FAMILY 1 Tribonemataceae

BUMILLERIA Borzi 1895

1. BUMILLERIA SICULA Borzi (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943.

CONFERRA (obsolete)

The only two references to this genus in literature of the Southeast are Wolle, 1887 Conferva rhytophyllia Kuetz. from Penn. to GEORGIA, about which Pacher states, "completely uncertain," and Conferva sp. listed from Tenn. by Lackey in 1942. The name is generally considered a synonym of Tribonema.

TRIBONEMA Derbes & Solier 1856

1. TRIBONEMA BOMBYCINUM (Agardh) Derb. & Sol. (Smith (f)) (Prescott (f))
(Pascher, 25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Silva & Sharp, 1944; Whitford, 1943 - KENTUCKY McInteer, 1939 - TENNESSEE Silva & Sharp, 1944; Silva # 416 (UT)(CM).

This species is undoubtedly more widespread and common than the published records indicate.

2. TRIBONEMA BOMBYCINUM var. TENUE (Hazen) Tiff. (Prescott (f))
KENTUCKY McInteer, 1939.
3. TRIBONEMA MINUS (Wille) Hazen (Smith) (Prescott (f)) (Pascher, 25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford, 1943; Bold collection (UT record) - SO. CAROLINA Bold collection (UT record) - SO. CAROLINA Bold collection (UT record) - FLORIDA # F 1,4(GP) - KENTUCKY McInteer, 1941 - TENNESSEE Bold # 331(UT record); Silva # 375(UT)(CM).

4. TRIBONEMA RACIBORSKII Heering (Pascher, 25)
KENTUCKY McInteer, 1939.

5. TRIBONEMA UTRICULOSUM (Kuetz.) Hazen (Prescott (f))
NO. CAROLINA Bold # 16(UT record) - KENTUCKY McInteer, 1939

ORDER 4 Heterosiphonales

FAMILY 1 Botrydiaceae

BOTRYDIUM Wallroth 1815

1. Botrydium argillaceum Wallroth

GEORGIA Bailey, 1951

The writer has been unable to find any other references to this species, Pascher comments that there are two species in the genus and does not mention this one.

2. BOTRYDIUM GRANULATUM (L) Grev. (Smith (f)) (Prescott (f)) (Pascher, 25(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford, 1943 - FLORIDA (CM) . KENTUCKY Lillick & Lee, 1934; McInteer, 1939 - TENNESSEE Bold # 132(UT)(CM).

Class CHRYSOPHYCEAE

ORDER 1 Chrysomonadales

FAMILY 1 Chromulinaceae

CHROMULINA Cienkowski 1870

The genus, without species identification has been reported from North Carolina by Whitford, 1943, and from Kentucky by Brinley & Katzin, 1942.

CHRYSOCOCCUS Klebs 1892

Seven of the following species will be found to bear the authorship of James B. Lackey. Six of these were described informally in 1938, so informally that the writer, and apparently others, did not realize that new species were being described. Nevertheless the descriptions are quite good, and figures are included, so it is felt that a rather valuable contribution was made to an understanding of the little known group. The other Lackey species, C. asper Lackey, was described in 1939.

1. CHRYSOCOCCUS AMPHORA Lackey (Lackey, 38(f))

KENTUCKY Brinley & Katzin, 1942.

2. CHRYSOCOCCUS ASPER Lackey (Lackey, 39(f))

KENTUCKY Brinley & Katzin - TENNESSEE Lackey, 1942.

3. CHRYSOCOCCUS CYLINDRICA Lackey (Lackey, 38(f))

TENNESSEE Lackey, 1942.

4. CHRYSOCOCCUS HEMISPHAERA Lackey (Lackey, 38(f))

TENNESSEE Lackey, 1942.

5. CHRYSOCOCCUS MAJOR Lackey (Lackey, 38(f))

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

6. *Chrysococcus pediformis*

see CHRYSOCOCCUS PUNCTIFORMIS Pascher.

7. CHRYSOCOCCUS PUNCTIFORMIS Pascher (Pascher & Lemmermann (f))

KENTUCKY Brinley & Katzin, 1942.

This is listed as C. pediformis, which is a misprint according to a letter from the senior author.

8. CHRYSOCOCCUS OVALIS Lackey (Lackey, 38(f))

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

9. CHRYSOCOCCUS RUFESCENS Klebs (Pascher & Lemmermann (f))

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

10. CHRYSOCOCCUS SPIRALIS Lackey (Lackey, 38(f))

KENTUCKY Brinley & Katzin, 1942.

CHRYSOPYXIS Stein 1878

This genus was recorded by Bold for the herbarium of the University of Tennessee from his collection # 432, made in Western North Carolina.

HYMENOMONAS Stein 1878

1. HYMENOMONAS ROSEOLA Stein (Pascher & Lemmermann (f)) (Fritsch I (f))

KENTUCKY Brinley & Katzin, 1942.

FAMILY 2 Mallomonadaceae

CHRYSOSPHAERELLA Lauterborn 1896

1. CHRYSOSPHAERELLA LONGISPINA Lauter. (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943.

MALLOMONAS Perty 1852

1. *MALLOMONAS ACAROIDES* Perty (Smith) (Prescott (f)) (Pascher & Lemmermann (f))
NO. CAROLINA Whitford, 1943.
2. *MALLOMONAS AKROKOMAS* Ruttner (Pascher & Lemmermann (f))
KENTUCKY Brinley & Katzin, 1942.
3. *MALLOMONAS CAUDATA* Conrad (Prescott (f)) (Pascher & Lemmermann (f))
NO. CAROLINA Whitford, 1943 - KENTUCKY Brinley & Katzin, 1942.
4. *MALLOMONAS FASTIGIATA* Zacharias (Prescott (f)) (Pascher & Lemmermann (f))
NO. CAROLINA Whitford, 1943.
5. *MALLOMONAS FREESENII* Kent (Pascher & Lemmermann)
NO. CAROLINA Whitford, 1943.

Pascher feels that the status of this species is in doubt, although it seems to be well enough described. From the description it appears to be rather like M. caudata although much smaller.

6. *MALLOMONAS PRODUCTA* Iwanoff (Smith (f)) (Prescott (f)) (Pascher & Lemmermann (f))
NO. CAROLINA Whitford, 1943.
7. *MALLOMONAS TONSURATA* Teiling (Smith) (Prescott (f)) (Pascher & Lemmermann (f))
KENTUCKY Brinley & Katzin, 1942.

The genus has also been reported from Tennessee by Lackey, 1942.

FAMILY 2 Synuraceae

SYNURA Ehrenberg 1838

1. *SYNURA ADAMSII* G. M. Smith (Smith (f)) (Prescott (f))
NO. CAROLINA Whitford, 1936, 1943; Bold collection (UT record).

2. SYNURA CAROLINIANA Whitford (Whitford, 43(f))

NO. CAROLINA Whitford, 1943.

This is the only report.

3. SYNURA UVELLA Ehr. (Smith (f)) (Prescott (f)) (Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943; Bold # 86(UT record) - SO.

CAROLINA Bailey, 1851 - GEORGIA Bailey, 1851 - KENTUCKY Brinley, & Katzin, 1942 - TENNESSEE Lackey, 1942; Silva collection; (CM).

This is another species which is undoubtedly widespread and common although the published records do not indicate it.

FAMILY 3 Ochromonadaceae

DINOBYRON Ehrenberg 1835

1. DINOBYRON BAVARICUM Imhof (Prescott (f)) (Pascher & Lemmermann (f))
as Dinobryon stipitatum subspecies bavaricum (Imhoff) Pascher)
(Ahlstrom, 37(f))

NO. CAROLINA Whitford, 1943.

The species rank is retained by Ahlstrom.

2. DINOBYRON COMPANULOSTIPITATUM Ahlstrom (Ahlstrom, 37(f))

NO. CAROLINA Whitford, 1943.

3. DINOBYRON CYLINDRICUM Imhof (Pascher & Lemmermann (f)) (Ahlstrom, 37(f))

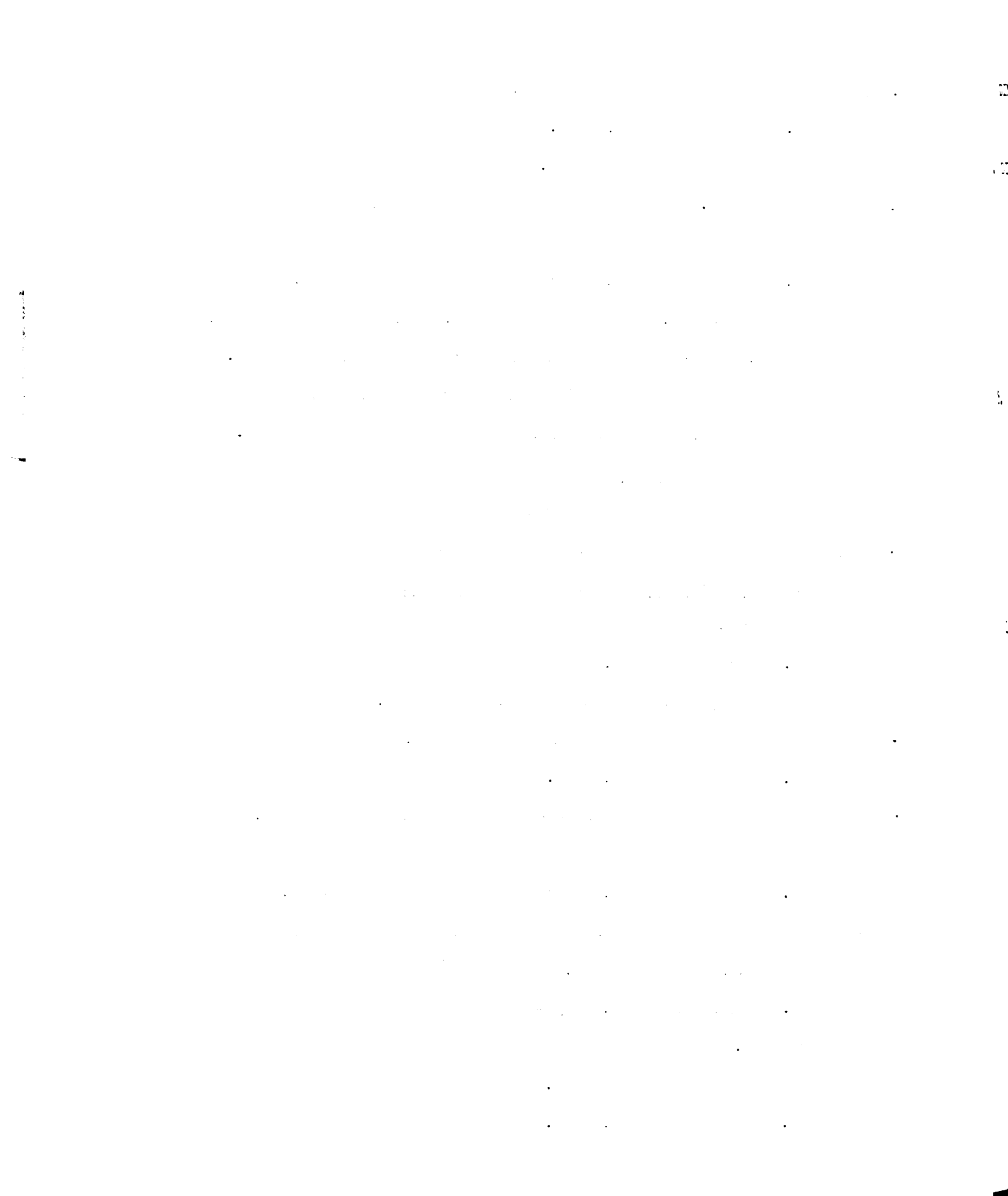
NO. CAROLINA Whitford, 1943; Bold collection (UT record).

4. DINOBYRON DIVERGENS Imhof (Smith (f)) (Prescott (f)) (Pascher & Lemmermann (f)) (Ahlstrom, 37(f))

NO. CAROLINA Whitford, 1943 - TENNESSEE Bold collection (UT record).

5. DINOBYRON EURYSTOMA (Stokes) Lemm. (Smith) (Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943.



6. DINOBYRON PEDIFORME (Lemm.) Steineke (Ahlstrom, 37(f))

NO. CAROLINA Whitford, 1943.

7. DINOBYRON SERTULARIA Ehr. (Smith (f)) (Prescott (f)) (Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943; Bold collection (UT record) -
SO. CAROLINA Bailey, 1851 - GEORGIA Bailey, 1851 - FLORIDA
Bailey, 1851 - KENTUCKY Brinley & Katzin, 1942; McInteer,
1939 - TENNESSEE Bold collection (UT record).

8. DINOBYRON SOCIALE Ehr. (Prescott (f)) (Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943.

HYALOBRYON Lauterborn 1896

The genus was reported from North Carolina by Whitford,
1943.

UROGLENA Ehrenberg 1833

1. UROGLENA VOLVOX Ehr. (Smith (f)) (Pascher & Lemmerman (f))

NO. CAROLINA Whitford, 1943.

UROGLENOPSIS Lemmermann 1899

1. UROGLENOPSIS AMERICANA (Calkins) Lemm. (Smith (f)) (Prescott (f))
(Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943; Bold # 26(UT record).

FAMILY 3 Rhizochrysidaceae

CHRYSAMOEBA Klebs 1893

1. CHRYSAMOEBA RADIANS Klebs (Smith (f)) (Prescott (f)) (Pascher &
Lemmermann (f))

NO. CAROLINA Whitford, 1943.

LAGYNION Pascher 1912

1. LAGYNION AMPULACEUM (Stokes) Pascher (Smith (f)) (Prescott (f))
(Pascher & Lemmermann (f))

FLORIDA Stokes, 1991 as Chrysopyxis ampulaceum Stokes; Smith, 1933.

2. LAGYNION MACROTRACHELUM (Stokes) Pascher (Smith (f)) (Prescott (f)) (Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943 - FLORIDA Stokes, 1881 as Chrysopyxis macrotrachelum Stokes; Smith, 1933.

3. LAGYNION SCHERFFELII Pascher (Smith (f)) (Prescott (f)) (Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY Brinley & Katzin, 1934 - TENNESSEE Lackey, 1942.

ORDER 2 Chrysocapsales

FAMILY 1 Chrysocapsaceae

PHAEOSPHAERA Whitford, 1943

1. PHAEOSPHAERA PERFORATA Whitford, 1943 (Whitford, 43(f))

NO. CAROLINA Whitford, 1943.

This is the only report. The writer is in possession of photographs taken by the author of the species.

CLASS BACILLARIOPHYCEAE (Bacillarieae)

ORDER 1 Centrales

SUB-ORDER Coscinodiscineae

FAMILY 1 Coscinodiscaceae (Discoideae)

CYCLOTELLA Kuetzing 1834

1. CYCLOTELLA MENECHINIANA Kuetz. (Smith (f)) (Schoenfeldt (f) with the spelling C. Meneghiana)

TENNESSEE Lackey, 1942.

The genus has also been reported from Kentucky by Brinley & Katzin, 1942.

MELOSIRA Agardh 1824

1. MELOSIRA ARENARIA Moore (Schoenfeldt (f))

GEORGIA Bailey, 1851.

2. MELOSIRA GRANULATA (Smith (f)) (Schoenfeldt (f))

TENNESSEE Lackey, 1942.

3. MELOSIRA VARIANS Agardh (Smith (f)) (Schoenfeldt (f))

STEPHANODISCUS Ehrenberg 1845

The genus only has been reported by Lackey, 1942, from Tennessee.

SUB-ORDER Rhizosolenaeae

FAMILY 1 Rhizosoleniaceae (Solenoiideae)

RHIZOSOLENIA Ehrenberg 1843 emend. Brightwell 1858

1. RHIZOSOLENIA ERIENSIS H. L. Smith (Smith (f)) (Boyer)

NO. CAROLINA Whitford, 1943 - TENNESSEE Lackey, 1942

The genus has also been reported from Kentucky by Brinley & Katzin, 1942.

SUB-ORDER Biddulphiodeae

FAMILY 1 Eucampiaceae (Eucampiinae)

ATTHEYA T. West 1860

1. ATTHEYA ZACHARIASI Brunn. (Schoenfeldt (f)) (Fritsch I)

TENNESSEE Lackey, 1942.

The genus has also been reported from Kentucky by Brinley & Katzin, 1942.

FAMILY 2 Biddulphiaceae (Biddulphiinae)

BIDDULPHIA Gray 1832

The species Odontella mobilensis Bailey, 1851 may belong here.

FAMILY 3 Annulaceae

TERPSINOE Ehrenberg 1841

1. TERPSINOE MUSICA Ehr. (Smith) (Boyer)

FLORIDA Bailey, 1851; Wolle, 1894.

There is some doubt whether these collections were actually from fresh water, but at least the species may occur in fresh water, according to Boyer.

ORDER 2 PennalesSUB-ORDER Fragilarineae (Fragilariodeae)FAMILY 1 Tabellariaceae

TABELLARIA Ehrenberg 1839

1. TABELLARIA FENSTRATA (Lyngb.) Kuetz. (Schoenfeldt (f)) (Boyer)

(Elmore (f))

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Bailey, 1851 -
FLORIDA Bailey, 1951.

2. TABELLARIA FLOCCULOSA (Roth) Kuetz. (Schoenfeldt (f)) (Boyer)

(Elmore (f))

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Bailey, 1851 -
FLORIDA Bailey, 1851.

All of the Bailey references in the genus have Ehrenberg as the species author. The genus also has been reported from Virginia by Hutchinson & Pickford, 1932.

FAMILY 2 Meridionaceae

^I
MERIDON Agardh 1824

1. MERIDION CIRCULARE (Grev.) Agardh (Schoenfeldt (f)) (Boyer)

(Elmore (f))

TENNESSEE Silva & Sharp, 1944.

2. MERIDION INTERMEDIUM H. L. Smith (Smith (f))

TENNESSEE H. L. Smith, 1878; G. M. Smith, 1933 referring to
Smith, 1878.

FAMILY 3 Diatomaceae

DIATOMA DeCandolle 1805

This genus name is invalid according to Patrick, 1940, but it is the common one in most of the diatom literature. Species are listed here as the last name to have appeared in print, and have not yet been published under Odontidium, if this, indeed, becomes the accepted name.

1. *Diatoma Ehrenbergii* Kuetz.

SO. CAROLINA Bailey, 1851 - FLORIDA Bailey, 1851

This may be now known as Odontidium elongatum var.

Ehrenbergii (Kuetz.) Patrick, or Diatoma vulgare var.

Ehrenbergii (Kuetz.) Grun. (in Schoenfeldt), or both.

2. DIATOMA HIEMALE (Lyngb.) Heib. (Schoenfeldt (f)) as *Diatoma* (Odontidium) hiemale (Lyngb.) Heib.)

TENNESSEE Lackey, 1942.

3. *Diatoma stellata* Bailey

SO. CAROLINA Bailey, 1851 - FLORIDA Bailey, 1851.

This is the only mention of the species that the writer could find. It is not even mentioned by Wolle, 1894.

ODONTIDIUM Kuetzing

1. ODONTIDIUM HIEMALE var. MESODON (Ehr.) Grun. (Schoenfeldt (f)) as Diatoma (Odontidium) hiemale var. mesodon (Ehr. Grun.) (Boyer) (Elmore).FAMILY 4 Fragilariaceae (Fragilariinae)

ASTERIONELLA Hassal 1850

1. ASTERIONELLA FORMOSA Hass. (Smith (f)) (Boyer)

NO. CAROLINA Whitford, 1943 - KENTUCKY Brinley & Katzin, 1943 -
TENNESSEE Lackey, 1942.

2. ASTERIONELLA GRACILLIMA (Hantzsch) Heib. (Schoenfeldt (f)) (Elmore)

TENNESSEE Eddy, 1930; Lackey, 1942.

3. ASTERIONELLA NOTA Grun. (Wolle, 1894 (f))

GEORGIA Frohne, 1942.

4. ASTERIONELLA RALFSII W. Smith (Smith)

NO. CAROLINA Whitford, 1943.

FRAGILARIA Lyngbye 1819 emend. Rabenhorst 1864

1. FRAGILARIA CROTONENSIS Kitton (Schoenfeldt (f)) (Boyer)

TENNESSEE Lackey, 1942.

2. FRAGILARIA PECTINALIS Ehr.

GEORGIA Bailey, 1851.

Boyer lists F. pectinalis Lyngb. in synonymy but specifies that he does not mean F. pectinalis Ehr.

3. FRAGILARIA VIRESCENS Ralfs. (Smith (f)) (Schoenfeldt (f)) (Boyer)

TENNESSEE Silva & Sharp, 1944.

There have been reports of the genus from North Carolina, Whitford, 1943, and Kentucky, Brinley & Katzin, 1942, and it is probably to be found in any state.

SYNEDRA Ehrenberg 1830

1. SYNEDRA ACUS Kuetz. (Schoenfeldt (f)) (Boyer) (Elmore)

GEORGIA (CM) - KENTUCKY Brinley & Katzin, 1942.

2. Synedra biceps Kuetz.

see SYNEDRA ULNA var. BICEPS Kuetz.

3. SYNEDRA RADIANS Kuetz. (Schoenfeldt (f)) (Elmore (f)) (Hustedt, 32

makes this S. acus var. radians (Kuetz.) Hust.)

KENTUCKY Brinley & Katzin, 1942.

4. SYNEDRA RUMPENS var. FAMILIARIS (Kuetz.) Grun. (Schoenfeldt (f) as

S. familiaris Kuetz.)

TENNESSEE Silva & Sharp, 1944.

5. *Synedra scalaris* Ehr.

FLORIDA Bailey, 1851.

Boyer lists Nitzschia scalaris (Kuetz.) for the correct name of S. scalaris Kuetz. Perhaps they are the same.

6. *SYNEDRA TENNUISSIMA* Kuetz. (Elmore (f))

TENNESSEE Eddy, 1930.

7. *SYNEDRA ULNA* (Nitzsch) Ehr. (Schoenfeldt (f)) (Elmore (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY Brinley & Katzin, 1942
- TENNESSEE Lackey, 1942; Silva & Sharp, 1944.

8. *SYNEDRA ULNA* var. *BICEPS* (Kuetz.) Schoen. (Schoenfeldt with Kuetz. as author) (Hustedt, 1932)

KENTUCKY Brinley & Katzin, 1942, or apparently this was what was meant by the listing of S. biceps (no auth.) - TENNESSEE Lackey, 1942.

9. *Synedra ulna* var. *delicatissima*

TENNESSEE Lackey, 1942

The writer was unable to locate any reference to this variety, and the author when queried was not able to give information at the time, but it is rather strongly felt that the author probably intended S. acus var. delicatissima W. Smith, which may be found in Schoenfeldt.

10. *Synedra ulna* var. *radians*

TENNESSEE Lackey, 1942.

The situation is quite similar to the above species, in this case there is a S. radians Kuetz. in Schoenfeldt.

11. *SYNEDRA VALENS* Ehr. (Wolle, 1894)

SO. CAROLINA Bailey, 1851.

This may not be a good species. Boyer does not include it.

12. SYNEDRA VITREA Kuetz. (Boyer)

GEORGIA Bailey, 1851 - FLORIDA Bailey, 1851.

FAMILY 5 EUNOTIACEAE (Eunotiinae)

EUNOTIA Ehrenberg 1837

1. Eunotia amphioxys Ehr.

see HOMEOCLADIA AMPHIOXIS (Ehr.) Kuntze in the Nitzschiaceae.

2. EUNOTIA ARCUS Ehr. (Schoenfeldt (f))

SO. CAROLINA Bailey, 1851 - GEORGIA Bailey, 1851 - FLORIDA
Bailey, 1851.

Bailey listed the species as Himantidium arcus Ehr.

3. EUNOTIA ARCUS var. BIDENS Grun. (Schoenfeldt)

SO. CAROLINA Bailey, 1851 - FLORIDA Bailey, 1851.

Bailey listed the species as Himantidium bidens Ehr.

4. EUNOTIA EXIGUA (Bréb.) Rab. (Schoenfeldt (f) in section Himantidium
of the genus)

TENNESSEE Silva & Sharp, 1944.

5. Eunotia gibba Ehr.

GEORGIA Bailey, 1851 - FLORIDA Bailey, 1851.

The writer was unable to find further references to this
species.

6. Eunotia librile Ehr.

GEORGIA Bailey, 1851.

The writer was unable to find any further reference to
this species.

7. EUNOTIA LUNARIS (Ehr.) Grun. (Smith) (Hustedt 32) (Schoenfeldt (f)
as Eunotia (Pseudo-Eunotia) lunaris Ehr.

TENNESSEE Silva & Sharp, 1944.

8. EUNOTIA MICROCEPHALA Krasske (Boyer)

TENNESSEE Silva & Sharp, 1944.

9. EUNOTIA PECTINALIS var. MINOR f. INTERMEDIA Krasske (Schoenfeldt)

TENNESSEE Silva & Sharp, 1944.

10. EUNOTIA TETRAODON Ehr. (Schoenfeldt (f))

SO. CAROLINA Bailey, 1851 - GEORGIA Bailey, 1851.

11. EUNOTIA TRIDENTULA Ehr. (Schoenfeldt (f))

GEORGIA Frohne, 1942.

12. EUNOTIA VENERIS (Kuetz.) DeToni (Schoenfeldt (f) in section Himantidium of the genus)

TENNESSEE Silva & Sharp, 1944.

HIMANTIDIUM (now considered a section of Eunotia)

1. Himantidium arcus Ehr.

see EUNOTIA ARCUS Ehr.

2. Himantidium bidens Ehr.

see EUNOTIA ARCUS var. BIDENS Grun.

SUB-ORDER Achnanthineae

FAMILY 1 Achnanthaceae

ACHNANTHES Bory 1822

1. ACHNANTHES LANCEOLATA (Bréb.) Grun. (Schoenfeldt (f) as Achnanthes (Achnanthidium) lanceolata Bréb.) (Boyer)

TENNESSEE Silva & Sharp, 1944.

2. ACHNANTHES MINUTISSIMA var. CRYPTOCEPHALA Grun.

TENNESSEE Silva & Sharp, 1944.

COCCONEIS Ehrenberg 1835

1. COCCONEIS PEDICULUS Ehr. (Smith (f)) (Schoenfeldt (f)) (Boyer)

FLORIDA Bailey, 1851.

2. COCCONEIS PLACENTULA Ehr. (Schoenfeldt (f)) (Boyer)

TENNESSEE Silva & Sharp, 1944.

3. COCCONEIS PLACENTULA var. LINEATA (Ehr.) Cleve. (Boyer)

TENNESSEE Silva & Sharp, 1944.

The genus has also been reported from North Carolina by Whitford, 1943 and is undoubtedly widespread.

RHOICOSPHENIA Grunow 1860

The genus has been reported from Tennessee by Lackey, 1942.

SUB-ORDER Naviculineae

FAMILY 1 Naviculaceae (Naviculoideae)

AMPHIPRORA Ehrenberg 1843 emend. Cleve 1894

This genus has been reported from Kentucky by Brinley & Katzin, 1942.

FRUSTULIA Agardh 1824 emend. Grunow 1865

1. FRUSTULIA RHOMBOIDES (Ehr.) DeToni (Schoenfeldt (f) as Navicula (Frustulia) rhomboides Ehr.) (Elmore (f) as Vanheukerii rhomboides (Ehr.) Bréb.) (Boyer)

GEORGIA Frohne, 1942.

GYROSIGMA Hassall 1845 emend. Cleve 1894

1. GYROSIGMA HIPPOCAMPUS (Ehr.) Hass

GEORGIA Bailey, 1851 as Navicula hippocampus Ehr.

The genus has been reported also from North Carolina by Whitford, 1943 and Tennessee by Lackey, 1942.

NAVICULA Bory 1822

1. NAVICULA AMPHIGOMPHA Ehr. (Elmore (f))

FLORIDA Bailey, 1851.

2. NAVICULA CARI var. ANGUSTA Grun.

TENNESSEE Silva & Sharp, 1944.

3. NAVICULA CRYPTOCEPHALA Kuetz. (Schoenfeldt (f)) (Boyer) (Elmore (f))

TENNESSEE Silva & Sharp, 1944.

4. NAVICULA CRYPTOCEPHALA var. PUMILA Grun.

TENNESSEE Silva & Sharp, 1944.

5. NAVICULA CUSPIDATA Ehr.

FLORIDA Bailey, 1851.

This may be the N. cuspidata Kuetz. of Schoenfeldt (f) and of Boyer. Elmore says that the species is N. fulva (Nitzsch) Ehr.

6. NAVICULA DECUSIS Ostrup

TENNESSEE Silva & Sharp, 1944.

7. Navicula hippocampus Ehr.

see GYROSIGMA HIPPOCAMPUS (Ehr.) Hass.

8. NAVICULA MARGINATA Lewis & Lewis (Wolle, 94(f))

SO. CAROLINA Wolle, 1894.

9. Navicula minuta

TENNESSEE Lackey, 1942

The writer can only speculate as to what was intended here. Perhaps it was N. minutula W. Small, which Schoenfeldt gives as a synonym for N. pygmaea Kuetz.

10. NAVICULA MUTICA Kuetz. (Schoenfeldt (f)) (Elmore (f))

TENNESSEE Silva & Sharp, 1944.

11. NAVICULA PLACENTA Ehr. (Schoenfeldt (f)) (Elmore (f))

TENNESSEE Silva & Sharp, 1944.

12. NAVICULA RADIOSA var. TENELLA (Bréb.) Cleve. (Schoenfeldt (f) with the species author given as Van Heurck)

TENNESSEE Silva & Sharp, 1944.

13. NAVICULA RHYNCHOCEPHALA Kuetz. (Schoenfeldt (f)) (Elmore (f))

TENNESSEE Silva & Sharp, 1944.

14. NAVICULA VIRIDULA Kuetz. var. ?. (Elmore (f) for the species)

TENNESSEE Silva & Sharp, 1944.

The genus has also been reported from North Carolina, Whitford, 1943, and Kentucky, Brinley & Katzin, 1942.

NEIDIUM Pfitzer 1871

1. NEIDIUM IRIDIS (Ehr.) Cleve (Schoenfeldt (f) as Navicula (Neidium)

iridis (Ehr.) (Boyer with the species author Pfitzer)
TENNESSEE Silva & Sharp, 1944.

PINNULARIA Ehrenberg 1840

1. Pinnularia amphigompha Ehr.

SO. CAROLINA Bailey, 1851.

The writer has been unable to find further reference to this species.

2. Pinnularia elliptica Kuetz.

SO. CAROLINA Bailey, 1851.

Perhaps this is P. divergens var. elliptica Grun. figured in Schoenfeldt.

3. Pinnularia iridis Ehr.

SO. CAROLINA Bailey, 1851.

The writer has been unable to find further reference to this species.

4. PINNULARIA MACILENTA Ehr.

NO. CAROLINA Silva & Sharp, 1944.

5. PINNULARIA MAJOR (Kuetz.) W. Smith (Schoenfeldt (f)) (Boyer)

NO. CAROLINA Silva & Sharp, 1944.

The genus has also been reported from Kentucky by Brinley & Katzin, 1942, and is undoubtedly widespread and common.

PLEUROSIGMA W. Smith 1852 emend. Cleve 1894

The genus has been reported from Kentucky by Brinley & Katzin, 1942, and Tennessee, Lackey, 1942.

SCHIZONEMA (obsolete)

The genus has been reported from South Carolina by Metcalf, 1947. Its species are commonly included in Navicula (Frustulia) Thw., Frustulia Agardh emend. Grun. or Vanhuerckia Schuett.

STAURONEIS Ehrenberg 1843

1. STAURONEIS PHOENICENTERON (Nitzsch) Ehr. (Smith) (Schoenfeldt (f)) (Boyer) (Elmore (f))

NO. CAROLINA Silva & Sharp, 1944.

VANHUERCKIA Schuett 1896

Among present prominent students of the algae some, including Dr. Ruth Patrick prefer the use of this genus, which includes Frustulia Agardh and Brebissonia Grunow.

1. VANHUERCKIA RHOMBOIDES Bréb. (Elmore (f)) and references given under Frustulia rhomboides (Ehr.) DeToni

GEORGIA Frohne, 1942 as Frustulia rhomboides.

2. VANHUERCKIA RHOMBOIDES var. AMPHIPLEUROIDES Gom.

TENNESSEE Silva & Sharp, 1944.

3. VANHUERCKIA RHOMBOIDES var. CRASSINERVIA (Bréb.) V.H.

NO. CAROLINA Silva & Sharp, 1944.

4. VANHUERCKIA VULGARIS (Thwaites) V.H. (Schoenfeldt (f)) (Boyer as

Frustulia vulgaris (Thwaites) DeToni) (Elmore (f))

NO. CAROLINA Silva & Sharp, 1944 - TENNESSEE Silva & Sharp, 1944.

FAMILY 2 Gomphonemataceae

GOMPHONEMA Agardh 1824

1. GOMPHONEMA ACUMINATA Ehr. (Schoenfeldt (f)) (Boyer) (Elmore (f))

NO. CAROLINA Whitford, 1943 - FLORIDA Bailey, 1851.

2. GOMPHONEMA COMMUTATA Grun.

TENNESSEE Silva & Sharp, 1944.

3. GOMPHONEMA CONSTRICTA Ehr. (Schoenfeldt (f)) (Boyer) (Elmore (f))
GEORGIA Bailey, 1851.
4. GOMPHONEMA CONSTRICTA var. CAPITATA (Ehr.) V.H.
TENNESSEE Silva & Sharp, 1944.
5. Gomphonema dichotoma Kuetz. (Smith) (Schoenfeldt (f)) as G. gracile
Ehr.)
NO. CAROLINA Whitford, 1943.

Schoenfeldt actually gives the author of the species he places in synonymy as Rabenhorst, so it is only assumed that this is the species referred to. Other sources give the species G. gracile (Kuetz.) Grun. and Schoenfeldt lists a var. dichotoma W. Smith of G. gracile.

6. GOMPHONEMA GRACILE var. LANCEOLATUM Kuetz. (Schoenfeldt)
TENNESSEE Silva & Sharp, 1944.
7. GOMPHONEMA GRACILE var. NAVICULOIDES (W. Smith) V.H.
TENNESSEE Silva & Sharp, 1944.
8. GOMPHONEMA OLIVACEUM (Lyngb.) Kuetz. (Smith (f)) (Schoenfeldt (f))
(Boyer)
TENNESSEE Lackey, 1942.
9. GOMPHONEMA SPHAEROPHORUM Ehr. (Boyer)
TENNESSEE Silva & Sharp, 1944.

The genus has also been reported from Kentucky by Brinley & Katzin, 1942.

FAMILY 3 Cymbellaceae

AMPHORA Ehrenberg 1840

This genus has been reported from North Carolina by Whitford, 1943; Kentucky, Brinley & Katzin, 1942; Tennessee, Lackey, 1942.

COCCONEMA (now a section of Cymbella)

1. *Cocconema cymbiforme* Ehr.

see *CYMBELLA CYMBIFORMIS* (Kuetz.) Bréb.

CYMBELLA Agardh 1830

1. *CYMBELLA AFFINIS* Kuetz. (Schoenfeldt (f)) (Boyer)

TENNESSEE Silva & Sharp, 1944.

2. *CYMBELLA CYMBIFORMIS* (Kuetz.) Bréb. (Schoenfeldt (f) as C. (Cocconema)

cymbiformis Kuetz.) (Boyer)

GEORGIA Bailey, 1851 - FLORIDA Bailey, 1851 both as Cocconema

cymbiforme Ehr.

3. *CYMBELLA EHRENBERGII* Kuetz. (Schoenfeldt (f)) (Boyer)

NO. CAROLINA Silva & Sharp, 1944.

4. *CYMBELLA HAUCKII* V.H. (Schoenfeldt)

NO. CAROLINA Silva & Sharp, 1944.

5. *CYMBELLA NAVICULIFORMIS* Auersw. (Schoenfeldt (f)) (Boyer)

NO. CAROLINA Silva & Sharp, 1944 - TENNESSEE Silva & Sharp, 1944.

6. *CYMBELLA PROSTRATA* (Berk.) Cleve (Schoenfeldt (f)) (Boyer)

TENNESSEE Silva & Sharp, 1944 the species authorship being given
as (Bréb.) Cleve.

7. *CYMBELLA SCOTICA* W. Smith (Schoenfeldt (f) as a synonym for C. gracilis)

NO. CAROLINA Silva & Sharp, 1944.

Patrick, who made the identification, considers the species
valid.

8. *CYMBELLA TUMIDA* (Bréb.) V.H. (Schoenfeldt (f) with the species author

Brébisson only) (Boyer)

TENNESSEE Silva & Sharp, 1944.

9. *CYMBELLA VENTRICOSA* Agardh (Schoenfeldt (f)) (Boyer)

TENNESSEE Silva & Sharp, 1944.

The genus has been reported also from Kentucky by Brinley

& Katzin, 1942, and is evidently what Lackey, 1942, referred to in his mention of Encyonema sp. from Tennessee.

SUB-ORDER Surirellineae

FAMILY 1 Nitzschiaceae (Nitzschiodeae)

BACILLARIA (obsolete)

1. BACILLARIA PARADOXA Ehr. (Schoenfeldt (f))

SO. CAROLINA Bailey, 1851 - GEORGIA Bailey, 1851.

NITZSCHIA Hassall 1845

1. NITZSCHIA ACICULARIS (Kuetz.) W. Smith (Schoenfeldt (f) as N.

(Nitzschiella) acicularis Kuetz.) (Boyer)

TENNESSEE Lackey, 1942.

2. NITZSCHIA GRANULATA Grun.

GEORGIA Wolle, 1894.

This may not be a valid species.

3. Nitzschia minuta

TENNESSEE Lackey, 1942.

The writer has been unable to find any other references to or an authority for this species. The genus has also been reported from Kentucky by Brinley & Katzin, 1942.

FAMILY 2 Surirellaceae

SURIRELLA Turpin 1828

1. SURIRELLA MISSISSIPPICA Ehr. Mik.

MISSISSIPPI Wolle, 1894.

This may not be a valid species.

2. SURIRELLA PULCHRA Lewis & Lewis (Boyer with authorship Lewis only)

GEORGIA Wolle, 1894 - FLORIDA Wolle, 1894.

3. SURIRELLA SPLENDIDA (Ehr.) Kuetz. (Boyer)

SO. CAROLINA Bailey, 1851 - GEORGIA Bailey, 1851 - FLORIDA

Bailey, 1851.

Bailey had only Ehrenberg as his species author.

4. *SURIRELLA TENERA* var. *NERVOSA* Mayor (Boyer with authorship A. Schmidt)

TENNESSEE Silva & Sharp, 1944.

The genus has also been reported from North Carolina by Whitford, 1943 and from Kentucky by Brinley & Katzin, 1942.

Phylum CHLOROPHYTA

Class CHLOROPHYCEAE

ORDER 1 VolvocalesFAMILY 1 Polyblepharidaceae

COLLODICTYON H. J. Carter 1865

Fritsch(I) is followed in placing this genus here,

Pascher places it following Furcellia, which is here found
the Chlamydomonaceae

1. COLLODICTYON TRICILIATUM H. J. Carter (Pascher, 27 (f))

TENNESSEE Lackey, 1942.

HETEROMASTIX Korshikoff 1923

1. HETEROMASTIX ANGULATA Korsh. (Smith (f)) (Pascher, 27 (f))

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

PEDINOMONAS Korschikoff

1. PEDINOMONAS MINOR Korsch. (Pascher, 27 (f))

TENNESSEE Lackey, 1942.

The genus has also been reported from Kentucky by Brinley
& Katzin, 1942.

PYRAMIDOMONAS Schmarda 1850

The genus has been reported from Tennessee by Lackey, 1942.

POLYBLEPHARIDES Dangeard 1888

The genus was observed at Glen Falls, North Carolina,
by H. C. Bold in 1938 according to his notes in possession
of the University of Tennessee Herbarium.

SPERMATOPSIS Korshikoff, 1913

1. SPERMATOPSIS EXULTANS Korsh. (Pascher, 27(f)) (Fritsch I)

KENTUCKY Brinley & Katzin, 1942.

FAMILY 2 Chlamydomonadaceae

CARTERIA Diezing 1886

1. CARTERIA FRITSCHII Takeda (Takeda, 16)
NO. CAROLINA Bold # 42b (UT record).
2. CARTERIA GLOBOSA Korsh. (Pascher, 27(f))
NO. CAROLINA Whitford, 1943.

The genus has also been reported from Tennessee by Lackey, 1942 and a Bold collection, and from Kentucky by Brinley & Katzin, 1942.

CHLAMYDOMONAS Ehrenberg 1833

1. CHLAMYDOMONAS CLATHRATA (Korsh.) Pascher (Pascher, 27(f))
NO. CAROLINA Bold # 122(UT record).
2. Chlamydomonas communis Snow.
see CHLAMYDOMONAS SNOWII Printz.
3. CHLAMYDOMONAS CONVERSA Korsh. (Pascher, 27(f))
GEORGIA Bold # 58(UT record).
4. CHLAMYDOMONAS EHRENBORGII Gorosh. (Pascher, 27(f))
NO. CAROLINA Bold # 24e(UT record).
5. CHLAMYDOMONAS FENESTRA Whitford. (Whitford, 43(f))
NO. CAROLINA Whitford, 1943.

This is the only report.

6. CHLAMYDOMONAS GLOE^oGAMA Korsh. (Pascher, 27(f))
SO. CAROLINA Bold # 56(UT record).
7. CHLAMYDOMONAS NASUTA Korsh. (Pascher, 27(f))
NO. CAROLINA Bold # 147(UT record).
8. CHLAMYDOMONAS NOCTIGAMA Korsh. (Pascher, 27(f))
TENNESSEE Bold # 200(UT record).
9. CHLAMYDOMONAS PATELLARIA Whitford (Whitford, 43(f))
NO. CAROLINA Whitford, 1943.



This is the only report.

10. CHLAMYDOMONAS PLATYSTIGMA Pascher (Pascher, 27(f))

NO. CAROLINA Whitford, 1943.

11. CHLAMYDOMONAS PERTYI Gorosh. (Pascher, 27(f))

NO. CAROLINA Whitford, 1943.

12. CHLAMYDOMONAS PSEUDOPERTYI Pascher (Prescott (f)) (Pascher, 27(f))

NO. CAROLINA Bold # 24a(UT record).

13. CHLAMYDOMONAS SNOWII Printz (Prescott (f)) (Pascher, 27(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 as C. communis Snow -
KENTUCKY McInteer, 1939.

14. CHLAMYDOMONAS STELLATA Dill (Pascher, 27(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

The genus has also been reported from Florida,
Smith & Ellis, 1943.

CHLOROGONIUM Ehrenberg 1830

1. CHLOROGONIUM ELONGATUM Dang. (Smith (f)) (Pascher, 27(f))

TENNESSEE Lackey, 1942.

2. CHLOROGONIUM EUCHLORUM Ehr. (Smith (f)) (Pascher, 27 (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

3. CHLOROGONIUM TETRAGAMUM Bohlin (Pascher, 27(f))

TENNESSEE Bold # 16(UT record).

The genus has also been reported from Kentucky by
Brinley & Katzin, 1942.

FURCILLIA Stokes 1890

1. FURCILLIA LOBOSA Stokes (Smith (f)) (Lemmerman b)

NO. CAROLINA Whitford, 1943.

LOBOMONAS Dangeard 1898

1. LOBOMONAS ROSTRATA Hazen (Smith (f)) (Pascher, 27(f))

NO. CAROLINA Whitford, 1943 - KENTUCKY Brinley & Katzin,
1942 - TENNESSEE Lackey, 1942.

✓
PLATMONAS G. S. West 1916
X

1. PLATYMONAS ELLIPTICA G. M. Smith (Smith (f))

TENNESSEE Lackey, 1942.

POLYTOMA Ehrenberg 1838

1. POLYTOMA UVELLA Ehr. (Smith (f)) (Pascher, 27(f))

KENTUCKY Brinley & Katzin, 1942.

SCHERFFELIA Pascher 1927

1. SCHERFFELIA PHACUS Pascher (Pascher, 27(f)) (Fritsch I (f))

TENNESSEE Lackey, 1942.

The genus has also been reported from Kentucky by
Brinley & Katzin, 1942.

SPHAERELLOPSIS Korshikov 1925

1. SPHAERELLOPSIS FLUVIATILE (Stein) Pascher (Smith (f)) (Pascher, 27 (f))

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

FAMILY 3 Phacotaceae

COCCOMONAS Stein 1878

1. COCCOMONAS ORBICULARIS Stein (Pascher, 27(f)) (Fritsch I (f))

KENTUCKY Brinley & Katzin, 1942.

DISMORPHOCOCCUS Takeda 1916

1. DISMORPHOCOCCUS FRITSCHII Takeda (Pascher, 27(f))

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

PHACOTUS Perty 1852

1. PHACOTUS LENTICULARIS (Ehr.) Stein (Smith (f)) (Pascher, 27(f))

KENTUCKY Brinley & Katzin, 1942 - Tennessee Lackey, 1942;

Bold collection (UT record).

PEDINOPERA Pascher 1927

1. PEDINOPERA GRANULOSA Pascher (Pascher, 27(f))

TENNESSEE Lackey, 1942.

The genus has been reported also from Kentucky by
Brinley & Katzin, 1942.

PTEROMONAS Seligo 1887

1. PTEROMONAS ACULEATA Lemm. (Smith) (Pascher, 27(f))

KENTUCKY Brinley & Katzin, 1942.

2. PTEROMONAS ACULEATA var. LEMMERMANNI Skuja (Smith (f))

TENNESSEE Lackey, 1942.

3. PTEROMONAS ANGULOSA Lemm. (Pascher, 27(f))

NO. CAROLINA Whitford, 1943 - TENNESSEE Lackey, 1942
missprinted P. angulata.

4. PTEROMONAS CRUCIATA Playfair (Pascher, 27(f))

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

THORACOMONAS Korschikoff 1925

1. THORACOMONAS PHACOTOIDES G. M. Smith (Smith (f))

TENNESSEE Lackey, 1942.

The genus has also been reported from Kentucky by
Brinley and Katzin, 1942.

WISLOUCHIELLA Skvortzow 1925

1. WISLOUCHIELLA PLANTONICA Skvor. (Smith (f))

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

FAMILY 4 Volvocaceae

EUDORINA Ehrenberg 1832

1. EUDORINA CHARKOWIENSIS (Korsh.) Pascher (Smith as Pandorina

charkowiensis Korsh.) (Pascher, 27(f))

NO. CAROLINA Whitford, 1936, as Pandorina charowiensis.

P. charkowiensis is reduced to synonymy, following
Pascher, in this writing, but evidently American authorities

do not accept the reassignment.

2. EUDORINA ELEGANS Ehr. (Smith (f)) (Prescott (f)) (Pascher, 27(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
Whitford, 1943 - KENTUCKY Brinley & Katzin, 1942; P.
McInteer, 1939 - TENNESSEE Eddy, 1942; Lackey, 1942 -
LOUISIANA Prescott, 1942.

3. EUDORINA UNICOCCA G. M. Smith (Smith (f)) (Prescott)

NO. CAROLINA Whitford, 1943.

GONIUM Mueller 1773

1. GONIUM DISCOIDEUM Prescott (Prescott, 42(f))

LOUISIANA Prescott, 1942.

This is the only report.

2. GONIUM PECTORALE Muell. (Smith (f)) (Prescott (f)) (Pascher, 27(f))

NO. CAROLINA Whitford, 1943 - GEORGIA Bailey, 1851 -
KENTUCKY Brinley & Katzin, 1942; McInteer, 1939 - TENNESSEE
Lackey, 1942; Bold collection (UT record).

3. GONIUM SOCIALE (Duj.) Warming (Smith) (Prescott (f)) (Pascher, 27(f))

NO. CAROLINA Whitford, 1943; Bold collection (UT record) -
KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

PANDORINA Bory 1824

1. Pandorina charkowiensis Korsh.

see EUDORINA CHARKOWIENSIS (Korsh.) Pascher

2. PANDORINA MORUM Bory (Smith (f)) (Prescott (f)) (Pascher, 27(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
Whitford, 1943; Bold collection (UT record) - SO. CAROLINA
Metcalf, 1947; Bold collection (UT record) - FLORIDA Borge,
1909 - KENTUCKY Brinley & Katzin, 1942; McInteer, 1939 -
TENNESSEE Lackey, 1942; Bold # 24a(UT record).

This is the commonest and perhaps most easily identified member of the entire family, if the number of records is any indication.

PLATYDORINA Kofoid 1899

1. PLATYDORINA CAUDATA Kofoid (Smith (f)) (Prescott (f)) (Pascher, 27(f))
KENTUCKY McInteer, 1939 - TENNESSEE Lackey, 1942.

PLEODORINA Shaw 1894

1. PLEODORINA CALIFORNICA Shaw (Smith (f)) (Prescott (f)) (Pascher, 27(f))
KENTUCKY McInteer, 1939 - TENNESSEE Bold collection (UT record).
2. PLEODORINA ILLINOISENSIS Kofoid (Smith (Prescott (f))
(Pascher, 27(f) as Eudorina illinoisensis (Kofoid) Pascher)
KENTUCKY McInteer, 1939.

VOLVOX Linnaeus 1758

1. VOLVOX AUREUS Ehr. (Smith (f)) (Prescott (f)) (Pascher, 27(f))
VIRGINIA Hutchinson & Pickford, 1932 - NO. CAROLINA
Whitford, 1943 - KENTUCKY McInteer, 1939.
2. VOLVOX GLOBATOR L. (Smith) (Prescott (f)) (Pascher, 27(f))
KENTUCKY McInteer, 1939 - LOUISIANA Prescott, 1942.

General distribution is assigned the species by Wölle,
1887, and it is probably common and widespread enough although
only reported twice in the Southeast since Wölle.
3. VOLVOX MONONAE G. M. Smith (Smith) (Prescott (f)) (Pascher, 27)
NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

Pascher is somewhat in doubt about the validity of
this species.
4. VOLVOX PERGLOBATOR Powers (Smith) (Prescott (f)) (Pascher, 27(f))
NO. CAROLINA Whitford, 1943 - TENNESSEE Bold collection
(UT record).

FAMILY 5 Spondylomoraceae

CHLAMYDOBOTRYS Korshikoff 1924

The genus has been reported from Kentucky by Brinley
& Katzin, 1942.

FAMILY 6 Sphaerellaceae

SPHAERELLA Sommerfelt 1824

Pascher does not recognize this genus.

1. SPHAERELLA LACUSTRIS (Girod.) Witttr. (Smith (f)) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Whitford, 1943; Bold # 139(UT record) - FLORIDA # F 1(GP)

- TENNESSEE Bold collection (UT record).

STEPHANOSPHAERA Cohn 1858

1. STEPHANOSPHAERA PLUVIALIS Cohn (Pascher, 27(f))

NO. CAROLINA Whitford, 1943; Bold # 95(UT record).

ORDER 2 TetrasperalesFAMILY 1 Palmaceae

ASTEROCOCCUS Scherffel 1908

1. ASTEROCOCCUS LIMNETICUS G. M. Smith (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - FLORIDA # F 10(GP) -

TENNESSEE Bold collection (UT record).

2. ASTEROCOCCUS SUPERBUS (Cienk.) Scherffel (Smith (f)) (Prescott (f))

NO. CAROLINA Bold collection (UT record).

GLOEOCOCCUS A. Braun 1851

Pascher prefers this designation to Sphaerocystis, but
in this case the writer is following the American practice
as stated by Smith, and followed by Prescott.

1. Gloeococcus Schroeteri (Chod.) Lemm.

see SPHAEROCYSTIS SCHROETERI Chod.

GLOEOCYSTIS Naegeli 1849

This genus is placed in the Tetrasporaceae by some writers, including Drouet, 1948, and there is no universal agreement on the family disposition of most other genera of the Tetrasporales.

The assignment found here follows Smith, 1933.

1. GLOEOCYSTIS AMPLA (Kuetz.) Lagerh. (Smith (f) species author just Kuetzing) (Prescott (f))
 FLORIDA Whelden, 1941 with Kuetzing only as author -
 TENNESSEE Bold collection (UT record).
2. GLOEOCYSTIS CONFLUENS (Kuetz.) P. Richt.
 FLORIDA (CM) - TENNESSEE Silva # 510, 520, etc. (UT) (CM).
3. GLOEOCYSTIS GIGAS (Kuetz.) Lagerh. (Smith (f)) (Prescott (f))
 (Geitler, 28(f) as Gloeocapsa gigas)
 VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
 Whitford, 1943 - FLORIDA Whelden, 1941 - KENTUCKY McInteer, 1939.
4. GLOEOCYSTIS GREVILLEI (Berk.) Drou. & Dail. (Drouet & Daily, 48)
 (Smith and in Prescott (f) and in Geitler, 25(f) as Aphanocapsa Grevellei (Hass.) Rabenh. - in the Chroococcaceae)
 VIRGINIA Iltis # V3(UT)(CM): Strickland collection (CM) -
 NO. CAROLINA Philson, 1939; Whitford, 1943 - SO. CAROLINA
 Philson, 1939; (CM) - FLORIDA Borge, 1909; Brannon, 1945 -
 KENTUCKY McInteer, 1939 - TENNESSEE Silva & Sharp, 1944; Silva
 # 586(UT)(CM).

All of these except the Iltis collection referred to Aphanocapsa Grevillei and this presumably would include Aphanocapsa brunnea Naeg. if Geitler is followed in placing

it in synonymy with A. Grevillei.

5. GLOEOCYSTIS PLANKTONICA Lemm. (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

6. GLOEOCYSTIS VESCICULOSA Naeg. (Smith) (Prescott (f))

NO. CAROLINA Whitford, 1943 - TENNESSEE Silva & Sharp, 1944.

PALMELLA Lyngby 1819 emend. Chodat 1902

1. PALMELLA MUCOSA Kuetz. (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - FLORIDA Whelden, 1941.

2. Palmella prodigiosa Mont.

NO. CAROLINA Curtis, 1867

This was collected on cooked vegetables. There is no other reference to it in literature available to the writer.

PALMODICTYON Kuetzing 1845

1. PALMODICTYON VARIUM (Naeg.) Lemm. (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943.

SPHAEROCYSTIS Chodat 1897

The genus is referred to by Lemmermann and others as

Gloeococcus.

1. SPHAEROCYSTIS SCHROETERI Chod. (Smith (f)) (Prescott (f))

(Lemmermann (f) as Gloeococcus Schroeteri (Chod.) Lemm.)

VIRGINIA Lewis, Zirkle & Patrick, 1933 as Gloeococcus

Schroeteri - NO. CAROLINA Whitford, 1943; Bold # 87

(UT record) - SO. CAROLINA Metcalf, 1947 - KENTUCKY Brinley

& Katzin, 1942; McInteer, 1942 - TENNESSEE Bold collection

(UT record).

UROCOCCUS Kuetzing 1849

1. UROCOCCUS HOOKERIANUS Berk. & Hass. (Smith (f))

TENNESSEE Silva # 632(UT)(CM).

FAMILY 2 TetrasporaceaeAPIOCYSTIS Naegeli 1849

1. APIOCYSTIS BRAUNIANA Naeg. (Smith (f)) (Prescott (f))

FLORIDA Collins, 1909 repeating Wolle; Wolle, 1887.

SCHIZOCHLAMYS A. Braun 1849

1. SCHIZOCHLAMYS DELICATULA West (Prescott (f)) (Lemmermann (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

2. SCHIZOCHLAMYS GELATINOSA A. Braun (Smith (f)) (Prescott (f))

NO. CAROLINA Bold # 316(UT record) - TENNESSEE Bold collection (UT record).

TETRASPORA Link 1809

1. Tetraspora bullosa (Roth) Agardh

NO. CAROLINA Wood, 1874

Collins says that this report refers to a Monostroma in the Ulvaceae. It seems likely then that it may have been Monostroma quaternarium (Kuetz.) Desmaziers which is the best known species, or M. bullosa (Roth) Wittr. given by Lemmerman as the correct name for Tetraspora bullosa Kuetz.

2. TETRASPORA CYLINDRICA (Wahlb.) Agardh (Smith (f)) (Prescott (f))

(Lemmermann (f))

NO. CAROLINA Whitford, 1943 - TENNESSEE Silva # 188(UT)(CM).

3. TETRASPORA GELATINOSA (Vauch.) Desv. (Smith) (Prescott (f))

(Lemmermann(f))

NO. CAROLINA Bold collection (UT record) - FLORIDA Whelden,

1941 - KENTUCKY McInteer, 1939 - TENNESSEE Silva # 592

(UT)(CM) - LOUISIANA (CM).

4. TETRASPORA LAUSTRIS Lemm. (Smith) (Prescott (f))(Lemmermann(f))

KENTUCKY McInteer, 1939.

5. TETRASPOEA LUBRICA (Roth) Agardh (Smith (f))(Prescott (f))
(Lemmermann (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
Whitford, 1943; Bold # 154(UT record) - SO. CAROLINA
Bailey, 1851 - KENTUCKY McInteer, 1939 - ALABAMA (CM).

FAMILY 3 Coccomyxaceae

^{NA}
CHLOROSARCINA Gerneck 1907

1. CHLOROSARCINA CONSOCIATA (Klebs) G. M. Smith (Smith (f))
NO. CAROLINA Whitford, 1943.

COCCOMYXA Schmidle 1901

1. COCCOMYXA DISPAR Schm. (Smith (f))
NO. CAROLINA Bold collection (UT record) - TENNESSEE Silva
& Sharp, 1944.

ELAKATOTHRIX Wille 1898

1. ELAKATOTHRIX GELATINOSA Wille (Smith (f))(Prescott (f))
NO. CAROLINA Whitford, 1943.

NANNOCHLORIS Naumann 1919

1. NANNOCHLORIS BACILLARIS Naumann (Smith (f))
NO. CAROLINA Bold collection (UT record).
ORDER 2 Ulotrichales

FAMILY 1 Ulotrichaceae

BINUCLEARIA Wittrock 1886

1. BINUCLEARIA TATRANA Witt. (Smith (f))(Prescott (f))
NO. CAROLINA Whitford, 1943; Bold # 72(UT record).

GEMINELLA Turpin 1828

1. GEMINELLA MINOR Heering (Smith (f))(Prescott (f))
LOUISIANA Prescott, 1942.

The genus has also been reported from Florida by
Smith & Ellis, 1943.

770.

HORMIDIUM Kuetzing 1843 emend. Krebs 1896

The genus has been reported from Virginia by Wood, 1874
and from Florida by Smith & Ellis, 1943.

RADIOFILUM Schmidle 1894

1. RADIOFILUM CONJUNCTIVUM Schw. (Smith (f)) (Prescott (f))

KENTUCKY McInteer, 1939.

2. RADIOFILUM IRREGULARE (Wolle) Brunn. (Smith) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

STICHOCOCCUS Naegeli 1849 emend. Gay 1891

1. STICHOCOCCUS BACILLARIS Naeg. (Smith) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Collins,
1909; Whitford, 1943.

2. STICHOCOCCUS FLACCIDUS (Kuetz.) Gay (Smith) (Hazen (f))

VIRGINIA Allison # 8(CM) - TENNESSEE Silva # 519(UT)(CM).

3. STICHOCOCCUS FLUITANS Gay (Smith) (Hazen (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - TENNESSEE Bold # 346
(UT record).

4. STICHOCOCCUS RIVULARIS (Kuetz.) Hazen (Smith) (Hazen (f))

FLORIDA Wolle, 1879 as Ulothrix rivularis Kuetz. - TENNESSEE
Silva # 417(UT)(CM).

5. STICHOCOCCUS SCOPULINUS Hazen (Smith) (Prescott (f)) (Hazen (f))

TENNESSEE Silva & Sharp, 1944.

6. STICHOCOCCUS SUBTILIS (Kuetz.) Klecker (Smith (f)) (Prescott (f))

VIRGINIA (CM) - NO. CAROLINA Bold collection (UT record) -
FLORIDA Smith & Ellis, 1943; (CM) - TENNESSEE Silva & Sharp,
1944; Silva 411, 452 etc. (UT)(CM).

The record for this species is probably no indication of
its frequency.

ULOTHRIX Kuetzing 1833

1. ULOTHRIX AEQUALIS Kuetz. (Smith) (Prescott (f))

TENNESSEE Bold # 3947(UT record).

2. Ulothrix crassiuscula Kuetz.

SO. CAROLINA Wolle, 1879.

The writer has been unable to find further references to this species.

3. Ulothrix parietina Kuetz.

FLORIDA Wolle, 1879.

The writer has been unable to find further reference to this species.

4. Ulothrix radicans Kuetz.

SO. CAROLINA Wolle, 1879.

The writer has been unable to find further reference to this species.

5. Ulothrix rivularis Kuetz.

see STICHOCOCCUS RIVULARIS (Kuetz.) Hazen.

6. ULOTHRIX TENERRIMA Kuetz. (Smith) (Prescott (f)) (Hazen (f))

VIRGINIA (CM); Wood, 1874 determination of Hormidium sp. may also belong here - NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939 - TENNESSEE Bold collection (UT record).

7. ULOTHRIX TENUISSIMA Kuetz. (Smith) (Prescott) (Hazen (f))

NO. CAROLINA Bold collection (UT record) - TENNESSEE Bold # 3947 (UT record).

8. ULOTHRIX VARIABILIS Kuetz. (Smith) (Prescott (f)) (Hazen (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer, 1939 - TENNESSEE (CM).

9. ULOTHRIX ZONATA (Webber & Mohr) Kuetz. (Smith (f)) (Prescott (f)) ,
VIRGINIA (CM) - FLORIDA (CM) - TENNESSEE
Lackey, 1942; (CM).

(Hazen (f))

ORDER 4 Microsporaales

FAMILY 1 Microsporaceae

MICRSOPORA Thuret 1850 emend. Lagerheim 1888

This genus has been the subject to an intensive study recently by Mrs. Grace Phinney, who has concluded that there are only four distinct entities in the genus; M. amoena, M. Wittrockii, M. stagnorum, and M. tenerrima, with perhaps a variety of M. Wittrockii. In spite of his limited experience with the genus the writer is inclined to agree with Mrs. Phinney to a great measure on the basis of conversations and some observation of her notes. Therefore, an attempt is made below to interpret the species in the light of Mrs. Phinney's conclusions. Since the interpretations are partly the writers, they must be considered all the more tentative.

1. MICROSPORA AMOENA (Kuetz.) Lagerh. (Smith) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 if their report of M. Loefgrenii (Nordst.) Lagerh. belongs here - NO. CAROLINA Bold # 71(UT record) - TENNESSEE Silva # 532(UT)(CM).

2. Microspora Lauterbornii Schm.

VIRGINIA Lewis, Zirkle & Patrick, 1933.

The writer has no basis for reassigning this species, at present.

3. Microspora Loefgrenii (Nordst.) Lagerh. (Prescott (f)) (Hazen (f))

see MICROSPORA AMOENA (Kuetz.) Lagerh.

4. Microspora quadrata Hazen (Prescott) (Hazen (f))

see MICROSPORA TENERRIMA (Kuetz.) Gay

5. MICROSPORA STAGNORUM (Kuetz.) Lagerh. (Smith) (Prescott (f)) (Hazen (f))

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Bold # 60 (UT record)
 if *M. Tumidula* Hazen belongs here - (GEORGIA (CM) - FLORIDA (CM)
 - KENTUCKY McInteer, 1939 - TENNESSEE Silva & Sharp, 1944 per-
 haps including *M. tumidula* of the same; Silva #422, 584 etc.
 (UT)(CM) - MISSISSIPPI (CM).

6. MICROSPORA TENNERRIMA (Kuetz.) Gay

This name was obtained from Mrs. Phinney and was on the
 herbarium specimen listed below. The writer has not yet been
 able to verify its derivation. If it was from *Ulothrix tenerrima*
 Kuetz. some reassignment will have to be done of the species
 commonly known under that name.

MISSISSIPPI Caylor # 26(CM).

7. Microspora tumidula Hazen (Prescott) (Hazen (f))

see MICROSPORA STAGNORUM (Kuetz.) Lagerh.

8. Microspora Willeana Lagerh. (Smith (f)) (Prescott (f))

see MICROSPORA WITTRICKII Lagerh.

9. MICROSPORA WITTRICKII Lagerh. (Hazen (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 as *M. Willeana* -
 NO. CAROLINA Whitford, 1943 including the report of *M. Willeana* -
 GEORGIA Bold # 59 (UT record)
 as *M. Willeana* - TENNESSEE Silva & Sharp, 1944 as *M. Willeana*,
 the specimens having been since annotated to *M. Wittrockii* at
 the Chicago Museum.

ORDER 5 Cylindrocapsales

FAMILY 1 Cylindrocapsaceae

CYLINDROCAPSA Reinsch 1867

1. CYLINDROCAPSA CONFERTA W. West (Smith) (Prescott(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

2. CYLINDROCAPSA GEMINELLA Wolle (Smith(f)) (Prescott)

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939 -
TENNESSEE Bold # 104a(UT record).

A general distribution is assigned by Wolle, 1887,
and Collins, 1909, following Wolle.

ORDER 6 ChaetophoralesFAMILY 1 Chaetophoraceae

APHANOCHAETE A. Braun 1851

1. APHANOCHAETE REPENS A. Braun (Smith(f)) (Prescott(f))

NO. CAROLINA Whitford, 1943.

2. APHANOCHAETE VERMICULOIDES Wolle (Smith) (Prescott(f))

NO. CAROLINA Whitford, 1943.

CHAETONEMA Nowakowski 1876

1. CHAETONEMA ORNATUM Transeau (Transeau, 43)

ALABAMA Transeau, 1943.

CHAETOPHORA Schrank 1789

1. CHAETOPHORA ATTENUATA Hazen (Smith) (Prescott(f))

NO. CAROLINA Whitford, 1943.

2. Chaetophora cornu-damae (Roth) Agardh var. polyclados Kuetz.

see CHAETOPHORA INCRASSATA (Huds.) Hazen.

3. CHAETOPHORA ELEGANS (Roth) Agardh (Smith) (Prescott(f))

NO. CAROLINA Bold # 36 - KENTUCKY McInteer, 1939 - TENNESSEE
Silva # 560(UT) (CM).

Wood, 1874 assigns Eastern United States as the distribution.

4. CHAETOPHORA INCRASSATA (Huds.) Hazen (Smith(f)) (Prescott(f))

SO. CAROLINA Tilden American Algae III # 268 as C. cornu-damae
(Roth) Agar. var. polyclados Kuetz.* - TENNESSEE Clebsch
7(UT) - LOUISIANA Flint # 4(CM).

*The specimen distributed under this name has been annotated in the Chicago Museum. A comparison of this material with more recent collections, dried and fresh, reveal some differences that may possibly be accounted for by growth condition and age of the specimen. The Tilden specimen had a more compact axis of growth resulting in a thinner and somewhat differently branching macroscopic colony. A variety may be justified here.

5. CHAETOPHORA PISIFORMIS Agardh (Smith) (Prescott(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford, 1943.

Bailey, 1851 states that the plant is common.

CHLOROTYLIIUM Kuetzing 1843

1. CHLOROTYLIIUM CATARACTARUM Kuetz. (Smith(f))

KENTUCKY Collins, 1909 - TENNESSEE Silva # 632(UT)(CM).

DRAPARNALDIA Bory 1808

2. DRAPARNALDIA GLOMERATA (Vauch.) Agardh (Smith(f)) (Prescott(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Whitford, 1943 - GEORGIA Bailey, 1851 - KENTUCKY McInteer, 1939.

1. DRAPARNALDIA ACUTA (Agardh) Kuetz. (Smith) (Prescott(f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939 -

TENNESSEE Silva # 546(UT)(CM).

2. DRAPARNALDIA GLOMERATA (Vauch.) Agardh (Smith(f)) (Prescott(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford,

1943 - GEORGIA Bailey, 1851 - KENTUCKY McInteer, 1939.

3. Draparnaldia glomerata var. maxima Featherman

LOUISIANA Featherman, 1871

This is the only report.

4. DRAPARNALDIA PLATYZONATA Hazen (Smith) (Prescott(f))

NO. CAROLINA Whitford, 1943 - TENNESSEE Silva # 368(UT).

5. DRAPARNALDIA PLUMOSA (Vauch.) Agardh (Smith) (Prescott(f))

VIRGINIA (CM) - NO. CAROLINA Whitford, 1943 - KENTUCKY

McInteer, 1939, 1941 - TENNESSEE Bold collection (UT record);

Silva # 607, 707(UT)(CM).

6. DRAPARNALDIA RAVENELII Wolle (Smith) (Wolle, 87(f))

SO. CAROLINA Collins, 1909; Wolle, 1887 both referring to the same collection by Ravenel.

MICROTHAMNION Naegeli 1849

1. MICROTHAMNION STRICTISSIMUM Rabenh. (Smith(f)) (Prescott(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

The genus has also been found in Tennessee by the writer.

STIGEOCLONIUM Kuetzing 1843

1. STIGEOCLONIUM AESTIVALE (Hazen) Coll. (Prescott) (Collins, 09(f))

NO. CAROLINA Bold # 102 (UT record).

2. STIGEOCLONIUM ATTENUATUM (Hazen) Coll. (Prescott(f)) Collins, 09(f))

NO. CAROLINA Bold collection (UT record) - SO. CAROLINA

Patrick collection (CM).

3. Stigeoclonium debile Kuetz.

FLORIDA Wolle, 1879.

The writer has found no further reference to this species.

4. STIGEOCLONIUM LUBRICUM (Dillw.) Kuetz. (Smith) (Prescott(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933; Iltis # 3686(UT)(CM) -

GEORGIA Bold # 289 - (UT record) TENNESSEE Silva # 347, 671

etc.(UT)(CM).

5. STIGEOCLONIUM NANUM (Dillw.) Kuetz. (Prescott(f)) (Collins, 09)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA # F2(GP)

6. *Stigeoclonium protensum* (Dillw.) Kuetz. (Collins, 12) (Hazen)

FLORIDA Wolle, 1887.

Hazen expresses doubts that Wolle's figure represented the species, and doubts the species also.

7. *STIGEOCLONIUM STAGNATILE* (Hazen) Coll. (Prescott (f))(Collins)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

8. *STIGEOCLONIUM SUBSECUNDUM* Kuetz. (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - SO. CAROLINA Collins, 1909; from Wolle 1887 - FLORIDA Whelden, 1941.

9. *STIGEOCLONIUM TENUE* (Agardh) Kuetz. (Smith (f))(Prescott)

VIRGINIA (CM) - NO. CAROLINA Whitford, 1943; Bold collection (UT record) - SO. CAROLINA Bold # 338(UT record) - KENTUCKY McInteer, 1939 - TENNESSEE Silva # 39(UT)(CM).

10. *Stigeoclonium uniforme* Agardh

FLORIDA Wolle, 1879

The writer has been unable to find any further reference to this species.

11. *Stigeoclonium variabile* Naeg. var. *Fritschianum* Heering (Heering (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

12. *Stigeoclonium variabile* Naeg. var. *Gayanum* Heering (Heering (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

No authority was given for this and the preceeding for variety by Heering. If new ones were intended to be described, this was not made clear.

ULVELLA Crounan 1859

1. *Ulvella involvens* (Savi) Schm. (Smith (f))

KENTUCKY McInteer, 1939.

FAMILY 2 Saprochaetaceae

SAPROCHAETE Coker & Shanor 1939

1. *Saprochaete sacchariphila* Coker & Shanor (Coker & Shanor (f))

NO. CAROLINA Coker & Shanor, 1939; Whitford, 1943 repeating
Coker & Shanor.

The original is the only report.

FAMILY 3 Protococcaceae

PROTOCOCCUS Agardh 1824

The genus is also known as Pleurococcus.

1. *PROTOCOCCUS VIRIDIS* Agardh VIRGINIA Lewis, Zirkle & Patrick, 1933 -

NO. CAROLINA Curtis, 1867; Whitford, 1943 - FLORIDA Smith &
Ellis, 1943 - KENTUCKY McInteer, 1939 - TENNESSEE Standley
collection (CM).

This species is so common that few writer have bothered
to report it, apparently.

FAMILY 4 Coleochaetaceae

CHAETOSPHAERIDIUM Klebahn 1892

1. *CHAETOSPHAERIDIUM GLOBOSUM* (Nordst.) Kleb. (Smith (f))(Prescott (f))

FLORIDA Borge, 1909.

2. *CHAETOSPHAERIDIUM PRINGSHEIMII* Klebahn (Smith) (Prescott (f))

NO. CAROLINA Bold collection (UT record).

COLEOCHAETE de Brébisson 1844

1. *COLEOCHAETE DIVERGENS* Prings. (Prescott)(Collins, 09(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

2. *COLEOCHAETE IRREGULARIS* Prings. (Smith) (Prescott (f)) (Heering (f))

NO. CAROLINA Bold # 16(UT record).

3. *COLEOCHAETE NITELLARUM* Jost (Smith) (Prescott (f)) (Collins, 09)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Bold

#326(UT record).

4. COLEOCHAETE ORBICULARIS Prings. (Prescott (f)) (Collins, 09)

FLORIDA Borge, 1909 - KENTUCKY McInteer, 1939 - TENNESSEE

Bold collection (UT record).

5. COLECHAETE SCUTATA Bréb. (Smith (f)) (Prescott (f)) (Collins, 09 (f))

VIRGINIA LEWIS, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford,

1943 - FLORIDA Broge, 1909; Whelden, 1941; (CM) - KENTUCKY

McInteer, 1939 - TENNESSEE Bold # 362a(UT record).

6. COLEOCHAETE SOLUTA (Bréb.) Prings. (Smith (Prescott (f)) (Collins, 09)

NO. CAROLINA Whitford, 1943.

FAMILY 5 Trentapohliaceae

CEPHALEUROS Hariot 1890

1. CEPHALEUROS VIRESCENS Kunze (Smith (f))

FLORIDA Ruehle, 1936, as C. mycoidea Karst; Smith, 1933;

Swingle, 1894; Wolf, 1930 - LOUISIANA Smith, 1933; Wolf,

1930.

Ruehle gives a list of hosts for this parasite including:

Persian Lime (Citrus aurantifolia), Lemon (C. limona), Orange

(C. sinensis), Kumquat (Fortunella margarita), Grapefruit

(C. paradisi), Mango (Mangifera indica), Jujube (Zizyphus mauriti-

aneana), Persimon (Diosporus kaki), Guava (Psidium guajava),

Pecan (Hickoria pecan), Rasin (Hovenia dulcis and Myrica faya),

Annette tree (Bixaorellana sp.), Acacia (Acacia auriculiformis),

Woman's Tongue (Albizzia, three sp.), Pongam (Pongamia pinnata),

Silk Oak (Grevillea robusta).

CHROOLEPUS (obsolete)

1. Chroolepus abietinum Flotow

see TRENTAPOHLIA ABIETINUM (Flotow) Hansg.

2. Chroolepus aureus var. corticulum Wolle

FLORIDA Wolle, 1887.

This is the only reference the writer has been able to find to this variety of what is now known as Trentepohlia aurea. Collins ignored it completely, although he treated all of Wolle's other Chroolepus.

3. Chroolepus umbrinum Kuetz

see TRENT~~E~~POHLIA ODORATA (Wiggers) Wittr.

GONGROSIRA Kuetzing 1843

1. GONGROSIRA DEBARYANA Rabenh. (Smith (f)) (Prescott (f)) (Heering (f))

VIRGINIA Strickland # 1152(CM).

NYLANDERA Hariot 1890

1. NYLANDERA TENTACULATA Hariot

SO. CAROLINA Collins, 1909; Hariot, 1890; Smith, 1933.

Hariot's was the original and only collection.

TRENTEPOHLIA Martius 1817

1. TRENTPOHLIA ABIETINA (Flotow) Hansg. (Smith) (Heering) (Collins, 09)

FLORIDA Wolle, 1887 as Chroolepus abietinum Flotow.

2. TRENTPOHLIA AUREA (L) Martius (Smith) (Heering (f)) (Collins, 09(f))

NO. CAROLINA Bold #199(UT)- SO. CAROLINA (CM)- FLORIDA (CM) -

KENTUCKY McInteer 1939 - TENNESSEE Silva & Sharp, 1944 -

LOUISIANA Prescott, 1942.

3. TRENTPOHLIA ODORATA (Wiggers) Wittr. (Smith) (Heering (f)) (Collins, 09)

VIRGINIA Collins, 1909 FLORIDA Collins, 1909; Wolle, 1887

as Chroolepus Umbrinum Kuetz.

The re-indentification is according to Collins.

ORDER 7 Ulvales

FAMILY 1 Ulvaceae

ENTEROMORPHA Link 1820

1. ENTEROMORPHA INTESTINALIS (L) Grev. (Smith (f)) (Heering (f))

VIRGINIA Strickland # 137(CM).

This collection appears to differ microscopically from available descriptions, and from the material distributed in P.B.A. The cells are up to 20u, rather than the maximum of 16u which is given, and which was observed in the P.B.A. material.

MONOSTROMA Thuret 1854

1. MONOSTROMA QUATERNARIUM (Kuetz. Dezmaziers) (Smith) (Heering (f))

NO. CAROLINA Wood, 1874 as Tetraspora bullosa (Roth) Agardh.

There is perhaps an equally strong possibility that Monostroma bullosa (Roth) Wittr may have been what was collected, except for the fact that this species is not listed in American collections.

FAMILY 2 Schizomeridaceae

SCHIZOMERIS Kuetzing 1843

1. SCHIZOMERIS LEIBLEINII Kuetz. (Smith (f)) (Prescott (f)) (Heering (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933; Iltis # 3690(UT)(CM) -

NO. CAROLINA Whitford, 1943 - SO. CAROLINA (CM) - FLORIDA

Collins, 1909 - KENTUCKY McInteer, 1939 - LOUISIANA Featherman, 1871; Prescott, 1942.

ORDER 8 Schizogoniales

FAMILY 1 Schizogoniaceae

SCHIZOGONIUM Kuetzing 1843

1. SCHIZOGONIUM CRENULATUM (Kuetz.) Gay (Smith)

NO. CAROLINA Whitford, 1943 with the species author just Kuetzing.

2. SCHIZOGONIUM MURALE Kuetz.

VIRGINIA (CM) - NO. CAROLINA Patrick collection (CM); Silva &

Sharp, 1944; Whitford, 1943 - TENNESSEE Patrick collection (CM).

ORDER 9 Chlorococcales

FAMILY 1 Chlorococcaceae

ACANTHOSPHAERA Lemmermann 1899

1. ACANTHOSPHAERA ZACHARIASI Lemm. (Smith (f)) (Prescott (f))

TENNESSEE Lackey, 1942.

CHLOROCOCCUM Fries 1820

1. CHLOROCOCCUM HUMICOLA (Naeg.) Rabenh. (Smith (f)) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford,

1943 - FLORIDA Brannon, 1943; Smith & Ellis, 1943.

2. CHLOROCOCCUM INFUSIONUM (Schränk) Menegh. (Smith) (Prescott)

(Collins, 09)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - SO. CAROLINA

Metcalf, 1947 - KENTUCKY McInteer, 1939.

GOLENKINIA Chodat 1894

1. GOLENKINIA PAUCISPINIA West & West (Smith (f)) (Prescott (f))

KENTUCKY McInteer, 1939 - TENNESSEE Lackey, 1942.

2. GOLENKINIA RADIATA Chod. (Smith (f)) (Prescott (f))

SO. CAROLINA Metcalf, 1947 - KENTUCKY McInteer, 1939 -

TENNESSEE Lackey, 1942; Bold collection (UT record).

3. GOLENKINIA RADIATA var. BREVISPINIA (Chod.) Tiff. & Ahl. (Tiffany &

Ahlstrom, 31(f))

NO. CAROLINA Whitford, 1943.

DESMATRACTUM West & West 1902 emend. Pascher 1930

1. DESMATRACTUM BIPYRAMIDATUM (Chod.) Pascher (Smith (f)) (Brunnthaler (f))

TENNESSEE Lackey, 1942.

TREBOUXIA dePuymaly 1924

1. TREBOUXIA CLADONIA (Chod.) G.M. Smith (Smith (f))

NO. CAROLINA Whitford, 1943.

This species is found in many of the common lichens according to Smith.

FAMILY 2 Endosphaeraceae

CHLOROCYTRIUM Cohn 1872

1. CHLOROCYTRIUM LEMNAE Cohn (Smith) (Prescott (f))

NO. CAROLINA Whitford, 1943.

KENTROSPHAERA Borzi 1883

The genus has been recorded from North Carolina by Bold, in his collection #141 (UT record).

RHODOCHYTRIUM Lagerheim 1893

1. RHODOCHYTRIUM SPILANTHIDIS Lagerh. (Smith (f))

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Atkinson, 1908; Collins, 1909 repeating Atkinson.

FAMILY 3 Characiaceae

CHARACIUM A. Braun 1849

1. CHARACIUM DEBARYANUM (Reinsch) DeToni (Prescott) Collins, 09 (f))

NO. CAROLINA Bold # 61 (UT record).

2. CHARACIUM ENSIFORME Hermann (Brunnthaler (f) as Characiopsis sublata Borzi)

NO. CAROLINA Whitford, 1943.

Brunnthaler follows Lemmerman in making this species name a synonym of Characiopsis sublata, although his own observation leads him to feel that this is perhaps an incorrect move.

3. CHARACIUM GRACILLIPES Lambert (Smith) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

4. CHARACIUM LIMNETICUM Lemm. (Smith) (Prescott (f))

KENTUCKY McInteer, 1939.

5. CHARACIUM PRINGSHEIMII A. Braun (Smith) (Prescott (f))

NO. CAROLINA Whitford, 1943.

6. CHARACIUM STIPITATUM (Bach) Wille (Prescott (f))

KENTUCKY McInteer, 1939.

7. CHARACIUM STRICTUM A. Braun (Collins, 09) (P.B.A. # 1371)

It seems probable that this was collected in the Southeast although the report, Wolle, 1879 does not specify.

FAMILY 4 Protosiphonaceae

PROTOSIPHON Klebs 1896

1. PROTOSIPHON BOTRYOIDES (Kuetz.) Klebs (Smith (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Whitford, 1943 - TENNESSEE Silva # 584(UT)(CM) - MISSISSIPPI (CM).

Although the species is listed as subaerial the Tennessee collection was from a floating stick in lake backwater, along with Microspora stagnorum (Kuetz.) Lagerh.

FAMILY 5 Hydrodictyaceae

HYDRODICTYON Roth 1800

1. HYDRODICTYON RETICULATUM (L) Lagerh. (Smith (f)) (Prescott (f))

KENTUCKY McInteer, 1939.

MONACTINUS (obsolete)

1. Monactinus duodenarius Bailey

see PEDIASTRUM SIMPLEX var. DUODENARIUM (Bailey) Rabenh.

2. Monactinus octonarius Bailey

see PEDIASTRUM SIMPLEX (Meyen) Lemm.

PEDIASTRUM Meyen 1829

1. PEDIASTRUM ARANEOSUM Racib. (Prescott (f)) (Brunnthaler (f) as P.

angulosum var. araneosum Racib.)

NO. CAROLINA Whitford, 1943.

2. PEDIASTRUM ARANEOSUM var. RUGOSUM (G.S. West) G.M. Smith (Prescott (f))

(Brunnthaler (f)) as Pediastrum angulosum var. rugosum Racib.)

FLORIDA Whelden, 1941.

3. PEDIASTRUM BIRADIATUM Meyen (Smith (f)) (Prescott (f)) (Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

4. PEDIASTRUM BIRADIATUM var. LONGECORNUTUM Gutw. (Brunnthaler (f))

KENTUCKY McInteer, 1939.

5. PEDIASTRUM BORYANUM (Turp.) Menegh. (Smith (f)) (Prescott (f))

(Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - GEORGIA Wood, 1874 - FLORIDA

Bailey, 1851; Wood, 1874 - KENTUCKY Lillick & Lee, 1934;

McInteer, 1939, 1944 - TENNESSEE Lackey, 1942; Bold

collection (UT)(CM).

A distribution of Maine to Florida is assigned by Wolle,

1892.

6. PEDIASTRUM BORYANUM var. LONGICORNE Racib. (Prescott (f)) (Brunnthaler

(f)) (Smith, 20(f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

7. PEDIASTRUM CONSTRICTUM Hass. (Prescott) (Brunnthaler (f))

SO. CAROLINA Bailey, 1851; Wolle, 1884, 1892; Wood, 1874 -

GEORGIA Bailey, 1851; Wolle, 1884, 1892; Wood, 1874.

The Bailey reports are as P. ellipticum Hass. and are

repeated with the name change in Wolle and Wood.

8. PEDIASTRUM DUPLEX Meyen (Smith) (Prescott (f)) (Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Bailey, 1851 as

P. Napoleonis Menegh. - FLORIDA Borge, 1909; Brannon # 163a (CM)

- KENTUCKY McInteer, 1939 - TENNESSEE Eddy, 1930; Bold collection (UT record).

9. *PEDIASTRUM DUPLEX* var. *ASPERUM* A. Braun (Brunnthaler (f))

FLORIDA Borge, 1909; Collins, 1918 repeating Borge.

10. *PEDIASTRUM DUPLEX* var. *CLATHRATUM* (A. Braun) Lagerh. (Prescott (f)) (Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - FLORIDA Borge, 1909 - KENTUCKY McInteer, 1939.

11. *PEDIASTRUM DUPLEX* var. *COHAERENS* Bohlin (Prescott (f) as P. cohaerens) KENTUCKY McInteer, 1939

12. *PEDIASTRUM DUPLEX* var. *CORNUTUM* Racib. (Brunnthaler (f))

FLORIDA Borge, 1909; Collins, 1918 repeating Borge.

13. *PEDIASTRUM DUPLEX* var. *GRACILLIMUM* West & West (Prescott (f)) (Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

14. *PEDIASTRUM DUPLEX* var. *RETICULATUM* Lagerh. (Prescott (f)) (Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - FLORIDA Borge, 1909 - KENTUCKY McInteer, 1939.

15. *PEDIASTRUM DUPLEX* var. *ROTUNDATUM* Lucks. (Smith, 20 (f))

NO. CAROLINA Whitford, 1943.

16. *Pediastrum Ehrenbergii* (Corda) A. Braun

see *PEDIASTRUM TETRAS* (Ehr.) Ralfs

17. *Pediastrum ellipticum* Hass.

see *PEDIASTRUM ELLIPTICUM* Hass.

18. *Pediastrum hepatactis* Menegh.

Bailey, 1851 reported this species from South Carolina, Georgia and Florida, but the writer has been unable to find any

further reference to it.

19. PEDIASTRUM KAWRAISKYI Schm. (Prescott (f)) (Brunnthaler (f))

KENTUCKY McInteer, 1939.

20. Pediastrum Napoleonis Menegh.

see PEDIASTRUM DUPLEX Meyen

21. PEDIASTRUM SIMPLEX (Meyen) Lemm. (Prescott (f)) (Brunnthaler (f))

SO. CAROLINA Metcalf, 1947; Wood, 1874 who explains that

he took it from Monactinus octonarius, Bailey, 1851 -

KENTUCKY McInteer, 1939 - TENNESSEE Lackey, 1942.

22. PEDIASTRUM SIMPLEX var. DUODENARIUM (Bailey) Rabenh. (Smith (f))

(Prescott (f))

SO. CAROLINA Wood, 1874 from Bailey's Monactinus duodenarius

Bailey, 1851 - McInteer, 1939.

23. PEDIASTRUM SIMPLEX var. OVATUM (Ehr.) Tiff. (Tiffany, 34 (f))

(Brunnthaler (f) as P. ovatum (Ehr.) A. Braun)

KENTUCKY McInteer, 1939.

24. PEDIASTRUM TETRAS (Ehr.) Ralfs. (Smith) (Prescott (f)) (Brunnthaler

(f))

NO. CAROLINA Whitford, 1943; Bold # 288 (UT record) - SO.

CAROLINA Wood, 1874 as P. Ehrenbergii (Corda) A. Braun -

GEORGIA Bailey, 1851; Wood, 1874 both as P. Ehrenbergii -

FLORIDA Borge, 1909; Wood, 1874 as P. Ehrenbergii; (CM) -

KENTUCKY McInteer, 1939.

25. PEDIASTRUM TETRAS var. TETRAODON (Corda) Hansg. (Prescott (f))

with the species author ^{Rabenh.} ~~Lagern.~~ instead of Hansg.)

(Brunnthaler (f))

NO. CAROLINA Whitford, 1943 KENTUCKY McInteer, 1939.

1. SORASTRUM AMERICANUM (Bohlin) Schm. (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943.

2. SORASTRUM BIDENTATUM Reinsch (Prescott)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

3. Sorastrum crassispinosum (Hansg.) Bohlin

see SORASTRUM SPINULOSUM Naeg.

4. SORASTRUM SPINULOSUM Naeg. (Smith) (Prescott (f)) (Brunnthaler (f))

FLORIDA Borge, 1909 as S. crassipinosum - KENTUCKY McInteer, 1939.

The genus has also been reported from Tennessee by Lackey,
1942.

FAMILY 6 Coelastraceae

COELASTRUM Naegeli 1849

1. COELASTRUM ANGUSTAE var. ARMATUM Skuja (Prescott & Croasdale, 37)

NO. CAROLINA Whitford, 1943.

2. COELASTRUM CAMBRICUM Arch. (Prescott (f)) (Brunnthaler (f))

NO. CAROLINA Whitford, 1943; - Bold collection (UT record) -

FLORIDA Borge, 1909 as C. pulchrum Schm.; Whelden, 1941; # F 4(GP) -

KENTUCKY McInteer, 1939 - TENNESSEE Lackey, 1942.

3. COELASTRUM CAMBRICUM var. INTERMEDIUM (Bohlin) G.S. West (Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - FLORIDA Borge, 1909 as C.

pulchrum var. intermedium Bohlin; Collins, 1918 after Borge.

4. COELASTRUM CHODATII Duce'llier (Smith)

NO. CAROLINA Whitford, 1943

5. COELASTRUM MICROPORUM Naeg. (Smith (f)) (Prescott (f))

FLORIDA Borge, 1909; - (CM) - KENTUCKY McInteer, 1938, 1939 -

TENNESSEE Lackey, 1942; Bold collection (UT record).

6. COELASTRUM MORUS West & West (Brunnthaler (f))

NO. CAROLINA Whitford, 1943.

7. COELASTRUM PROPOSCIDEUM Bohlin (Smith (f)) (Prescott (f))

NO. CAROLINA Bold # 415(UT record) - FLORIDA Borge, 1909.

8. Coelastrum pulchrum Schm.

see COELASTRUM CAMBRICUM Arch.

9. Coelastrum pulchrum var. intermedium Bohlin

see COELASTRUM CAMBRICUM var. INTERMEDIUM (Bohlin)

G.S. West.

10. COELASTRUM RETICULATUM (Dang.) Senn. (Smith (f)) (Prescott (f))

KENTUCKY McInteer, 1939.

11. COELASTRUM ^HSPAERICUM Naeg. (Smith) Prescott (f))

NO. CAROLINA Whitford, 1943 - FLORIDA Borge, 1909.

12. COELASTRUM VERRUCOSUM (Reinsch) DeToni (Brunnthaler (f))

KENTUCKY McInteer, 1939.

FAMILY 7 Oocystaceae

ANKISTRODESMUS Corda 1838 emend. Ralfs 1848

1. ANKISTRODESMUS BRAUNII (Naeg) A. Braun (Prescott) (Brunnthaler)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

2. ANKISTRODESMUS FALCATUS (Corda) Ralfs (Smith (f)) (Prescott (f))
(Brunnthaler (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Whitford, 1943; Bold collection (UT record) - SO. CAROLINA

Bailey, 1851 - GEORGIA Bailey, 1851 - FLORIDA # F1(^{GP}~~M~~) -

KENTUCKY McInteer, 1939 - TENNESSEE Lackey, 1942.

Collins, 1909, reported it as Raphidium falcatum

(Corda) Cooke from, "Everywhere."

3. ANKISTRODESMUS FALCATUS var. MIRABILIS (West & West) G.S. West
(Prescott (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939 -
TENNESSEE Lackey, 1942.

4. ANKISTRODESMUS FALCATUS var. TUMIDUS (West & West) G.S. West
(Prescott (f))

KENTUCKY McInteer, 1939.

5. ANKISTRODESMUS SPIRALIS (Turn.) Lemm. (Prescott (f))

NO. CAROLINA Bold # 62(UT record).

CHLORELLA Beyerinck 1890

Zoochlorella Brandt 1882 is included in this genus on the basis of biological character but separated because of convenience and practice, Zoochlorella containing the endozoic species.

1. CHLORELLA (Zoochlorella) CONDUCTRIX Brandt (Smith) (Prescott)
(Collins, 09)

VIRGINIA Lewis, Zirkle & Patrick, 1933 as Zoochlorella conductrix - NO. CAROLINA Whitford, 1942 - FLORIDA #F 6(GP).

This is another species which is probably quite common but not often reported.

2. CHLORELLA ELIPSOIDEA Gerneck (Prescott (f))

NO. CAROLINA Whitford, 1943.

3. CHLORELLA (Zoochlorella) PARISITICA Brandt (Smith) (Prescott)
(Collins, 09 (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 as Zoochlorella parisitica - NO. CAROLINA Whitford, 1943.

4. CHLORELLA VULGARIS Beyer (Smith) (Prescott (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

Undoubtedly this is far more common than the number published records indicates.

CLOSTERIOPSIS Lemmermann 1898

1. CLOSTERIOPSIS LONGISSIMA Lemm. (Smith) (Prescott (f))

KENTUCKY Brinley & Katzin, 1942; Smith, 1933 - TENNESSEE
Lackey, 1942

The Smith report is after McInteer, 1930, but the
writer finds only the variety tropica, not the species here.

2. CLOSTERIOPSIS LONGISSIMA var. TROPICA West & West (Smith (f))

(Prescott (f))

KENTUCKY McInteer, 1939.

DACTYLOCOCCUS Naegeli 1849

1. DACTYLOCOCCUS INFUSIONUM Naeg. (Smith (f)) (Prescott (f))

FLORIDA Brannon # 213(CM).

DICTYOSPHAERIUM Naegeli 1849

1. DICTYOSPHAERIUM EHRENBERGIANUM Naeg. (Smith) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer, 1939.

2. DICTYOSPHAERIUM PLANCTONICUM Tiff. & Ahl. (Prescott) (Tiffany & Ahl-

strom, 31)

NO. CAROLINA Whitford, 1943.

3. DICTYOSPHAERIUM PULCHELLUM Wood (Smith (f)) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
Whitford, 1943; Bold # 238(UT record) - FLORIDA Borge,
1909; (CM); # F 5(CP).

The genus has also been reported from Kentucky by Brinley
& Katzin, 1942.

DIMORPHOCOCCUS A. Braun 1855

1. DIMORPHOCOCCUS CORDATUS Wolle (Smith) (Prescott) (Brunnthaler (f))

FLORIDA Collins, 1909 after Wolle, 1887

There is considerable doubt about the separation of this
species from D. lunatus.

2. DIMORPHOCOCCUS LUNATUS A. Braun (Smith (f)) (Prescott (f)) (Brunnthaler (f))
NO. CAROLINA Whitford, 1943 - FLORIDA Borge, 1909; # F 5,10(GP) - KENTUCKY McInteer, 1939 - TENNESSEE (CM) - LOUISIANA Prescott, 1942.

EREMOSPHAERA DeBary 1858

1. EREMOSPHAERA VIRIDIS DeBary (Smith (f)) (Prescott (f))
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford, 1943; Bold # 48 (UT record) - FLORIDA # F,1,7,10(GP).

EXCENTROSPHAERA G. T. Moore 1901

1. EXCENTROSPHAERA VIRIDIS G.T. Moore (Smith (f)) (Prescott)
NO. CAROLINA Whitford, 1943.

FRANCEIA Lemmerman 1898

1. FRANCEIA TUBERCULATA G.M. Smith (Smith (f)) (Prescott)
NO. CAROLINA Whitford, 1943 - TENNESSEE Lackey, 1942.
The genus has also been reported from Kentucky by Brinley & Katzin, 1942.

GLOEOTAENIUM Hansgrig 1890

1. GLOEOTAENIUM LOITLESBERGERIANUM Hansg. (Prescott (f))
KENTUCKY McInteer, 1939.

KIRCHNERIELLA Schmidle 1893

1. KIRCHNERIELLA CONTORTA (Schm.) Bohlin (Smith) (Prescott (f))
KENTUCKY McInteer, 1939.
2. KIRCHNERIELLA LUNARIS (Kirch.) Moebius (Smith (f)) (Prescott (f))
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford, 1943; Bold # 288(UT record) - GEORGIA Bold collection (UT record) - FLORIDA Borge, 1909 - KENTUCKY

McInteer, 1939.

3. KIRCHNERIELLA LUNARIS var. ^ADIANE Bohlin (Prescott (f))
NO. CAROLINA Whitford, 1943 - FLORIDA Borge, 1909.
4. KIRCHNERIELLA LUNARIS var. IRREGULARIS G.M. Smith (Prescott (f))
KENTUCKY McInteer, 1939.
5. KIRCHNERIELLA OBESA (W. West) Schm. (Smith (f)) (Prescott (f))
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
Whitford, 1943 - KENTUCKY McInteer, 1939 - TENNESSEE
Lackey, 1942.
6. KIRCHNERIELLA OBESA var. APERTA (Teil.) Brunn. (Prescott (f))
NO. CAROLINA Whitford, 1943.
7. KIRCHNERIELLA OBESA var. MAJOR (Bern.) G.M. Smith (Prescott (f))
NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

LAGERHEIMIA Chodat 1895

1. LAGERHEIMIA CHODATII Bern. (Smith (f))
TENNESSEE Lackey, 1942.
2. LAGERHEIMIA DROESCHERI (Lemm.) Printz (Smith (f)) (Prescott (f))
KENTUCKY McInteer.

Smith has Lagerheimia Droescherei (Lemm.) G.M. Smith,
a combination of the above and Chodatella Droescherei Lemm.

3. LAGERHEIMIA LONGISETA (Lemm.) Printz (Prescott (f))
NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939 -
TENNESSEE Lackey, 1942.
4. Lagerheimia minutus
TENNESSEE Lackey, 1942.

Neither the writer nor the author of the paper referred to has been able to ascertain just what species this is intended to be.

5. *LAGERHEIMIA SUBSALSA* Lemm. (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

NEPHROCYTIUM Naegeli 18491. *NEPHROCYTIUM AGARDHIANUM* Naeg. (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939 -

TENNESSEE Bold collection (UT record).

2. *NEPHROCYTIUM LUNATUM* W. West (Smith) (Prescott (f))

KENTUCKY McInteer, 1939.

3. *NEPHROCYTIUM OBESUM* W. West (Smith) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

OOCYSTIS Naegeli 18451. *OOCYSTIS BORGEI* Snow (Smith (f)) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Whitford, 1943 - FLORIDA # F 7(GP) - KENTUCKY

McInteer.

2. *OOCYSTIS CRASSA* Witttr. (Smith (f)) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - TENNESSEE Lackey,
1942.

3. *OOCYSTIS ELLIPTICA* W. West (Prescott (f)) (Brunnthaler (f))

NO. CAROLINA Bold # 41a(UT record) - FLORIDA Whelden,
1941.

4. *OOCYSTIS LACUSTRIS* Chod. (Smith (f)) (Prescott (f)) (Brunnthaler (f))

FLORIDA # F10(GP) - KENTUCKY McInteer, 1939.

5. *OOCYSTIS PARVA* West & West (Smith (f)) (Prescott (f)) (Brunnthaler (f))

KENTUCKY McInteer, 1939.

6. *OOCYSTIS RUPESTRIS* Kirch. (Brunnthaler (f))

TENNESSEE Bold # 333(UT)(CM).

The genus is also represented from South Carolina by
a collection at the Chicago Museum herbarium.

QUADRIGULA Printz 1915

1. QUADRIGULA CHODATII (Tanner-Fullman) G.M. Smith (Smith) (Prescott (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

2. QUADRIGULA CLOSTERIOIDES (Bohlin) Printz (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943.

3. QUADRIGULA LACUSTRIS (Chod.) G.M. Smith (Smith) (Prescott (f))

KENTUCKY McInteer, 1939.

The genus has also been reported from Virginia by
Hutchinson & Pickford, 1932.

PACHYCLADON G.M. Smith 1924

1. PACHYCLADON UMBRINUS G.M. Smith (Smith (f))

NO. CAROLINA Whitford, 1936 - KENTUCKY McInteer, 1939.

PALMELLOCOCCUS Chodat 1894

1. PALMELLOCOCCUS MINIATUS (Kuetz.) Chod. (Smith (f))

SO. CAROLINA Metcalf. 1947.

PLANKTOSPHAERIA G.M. Smith 1918

1. PLANKTOSPHAERIA GELATINOSA G.M. Smith (Smith (f)) (Prescott (f))

KENTUCKY McInteer, 1939; Smith, 1933.

POLYEDRIOPSIS Schmidle 1899

1. POLYEDRIOPSIS SPINOSA Schm. (Smith (f)) (Prescott (f))

TENNESSEE Lackey, 1942.

POLYEDRIUM (obsolete)

1. Polyedrium enorme (Ralfs) DeBary

see TETRAEDRON ENORME (Ralfs) Hansg.

The genus has also been reported from Tennessee by

Lackey, 1942.

RAPHIDIUM (obsolete)

1. Raphidium falcatum (Corda) Cooke

see ANKISTRODESMUS FALCATUS (Corda) Ralfs.

2. Raphidium polymorphum var. contortum (Thur.) Wolle

FLORIDA Wolle, 1887.

Collins in 1909 lists R. polymorphum in synonymy with Ankistrodesmus falcatus, but he does not mention this variety, and there is no other reference to it available to the writer.

SCHROEDERIA Lemmerman 1899

1. SCHROEDERIA SETIGERA (Schroed.) Lemm. (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939 -

TENNESSEE Lackey, 1942

SELENASTRUM Reinsch 1867

1. SELENASTRUM BIBRIANUM Reinsch (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943.

2. SELENASTRUM BIBRIANUM var. GRACILE (Reinsch) Tiff. & Ahl. (Smith

(f) and in Prescott (f) as Selenastrum gracile Reinsch,

the latter also including the Tiffany & Ahlstrom name)

(Tiffany & Ahlstrom, 31 (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 as S. gracile -

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939 -

TENNESSEE Lackey, 1942; Bold collection (UT record).

3. SELENASTRUM MINUTUM (Naeg.) Coll. (Smith (f)) (Prescott (f))

SO. CAROLINA Metcalf, 1947 - KENTUCKY McInteer, 1939 -

TENNESSEE Bold collection (UT record).

4. SELENASTRUM WESTII G.M. Smith (Smith) (Prescott (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

TETRAEDRON Kuetzing 1845

1. TETRAEDRON CAUDATUM (Corda) Hansg. (Smith (f)) (Prescott (f))
(Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

2. TETRAEDRON CAUDATUM var. LONGISPINUM Lemm. (Prescott (f))
(Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

3. TETRAEDRON ENORME (Ralfs) Hansg. (Prescott (f)) (Brunnthaler (f))

FLORIDA Bailey, 1851 as Staurostrum enorme Ralfs; Wood,
1874 as Polyedrium enorme (Ralfs) DeBary - KENTUCKY McInteer,
1939.

4. TETRAEDRON FLORIDENSE West & West (Brunnthaler) (Collins, 18)

FLORIDA Collins, 1918.

5. TETRAEDRON GRACILE (Reinsch) Hansg. (Prescott (f)) (Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

6. TETRAEDRON HASTATUM var. PALATINUM (Schm) Lemm. (Smith (f))
(Prescott (f)) (Brunnthaler (f))

NO. CAROLINA Whitford, 1943.

7. TETRAEDRON LIMNETICUM Borge (Smith) (Prescott (f)) (Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

8. TETRAEDRON MINIMUM (A. Braun) Hansg. (Smith) (Prescott (f))
(Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939 -

TENNESSEE Lackey, 1942.

The Tennessee

~~This~~ report was misprinted as T. minutus, according to

advice from the author.

9. TETRAEDRON MUTICUM var. PUNCTULATUM (Reinsch) DeToni (Prescott (f))

(Brunnthaler)

KENTUCKY McInteer, 1939.

10. TETRAEDRON PENTAEDRICUM West & West (Smith) (Prescott (f))

(Brunnthaler (f))

KENTUCKY McInteer, 1939.

11. TETRAEDRON PLANCTONICUM G.M. Smith (Prescott (f))

KENTUCKY McInteer, 1939.

12. TETRAEDRON QUADRICUSPIDATUM (Reinsch) Hansg. (Brunnthaler (f))

NO. CAROLINA Whitford, 1943.

13. TETRAEDRON REGULARE Kuetz. (Prescott (f)) (Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - FLORIDA Wheldon, 1941 -

KENTUCKY McInteer, 1939 - LOUISIANA Prescott, 1942.

14. TETRAEDRON REGULARE f. MAJOR Reinsch (Brunnthaler)

KENTUCKY McInteer, 1939.

15. TETRAEDRON REGULARE var. INCUS Teil. (Prescott (f)) (Brunnthaler (f))

KENTUCKY McInteer, 1939.

16. TETRAEDRON REGULARE var. LONGISPINUM Reinsch (Brunnthaler (f))

FLORIDA Borge, 1909 - KENTUCKY McInteer, 1939.

17. TETRAEDRON TRIGONUM (Naeg.) Hansg. (Prescott (f)) (Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

18. TETRAEDRON TRIGONUM var. GRACILE (Reinsch) DeToni (Smith (f))

(Prescott (f)) (Brunnthaler (f)) as Tetraedron trigonum

var. tetragonum f. gracile Reinsch)

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

19. TETRAEDRON TRIGONUM var. SETIGERUM (Arch.) Lemm. (Smith) (Prescott)

(Brunnthaler)

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

1. TREUBARIA CRASSISPINA G.M. Smith (Smith (f))

NO. CAROLINA Whitford, 1943 - TENNESSEE Lackey, 1942.

TRICHISCIA Kuetzing 1845

1. TROCHIS^C~~A~~ ARGUTA (Reinsch) Hansg. (Smith) (Brunnthaler)
(Collins, 09)

KENTUCKY McInteer, 1944.

2. TROCHIS^C~~A~~ ASPERA (Reinsch) Hansg. (Smith) (Prescott (f))
(Brunnthaler)

KENTUCKY McInteer, 1939.

3. TROCHIS^C~~A~~ PAPILLOSA Kuetz. (Brunnthaler)

TENNESSEE Lackey, 1942.

4. TROCHIS^C~~A~~ RETICULARIS (Reinsch) Hansg. (Smith) (Prescott (f))

KENTUCKY McInteer, 1939 - TENNESSEE Lackey, 1942.

WESTELLA DeWildemann 1897

1. WESTELLA BOTRYOIDES (W. West) DeWild. (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939 -

TENNESSEE Lackey, 1942; Bold collection (UT record).

FAMILY 8 Scenedesmaceae

ACTINASTRUM Lagerheim 1882

1. ACTINASTRUM GRACILLIMUM G. M. Smith (Smith (f)) (Prescott (f))

KENTUCKY McInteer, 1939 - TENNESSEE Lackey, 1942.

2. ACTINASTRUM HANTZSCHII Lagerh. (Smith (f)) (Prescott (f))

KENTUCKY McInteer, 1939 - TENNESSEE Lackey, 1942.

3. ACTINASTRUM HANTZSCHII var. FLUVIATILE Schroed. (Prescott (f))

NO. CAROLINA Whitford, 1943.

CRUCIGENIA Morren 1830

1. CRUCIGENIA APICULATA (Lemm.) Schm. (Prescott (f)) (Collins, 09)

TENNESSEE Lackey, 1942.

2. CRUCIGENIA APICULATA var. ERIENSIS Tiff. & Ahl. (Tiffany & Ahlstrom,
31 (f))

NO. CAROLINA Whitford, 1943.

3. CRUCIGENIA CRUCIFERA (Wolle) Coll. (Prescott (f)) (Collins, 09)

KENTUCKY McInteer, 1939.

4. CRUCIGENIA FENESTRATA Schm. (Prescott (f)) (Collins, 18)

NO. CAROLINA Whitford, 1943.

5. CRUCIGENIA LAUTERBORNEI Schm. (Prescott (f)) (Collins, 18)

TENNESSEE Lackey, 1942.

6. CRUCIGENIA MARTHEA var. TETRAS Pascher (Brunnthaler (f))

TENNESSEE Lackey, 1942 as C. tetras

7. CRUCIGENIA QUADRATA Morren (Smith (f)) (Prescott (f)) (Collins, 18)

KENTUCKY McInteer, 1939.

8. CRUCIGENIA RECTANGULARIS (Naeg.) Gay (Smith (f)) (Prescott (f))
(Collins, 09)

KENTUCKY McInteer, 1939.

In the McInteer reference and in Smith the author is
given as listed above, but in Prescott and in Collins it is
(A. Braun) Gay, which is probably the correct authorship.

9. CRUCIGENIA TETRAPEDIA (Kirch.) West & West (Smith (f)) (Prescott (f))
(Collins, 09)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Metcalf, 1947 -

KENTUCKY McInteer, 1939.

10. *Crucigenia tetras*

see CRUCIGENIA MARTHEA var. TETRAS Pascher

11. CRUCIGENIA TRUNCATA G.M. Smith (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer, 1939.

1. *ERRERELLA BORNHEMIENSIS* Conrad

KENTUCKY McInteer, 1939.

MICRACTINIUM Fresenius 18581. *MICRACTINIUM PUSILLUM* Fresen. (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939 -
TENNESSEE Lackey, 1942.

2. *MICRACTINIUM PUSILLUM* var. *ELEGANS* G.M. Smith (Smith, 20(f))

KENTUCKY McInteer, 1939.

SCENEDESMUS Meyen 18291. *SCENEDESMUS ABUNDANS* (Kirch.) Chod. (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939, 1944.

2. *SCENEDESMUS ABUNDANS* var. *BREVICAUDA* G.M. Smith (Smith, 20(f))

KENTUCKY McInteer, 1939.

3. *SCENEDESMUS ABUNDANS* var. *LONGICAUDA* G.M. Smith (Smith, 20(f))

(Prescott (f))

KENTUCKY McInteer, 1939.

4. *SCENEDESMUS ACUMINATUS* (Lagerh.) Chod. (Prescott (f)) (Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

5. *SCENEDESMUS ACUTIFORMIS* Schrod. (Prescott (f)) (Brunnthaler (f))

FLORIDA Borge, 1909; # F7,9(GP) - KENTUCKY McInteer, 1939.

6. *SCENEDESMUS ANOMALUS* (G.M. Smith) Tiff. & Ahl. (Tiffany, 34(f))

(Smith as Tetrastrum anomalum G.M. Smith)

TENNESSEE Lackey, 1942 as Tetrastrum anomalum.

7. *SCENEDESMUS ANTENNATUS* Bréb. (Brunnthaler (f))

FLORIDA Wolle, 1879.

8. *SCENEDESMUS ARCUATUS* Lemm. (Prescott (f)) (Brunnthaler (f))

VIRGINIA Lewis, Zirkle & Patrick - KENTUCKY McInteer, 1939.

9. *SCENEDESMUS ARCUATUS* var. *PLATYDISCA* G.M. Smith (Prescott (f))

(Smith, 20(f))

KENTUCKY McInteer, 1939.

10. SCENEDESMUS ARMATUS (Chod.) G.M. Smith (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Metcalf, 1947 -

KENTUCKY McInteer, 1939.

11. SCENEDESMUS BERNARDII G.M. Smith (Prescott (f)) (Smith, 20(f))

KENTUCKY McInteer, 1939.

12. SCENEDESMUS BIJUGA (Turp.) Lagerh. (Prescott (f)) (Brunnthaler (f))

as S. bijugatus (Turp.) Kuetz.) (Smith, 20(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 with the species

author given as (Turp.) Witttr. - NO. CAROLINA Whitford, 1943 -

SO. CAROLINA Metcalf, 1947 - GEORGIA Bailey, 1851 as S.

obtusus Meyen - FLORIDA Borge, 1909; # F4,7, etc.(GP) -

KENTUCKY McInteer, 1939.

13. SCENEDESMUS BIJUGA var. ALTERNANS (Reinsch) Borge (Prescott (f))

(Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

14. SCENEDESMUS BRAZILIENSIS Bohlin (Prescott (f)) (Brunnthaler (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Borge,

1909 - KENTUCKY McInteer, 1939.

15. SCENEDESMUS BRAZILIENSIS var. COSTODISPAR Ahl. (Ahlstrom, 35)

NO. CAROLINA Whitford, 1943.

16. Scenedesmus caudatus Corda

NO. CAROLINA Brown, 1911.

Considerable confusion surrounds the consideration of this name. With Naeg. as author, it is a synonym for S. longus var. Naegelii (Bréb.) G.M. Smith, that authored by Wolle is a synonym for S. quadricauda (Turp.) Bréb., while

the one authored by Corda may still be valid, but the writer has not been able to find an authoritative statement to that effect.

17. SCENEDESMUS DENTICULATUS Lagerh. (Smith (f)) (Prescott (f)) (Brunnthaler (f))

KENTUCKY McInteer, 1939.

18. SCENEDESMUS DIMORPHUS (Turp.) Kuetz. (Smith (f)) (Prescott (f)) (Brunnthaler (f) as S. acuminatus (Lagerh.) Chod.)

NO. CAROLINA Whitford, 1943; Bold collection (UT record) -

FLORIDA Whelden, 1941; (CM) - KENTUCKY McInteer, 1939, 1944.

19. SCENEDESMUS LONGUS Meyen (Prescott (f)) (Smith, 20(f))

FLORIDA Borge, 1909 as S. quadricauda var. setosus Kirch. -

KENTUCKY McInteer, 1939.

20. SCENEDESMUS LONGUS var. ELLIPTICUS (West & West) G.M. Smith (Prescott)

FLORIDA # F9(GP).

- 21 SCENEDESMUS OAHUENSIS (Lemm.) G.M. Smith

NO. CAROLINA Whitford, 1943.

22. SCENEDESMUS OBLIQUUS (Turp.) Kuetz. (Smith (f)) (Prescott (f)) (Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Bailey, 1851 -

GEORGIA Bailey, 1851 - FLORIDA Bailey, 1851; Borge, 1909;

(CM); #F1,2, etc.(GP) - KENTUCKY McInteer, 1939.

23. Scenedesmus obtusus Meyen

see SCENEDESMUS BIJUGA (Turp.) Lagerh.

24. SCENEDESMUS OPOLIENSIS P. Richt. (Prescott (f)) (Brunnthaler (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

25. SCENEDESMUS PARISIENSIS Chod.

NO. CAROLINA Whitford, 1943.

26. SCENEDESMUS PRODUCTO-CAPITATUS Schumla (Brunnthaler (f))

NO. CAROLINA Whitford, 1943.

27. SCENEDESMUS QUADRICAUDA (Turp.) Bréb. (Smith (f)) (Prescott (f))

(Brunnthaler (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Whitford, 1943 - FLORIDA Borge, 1909; Whelden, 1941;

#F9(GP) - KENTUCKY Lillick & Lee, 1934; McInteer, 1939 -

TENNESSEE Eddy, 1930; Bold collection (UT record).

28. SCENEDESMUS QUADRICAUDA var. ABUNDANS Kirch. (Smith (f))

(Brunnthaler (f))

NO. CAROLINA Whitford, 1943.

29. SCENEDESMUS QUADRICAUDA var. DISPAR Bréb. (Brunnthaler (f))

FLORIDA #F6,7(GP).

30. SCENEDESMUS QUADRICAUDA var. HORRIDUS Bohlin (Brunnthaler)

FLORIDA Borge, 1909.

31. SCENEDESMUS QUADRICAUDA var. LONGISPINA (Chod.) G.M. Smith

(Prescott (f)) (Smith, 20(f))

KENTUCKY McInteer, 1939.

32. SCENEDESMUS QUADRICAUDA var. MAXIMA West & West (Prescott (f))

(Brunnthaler (f))

NO. CAROLINA Whitford, 1943.

33. SCENEDESMUS QUADRICAUDA var. PARVUS G.M. Smith (Prescott (f))

KENTUCKY McInteer, 1939.

34. SCENEDESMUS QUADRICAUDA var. QUADRISPINA (Chod.) G.M. Smith

(Smith (f)) (Prescott (f))

FLORIDA #F1(GP) - KENTUCKY McInteer, 1939.

35. Scenedesmus quadricauda var. setosus Kirch.

see SCENEDESMUS LONGUS Meyen

36. SCENEDESMUS QUADRICAUDA var. WESTII G.M. Smith (Prescott (f))

NO. CAROLINA Whitford, 1943.

37. SCENEDESMUS SERRATUS (Corda) Bohlin (Prescott (f)) (Brunnthaler (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

38. SCENEDESMUS SERRATUS f. MINOR (Corda) Bohlin

NO. CAROLINA Whitford, 1943.

STAUROGENIA (obsolete)

The genus has been reported from Tennessee by Lackey,
1942.

TETRALLANTOS Teiling 1916

1. TETRALLANTOS LAGERHEIMII Teil. (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - FLORIDA # F1(GP) -

TENNESSEE Lackey, 1942.

TETRASTRUM Chodat 1895

1. Tetrastrum anomalum G.M. Smith (Smith)

see SCENEDESMUS ANOMALUM (G.M. Smith) Tiff. & Ahl.

2. TETRASTRUM HETERACANTHUM (Nordst.) Chod. (Smith (f)) (Prescott (f))

TENNESSEE Lackey, 1942.

3. Tetrastrum minutus

TENNESSEE Lackey, 1942 this is a misprint, although of
what the writer is unprepared to state.

4. TETRASTRUM STAUROGENIEFORME (Schroed.) Lemm. (Smith (f)) (Prescott (f))
(Brunnthaler (f))

NO. CAROLINA Ahlstrom & Tiffany, 1934; - Whitford, 1943 -

FLORIDA (CM) - TENNESSEE Lackey, 1942.

TOMACULUM Whitford 1943

1. TOMACULUM CATENATUM Whitford (Whitford, 43(f))

NO. CAROLINA Whitford, 1943

This is the only report.

ORDER 10 Oedogoniales

FAMILY 1 Oedogoniaceae

BULBOCHAETE Agardh 1817

1. BULBOCHAETE ALABAMENSIS Trans. & Brown (Prescott (f)) (Tiffany (f))
NO. CAROLINA Tiffany, 1937 - FLORIDA Tiffany 1938, 1944 - ALABAMA Tiffany 1928, 1935, 1944
2. BULBOCHAETE BULLARDII Trans. & Tiff. (Tiffany (f))
FLORIDA Tiffany, 1944.
3. BULBOCHAETE CONGENER Hirn. (Tiffany (f))
FLORIDA Tiffany, 1944.
4. BULBOCHAETE CRASSIUSCULA Nordst. (Tiffany (f)) (Prescott)
LOUISIANA Taft, 1946.
5. BULBOCHAETE CREMULATA Prings. (Tiffany (f))
FLORIDA Tiffany, 1944.
6. BULBOCHAETE ELATIOR Prings. (Tiffany (f)) (Prescott (f))
NO. CAROLINA Whitford, 1943 - FLORIDA Whelden, 1941.
7. BULBOCHAETE ELATIOR var. SCROBICULATA Tiff. (Tiffany, (f))
(Prescott (f))
ALABAMA Tiffany, 1928, 1937; Whitford, 1943.
8. BULBOCHAETE FURBERAE Coll. (Tiffany (f))
NO. CAROLINA Tiffany, 1937; Whitford, 1943 - LOUISIANA Taft, 1946.
9. BULBOCHAETE GIGANTEA Prings. (Tiffany (f)) (Prescott (f))
FLORIDA Tiffany 1928, 1937, 1938.
10. BULBOCHAETE HILCENSIS (Nordst.) Tiff. (Tiffany (f))
FLORIDA Tiffany, 1937, 1944 - KENTUCKY McInteer, 1939.
11. BULBOCHAETE INSIGNIS Prings. (Tiffany (f)) (Prescott (f))
NO. CAROLINA Tiffany, 1937; Whitford, 1943 - FLORIDA

Tiffany, 1937, 1944 - KENTUCKY Tiffany, 1937.

12. BULBOCHAETE INTERMEDIA DeBary (Tiffany (f)) (Prescott (f))

FLORIDA Tiffany, 1937, 1944; Whelden 1941.

13. BULBOCHAETE MINOR A. Braun (Tiffany (f)) (Prescott (f))

NO. CAROLINA Bold # 104(UT record).

14. BULBOCHAETE MINUTA West & West (Tiffany (f))

FLORIDA Tiffany, 1937, 1944 - KENTUCKY McInteer, 1939.

15. BULBOCHAETE NANA Witttr. (Tiffany (f))

LOUISIANA Taft, 1946.

16. BULBOCHAETE NORDSTEDTII Witttr. (Tiffany (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943.

17. BULBOCHAETE OBLIQUUA Lund. (Tiffany (f)) (Prescott)

LOUISIANA Taft, 1946.

18. BULBOCHAETE POLYANDRIA Cleve (Tiffany (f)) (Prescott (f))

FLORIDA Collins, 1909; Tiffany, 1928, 1937, 1944; Wolle, 1887.

19. BULBOCHAETE PYGMAEA Prings. (Tiffany (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - FLORIDA Tiffany, 1937, 1944.

20. BULBOCHAETE RECTANGULARIS Witttr. (Tiffany (f))

FLORIDA Tiffany, 1944.

21. BULBOCHAETE REPANDA Witttr. (Tiffany (f)) (Prescott (f))

FLORIDA Collins, 1909; Tiffany 1928, 1930, 1937, 1944.

22. BULBOCHAETE RETICULATA Nordst. (Tiffany (f))

ALABAMA Tiffany, 1937.

23. BULBOCHAETE RHADINOSPORA Witttr. (Tiffany (f))

FLORIDA Wolle, 1887.

24. BULBOCHAETE SCROBICULATA (Tiff.) Tiff. (Tiffany (f))

MISSISSIPPI Tiffany, 1937.

25. BULBOCHAETE SETIGERA (Roth) Agardh. (Tiffany (f))

SO. CAROLINA Tiffany, 1928, 1930, 1937; Wolle, 1887 -
 FLORIDA Tiffany, 1928, 1930, 1937; Wolle 1887 -
 ALABAMA Tiffany 1928, 1930, 1937.

Bailey, 1851 gives the species a common distribution.

26. BULBOCHAETE SPINOSA Wailes (Tiffany (f))

NO. CAROLINA Whitford, 1943.

~~27. BULBOCHAETE VARIANS var. SUBSIMPLEX (Wittr.) Hirn (Tiffany (f))~~

~~MISSISSIPPI Tiffany, 1930, 1937.~~

27.

28. BULBOCHAETE VARIANS Wittr. (Tiffany (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Tiffany, 1937 -

FLORIDA Tiffany, 1944 - ALABAMA Tiffany, 1928, 1930, 1937 -

MISSISSIPPI Tiffany, 1928, 1930, 1937.

28.

29. BULBOCHAETE VARIANS var. SUBSIMPLEX (Wittr.) Hirn (Tiffany (f))

FLORIDA Tiffany, 1944 - MISSISSIPPI Tiffany, 1930, 1937.

OEDOCLADIUM Stahl 1891

1. OEDOCLADIUM ALBEMARLENSIS Lewis (Tiffany (f))

VIRGINIA Collins, 1918; Lewis, Zirkle & Patrick, 1933;

Smith, 1933; Tiffany, 1930, 1937.

2. OEDOCLADIUM LEWISII Whitford (Whitford, 38(f))

NO. CAROLINA Whitford, 1938, 1943.

Between 1938 when the species was described and 1943
 Whitford found the species in thirty-eight North Carolina
 localities.

3. OEDOCLADIUM WETTSTEINII E. Knapp (Tiffany (f))

FLORIDA Tiffany 1937, 1944.

OEDOGONIUM Link 1820

1. OEDOGONIUM ABBREVIATUM (Hirn) Tiff. (Tiffany (f)) (Prescott (f))

FLORIDA Tiffany 1944.

2. OEDOGONIUM ACROSPORUM DeBary (Tiffany (f)) (Prescott (f))

FLORIDA Tiffany 1937, 1944 - LOUISIANA Taft, 1946.

3. OEDOGONIUM ACROSPORUM var. FLORIDENSE Wolle (Tiffany (f))

FLORIDA Collins, 1909; Tiffany, 1930, 1937.

This variety was omitted from Tiffany's 1944

Florida study.

4. OEDOGONIUM ACUTUM (West & West) Tiff. (Tiffany (f))

MISSISSIPPI Tiffany, 1930 as Oedogonium spirale var.

acutum West & West, 1937.

5. OEDOGONIUM AHLSTRANDII Wittr. (Tiffany (f))

NO. CAROLINA Whitford, 1943 - FLORIDA Tiffany, 1937, 1944.

6. OEDOGONIUM AMPLUM Magnus & Wille (Tiffany (f))

FLORIDA Tiffany, 1937, doubtfully including Wolle, 1887

O. rivulove var. major Wolle, 1944 - MISSISSIPPI

Tiffany, 1937.

7. OEDOGONIUM ANGULOSUM Hallas (Tiffany (f))

ALABAMA Tiffany, 1937.

8. OEDOGONIUM ANGUSTATUM (Hirn) Tiff. (Tiffany (f))

ALABAMA Tiffany, 1937 - MISSISSIPPI Tiffany, 1937.

9. OEDOGONIUM ARESCHOUGII Wittr. (Tiffany (f)) (Prescott (f))

FLORIDA Tiffany, 1937, 1944.

10. OEDOGONIUM ARGENTEUM Hirn (Tiffany (f))

FLORIDA Tiffany, 1937, 1944.

11. OEDOGONIUM ARMIGERUM Hirn (Tiffany (f))

FLORIDA Tiffany, 1937, 1944.

12. OEDOGONIUM AUSTRALE (G. S. West) Tiff. (Tiffany, 1937)

NO. CAROLINA Tiffany, 1937.

13. OEDOGONIUM BORISIANUM (LeClerc) Wittr. (Tiffany (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Philson, 1940-
FLORIDA Tiffany, 1937, 1944 - ALABAMA Tiffany, 1937, 1944.

14. *Oedogonium borisianum* var. *Westii* Tiff. & Brown

see *OEDOGONIUM WESTII* Tiff.

15. *OEDOGONIUM BOSCHII* Wittr. (Tiffany (f)) (Prescott (f))

NO. CAROLINA Tiffany, 1937 - FLORIDA Tiffany 1930, 1937, 1944;
Wolle, 1887.

16. *Oedogonium Boschii* var. *occidentale* Hirn

see *OEDOGONIUM OCCIDENTALE* (Hirn) Tiff.

17. *OEDOGONIUM BRAUNII* Kuetz; Prings. (Tiffany (f)) (Prescott (f))

NO. CAROLINA Tiffany, 1937; Whitford, 1943 - GEORGIA
Wolle, 1879 - KENTUCKY McInteer, 1939.

18. *OEDOGONIUM BRAUNII* var. *ZEHNERII* Kuetz. (Tiffany (f))

NO. CAROLINA Whitford, 1943.

19. *OEDOGONIUM BRAZILIENSE* Borge (Tiffany (f)) (Prescott (f))

FLORIDA Tiffany, 1937, 1944.

20. *OEDOGONIUM CAPILLARE* (L) Kuetz. (Tiffany (f)) (Prescott (f))

FLORIDA Tiffany, 1937, 1944.

21. *OEDOGONIUM CAPILLIFORME* Kuetz. (Tiffany (f)) (Prescott (f))

FLORIDA Tiffany, 1937, 1944 - MISSISSIPPI Tiffany 1930,
1937.

22. *OEDOGONIUM CAPITELLATUM* Wittr. (Tiffany (f))

FLORIDA Tiffany, 1930, 1937, 1944 - ALABAMA Tiffany, 1930,
1937 - MISSISSIPPI Tiffany, 1937.

23. *OEDOGONIUM CARDIACUM* (Hass.) Wittr. (Tiffany (f)) (Prescott (f))

LOUISIANA Taft, 1946.

24. *OEDOGONIUM CARDIACUM* var. *MINUS* (Tiffany (f))

KENTUCKY Tiffany, 1930.

25. OEDOGONIUM CAROLINANUM Tiff. (Tiffany (f))
 SO. CAROLINA Collins, 1909; Tiffany, 1930 both as
Oedogonium paludosum var. americanum Nordst., 1937.
26. OEDOGONIUM CIRCINATUM Tiff. (Tiffany (f))
 FLORIDA Tiffany, 1936, 1937.
27. OEDOGONIUM COMPLETUM (Hirn) Tiff. (Tiffany (f))
 FLORIDA Tiffany, 1937, 1944.
28. OEDOGONIUM CONFERTUM Hirn (Tiffany (f))
 FLORIDA Tiffany, 1937.
 This was omitted from Tiffany's 1944 Florida study.
29. OEDOGONIUM CONTORTUM Hallas (Tiffany (f))
 FLORIDA Tiffany, 1937, 1944.
30. OEDOGONIUM COSTATUM Trans. (Tiffany, (f))
 FLORIDA Tiffany, 1937, 1944.
31. OEDOGONIUM CRASSIUSCULUM Wittr. (Tiffany (f)) (Prescott)
 KENTUCKY Lillick & Lee, 1934; McInteer, 1939 - MISSISSIPPI
 Tiffany, 1930, 1937.
32. OEDOGONIUM CRASSIUS^C_AULUM var. ARECHAVALETAE (Wittr. & Hirn.)
 Tiff. (Tiffany (f))
 KENTUCKY McInteer, 1939; Tiffany, 1937.
33. Oedogonium crassius^C_Aulum var. idioandrosorum Nordst. & Wittr.
 see OEDOGONIUM IDIOANDROSPORUM (Nordst. & Wittr.) Tiff.
34. OEDOGONIUM CRASSUM (Hass.) Wittr. (Tiffany (f)) (Prescott (f))
 FLORIDA Tiffany, 1930 including Oedogonium crassum f. amplum
 (Magnus & Wille) Hirn, 1937, 1944 - ALABAMA Tiffany, 1937 -
 MISSISSIPPI Tiffany, 1930, as O. crassum f. crassum, 1937.
35. Oedogonium crassum f. amplum (Magnus & Wille) Hirn (Tiffany, 30(f))
 (Prescott)

see OEDOGONIUM CRASSUM (Hass.) Wittr.

36. OEDOGONIUM CRENULOCOSTATUM^{AT} Wittr. (Tiffany (f)) (Prescott (f))
 VIRGINIA Lewis, Zirkle & Patrick, 1934 - NO. CAROLINA
 Tiffany, 1937; Whitford, 1943 - KENTUCKY McInteer, 1939;
 1937 - TENNESSEE Bold # 362 (UT record).
37. OEDOGONIUM CRENULATUM var. GRACILLIUS Nordst. & Hirn (Tiffany (f))
 KENTUCKY McInteer, 1939.
38. OEDOGONIUM CRISPUM (Hass.) Wittr. (Tiffany (f)) (Prescott (f))
 NO. CAROLINA Tiffany, 1937; Whitford, 1943 - FLORIDA
 Tiffany, 1937, 1944 - KENTUCKY McInteer, 1939; Tiffany,
 1937, ALABAMA Tiffany, 1937 - MISSISSIPPI Tiffany, 1930,
 1937 - LOUISIANA Taft, 1946.
39. OEDOGONIUM CRISPUM var. GRACILESCENS Wittr. (Tiffany (f)) (Prescott
 (f))
 KENTUCKY McInteer, 1939; Tiffany 1937 - MISSISSIPPI Tiffany,
 1937 - LOUISIANA Tiffany, 1937.
40. OEDOGONIUM CRISPUM var. HAWAIIENSE Nordst. (Tiffany (f))
 FLORIDA Tiffany, 1937, 1944.
41. OEDOGONIUM CRISPUM f. INFLATUM Hirn. (Tiffany (f)) (Prescott (f))
 FLORIDA Tiffany, 1930, 1937, 1944 - MISSISSIPPI Tiffany
 1930, 1937.
42. OEDOGONIUM CURVUM Prings. (Tiffany (f)) (Prescott (f))
 FLORIDA Tiffany, 1944 - ALABAMA Tiffany, 1930, 1937.
43. OEDOGONIUM CYATHIGERUM Wittr. (Tiffany (f)) (Prescott (f))
 FLORIDA Tiffany, 1937, 1944 - MISSISSIPPI Tiffany, 1930, 1937.
44. Oedogonium Cyathigerum f. Perfectum Hirn. (Tiffany, 30(f)) (Prescott
 (f))
 see OEDOGONIUM PERFECTUM (Hirn.) Tiff.

45. OEDOGONIUM CYMATOSPORUM Witttr. & Nordt. (Tiffany (f))

MISSISSIPPI Tiffany, 1930, 1937.

46. OEDOGONIUM DECIPIENS Witttr. (Tiffany (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - FLORIDA Tiffany, 1944.

47. OEDOGONIUM DECIPIENS var. AFRICANUM Tiffany (Tiffany (f)) (Prescott (f))

FLORIDA Tiffany, 1944.

48. OEDOGONIUM DECIPIENS var. BERNARDIENSE (Bates) Hirn. (Tiffany (f))

FLORIDA Tiffany, 1937, 1944.

49. OEDOGONIUM DECIPENS var. DISSIMILE (Hirn) Tiff. (Tiffany (f))

NO. CAROLINA Bold # 104(UT record) as f. dissimile Hirn.

50. OEDOGONIUM DIVERSUM (Hirn) Tiff. (Tiffany (f)) (Prescott)

KENTUCKY McInteer, 1939.

51. OEDOGONIUM DONNELLII Wolle (Tiffany (f))

FLORIDA Collins, 1909; Tiffany, 1930, 1937, 1944.

52. OEDOGONIUM ECHINOSPERMUM A. Braun (Tiffany (f)) (Prescott (f))

ALABAMA Tiffany 1930, 1937 - MISSISSIPPI Tiffany, 1930, 1937.

53. OEDOGONIUM ECHINOSPERMUM var. HORRIDUM Hirn. (Tiffany (f))

FLORIDA Collins, 1909; Tiffany, 1930, 1937.

This is omitted from Tiffany's 1944 Florida study.

54. Oedogonium echinospermum var. spermogonia multicellulare Wolle

FLORIDA Wolle, 1887

Collins, 1909, lists this as "var.?" but Tiffany, 1937, apparently clears the situation by listing the same reference as var. Horridum Hirn.

55. OEDOGONIUM EPNIPHYTICUM Trans. & Tiff. (Tiffany (f)) Prescott (f))

KENTUCKY McInteer, 1939 - ALABAMA Tiffany, 1937 - MISSISSIPPI

56. OEDOGONIUM EXOSPIRALE Tiff. (Tiffany (f))

MISSISSIPPI Tiffany, 1937.

57. OEDOGONIUM FABULOSUM Hirn. (Tiffany (f))

FLORIDA Tiffany, 1937, 1944.

58. OEDOGONIUM FLAVESCENS (Hass.) Wittr. (Tiffany (f))

FLORIDA Tiffany, 1944 - ALABAMA Tiffany 1930, 1937 -

MISSISSIPPI Tiffany, 1930, 1937.

59. OEDOGONIUM FONTICOLA A. Braun (Tiffany (f))

MISSISSIPPI Tiffany, 1930, 1937.

60. OEDOGONIUM FOVEOLATUM Wittr. (Tiffany (f))

SO. CAROLINA Philson, 1940 - FLORIDA Tiffany, 1937, 1944.

61. OEDOGONIUM FRAGILE Wittr. (Tiffany) (Prescott (f))

NO. CAROLINA Tiffany, 1937; Whitford, 1943 - MISSISSIPPI

Tiffany, 1930, 1937.

62. OEDOGONIUM FRANKLINIANUM Wittr. (Tiffany (f))

FLORIDA Tiffany, 1937, 1944 - KENTUCKY McInteer, 1939.

63. OEDOGONIUM GALLICUM Hirn (Tiffany (f)) (Prescott (f))

KENTUCKY McInteer, 1939; Tiffany, 1937.

64. OEDOGONIUM GLABRUM Haulas (Tiffany (f))

FLORIDA Tiffany, 1937, 1944 - KENTUCKY McInteer, 1939.

65. OEDOGONIUM GRACILIUS (Wittr.) Tiff. (Tiffany (f)) (Prescott (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 as Oedogonium plagio-
stomum var. gracilius Wittr. - NO. CAROLINA Tiffany, 1937 -

FLORIDA Tiffany, 1937, 1944 - KENTUCKY McInteer, 1939;

Tiffany, 1937 - ALABAMA Tiffany, 1937 - MISSISSIPPI Tiffany,

1930 as O. plagiostomum var. gracilius, 1937.

66. OEDOGONIUM GRACILLIMUM Wittr. & Lund. (Tiffany (f)) (Prescott (f))

FLORIDA Tiffany, 1937, 1944 - KENTUCKY McInteer, 1939; Tiffany,

1937 - ALABAMA Tiffany, 1937 - MISSISSIPPI Tiffany, 1937.

67. OEDOGONIUM GRANDE Kuetz. (Tiffany (f)) (Prescott (f))

KENTUCKY McInteer, 1939 - MISSISSIPPI Tiffany, 1930, 1937.

68. OEDOGONIUM GRANDE var. ANGUSTUM Hirn. (Tiffany (f)) (Prescott)

MISSISSIPPI Tiffany, 1930, 1937.

69. Oedogonium grande f. robusta Hirn.

VIRGINIA Lewis, Zirkle & Patrick, 1934.

see OEDOGONIUM MAJUS

This is also Oedogonium grande var. robustum (Hirn.)

Tiff. of Tiffany, 1930.

70. OEDOGONIUM GUNNII Wittr. (Tiffany (f)) (Prescott (f))

FLORIDA Tiffany, 1937, 1944 - ALABAMA Tiffany, 1930, 1937.

71. OEDOGONIUM HALLASIAE Tiff. (Tiffany (f))

LOUISIANA Taft, 1946.

72. OEDOGONIUM HIANIS Nordst. & Hirn. (Tiffany (f)) (Prescott (f))

KENTUCKY McInteer, 1939.

73. OEDOGONIUM HIRNII Gutw. (Tiffany (f)) (Prescott (f))

KENTUCKY McInteer, 1939; Tiffany, 1937.

74. OEDOGONIUM HOHENACKERII (Wittr.) Tiff. (Tiffany, 44(f)) (Tiffany (f))

as Oedogonium magrandrium var. Hohenackerii (Wittr.) Tiff.

NO. CAROLINA Whitford, 1943 as O. m. var. Hohenackerii

FLORIDA Tiffany, 1937 as O. m. var. Hohenackerii, 1944 -

KENTUCKY McInteer, 1939 as O. m. var. Hohenackeri.

75. OEDOGONIUM HOWARDII G. S. West (Tiffany (f)) (Prescott)

FLORIDA Tiffany, 1937, 1944 - KENTUCKY McInteer, 1939.

76. OEDOGONIUM HYSTRICINUM Trans. & Tiff. (Tiffany (f)) (Prescott)

FLORIDA Tiffany, 1937, 1944.

77. OEDOGONIUM IDIOANDR¹⁹⁵OPORUM (Nordt. & Wittr.) Tiff. (Tiffany (f))

NO. CAROLINA Whitford, 1943 as Cedogonium crassiusulum var.
 idioandrosporum Nordsta Witttr. - KENTUCKY McInteer, 1939 -
 MISSISSIPPI Tiffany, 1930 as O. crassiusculum var.
idioandrosporum, 1937.

78. CEDOGONIUM IDIOANDROSPORUM var. MINUS Tiff. (Tiffany (f))

KENTUCKY McInteer, 1939 - ALABAMA Tiffany, 1936, 1937.

79. CEDOGONIUM ILLINOISENSE Trans. (Tiffany (f))

FLORIDA Tiffany, 1937, 1944 - KENTUCKY McInteer, 1939;

Tiffany 1930, 1937 - MISSISSIPPI Tiffany, 1930, 1937.

80. CEDOGONIUM INCONSPICUUM Hirn (Tiffany (f))

FLORIDA Tiffany, 1937, 1944.

81. CEDOGONIUM INERME Hirn (Tiffany (f))

NO. CAROLINA Whitford, 1943.

82. CEDOGONIUM INFLATUM Hirn (Tiffany (f))

FLORIDA Tiffany, 1944.

83. CEDOGONIUM INFLATUM Hirn (Tiffany (f))

FLORIDA Tiffany, 1944.

84. CEDOGONIUM INTERMEDIUM Witttr. (Tiffany (f)) (Prescott (f))

SO. CAROLINA Philson, 1940 - FLORIDA Tiffany, 1944 -

KENTUCKY McInteer, 1939; Tiffany, 1937 - ALABAMA Tiffany,

1937 - MISSISSIPPI Tiffany, 1930, 1937.

85. CEDOGONIUM ICWENSE Tiff. (Tiffany (f))

FLORIDA Tiffany, 1937, 1944 - KENTUCKY McInteer, 1939;

Tiffany 1930, 1937.

86. CEDOGONIUM IRREGULARE Witttr. (Tiffany (f))

FLORIDA Collins, 1909; Tiffany 1930, 1937, 1944; Wollé 1887.

87 CEDOGONIUM IRREGULARE var. CONDENSATUM (Hallas) Hirn (Tiffany (f))

SO. CAROLINA Bold # 124(UT record).

88. CEDOGONIUM ITZIGSOHN^NDeBary (Tiffany (f))

FLORIDA Tiffany, 1937, 1944.

89. CEDOGONIUM KURZII Zeller (Tiffany (f))

NO. CAROLINA Tiffany, 1937; Whitford, 1944 - SO. CAROLINA
Philson, 1940 - FLORIDA Tiffany, 1937, 1944 - MISSISSIPPI
Tiffany, 1937.

90. CEDOGONIUM LAGENIFORME Hirn. (Tiffany (f))

ALABAMA Tiffany, 1937.

91. OEDOGONIUM LANDSBOROUGHII(Hass.) Wittr. (Tiffany (f))

MISSISSIPPI Tiffany, 1930, 1937.

92. OEDOGONIUM LATIUSCULUM Tiff. (Tiffany (f)) (Prescott (f))

FLORIDA Tiffany, 1937, 1944 - KENTUCKY McInteer, 1939 -
ALABAMA Tiffany, 1930, 1937 - MISSISSIPPI Tiffany 1930, 1937.

93. OEDOGONIUM LAUTUMNIARUM Wittr. (Tiffany (f)) (Prescott)

KENTUCKY McInteer, 1939; Tiffany 1937.

94. OEDOGONIUM ~~LEMERMANII~~^N Tiff. (Tiffany (f))

KENTUCKY McInteer, 1939; Tiffany, 1937.

95. CEDOGONIUM LONGICOLLE Nordst. (Tiffany (f))

NO. CAROLINA Tiffany, 1937 - FLORIDA Tiffany, 1937, 1944.

96. Oedogonium longicolle var. sengalense Norst.

see OEDOGONIUM SENEGALENSE (Nordst.) Tiff.

97. OEDOGONIUM LOUSIANENSE Taft (Taft, 46(f))

LOUISIANA Taft, 1946.

This is the only report.

98. OEDOGONIUM LUNDENSE (Wittr.) Tiff. (Tiffany (f) as O. macandrium var.

Lundense (Wittr.) Hirn)

FLORIDA Tiffany, 1937 as O. m. var. Lundense, 1944.

99. OEDOGONIUM MACRANDRIUM Wittr. (Tiffany (f))

NO. CAROLINA Tiffany, 1937.

100. OEDOGONIUM MACRANDRIUM var. AEMULANS Hirn. (Tiffany (f))

KENTUCKY McInteer, 1941 - MISSISSIPPI Tiffany, 1930, 1937.

101. Oedogonium macrandrium var. Hohenackerii (Wittr.) Tiff.

see OEDOGONIUM HOHENACKERII (Wittr.) Tiff.

102. Oedogonium macrandrium var. Lundense (Wittr.) Hirn.

see OEDOGONIUM LUNDENSE (Wittr.) Tiff.

103. OEDOGONIUM MACRANDRIUM var. PROPINQUUM (Wittr.) Hirn.

NO. CAROLINA Tiffany, 1937; Whitford, 1943 - KENTUCKY

McInteer, 1941 - ALABAMA Tiffany, 1930, 1937.

104. OEDOGONIUM MAJUS (Hansg.) Tiff. (Tiffany (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 as Oedogonium grande

f. robusta Hirn -

NO. CAROLINA Tiffany, 1937

105. OEDOGONIUM MAMMIFERUM Wittr. (Tiffany (f))

NO. CAROLINA Tiffany, 1937; Whitford, 1943.

106. OEDOGONIUM MEXICANUM Wittr. (Tiffany (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Tiffany, 1937; Whitford, 1943.

107. OEDOGONIUM MINUS (Wittr.) Wittr. (Tiffany (f)) (Prescott (f))

FLORIDA Tiffany, 1937, 1944.

108. OEDOGONIUM MITRATUM Hirn (Tiffany (f)) (Prescott (f))

NO. CAROLINA Tiffany, 1937; Whitford, 1943.

109. OEDOGONIUM MULTISPORUM Wood (Tiffany (f))

NO. CAROLINA Bold # 104(UT record) - KENTUCKY McInteer,

1939; Tiffany, 1937.

110. OEDOGONIUM NEBRASKENSE Chashi (Tiffany (f))

NO. CAROLINA Tiffany, 1937; Whitford, 1943.

111. OEDOGONIUM NEBRASKENSE var. WHITFORDII Tiff. (Tiffany (f))
NO. CAROLINA Tiffany, 1937.
112. OEDOGONIUM NODOSUM Wittr. (Tiffany (f))
NO. CAROLINA Whitford, 1943.
113. OEDOGONIUM OBESUM (Wittr.) Hirn (Tiffany (f))
KENTUCKY McInteer, 1939.
114. OEDOGONIUM OBLONGELLUM Kirch. (Tiffany (f))
MISSISSIPPI Tiffany, 1937.
115. OEDOGONIUM OBLONGUM Wittr. (Tiffany (f)) (Prescott)
FLORIDA Tiffany, 1937, 1944 - MISSISSIPPI Tiffany, 1930,
1937.
116. OEDOGONIUM OBTRUNCATUM Wittr. (Tiffany (f))
FLORIDA Tiffany, 1944.
117. OEDOGONIUM OBTRUNCATUM var. ELLIPSOIDEUM Wittr. (Tiffany (f))
FLORIDA Tiffany, 1944.
118. OEDOGONIUM OCCIDENTALE (Hirn) Tiff. (Tiffany (f))
NO. CAROLINA Tiffany, 1937; Whitfordm 1943 as O. Boscii
var. occidentale Wittr. - FLORIDA Tiffany, 1944.
119. OEDOGONIUM OELANDICUM Wittr. (Tiffany (f)) (Prescott (f))
NO. CAROLINA Whitford, 1943 - FLORIDA Tiffany, 1936, 1944.
120. OEDOGONIUM OELANDICUM var. NOVAE-ANGLIAE Jao (Taft. 46(f))
LOUISIANA Taft, 1946.
121. OEDOGONIUM ORYZAE Wittr. (Tiffany (f))
NO. CAROLINA Tiffany, 1937; Whitford, 1943 - MISSISSIPPI
Tiffany, 1937.
122. OEDOGONIUM OUCHITANUM Taft (Taft, 46(f))
LOUISIANA Taft, 1946.
123. OEDOGONIUM OVIFORME var. GRACILE f. MAJOR Taft (Taft, 46(f))

LOUISIANA Taft, 1946.

124. OEDOGONIUM PACHYANDRIUM Wittr. (Tiffany (f))

KENTUCKY Tiffany, 1937.

125. Oedogonium paludosum var. americanum Nordst. (Tiffany, 30(f))

see OEDOGONIUM CAROLINIANUM Tiff.

126. OEDOGONIUM PAULENSE Nordst. & Hirn. (Tiffany (f))

KENTUCKY McInteer, 1939.

127. OEDOGONIUM PERFECTUM (Hirn) Tiff.

MISSISSIPPI Tiffany, 1930 as Oedogonium crathigerum var.
perfectum Hirn.

128. OEDOGONIUM PISANUM Wittr. (Tiffany (f)) (Prescott (f))

MISSISSIPPI Tiffany, 1930, 1937.

129. OEDOGONIUM PISANUM var. GRACILIS Trans. & Tiff. (Tiffany (f))

MISSISSIPPI Tiffany, 1930, 1937.

130. OEDOGONIUM PLAGICSTOMUM Wittr. (Tiffany (f)) (Prescott (f))

~~NORTH~~ CAROLINA Tiffany 1937 - FLORIDA Tiffany 1937, 1944 -
TENNESSEE Bold collection (UT collection) - MISSISSIPPI
Tiffany 1930, 1937 - LOUISIANA Taft, 1946.

131. Oedogonium plagiostomum var. gracilius Wittr. (Tiffany, 30(f))

see OEDOGONIUM GRACILIUS (Wittr.) Tiff.

132. OEDOGONIUM PLATYGYNUM Wittr. (Tiffany (f))

FLORIDA Collins, 1909; Tiffany, 1930, 1937, 1944.

133. OEDOGONIUM PORRECTUM Nordst. & Hirn (Tiffany (f)) (Prescott (f))

FLORIDA Tiffany, 1937, 1944.

134. OEDOGONIUM PRATENSE Trans. (Tiffany (f)) (Prescott (f))

ALABAMA Tiffany, 1930, 1937 - MISSISSIPPI Tiffany, 1930,
1937.

135. OEDOGONIUM PRINCEPS (Hass.) Wittr. (Tiffany (f)) (Prescott)

136. OEDOGONIUM PRINGSHEMII Cramer (Tiffany (f))
 FLORIDA Collins, 1909; Tiffany, 1930, 1937, 1944; Wollé,
 1887 - KENTUCKY McInteer, 1939.
137. OEDOGONIUM PRINGSHEMII var. NORDSTEDTII Witttr. (Tiffany (f))
 (Prescott (f))
 NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1941.
138. OEDOGONIUM PSEUDACROSPORUM Witttr. (Tiffany (f))
 FLORIDA Tiffany, 1930, 1937, 1944.
139. OEDOGONIUM PSEUDO-BOESCHII Hirn (Tiffany (f))
 ALABAMA Tiffany, 1930, 1937.
140. OEDOGONIUM PUNCTATUM Witttr. (Tiffany (f))
 FLORIDA Tiffany, 1937, 1944.
141. OEDOGONIUM PUNCTO^{AT}_^OSTRIATUM DeBary (Tiffany (f)) (Prescott (f))
 FLORIDA Collins, 1909; Tiffany, 1930, 1937, 1944;
 Wollé, 1887.
142. OEDOGONIUM PUNGENS Hirn (Tiffany (f)) (Prescott (f))
 NO. CAROLINA Tiffany, 1937; Whitford, 1943 - SO. CAROLINA
 Collins, 1909; Tiffany, 1930, 1937.
143. OEDOGONIUM PUSILLUM Kirch. (Tiffany (f)) (Prescott (f))
 FLORIDA Tiffany, 1937, 1944.
144. OEDOGONIUM REINSCHII Roy (Tiffany (f)) (Prescott (f))
 VIRGINIA Lewis, Zirkle & Patrick, 1933; Tiffany, 1937 -
 NO. CAROLINA Tiffany, 1937; Whitford, 1943 - FLORIDA Borge,
 1909; Collins, 1918; Tiffany 1930, 1935, 1937, 1944 -
 LOUISIANA Prescott, 1942.
145. OEDOGONIUM RIGIDUM Hirn (Tiffany (f))
 KENTUCKY McInteer, 1939.
146. OEDOGONIUM RIVULARE (LeClerc) A. Braun (Tiffany (P)) (Prescott (f))

FLORIDA Collins, 1909; Tiffany, 1930, 1937, 1944; Wolle
1887; (CM).

147. *Oedogonium rivulare* var. *major* Wolle

see *OEDOGONIUM AMPLUM* Magnus & Wolle

Collins 1909 discussion places the form in *O. crassum*
f. *amplum* (Magnus & Wille) Hirn or *O. Landsbourghii* (Hass.)
Wittr. or neither.

148. *OEDOGONIUM ROTHII* Prings. (Tiffany (f))

FLORIDA Tiffany 1937, 1944.

149. *OEDOGONIUM RUFESCENS* Wittr. (Tiffany (f)) (Prescott)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
Tiffany, 1937; Whitford, 1943 - FLORIDA Tiffany, 1937,
1944 - ALABAMA Tiffany, 1930, 1937.

150. *OEDOGONIUM RUFESCENS* var. *EXIGUUM* (Elfv.) Tiff. (Tiffany (f))
(Prescott)

FLORIDA Tiffany, 1944 - ALABAMA Tiffany, 1930, 1937,
MISSISSIPPI Tiffany, 1937.

151. *OEDOGONIUM RUGULOSUM* Nordst. (Tiffany (f)) (Prescott (f))

FLORIDA Tiffany 1937, 1944 - MISSISSIPPI Tiffany, 1937.

152. *OEDOGONIUM RUGULOSUM* var. *ROTUNDATUM* (Hirn) Tiff. (Tiffany (f))
(Prescott (f))

FLORIDA Tiffany, 1944.

153. *OEDOGONIUM RUPESTRE* Hirn (Tiffany (f))

MISSISSIPPI Tiffany, 1930 as *Oedogonium rupestre* f.
pseudautumnale Hirn, 1937.

154. *Oedogonium rupestre* f. *pseudautumnale* Hirn (Tiffany (f))

see *OEDOGONIUM RUPESTRE* Hirn

155. *OEDOGONIUM SANCTI-THOMAE* Wittr. & Cleve. (Tiffany (f)) (Prescott (f))

MISSISSIPPI Tiffany, 1930, 1937.

156. OEDOGONIUM SCROBICULATUM Witttr. (Tiffany (f))

FLORIDA Tiffany, 1937, 1944.

This is a southern species, reported previously only from
Porto Rico and Peru.

157. OEDOGONIUM SENEGALENSE (Nordst.) Tiff. (Tiffany (f))

NO. CAROLINA Tiffany, 1937; Whitford, 1943 as O. longicolle var.
senegalense (Nordst) Tiff. - FLORIDA Tiffany 1937, 1944 -
KENTUCKY McInteer, 1941.

158. OEDOGONIUM SEXANGULARE Cleve (Tiffany (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943; Bold # 316 (UT record) -
SO. CAROLINA Philson, 1940 - FLORIDA Tiffany, 1937, 1944 -
KENTUCKY Tiffany, 1930, 1937; McInteer, 1939 - MISSISSIPPI
Tiffany, 1930, 1937 - LOUISIANA Tiffany, 1930, 1937.

159. Oedogonium sexangulare var. majus Wille

see OEDOGONIUM SUBSEXANGULARE Tiff.

160. OEDOGONIUM SILVATICUM Hallas (Tiffany (f))

FLORIDA Tiffany, 1937, 1944.

161. OEDOGONIUM SINUATUM (Trans.) Tiff. (Taft, 46 with the species

authorship just Transeau) (Prescott (f))

LOUISIANA Taft, 1946.

162. OEDOGONIUM SOCIALE Witttr. (Tiffany (f)) (Prescott (f))

KENTUCKY McInteer, 1941 - MISSISSIPPI Tiffany, 1937 -

ALABAMA Tiffany, 1930, 1937.

163. OEDOGONIUM SPECTABILE Hirn (Tiffany (f))

MISSISSIPPI Tiffany, 1930, 1937.

164. OEDOGONIUM SPIRALE Hirn. (Tiffany (f))

FLORIDA Tiffany, 1937, 1944.

165. *Oedogonium spirale* var. *acutum* West & West (Tiffany, 30 (f))
 see *OEDOGONIUM ACUTUM* (West & West) Tiff.
166. *OEDOGONIUM SPIROSTRIATUM* Tiffany (Tiffany (f)) (Prescott (f))
 FLORIDA Tiffany, 1936, 1937, 1944.
167. *OEDOGONIUM STELLATUM* Witttr. (Tiffany (f))
 FLORIDA Collins, 1909; Tiffany, 1930, 1937, 1944; Wille,
 1887 - ALABAMA Tiffany, 1937.
168. *OEDOGONIUM SUBRECTUM* Hirn. (Tiffany (f))
 NO. CAROLINA Tiffany, 1937; Whitford, 1943.
169. *OEDOGONIUM SUBGLOBOSUM* (Witttr.) Tiff. (Tiffany)
 KENTUCKY McInteer, 1939.
170. *OEDOGONIUM SUBPLENUM* Tiff. (Tiffany (f))
 FLORIDA Tiffany, 1937, 1944.
171. *Oedogonium subsetaceum* Kuetz.
 FLORIDA Collection by J. D. Smith from Wille herbarium at
 the Chicago Museum.
 Neither Collins or Tiffany make any mention of this
 species.
172. *OEDOGONIUM SUBSEXANGULARE* Tiffany (f)) (Prescott (f))
 ALABAMA Tiffany, 1937 - MISSISSIPPI Tiffany 1930 as O.
sexangulare var. majus Wille, 1937.
173. *OEDOGONIUM SUECICUM* Witttr. (Tiffany (f)) (Prescott (f))
 NO. CAROLINA Tiffany, 1937; Bold # 181 (UT record) -
 FLORIDA Tiffany 1944 - KENTUCKY McInteer, 1941 - ALABAMA
 Tiffany, 1937.
174. *OEDOGONIUM SUECICUM* var. *AUSTRALE* G. S. West (Tiffany (f))
 NO. CAROLINA Whitford, 1943.
175. *OEDOGONIUM TAPIENOSPORUM* Witttr. (Tiffany (f))

FLORIDA Tiffany 1937, 1944.

176. OEDOGONIUM TAPHROSPORUM Nordst. & Hirn (Tiffany (f))

FLORIDA Tiffany, 1937, 1944.

177. OEDOGONIUM TENTORIALE Nordst. & Hirn (Tiffany (f))

FLORIDA Tiffany, 1937, 1944.

178. OEDOGONIUM TIFFANYI Ackley (Tiffany (f))

FLORIDA Tiffany, 1937, 1944.

179. OEDOGONIUM UNDULATUM (Bréb.) A. Braun (Tiffany (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - GEORGIA Wolle, 1879 -

FLORIDA Borge, 1909; Tiffany, 1930, 1937, 1944.

180. OEDOGONIUM VAUCHERII (LeClerc) Braun; Wittr. (Tiffany (f)) (Prescott)

KENTUCKY McInteer, 1939 - MISSISSIPPI Tiffany, 1930, 1937.

181. OEDOGONIUM WABASHENSE Tiff. (Tiffany (f))

FLORIDA Tiffany, 1937, 1944.

182. OEDOGONIUM WELWITCHII West & West (Tiffany (f)) (Prescott (f))

ALABAMA Tiffany, 1930, 1937.

183. OEDOGONIUM WESTII Tiffany (Tiffany (f)) (Prescott (f))

MISSISSIPPI Tiffany, 1930, 1937 as O. Borisianum var. Westii
Tiff. & Brown.

184. OEDOGONIUM WOLLEANUM Wittr. (Tiffany (f)) (Prescott (f))

FLORIDA Collins, 1909; Tiffany, 1930, 1937, 1944; Wolle
1887.

185. OEDOGONIUM WYLIEI Tiff. (Tiffany (f)) (Prescott (f))

SO. CAROLINA Philson, 1940 - FLORIDA Tiffany, 1937, 1944.

ORDER 11 Siphonocladiales

FAMILY 1 Cladophoraceae

BASICLADIA Hoffmann & Tilden 1930

1. BASICLADIA CHELONUM (Coll.) Hoff. & Tild. (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - TENNESSEE Bold collection
(UT record).

CLADOPHORA Kuetzing 1843

1. CLADOPHORA CALLICOMA Kuetz. (Prescott) (Collins, 09)

KENTUCKY Lillick & Lee, 1934; McInteer, 1939.

2. CLADOPHORA CRISPATA (Roth) Kuetz. (Prescott (f)) (Collins, 09)

VIRGINIA Phinney, 1945; (CM) - FLORIDA Phinney, 1945;

Whelden, 1941; (CM) - KENTUCKY McInteer, 1939 - TENNESSEE

Silva # 517, 628 - LOUISIANA Phinney, 1945; (CM).

3. CLADOPHORA CRYSTALLINA (Roth) Kuetz. (Collins, 09)

NO. CAROLINA Whitford, 1943.

This is a marine species which Whitford included because
it was found in fresh-water, although the pool may have been
salt at times.

4. CLADOPHORA FRACTA (Dillw.) Kuetz. (Prescott (f)) (Collins, 09)

FLORIDA (CM) - KENTUCKY McInteer, 1939.

5. CLADOPHORA GLOMERATA (L) Kuetz. (Prescott (f)) (Collins, 09)

VIRGINIA Phinney, 1945; (CM) - KENTUCKY Phinney, 1945; (CM) -

TENNESSEE Phinney 1945; (CM); Clebsch # 3, 6 (UT)(CM).

6. CLADOPHORA KUETZINGIANA Grun. (Smith (f)) (Prescott (f)) (Collins, 09)

FLORIDA Whelden, 1941 - KENTUCKY McInteer, 1939.

7. CLADOPHORA PITHOPHOROIDES Phinney (Phinney, 45(f))

LOUISIANA Phinney, 1945.

This is the only report.

8. CLADOPHORA ^MUBERRIMA Lambert (Collins, 09)

KENTUCKY McInteer, 1939.

PITHOPHORA Wittrock 1877

1. PITHOPHORA AEQUALIS var. FLORIDENSIS Wille (Smith (f))

FLORIDA Collins, 1909; Wollé, 1887.

2. *PITHOPHORA CLEVEANA* Witr. (Smith)

FLORIDA Collins, 1909; Wollé, 1887.

3. *PITHOPHORA KEWENSIS* Witr. (Smith)

NO. CAROLINA Whitford, 1943 - FLORIDA Wollé, 1887.

Collins, 1909, states that Wollé's report was founded on sterile plants and cannot be considered reliable.

4. *PITHOPHORA OEDOGONIA* (Mont.) Witr. (Smith (f)) (Prescott (f))

VIRGINIA Phinney, 1945; (CM) - FLORIDA Phinney, 1945;

Bramon # 277(CM) - ALABAMA (CM) - LOUISIANA Phinney, 1945.

5. *PITHOPHORA ROETTLERI* (Roth) Witr. (Smith) (Collins, 09)

FLORIDA Phinney, 1945.

6. *PITHOPHORA VARIA* Wille (Smith) (Prescott) (Collins, 09)

FLORIDA Whelden, 1941 - KENTUCKY McInteer, 1939 - TENNESSEE

Bold collection (UT record).

RHIZOCLONIUM Kuetzing 1843

1. *RHIZOCLONIUM CRASSIPPELLITUM* var. *ROBUSTUM* G. S. West (Smith)

(Prescott (f))

KENTUCKY McInteer, 1939.

2. *RHIZOCLONIUM CRISPUM* Kuetz. (Smith) (Prescott)

FLORIDA Whelden, 1941 - KENTUCKY McInteer, 1939 - TENNESSEE

Bold collection (UT record).

3. *RHIZOCLONIUM FONTANUM* Kuetz. (Smith) (Prescott (f)) (Collins, 09)

VIRGINIA Wollé, 1879 as *R. fontinale* Kuetz. - TENNESSEE

Phinney, 1945 from a Bold collection at the Chicago Museum herbarium.

4. *Rhizoclonium Fontinale* Kuetz.

see *RHIZOCLONIUM FONTANUM* Kuetz.

5. RHIZOCLONIUM ^LHEIROGLYPHICUM (Agardh) Kuetz. (Smith (f)) (Prescott (f))
 NO. CAROLINA Whitford, 1943 - FLORIDA Collins, 1909;
 Phinney, 1945; Whelden, 1941 - KENTUCKY McInteer, 1939 -
 TENNESSEE Phinney, 1945.
6. RHIZOCLONIUM HEIROGLIPHICUM var. HOSFORDII (Wolle) Coll. (Prescott)
 (Collins, 09)
 KENTUCKY McInteer, 1939.
7. RHIZOCLONIUM HIEROGLYPHICUM var. MACROMERIS Wittr. (Prescott)
 (Collins, 09)
 VIRGINIA Phinney, 1945 - KENTUCKY McInteer, 1939 -
 TENNESSEE Phinney, 1945.
8. RHIZOCLONIUM HOOKERI Kuetz. (Smith) (Prescott (f))
 KENTUCKY McInteer, 1939.

ORDER 12 Siphonales

FAMILY 1 Vaucheriaceae

DICHOTOMOSIPHON Ernst 1902

1. DICHOTOMOSIPHON TUBEROSUS (A. Braun) Ernst. (Smith (f))
 (Prescott (f))
 GEORGIA Brown, 1929, Collins, 1909; Wolle, 1887 as Vaucheria
tuberosa var. intermedia Wolle - TENNESSEE Bold collection
 (UT record) - LOUISIANA Prescott, 1942.

VAUCHERIA DeCandolle 1803

1. VAUCHERIA ARRHYNCHA Heid. (Heering (f)) as Vaucheriopsis arrhyncha
 (Heid.) Heer.
 NO. CAROLINA Whitford, 1936, 1943.

In 1936 Whitford listed this species under the name
 preferred by Heering, in 1943 both names are listed but
Vaucheria is preferred.

see VAUCHERIOPSIS ARRHYNCHA (Heid.) Heer. for a discussion.

2. VAUCHERIA AVERSA Hass. (Smith) (Prescott (f)) (Heering (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1941.

3. Vaucheria caespitosa De Cand.

SO. CAROLINA Bailey, 1851; Prescott, 1938 from Bailey

Heering refers this form to Vaucheria geminata (Vauch.)

De Cand. and it is united with Vaucheria sessilis (Vauch.) De Cand. in Rabenhorst.

4. VAUCHERIA GEMINATA (Vauch.) DeCand. (Smith) (Prescott (f))
(Heering (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford,
1943 - KENTUCKY McInteer, 1939.

5. VAUCHERIA GEMINATA f. RACEMOSA (Vauch.) Walz (Prescott (f))

GEORGIA Bailey, 1851; Prescott, 1938 (as far south as -)

In both references the name was given as V. geminata var.
racemosa Walz.

6. VAUCHERIA HAMATA (Vauch.) DeCand. (Heering (f))

NO. CAROLINA Whitford, 1943; Bold collection (UT record) -
KENTUCKY McInteer, 1939.

The species is doubted considerably by Heering who refers
it to V. hamata Walz or V. terrestris Lyngb. It is in common
use by american workers however.

7. VAUCHERIA LITOREA Agardh. (Heering (f))

NO. CAROLINA Whitford, 1943.

This is a species of brackish water, but it is included in
Whitford's fresh-water study, and in Heering, as indicated.

8. VAUCHERIA ORNITHOCEPHALA Agadh. (Smith) (Prescott) (Heering (f))

NO. CAROLINA Whitford, 1943.

9. VAUCHERIA ORTHOCARPA Reinsch (Prescott) (Heering (f) as V.

sessilis f. orthocarpa (Reinsch) Heer)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - SO. CAROLINA Prescott,
1938 - KENTUCKY McInteer, 1941.

V. orthocarpa, is being retained as a species here in keeping
with the accepted American practice.

10. VAUCHERIA PACHYDERMA Walz (Smith) (Prescott) (Heering (f))

NO. CAROLINA Whitford, 1943.

11. VAUCHERIA POLYSPERMA Hass. (Prescott) (Heering (f) as V. ornithocephala
f. polysperma Heer.)

KENTUCKY McInteer, 1939.

This species designation is retained in keeping with accepted
American practice.

12. Vaucheria racemosa Lyngh.

GEORGIA Bailey, 1851.

It is uncertain just what this does represent. The writer
could find no V. racemosa Lyngh. in the literature, only V.
racemosa DeCand. and V. racemosa Goetz. Possibly it was one of
the section Corniculatae, possibly V. geminata DeCand.

13. VAUCHERIA REPENS Hass. (Prescott, 38) (Heering (f) as Vaucheria
sessilis f. repens (Hass.) Hansg.)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
Whitford, 1943 - SO. CAROLINA Prescott, 1938 - KENTUCKY
McInteer, 1939 - TENNESSEE (CM).

The species designation is being retained here in keeping
with accepted American practice.

14. VAUCHERIA SESSILIS (Vauch.) DeCand. (Smith (f)) (Prescott (f))
(Heering (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933; Wood, 1874 -
 NO. CAROLINA Whitford, 1943; Wood, 1874 - SO. CAROLINA
 Prescott, 1938 (as far south as -) - TENNESSEE Silva # 624
 (UT)(CM).

15. VAUCHERIA TERRESTRIS Lyngb. (Prescott (f)) (Heering (f))
 VIRGINIA (CM) - NO. CAROLINA Whitford, 1943; Bold # 362
 (UT record).

16. VAUCHERIA THURETII Woronin (Heering (f))
 VIRGINIA Wood, 1874 as V. velutina Agardh. - NO. CAROLINA
 Prescott, 1938; Wood, 1874 as V. velutina Agardh.

This is a brackish species which seems to be often included
 in fresh-water treatises.

17. Vaucheria tuberosa var. intermedia Wolle
 see DICHOTOMOSIPHON TUBEROSUS (A. Braun) Ernst.

Collins, 1909, says that the variety of Wolle was merely
 a small sterile form of the species.

18. VAUCHERIA ^{CINA} UNICENTA Kuetz. (Heering (f))
 KENTUCKY McInteer, 1939.

19. Vaucheria velutina Agardh.
 see VAUCHERIA THURETII Woronin.

VAUCHERIOPSIS Heering 1921

1. VAUCHERIOPSIS ARRHYNCHA (Heid.) Heer. (Heering (f))
 NO. CAROLINA Whitford, 1943; Bold # 267(UT record)

The establishment of this genus was on the grounds that
 it differed from the other Vaucheria in having starch rather than
 oil, an oospore with one membrane, fertilization not accompanied
 by expulsion of protoplasm, and absence of a beak on the oogonium.
 Whitford found oil rather than starch, two membranes on the oospore,

not differing too much from some other species, and pointed out at least two other species have practically beakless oogonia. Therefore, the erection of Vaucheriopsis is not justified in his opinion.

The writer has found no further discussion on the subject.

FAMILY 2 Phyllosiphonaceae

PHYLLOSIPHON Kuehn 1878

1. PH^YLLOSIPHON ARISARI Kuehn. (Smith (f)) (Prescott (f))

FLORIDA Swingle, 1894.

Swingle reported only Ph^Yllosiphon sp., but since it was on Arisaema, it seems safe enough to designate it as the usual species found there.

ORDER 13 Zygnematales (Desmidiiales)

FAMILY 1 Zygnemataceae

DEBARYA Wittrock 1872

1. DEBARYA GLYPTOSPERMA (DeBary) Wittrock (Smith (f)) (Prescott)

FLORIDA Collins, 1909, 1918; Transeau, 1925.

MESOCARPUS (obsolete)

1. Mesocarpus crassa Wolle

see MOUGEOTIA CRASSA (Wolle) DeToni

MOUGEOTIA Agardh 1824

1. MOUGEOTIA ACADIANA Trans. (Transeau)

FLORIDA Transea, Tiffany, Taft & Li, 1934 - MISSISSIPPI

Transeau, Tiffany, Taft & Li., 1934.

2. MOUGEOTIA ANGUSTA Hass. (Transeau)

SO. CAROLINA Transeau, 1926 as Mougeotia parvula var.

angusta (Hass.) Kirch.

This may be from the same Havenel collection of 1883

labeled Pleurocarpus and Mesacarpus angustus Hass, which is also mentioned in this writing under Zygnema tenue Hass.

3. MOUGEOTIA AREOLATA Trans. (Transeau)

FLORIDA Transeau, Tiffany, Taft & Li, 1934.

4. MOUGEOTIA CALCAREA (Cleve) Wittr. (Transeau)

MISSISSIPPI Transeau, 1926.

5. MOUGEOTIA CAPUCINA (Bory) Agardh. (Transeau)

NO. CAROLINA Transeau, 1926; Whitford, 1943; Bold # 76

(UT record) - FLORIDA Transeau, 1926 - ALABAMA Transeau, 1936; (CM).

6. MOUGEOTIA CELESTIS Transeau (Transeau)

FLORIDA Transeau, 1926; Transeau, Tiffany, Taft & Li, 1934.

7. MOUGEOTIA CRASSA (Wolle) DeToni (Transeau)

FLORIDA Collins, 1909; Transeau, 1926; Wolle, 1887 as Mesocarpus crassa Wolle.

8. MOUGEOTIA CAYTONE Trans. (Transeau)

FLORIDA Transeau, Tiffany, Taft & Li, 1934.

9. MOUGEOTIA DEPRESSA (Hass.) Wittr. (Transeau)

NO. CAROLINA Whitford, 1943 - FLORIDA Transeau, 1926.

10. MOUGEOTIA DISJUNCTA Trans. (Transeau)

FLORIDA Transeau, Tiffany, Taft & Li, 1934.

11. MOUGEOTIA FLORIDANA Trans. (Transeau)

FLORIDA Transeau, Tiffany, Taft & Li, 1934.

12. MOUGEOTIA GENUFLEXA (Dillw.) Agardh. (Transeau)

GEORGIA Bailey, 1851 - FLORIDA Bailey, 1851 - LOUISIANA Transeau, 1926.

13. MOUGEOTIA LAETE-VIRENS (A. Braun) Wittr. (Transeau)

NO. CAROLINA Transeau, 1926

14. MOUGEOTIA LAEVIS (Kuetz.) Arch. (Transeau)

FLORIDA Wolle, 1879.

15. MOUGEOTIA MEGASPORA Wittr. (Transeau)

NO. CAROLINA Whitford, 1943.

16. MOUGEOTIA MICROPORA Taft (Transeau)

FLORIDA Transeau, Tiffany, Taft & Li, 1934.

17. MOUGEOTIA NOTABILIS Hass. (Prescott (f)) (Transeau, 26)

FLORIDA Collins, 1909 as M. tennis (Cleve) Wittr. Transeau, 1926; Wolle, 1887 as Plagiospermum tenue var. minor Wolle.

This species was not present in the photostatic copy of Transeau's unpublished key to the genus seen by the writer.

18. MOUGEOTIA NUMMULOIDES (Hass.) DeToni (Transeau)

NO. CAROLINA Transeau, 1926; Whitford, 1943.

19. MOUGEOTIA OBLONGATA Trans. (Transeau)

FLORIDA Transeau, Tiffany, Taft & Li, 1934.

20. MOUGEOTIA OPELOUSENSIS Taft (Transeau)

LOUISIANA Taft, 1944.

21. MOUGEOTIA OPERCULATA Trans. (Transeau)

NO. CAROLINA Whitford, 1943 - FLORIDA Transeau, Tiffany, Taft & Li, 1934.

22. MOUGEOTIA OVALIS (Hass.) Nordst. (Transeau)

NO. CAROLINA Whitford, 1943.

23. MOUGEOTIA PARVULA Hass. (Transeau)

NO. CAROLINA Transeau, 1926; Whitford, 1943; Bold collection (UT record).

24. Mougeotia parvula var. angusta (Hass.) Kirch. (Transeau, 26)

see MOUGEOTIA ANGUSTA Hass.

25. MOUGEOTIA PECTOSA Trans. (Transeau)

FLORIDA Transeau, Tiffany, Taft & Li, 1934.

26. *MOUGEOTIA POINCIANA* Trans. (Transeau)

FLORIDA Transeau, Tiffany, Taft & Li, 1934.

27. *MOUGEOTIA QUADRANGULATA* Hass. (Transeau)

NO. CAROLINA Transeau, 1926; Whitford, 1943 - FLORIDA
Transeau, 1926.

28. *MOUGEOTIA SANFORDIANA* Tiff. (Transeau)

FLORIDA Transeau, Tiffany, Taft & Li, 1934.

29. *MOUGEOTIA SCALARIS* Hass. (Transeau)

SO. CAROLINA Transeau, 1926 - GEORGIA Transeau, 1926 -
FLORIDA Transeau, 1926.

30. *MOUGEOTIA SEMINOLEANA* Tiff. (Transeau)

FLORIDA Transeau, Tiffany, Taft & Li, 1934.

31. *MOUGEOTIA SPHAEROCARPA* Wolle (Transeau)

NO. CAROLINA Whitford, 1943 - FLORIDA Transeau, 1926 -
KENTUCKY McInteer, 1939.

32. *Mougeotia tenuis* (Cleve) Wittr.

see *MOUGEOTIA NCTABILIS* Hass.

33. *MOUGEOTIA TUBIFERA* Tiff. (Transeau)

NO. CAROLINA Transeau, Tiffany, Taft & Li, 1934; Whitford,
1934 - FLORIDA Transeau, Tiffany, Taft & Li, 1934.

34. *Mougeotia verrucosa* Wolle

ALABAMA Collins, 1909; Wolle, 1887

Collins included the species but remarks that it may have
been Debarya glyptosperma (DeBary) Wittr. Czurda included it
with doubts, and Transeau does not retain it as a valid species.

35. *MOUGEOTIA VIRIDIS* (Kuetz.) Wittr. (Transeau)

FLORIDA Collins, 1909; Transeau, 1926; Wolle, 1887 as

Staurospermum viride Kuetz.; # F 10(GP).

PLAGIOSPERMUM (obsolete)

1. Plagiospermum tenue var. minor Wolle

see MOUGEOTIA NOTABILIS Hass.

This reference is made on the basis of Collins, 1909, statement that Mougeotia tenuis (Cleve) Wittr. was the correct name, and the placing of M. tenuis in synonymy with M. notabilis as in Transeau, 1926.

PLEURODISCUS Lagerheim 1895

1. PLEURODISCUS PURPUREUS (Wolle) Lagerh. (Smith (f))

FLORIDA Brown, 1911 as Zygnema purpurea Wolle; Collins, 1912; Smith, 1933; Wolle, 1887 as Zygnema purpurea.

SIROGONIUM Kuetzing 1843

1. SIROGONIUM STICTICUM Kuetz. (Smith (f))

FLORIDA Collins, 1909 as Spirogra stictica Wille; Wolle, 1879, 1887 - KENTUCKY McInteer, 1939 as Spirogyra stictica.

2. SIROGONIUM FLORIDANUM (Trans.) G. M. Smith (Smith)

FLORIDA Collins, 1918 as ^{ix}Spirogyra floridiana Trans.; Smith, 1933; Transeau, 1915 as ^{ix}Spirogyra floridiana Trans.

SPIROGYRA Link 1820

1. SPIROGYRA APHANOSCULPTA (Skuja) Czurda (Transeau)

NO. CAROLINA Whitford, 1943.

2. SPIROGYRA ARTICULATA Trans. (Transeau)

MISSISSIPPI Transeau, Tiffany, Taft & Li, 1934.

3. SPIROGYRA CALCAREA Trans. (Transeau)

ALABAMA Transeau, Tiffany, Taft & Li, 1934.

4. SPIROGYRA CLEVEANA Trans. (Transeau)

NO. CAROLINA Whitford, 1943.

5. SPIROGYRA COMMUNIS (Hass.) Kuetz. (Transeau)

NO. CAROLINA Bold # 85(UT record) - KENTUCKY McInteer, 1939.

6. SPIROGYRA CONDENSATA (Vauch.) Kuetz. (Transeau)

KENTUCKY McInteer, 1939.

7. SPIROGYRA CORRUGATA Trans. (Transeau)

ALABAMA Transeau, Tiffany, Taft & Li, 1934 - MISSISSIPPI

Transeau, Tiffany, Taft & Li, 1934.

8. SPIROGYRA CRASSA Kuetz. (Transeau)

LOUISIANA Prescott, 1942.

9. SPIROGYRA DECIMINA (Muell.) Kuetz. (Transeau)

SO. CAROLINA Bailey, 1851 - KENTUCKY McInteer, 1939.

10. SPIROGYRA DENTICULATA Trans. (Transeau)

TENNESSEE (CM) - MISSISSIPPI Transeau, Tiffany, Taft & Li,

1934.

11. SPIROGYRA DILUTA Wood (Transeau)

LOUISIANA Transeau, 1915.

12. SPIROGYRA DISTENTA Trans. (Transeau)

KENTUCKY McInteer, 1939.

13. SPIROGYRA ELLIPSOSPORA Trans. (Transeau)

KENTUCKY McInteer, 1939.

14. SPIROGYRA FARLOWII Trans. 1939 (Transeau)

KENTUCKY McInteer, 1939.

15. SPIROGYRA FLAVESCENS (Hass.) Kuetz. (Transeau)

FLORIDA Collins, 1909; Wolle, 1887.

16. SPIROGYRA FLUVIATILIS Hilse (Transeau)

FLORIDA Wolle, 1879.

17. Spirogyra floridiana Trans.

see SIROGONIUM FLORIDIANA (Trans.) G. M. Smith

18. SPIROGYRA HATILLENIS Trans. (Transeau)

NO. CAROLINA Whitford, 1943.

19. SPIROGYRA INFLATA (Vauch.) Rabenh. (Transeau)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Cunningham 1916; Bold # 123(UT record).

20. SPIROGYRA INSIGNIS (Hass.) Kuetz. (Transeau)

NO. CAROLINA Brown, 1911.

21. Spirogyra insignis var. elongata Sur.

FLORIDA Wolle, 1887.

Collins, 1909, who refers to the name with Wolle authorship, expresses uncertainty as to just what plant was indicated.

S. elongata Wood, later referred to S. tenuissima (Hass.)

Kuetz. is a possibility.

22. SPIROGYRA JUERGENSEII Kuetz. (Transeau)

KENTUCKY McInteer, 1939.

23. SPIROGYRA LAXA Kuetz. (Transeau)

NO. CAROLINA Bold # 114(UT record).

24. SPIROGYRA LONGATA (Vauch.) Kuetz. (Transeau)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Bold

114(UT record) - KENTUCKY McInteer, 1939.

25. SPIROGYRA LUTETIANA Petit (Transeau)

FLORIDA Wolle, 1887.

26. SPIROGYRA MAJUSCULA Kuetz. (Transeau)

NO. CAROLINA Whitford, 1943.

27. SPIROGYRA MIAMIANA Taft (Transeau)

FLORIDA Taft, 1944; # F 3(GP).

28. SPIROGYRA MALLEANA Hirn (Transeau)

NO. CAROLINA Whitford, 1943.

29. *SPIROGYRA MIRABILIS* (Hass.) Kuetz. (Transeau)

KENTUCKY McInteer, 1939 - LOUISIANA Taft, 1946.

30. *SPIROGYRA NATCHITA* Trans. (Transeau)

MISSISSIPPI Transeau, Tiffany, Taft & Li, 1934.

31. *SPIROGYRA NEGLECTA* (Hass.) Kuetz. (Transeau)

SO. CAROLINA Wolle, 1887 - KENTUCKY McInteer, 1939.

32. *SPIROGYRA NITIDA* (Dillw.) Link (Transeau)

KENTUCKY McInteer, 1939 - LOUISIANA Featherman, 1871.

33. *SPIROGYRA OCCIDENTALIS* (Trans.) Czurda (Transeau)

KENTUCKY McInteer, 1939.

34. *SPIROGYRA PARVULA* (Trans.) Czurda (Transeau)

NO. CAROLINA Bold # a 1 (UT record).

35. *SPIROGYRA PARVISPORA* Wood (Transeau)

FLORIDA Collins, 1909; Wolle, 1887; Wood, 1874.

36. *SPIROGYRA PERFORANS* Trans. (Transeau)

FLORIDA Transeau, Tiffany, Taft & Li, 1934.

37. *SPIROGYRA PLENA* (West & West) Czurda (Transeau)

KENTUCKY McInteer, 1939.

38. *SPIROGYRA PORTICALIS* (Juell.) Cleve (Transeau)

FLORIDA Whelden, 1941 - KENTUCKY McInteer, 1939.

39. *SPIROGYRA PRATENSIS* Trans. (Transeau)

FLORIDA Whelden, 1941 - KENTUCKY McInteer, 1939.

40. *SPIROGYRA PROPRIA* Trans. (Transeau)

KENTUCKY McInteer, 1939.

41. *SPIROGYRA PROTECTA* Wood (Transeau)

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

42. *SPIROGYRA PULCHRIFIGURATA* Jao (Transeau)

LOUISIANA Taft, 1946.

43. SPIROGYRA QUADRATA (Hass.) Petit (Transeau)

KENTUCKY McInteer, 1939.

44. SPIROGYRA QUADRATA var. BIFASCIATA Kirch.

KENTUCKY McInteer, 1939.

Czurda offers only a question mark for the variety
and the species.

45. Spirogyra quinina Kuetz.

see SPIROGYRA PORTICALIS (Muell.) Cleve

This is done on the assumption that Bailey referred to
the same plant which Wolle listed under the same name. Wolle's
is referred to S. Porticalis in Collins, 1909.

46. SPIROGYRA REFLEXA Trans. (Transeau)

NO. CAROLINA Whitford, 1943.

47. SPIROGYRA RETICULATA Nordst. (Transeau)

FLORIDA Collins, 1918.

48. SPIROGYRA RIVULARIS (Hass.) Rabenh. (Transeau)

FLORIDA Wolle, 1887 (Maine to -); Wood, 1874 - KENTUCKY
McInteer, 1939.

49. SPIROGYRA SCHMIDTII West & West (Transeau)

LOUISIANA Taft, 1946.

50. SPIROGYRA SCROBICULATA (Stock.) Czurda (Transeau)

KENTUCKY McInteer, 1939.

51. SPIROGYRA SINGULARIS Nordst. (Transeau)

NO. CAROLINA Whitford, 1943.

52. SPIROGYRA SMITHII Trans. (Transeau)

FLORIDA Transeau, Tiffany, Taft & Li, 1934.

53. SPIROGYRA SPREELIANA Rabenh. (Transeau)

KENTUCKY McInteer, 1939 - TENNESSEE Bold collection (CM).

54. *Spirogyra stictica* Wille

see *SIROGONIUM STICTICUM* Kuetz.

55. *SPIROGYRA SUBMARINA* (Collins) Trans. (Transeau)

NO. CAROLINA Whitford, 1943.

56. *SPIROGYRA SUBMAXIMA* Trans. (Transeau)

FLORIDA Whelden, 1941.

57. *SPIROGYRA SUBSALSA* Kuetz. (Transeau)

FLORIDA Collins, 1909; Wolle, 1879, 1887.

58. *SPIROGYRA TENNUISSIMA* (Hass.) Kuetz. (Transeau)

KENTUCKY McInteer, 1939.

59. *SPIROGYRA TEODORESCI* Trans. (Transeau)

KENTUCKY McInteer, 1939.

60. *SPIROGYRA TRIPLICATA* (Coll.) Trans. (Transeau)

KENTUCKY McInteer, 1939.

61. *SPIROGYRA VARIANS* (Hass.) Kuetz. (Transeau)

KENTUCKY McInteer, 1939.

62. *SPIROGYRA VELATA* Nordst. (Transeau)

KENTUCKY McInteer, 1939.

63. *SPIROGYRA VISENDA* Trans. (Transeau)

MISSISSIPPI Transeau, 1944.

64. *SPIROGYRA WEBERI* Kuetz. (Transeau)

NO. CAROLINA Cunningham, 1918 - KENTUCKY McInteer, 1939.

STAUROSPERMUM (obsolete)

1. *Staurospermum viride* Kuetz.

see *MOUGEOTIA VIRIDIS* (Kuetz.) Wittr.

ZYGNEA Agardh 1824

1. *ZYGNEA COLLINSIANUM* Trans. (Transeau)

KENTUCKY McInteer, 1939.

2. ZYGNEMA CARINTHIACUM Beck (Transeau)
NO. CAROLINA Whitford, 1943.
3. ZYGNEMA COERULEUM Czurda (Transeau)
NO. CAROLINA Whitford, 1943.
4. ZYGNEMA CONSPICUUM (Hass.) Trans. (Transeau)
KENTUCKY McInteer, 1939.
5. ZYGNEMA CRUCIATUM (Vauch.) Agardh (Transeau)
FLORIDA Wood, 1874 - LOUISIANA Featherman, 1871.
6. ZYGNEMA CYLINDRICUM Trans. (Transeau)
KENTUCKY McInteer, 1939.
7. ZYGNEMA EXCRASSUM Trans. (Transeau)
ALABAMA Transeau, Tiffany, Taft & Li, 1934 - MISSISSIPPI
Transeau, Tiffany, Taft & Li, 1934.
8. ZYGNEMA INSIGNE (Hass.) Kuetz. (Transeau)
VIRGINIA Lewis, Zirkle & Patrick, 1933.
9. ZYGNEMA LUTESOPORUM Czurda (Transeau)
NO. CAROLINA Whitford, 1943.
10. ZYGNEMA OVEIDANUM Trans. (Transeau)
FLORIDA Transeau, Tiffany, Taft & Li, 1934.
11. ZYGNEMA PAVNI/ANUM Taft (Transeau)
LOUISIANA Taft, 1946.
12. ZYGNEMA PECTINATUM (Vauch.) Agardh (Transeau)
NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.
13. ZYGNEMA STELLINUM (Vauch.) Agardh (Transeau)
KENTUCKY McInteer, 1939.
14. ZYGNEMA STERILE Trans. (Transeau)
NO. CAROLINA Whitford, 1943.
15. ZYGNEMA SUBCRUCIATUM Trans. (Transeau)

NO. CAROLINA Whitford, 1943 - FLORIDA Transeau, Tiffany,

Taft & Li, 1934 - LOUISIANA Taft, 1946.

16. ZYGNEMA SUBTILE Kuetz. (Transeau)

GEORGIA Wolle, 1879.

17. ZYGNEMA TENUE Rabenh. (Transeau)

SO. CAROLINA Ravenel collection of 1883 labeled as

Pleurocarpus with Mesocarpus angustus Hass. (CM).

ZYGNEMOPSIS Transeau 1934

1. ZYGNEMOPSIS DECUSSATA Trans. (Transeau, 34)

KENTUCKY McInteer, 1939.

2. ZYGNEMOPSIS FLORIDANA Trans. (Transeau, 34)

FLORIDA Transeau, Tiffany, Taft & Li, 1934.

ZYGOGONIUM Kuetzing 1843

1. Zygogonium Agardhii Rabenh.

FLORIDA Wolle, 1879, 1887

Collins, 1909, definitely labels this as Z. ^cerictorum,

while much later Czurda is willing to say only that the species is not identifiable, being too uncertain.

2. ZYGOGONIUM ERICETORUM Kuetz. (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - TENNESSEE Silva # 47, 452

(UT)(CM).

3. ZYGOGONIUM ERICETORUM var. TERRESTRE Wittr. & Nordst. (Collins, 09)

FLORIDA Collins, 1909.

Smith, 1933, states that all American specimens are referable to Z. ericetorum implying at least that this variety is not recognized, however, the writer finds, there is no definite statement to that effect.

4. ZYGOGONIUM PECTOSA Taft (Taft, 44(f))

LOUISIANA Taft, 1944.

5. ZYGOGONIUM PUNCTATUM Taft (Taft, 44(f))

LOUISIANA Taft, 1944.

FAMILY 2 Mesotaeniaceae

CYLINDROCYSTIS Meneghini 1838

1. CYLINDROCYSTIS AMERICANA West & West (Irene-Marie (f))

(Nordstedt) (Prescott I)

FLORIDA # F 1, 4, 5(GP).

2. CYLINDROCYSTIS ANGULATA West & West (Nordstedt) (Prescott I)

FLORIDA West & West, 1898; # F 7, 8, 9(GP) these forms were not as sharply truncate as that pictured by the Wests.

3. CYLINDROCYSTIS BREBISSEONII Menegh. (Smith) (Irene-Marie (f))

(Nordstedt) (Prescott I)

SO. CAROLINA Bailey, 1851; as Penium Brebissonii (Menegh. Rolfs Frohne, 1939; Wood, 1874 as Penium Brebissonii - GEORGIA Frohne, 1939; Bold # 61 (UT record) - FLORIDA Bailey, 1851 as Penium Brebissonii; # F 5, 6, 7(GP) - KENTUCKY McInteer, 1941.

4. CYLINDROCYSTIS CRASSA DeBary (Smith) (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1941 - MISSISSIPPI Brown, 193.

5. CYLINDROCYSTIS CRASSA DeBary (Nordstedt) (Prescott I)

NO. CAROLINA Poteat, 1888 as Penium crassa DeBary; Whitford, 1943 repeating Poteat.

Whitford did not state whether he actually prefers to place the species in Penium, or was merely repeating without comment. It is placed in *Cylindrocystis* by practically all other sources except Wille.

6. *Cylindrocystis majus* Kuetz.

see CYLINDROSPERMUM MAJUS Kuetz

This is the writer's guess of what he const^{re}ures to
be a missprint, but it seems a safe guess.

7. CYLINDROCYSTIS TUMIDA Gay (Nordstedt)

FLORIDA Wolle, 1887 as Penium tumidum Gay.

GONATOZYGON DeBary 1856

1. GONATOZYGON ACULEATUM Hastings (Smith) (Irene-Marie (f))

(Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Frohne, 1939 -

GEORGIA Frohne, 1939 - FLORIDA Salisbury, 1936.

2. GONATOZYGON BREBISSEI DeBary (Irene-Marie (f) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA West

& West, 1898.

3. GONATOZYGON MONOTAENIUM DeBary (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.

4. GONATOZYGON PILOSUM Wolle (Irene-Marie (f) (Nordstedt)

(Prescott I)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Frohne, 1939 -

FLORIDA Salisbury, 1936.

MESOTAENIUM Naegeli 1849

1. MESOTAENIUM CHLAMYDOSPORUM var. MINOR Reinsch (Nordstedt)

(Prescott I)

NO. CAROLINA Bold # 46(UT record).

2. MESOTAENIUM GREYI Turn. (Smith) (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle, & Patrick, 1933 - NO. CAROLINA

Bold # 170 (UT record).

3. MESOTAENIUM ENDLICHERIANUM Naeg. (Smith) (Nordstedt)

NO. CAROLINA Whitford, 1943.

4. MESOTAENIUM MACROCOCCUM (Kuetz.) Roy (Nordstedt) (Prescott I)

TENNESSEE Silva # 700 (UT).

5. MESOTAENIUM MACROCOCCUM var. MICROCOCCUM (Kuetz.) West & West

(Prescott I)

KENTUCKY McInteer, 1941.

6. MESOTAENIUM MIRIFICUM Arch. (Nordstedt) (Prescott I)

NO. CAROLINA Bold # 96(UT record).

NETRIUM Naegeli 1849

1. NETRIUM DIGITUS (Ehr.) Itzing. & Rothe (Smith (f)) (Irene-Marie

(f)) (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford,

1943; Bold collection (UT record) - SO. CAROLINA Bailey, 1851

as Penium digitus (Ehr.) Bréb. Frohne, 1939; Bold collection

(UT record) - GEORGIA Bailey, 1851 as Penium digitus; Frohne,

1939, 1942 - FLORIDA Bailey, 1851 as Penium digitus; Sallisbury,

1936; Wille, 1884 (Maine to -) as Penium digitus; # F 1, 9(GP)

- KENTUCKY McInteer, 1938, 1939, 1944 - TENNESSEE Brown, 1930;

Silva & Sharp, 1944; Bold # 106(UT record) - ALABAMA Brown,

1930 - MISSISSIPPI Brown, 1930; Prescott & Scott, 1942.

2. NETRIUM DIGITUS var. CONSTRICTUM West (Irene-Marie (f))

(Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

3. NETRIUM DIGITUS var. NAEGELII (Bréb.) Krieg. (Smith as Netrium

Naegeli (Bréb.) West & West) (Irene-Marie (f)) (Nordstedt

as Netrium Naegeli) (Prescott I)

FLORIDA Borge, 1909 as Penium Naegeli Bréb. # 9(GP) -

KENTUCKY McInteer, 1939 as N. Naegeli - LOUISIANA Prescott

& Scott, 1942.

4. ^RNETRIUM INTERRUPTUM (Bréb.) Luetkem. (Smith) (Irene-Marie (f))
(Nordstedt) (Prescott I)
NO. CAROLINA Whitford, 1943; Poteat, 1888 as Penium
interruptum Bréb. - SO. CAROLINA Bailey, 1851 as Penium
interruptum - GEORGIA Frohne, 1939; Wood, 1874 as Penium
interruptum - FLORIDA Borge, 1909 as an undescribed f. minor
or Penium interruptum, Salisbury, 1936 - KENTUCKY McInteer,
1939 - ALABAMA Brown, 1930.

5. Netrium Naegelii (Bréb.) West & West)
see NETRIUM DIGITUS var. NAEGELII (Bréb.) Krieg.
6. NETRIUM OBLONGUM (DeBary) Luetkem. (Irene-Marie (f)) (Nordstedt)
(Prescott I)

NO. CAROLINA Poteat, 1888 as Penium oblongum DeBary; Whitford,
1943 - GEORGIA Frohne, 1942 - FLORIDA Borge, 1909 as Penium
oblongum - LOUISIANA Brown, 1930.

ROYA West & West 1898 emend. Hodgetts 1920

1. ROYA OBTUSA var. MONTANA Gutw. (Irene-Marie (f)) (Nordstedt)
(Prescott I)

TENNESSEE Bold # 334(UT record).

SPIROTAENIA de Brébisson 1848

1. SPIROTAENIA BISPIRALIS West (Nordstedt) (Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933.
2. SPIROTAENIA CONDENSATA Bréb. (Smith (f)) (Irene-Marie (f))
(Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Poteat,
1888; Whitford, 1943; Bold collection (UT record) - SO. CAROLINA
Bailey, 1851; Wood, 1874 - GEORGIA Frohne, 1939, 1942 - FLORIDA

Bailey, 1851; Wolle, 1884; Wood, 1874 - TENNESSEE Bold collection
(UT record) - LOUISIANA Prescott, 1942.

3. SPIROTAENIA CONDENSATA f. MINOR West & West (Nordstedt)

FLORIDA West & West, 1898.

4. SPIROTAENIA EBORACENSIS West apud. Luetkem. (Nordstedt)

(Prescott I)

GEORGIA Bold # 61(UT record).

5. SPIROTAENIA OBSCURA Rolfs. (Smith) (Irene-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Brown,
1930; Poteat, 1888; Whitford, 1943; Bold collection (UT record)
- TENNESSEE Bold collection (UT record).

FAMILY 3 Desmidiaceae

ARTHRODESMUS Ehrenberg 1838

1. ARTHRODESMUS BIFID^{US}~~A~~ var. LATIDIVERGENS West (Nordstedt)

(Prescott I)

KENTUCKY McInteer, 1939.

2. ARTHRODESMUS BULNHEIMII var. SUBINCUS West & West (Irene-Marie (f))

(Nordstedt) (Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

3. ARTHRODESMUS CONVERGENS Ehr. (Irene-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Bailey, 1851;
Brown, 1930; Wood, 1874 - GEORGIA Bailey, 1851; Brown, 1930;
Frohne, 1942; Wood, 1874 - FLORIDA Borge, 1909; Brown, 1930;
Salisbury, 1930; Wood, 1874 - KENTUCKY McInteer, 1939.

4. ARTHRODESMUS CURVATUS Turn. (Nordstedt) (Prescott I)

FLORIDA West & West, 1898.

5. *ARTHRODESMUS INCUS* (Bréb.) Hass. (Nordstedt) (Prescott I)
 SO. CAROLINA Bailey, 1851; Brown, 1930; Wood, 1874 -
 GEORGIA Bailey, 1851; Brown, 1930; Lagerheim, 1885; Wood,
 1874 - FLORIDA Bailey, 1851; Borge, 1909; Brown, 1930;
 Wollé, 1884, - ALABAMA Brown, 1930.
6. *ARTHRODESMUS INCUS* var. *EXTENSUS* Anders (Nordstedt) (Prescott I)
 NO. CAROLINA Whitford, 1943 - GEORGIA Frohne, 1942 -
 KENTUCKY McInteer, 1939 - MISSISSIPPI Prescott & Scott, 1942.
7. *ARTHRODESMUS INCUS* var. *LONGISPINUS* Eich. & Racib. (Nordstedt)
 (Prescott I)
 FLORIDA Salisbury, 1936.
8. *ARTHRODESMUS INCUS* var. *VALIDUS* West & West (Nordstedt) (Prescott I)
 FLORIDA West & West, 1898 # F 1(GP).
9. *ARTHRODESMUS OCTOCORNIS* Ehr. (Irene-Marie (f)) (Nordstedt)
 (Prescott I)
 GEORGIA Frohne, 1942 - FLORIDA Borge, 1909; Salisbury, 1936;
 Wood, 1874; # F 1(GP) - KENTUCKY McInteer, 1939 - MISSISSIPPI
 Prescott & Scott, 1942.
 Wollé, 1884 gives it a general distribution.
10. *ARTHRODESMUS OCTOCORNIS* var. *SIMPLEX* Cooke (Nordstedt)
 FLORIDA Borge, 1909.
11. *ARTHRODESMUS PHIMUS* Turn. (Irene-Marie (f)) (Nordstedt)
 (Prescott I)
 GEORGIA Frohne, 1939.
12. *Arthrodesmus quadridens* Wood
 see *SPINOCOCCIDIUM QUADRIDENS* (Wood) Prescott & Scott.
13. *ARTHRODESMUS HALFSII* var. *BREBISSEONII* (Racib.) G. M. Smith
 (Smith, 24(f)) (Prescott I)

GEORGIA Frohne, 1942.

14. *ARTHRODESMUS SUBLATUS* Kuetz. (Irene-Marie (f)) (Nordstedt)
(Prescott I)

FLORIDA Borge, 1909; # F 4(GP) an apparently undescribed variation.

15. *ARTHRODESMUS SUBLATUS* var. *SUBAEQUALIS* West & West (Prescott I)
(West & West, 12(f))

KENTUCKY McInteer, 1939.

16. *ARTHRODESMUS TRIANGULARIS* Lagerh. (Nordstedt) (Prescott I)

GEORGIA Lagerheim, 1885; Wolle, 1887 - MISSISSIPPI Prescott
& Scott, 1942 a form.

17. *ARTHRODESMUS TRIANGULARIS* f. *TRIQUETRA* West & West (Prescott I)
(West & West, 12(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

^N
~~BAMBUSIA~~ (obsolete)

1. ⁿ
~~Bambusia~~ *Brébissonii* Kuetz.

see *GYMNOZYGA BREBISSEONII* (Kuetz.) Wille.

2. ⁿ
~~Bambusia~~ *gracilescens* Nordst.

see *GYMNOZYGA MONILOFORMIS* var. *GRACILESCENS* Nordst.

CALOCYLINDRUS (obsolete)

1. *Calocylindrus connatus* (Bréb.) Kirch.

see *COSMARIUM CONNATUM* Bréb.

2. *Calocylindrus connatus* var. *minor* Nordst.

see *COSMARIUM CONNATUM* Bréb.

3. *Calocylindrus minutus* (Ralfs) Kirch.

see *PENIUM MINUTUM* Cleve

4. *Calocylindrus Thwaitesii* Ralfs

see *COSMARIUM THWAITESII* Ralfs

Although Wolle gives Ralfs as the species author, it appears from the data in Nordstedt that it actually should have been (Ralfs) Schaefarschmidt. The original name is again preferred.

CLOSTERIUM Nitzsch 1817

1. CLOSTERIUM ABRUPTUM West (Irène-Marie (f)) (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford, 1943 - FLORIDA # F 5(GP) - KENTUCKY McInteer, 1941 - LOUISIANA Brown, 1930.
2. CLOSTERIUM ACEROSUM (Schrank) Ehr. (Irène-Marie (f)) (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford, 1943 - SO. CAROLINA Bailey, 1851; Frohne, 1939; Wood, 1874 - GEORGIA Bailey, 1851; Frohne, 1942; Wood, 1874 - FLORIDA Bailey, 1851; Wood, 1874 - KENTUCKY McInteer, 1938, 1939 - TENNESSEE Silva # 549(UT)(CM) - MISSISSIPPI Brown, 1930 - LOUISIANA Featherman, 1871.
3. CLOSTERIUM ACEROSUM var. ELONGATUM Bréb. (Irène-Marie (f)) (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer, 1939 - ALABAMA Brown, 1930 - MISSISSIPPI Brown, 1930.
4. CLOSTERIUM ACEROSUM var. MAXIMUM Wood (Irène-Marie (f)) (Prescott I)
 SO. CAROLINA Wood, 1874 - GEORGIA Wood, 1874 - FLORIDA Wood, 1874.
5. CLOSTERIUM ACUTUM Bréb. (Irène-Marie (f)) (Prescott I)
 NO. CAROLINA Poteat, 1888; Whitford, 1943.
6. CLOSTERIUM ANGUSTATUM Kuetz. (Irène-Marie (f)) (Prescott I)
 NO. CAROLINA Whitford, 1943; Bold collection (UT record) -

SO. CAROLINA Frohne, 1942; Bold # 87(GP) - GEORGIA Frohne,
1942 - FLORIDA Whelden, 1941 - KENTUCKY McInteer, 1939 -
MISSISSIPPI Prescott & Scott, 1943.

7. CLOSTERIUM ~~ARCHERIANUM~~ Cleve (Irène-Marie (f)) (Prescott I)

NO. CAROLINA Whitford, 1943 - FLORIDA Salisbury, 1936.

8. CLOSTERIUM AREOLATUM Wood (Nordstedt) (Prescott I)

NO. CAROLINA Poteat, 1888, Whitford, 1943.

9. CLOSTERIUM ATTENUATUM Ehr. (Nordstedt) (Prescott I)

FLORIDA Salisbury, 1936.

10. CLOSTERIUM BAILEYANUM Bréb. (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939 - MISSISSIPPI Prescott & Scott, 1942.

11. CLOSTERIUM BRAUNII Reinsch (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

12. CLOSTERIUM CALOSPORUM Witttr. (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

13. CLOSTERIUM CORNU Ehr. (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Whitford, 1943; Bold collection (UT record) - MISSISSIPPI

Brown, 1930.

14. CLOSTERIUM COSTATUM Corda (Irène-Marie (f)) (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943; Bold # 87(UT record) -

SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939, 1942 -

FLORIDA Salisbury, 1936; # F 1(GP).

15. CLOSTERIUM COSTATUM var. WESTII Cush. (Irène-Marie (f))

(Nordstedt) (Prescott)

FLORIDA Borge, 1909 - MISSISSIPPI Prescott & Scott, 1942.

16. CLOSTERIUM CYNTHIA DeNot. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939 -
MISSISSIPPI Brown, 1930.

17. CLOSTERIUM CYNTHIA var. JENNERI (Ralfs) Krieg. (Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

18. CLOSTERIUM DECORUM Bréb. (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

19. CLOSTERIUM DELPONTII (Klebs) DeToni (Nordstedt) (Prescott I)

FLORIDA West & West, 1898.

20. CLOSTERIUM DIANAE Ehr. (Irène-Marie (f)) (Nordstedt) (Prescott I)

NO. CAROLINA Poteat, 1888; Whitford, 1943; Bold # 43a

(UT record) - GEORGIA Bailey, 1851; Wood, 1874 - FLORIDA

Bailey, 1851; West & West, 1898; Wood, 1874; # F 1(GP) -

KENTUCKY McInteer, 1939 - MISSISSIPPI Brown, 1930.

21. CLOSTERIUM DIANAE var. ARCUATUM (Bréb.) Rabenh. (Irène-Marie (f))

(Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943.

22. CLOSTERIUM DIDYMOTOCUM Corda (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Bold # 36(UT record) - FLORIDA Salisbury, 1936 - KENTUCKY

McInteer, 1939.

23. CLOSTERIUM EBORACENSE Turn. (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943.

24. CLOSTERIUM ENKENBERGII Menegh. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

GEORGIA Bailey, 1851 - FLORIDA Bailey, 1851; Borge, 1909 -

KENTUCKY McInteer, 1939.

25. CLOSTERIUM FULVUM Lewis, Zirkle & Patrick (Lewis, Zirkle &

Patrick, 33(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

This is the only report.

26. CLOSTERIUM GRACILE Bréb. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Poteat, 1888; Whitford, 1943 - FLORIDA Whelden, 1941 -

KENTUCKY McInteer, 1939 - ALABAMA Brown, 1930.

27. CLOSTERIUM INCURVUM Bréb. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Bold # 87(UT record) - FLORIDA Whelden, 1941.

28. CLOSTERIUM INTERMEDIUM Ralfs (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Bold

49 (UT record) - KENTUCKY McInteer, 1939 - MISSISSIPPI

Prescott & Scott, 1942.

29. CLOSTERIUM JENNERI Ralfs (Irène-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Whitford, 1943.

30. CLOSTERIUM JUNCID~~I~~UM Ralfs (Irène-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Bold # 49(UT record) - SO. CAROLINA Wood,

1874 - KENTUCKY McInteer, 1939.

Wolle, 1884, gives it Maine to FLORIDA distribution.

31. CLOSTERIUM JUNCID~~I~~UM var. BREVIOR Roy (Irène-Marie (f))

(Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

32. CLOSTERIUM JUNCID~~I~~UM f. GRACILLIMA -LAEVISSIMA Bréb. (Nordstedt)

FLORIDA Wolle, 1887.

33. CLOSTERIUM KUETZINGII Bréb. (Irène-Marie (f)) (Nordstedt)
(Prescott I)

NO. CAROLINA Whitford, 1943; Bold # 328(UT record) -
SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939 -
FLORIDA Salisbury, 1936 - KENTUCKY McInteer, 1939 -
MISSISSIPPI Brown, 1930.

34. CLOSTERIUM KUETZINGII var. VITTATUM Nordst. (Nordstedt)
(Prescott I)

FLORIDA # F 1(GP).

35. CLOSTERIUM LANCEOLATUM Kuetz. (Irène-Marie (f)) (Nordstedt)
(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - GEORGIA Bailey,
1851 - FLORIDA Brown, 1930; Wolle, 1884 - KENTUCKY McInteer,
1938, 1939 - MISSISSIPPI Brown, 1930.

36. CLOSTERIUM LANCEOLATUM var. PARVUM West & West (Nordstedt)
(Prescott I)

LOUISIANA Featherman, 1871.

37. CLOSTERIUM LEIBLINII Kuetz. (Irène-Marie (f)) (Nordstedt)
(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Poteat,
1888; Whitford, 1943 - SO. CAROLINA Frohne, 1939; Wood, 1874,
Bold collection (UT record) - GEORGIA Bailey, 1851; Frohne,
1939; Wolle, 1892; Wood, 1874 - FLORIDA Salisbury, 1939; #
F 7(GP) - KENTUCKY McInteer, 1939, 1944 - LOUISIANA Brown, 1930;
Featherman, 1871.

38. CLOSTERIUM LIBELLULA Focke (Irene-Marie (f)) (Nordstedt) (Prescott I)
KENTUCKY McInteer, 1939.

39. CLOSTERIUM LIBELLULA var. INTERMEDIUM Roy & Biss. (Irène-Marie (f))
(Nordstedt) (Prescott I)
KENTUCKY McInteer, 1944.
40. CLOSTERIUM LINEATUM Ehr. (Irène-Marie (f)) (Nordstedt) (Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Poteat,
1888; Whitford, 1943 - KENTUCKY McInteer, 1938, 1939 -
MISSISSIPPI Brown, 1930.
41. CLOSTERIUM LITTORALE Gay (Irène-Marie (f)) (Nordstedt) (Prescott I)
KENTUCKY McInteer, 1939.
42. CLOSTERIUM LITTORALE var. CRASSUM West & West (Prescott I)
KENTUCKY McInteer, 1939.
43. CLOSTERIUM LUNULA (Muell.) Nits⁷_^sche (Irène-Marie (f)) (Nordstedt)
(Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA West
& West, 1898; Whitford, 1943 - SO. CAROLINA Bailey, 1851;
Wood, 1874 - GEORGIA Bailey, 1851; Wood, 1874 - FLORIDA Bailey,
1851; Borge, 1909; West & West, 1898; Wood, 1874 - KENTUCKY
McInteer, 1939.
44. CLOSTERIUM LUNULA var. INTERMEDIUM Gutw. (Nordstedt) (Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer,
1939.
45. CLOSTERIUM MACILENTUM Bréb. (Irène-Marie (f)) (Nordstedt)
(Prescott I)
KENTUCKY McInteer, 1939 - MISSISSIPPI Brown, 1939.
46. CLOSTERIUM MONILIFERUM (Bory) Ehr. (Irène-Marie (f)) (Nordstedt)
(Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Poteat,
1888; Whitford, 1943; Bold collection (UT record) - SO. CAROLINA

Metcalf, 1947; Bold collection (UT record) - GEORGIA
 Bailey, 1851; Wollé, 1884; Wood, 1874 - FLORIDA Bailey,
 1851; Whelden, 1941 - KENTUCKY McInteer, 1938, 1939, 1944 -
 TENNESSEE Bold collection (UT record) - ALABAMA Brown, 1930 -
 LOUISIANA Brown, 1930.

47. *Closterium moniliforme*

LOUISIANA Featherman, 1871

This was probably intended to be *C. moniliferum* (Bory)

Ehr.

48. *CLOSTERIUM NASUTUM* Wollé (Nordstedt) (Prescott I)

NO. CAROLINA Poteat, 1888; Whitford, 1943.

49 *CLOSTERIUM NAVICULA* (Bréb.) Luetkem. (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - McInteer, 1939.

50. *CLOSTERIUM OBTUSUM* Bréb. (Nordstedt) (Prescott I)

NO. CAROLINA Poteat, 1888; Whitford, 1943.

51. *CLOSTERIUM PARVULUM* Naeg. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - GEORGIA Frohne,
 1939 - FLORIDA Whelden, 1941; # F 10(GP) - KENTUCKY McInteer,
 1939, 1944 - LOUISIANA Brown, 1930.

52. *CLOSTERIUM PARVULUM* var. *ANGUSTUM* West & West (Nordstedt) (Prescott I)

FLORIDA # F 2(GP).

53. *CLOSTERIUM PERACEROSUM* Gay (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943.

54. *CLOSTERIUM PERACEROSUM* var. *ELEGANS* G. S. West (Nordstedt)

(Prescott I)

KENTUCKY McInteer, 1939.

55. *CLOSTERIUM PRITCHARDIANUM* Arch. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Whitford, 1943 - FLORIDA Salisbury, 1936 -

KENTUCKY McInteer, 1938, 1939, 1944.

56. CLOSTERIUM ^{R. NUM}~~Pratum~~ Bréb. (Irène-Marie (f)) (Nordstedt) (Prescott I)

FLORIDA Wolle, 1887.

57. CLOSTERIUM PSEUDODIALAE Roy (Irène-Marie (f)) (Nordstedt) (Prescott I)

FLORIDA Whelden, 1941.

58. CLOSTERIUM PSEUDOLUNULA Borge (Borge, 09(f)) (Prescott I)

FLORIDA Borge, 1909.

59. CLOSTERIUM PUSILLUM Hantzsch (Nordstedt) (Prescott I)

NO. CAROLINA Bold collection (UT record).

60. CLOSTERIUM RALFSII var. HYBRIDUM Rabenh. (Irène-Marie (f))

(Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Salisbury,

1936 - KENTUCKY McInteer, 1939.

61. CLOSTERIUM RALFSII var. ~~ISANE~~ Cush. (Irène-Marie (f)) (Prescott I)

NO. CAROLINA Bold # 117(UT record) - SO. CAROLINA Bold #
125(UT record).

62.* CLOSTERIUM RAYNUNCULI Lewis, Zirkle & Patrick (Lewis, Zirkle &

Patrick, 33(f))

VIRGINIA Lewis, Zirkle & Patrick, 1933.

This is the only report.

63. CLOSTERIUM REGULARE Bréb. (Irène-Marie (f)) (Nordstedt) (Prescott I)

FLORIDA Salisbury, 1936 - KENTUCKY McInteer, 1939 -

ALABAMA Brown, 1930.

64. CLOSTERIUM ROSTRATUM Ehr. (Nordstedt) (Prescott I)

NO. CAROLINA Brown, 1930; Poteat, 1888; Whitford, 1943 -

GEORGIA Frohne, 1939 - FLORIDA Whelden, 1941, Wolle, 1884 -

ERRATA

For

62. CLOSTERIUM RANUNCULI Lewis, Zirkle & Patrick (Lewis, Zirkle,
& Patrick, 33 (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933

. This is the only report.

Substitute

62. Closterium ranunculi Lewis, Zirkle & Patrick

see CLOSTERIUM DELPONTEI var. NORDSTEDTII (Gutw.) Krieger

After Closterium # 19 add

19a. CLOSTERIUM DELPONTEI var. NORDSTEDTII (Gutw.) Krieger (Krieger (f))

(Lewis, Zirkle & Patrick, (f) as Closterium ranunculi

Lewis, Zirkle, & Patrick)

VIRGINIA Lewis, Zirkle & Patrick, 1933 as Closterium ranunculi.

KENTUCKY McInteer, 1939, 1944.

65. CLOSTERIUM SETACEUM Ehr. (Irène-Marie (f)) (Nordstedt) (Prescott I)
 NO. CAROLINA Whitford, 1943; Bold # 87 - SO. CAROLINA Bailey,
 1851; Frohne, 1939 - GEORGIA Bailey, 1851; Frohne, 1939, 1942;
 Wollé, 1884; Wood, 1874 - FLORIDA Bailey, 1851; Salisbury, 1936;
 Wollé, 1884; Wood, 1874 - MISSISSIPPI Prescott & Scott, 1942 -
 LOUISIANA Featherman, 1871.
66. CLOSTERIUM SIGMOIDEUM (Lagerh.) Nordst. (Nordstedt) (Prescott I)
 NO. CAROLINA Whitford, 1943.
67. CLOSTERIUM SILIQUA West & West (Irène-Marie (f)) (Nordstedt)
 (Prescott (f))
 MISSISSIPPI Brown, 1930.
68. CLOSTERIUM STRIGOSUM Bréb. (Irène-Marie (f)) (Nordstedt)
 (Prescott I)
 KENTUCKY McInteer, 1939.
69. CLOSTERIUM STRIOLATUM Ehr. (Irène-Marie (f)) (Nordstedt) (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
 Whitford, 1943 - FLORIDA Brown, 1930 - KENTUCKY McInteer, 1939 -
 ALABAMA Brown, 1930 - LOUISIANA Featherman, 1871.
70. CLOSTERIUM SUBCOSTATUM Nordst. (Nordstedt) (Prescott I)
 FLORIDA Wollé, 1887.
71. CLOSTERIUM SUBULATUM (Kuetz.) Bréb. (Irène-Marie (f)) (Nordstedt)
 (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer, 1939.
72. CLOSTERIUM TOXON W. West (Irène-Marie (f)) (Nordstedt) (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933 - MISSISSIPPI Brown,
 1930; Prescott & Scott, 1942.
73. CLOSTERIUM TOXON f. ELONGATA West & West (Nordstedt) (Prescott I)

FLORIDA West & West, 1898 - MISSISSIPPI West & West, 1898

74. CLOSTERIUM TUMIDUM Johns. (Irène-Marie) (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Bold # 60

(UT record) - KENTUCKY McInteer, 1939, 1944.

75. CLOSTERIUM TURGIDUM Ehr. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Bailey,

1851 - KENTUCKY McInteer, 1941.

76. CLOSTERIUM TURGIDUM var. GIGANTEUM (Ehr.) Nordst. (Nordstedt)

(Prescott I)

KENTUCKY McInteer, 1939 - LOUISIANA Brown, 1930.

77. CLOSTERIUM ULNA Focke (Irène-Marie (f)) (Nordstedt) (Prescott I)

NO. CAROLINA Bold # 386(UT record) - SO. CAROLINA Bold

collection (UT record) - KENTUCKY McInteer, 1939 -

ALABAMA Brown, 1930 MISSISSIPPI Prescott & Scott, 1942.

78. CLOSTERIUM VENUS Kuetz. (Irene-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - SO. CAROLINA

Metcalf, 1947; Wood, 1874 - FLORIDA Borge, 1909; Salisbury,

1936 - KENTUCKY McInteer, 1939, 1944 - TENNESSEE Bold

collection (UT)(CM).

COSMARIUM Corda 1834

B

1. COSMARIUM ABRUPTUM var. PLANCTONICUM West & West (Nordstedt)

(Prescott I)

ALABAMA Brown, 1930.

2. COSMARIUM ABRUPTUM Lund. (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

3. COSMARIUM ALPESTRE Roy & Biss. (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - MISSISSIPPI

Prescott & Scott, 1942.

4. COSMARIUM AMOENUM Bréb. (Irène-Marie (f)) (Nordstedt) (Prescott I)

SO. CAROLINA Frohne, 1939 - FLORIDA Bailey, 1851,

Salisbury, 1936; Wolle, 1879; Wood, 1874; # F 10(GP).

5. COSMARIUM AMOENUM var. TUMIDUM Wolle (Nordstedt)

FLORIDA Wolle, 1884.

6. COSMARIUM ANCEPS Lund. (Nordstedt) (Prescott I)

FLORIDA Wolle, 1884.

7. COSMARIUM ANGULARE Johns. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

LOUISIANA West & West, 1898

8. COSMARIUM ANGULOSUM Bréb. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA # F 9(GP)

- KENTUCKY McInteer, 1944 - LOUISIANA Brown, 1930.

9. COSMARIUM ANISCHONDRUM Nordst. (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

10. COSMARIUM ANNULATUM var. ELEGANS Nordst. (Prescott I)

KENTUCKY McInteer, 1944.

11. COSMARIUM ASPHAEROSPORUM var. STRIGOSUM Nordst. (Nordstedt)

(Prescott I)

NO. CAROLINA Whitford, 1943.

12. COSMARIUM BAILEYII Wolle (Nordstedt) (Prescott I)

FLORIDA Bailey, 1851 as C. depressum Bail.; Wolle, 1884;

Wood, 1874 as C. depressum.

13. COSMARIUM BINUM Nordst. (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939,

1944 - MISSISSIPPI Prescott & Scott, 1942 - LOUISIANA

Prescott, 1942.

14. COSMARIUM BIPUNCTATUM Bréb. (Irène-Marie (f)) (Nordstedt)
(Prescott I)
GEORGIA Lagerheim, 1885 perhaps f. "B" parcum Wille -
KENTUCKY McInteer, 1939.
15. COSMARIUM BIPUNCTATUM Borge (Irène-Marie (f)) (Nordstedt)
(Prescott I)
ALABAMA Brown, 1930.
16. COSMARIUM BIREME Nordst. (Nordstedt) (Prescott I)
KENTUCKY McInteer, 1939 - MISSISSIPPI Prescott & Scott, 1942.
17. COSMARIUM BIREME var. BARBADENSE G. S. West (Nordstedt)
(Prescott I)
FLORIDA Whelden, 1941.
18. COSMARIUM BIRETUM Bréb. (Nordstedt) (Prescott I)
KENTUCKY McInteer, 1939.
19. COSMARIUM BIRETUM var. FLORIDENSE (Nordstedt)
FLORIDA Wille, 1892.
20. COSMARIUM BLYTTI Wille (Irène-Marie (f)) (Nordstedt)
(Prescott I)
FLORIDA Whelden, 1941 - ALABAMA Brown, 1930 - MISSISSIPPI
Prescott & Scott, 1942.
21. COSMARIUM BLYTTI var. NOVAE-SYLVAE West & West (Nordstedt)
(Prescott I)
KENTUCKY McInteer, 1939.
22. COSMARIUM BOTRYTIS Menegh. (Irène-Marie) (Nordstedt) (Prescott I)
NO. CAROLINA Brown, 1930; Poteat, 1888; Whitford, 1943
- FLORIDA Borge, 1909.

23. COSMARIUM BOTRYTIS var. GEMIFERUM (Bréb.) Nordst. (Nordstedt)
NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939.
24. COSMARIUM BOTRYTIS var. MEDIOCLAVE West (Nordstedt) (Prescott I)
KENTUCKY McInteer, 1939.
25. COSMARIUM BOTRYTIS var. SUBTUMIDUM (Irène-Marie (f)) (Nordstedt)
(Prescott I)
MISSISSIPPI Brown, 1930.
26. COSMARIUM BOTRYTIS var. TUMIDUM Wolle (Nordstedt) (Prescott I)
NO. CAROLINA Poteat, 1888; Whitford, 1943.
27. COSMARIUM BRAUNII Reinsch (Nordstedt) (Prescott I)
NO. CAROLINA Poteat, 1888; Whitford, 1943.
Both of these sources list this as C. Braunii f.
major Reinsch, which may have been Wolle's interpretation,
in 1884, and 1892, of Reinsch's form (a), major.
28. COSMARIUM BREBISSEII Menegh. (Nordstedt) (Prescott I)
FLORIDA Salisbury, 1936; Wolle, 1879.
29. COSMARIUM BROOMEI Thwaites (Nordstedt) (Prescott I)
GEORGIA Bailey, 1851; Wood, 1874 - KENTUCKY McInteer,
1939.
30. COSMARIUM ^{AE}CALATUM Ralfs. (Nordst) (Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - SO. CAROLINA
Wood, 1874 - KENTUCKY McInteer, 1941, 1944.
31. COSMARIUM ^{AL}CLACAREUM Witttr. (Nordstedt) (Prescott I - a variety)
FLORIDA Borge, 1909 - KENTUCKY McInteer, 1939.
32. COSMARIUM CIRCULARE Reinsch (Irène-Marie (f)) (Nordstedt)
(Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Wolle,
1887 - KENTUCKY McInteer, 1939.

33. COSMARIUM CIRCULARE f. MINOR West & West (Nordstedt)

MISSISSIPPI Prescott & Scott, 1942.

34. COSMARIUM CLEVEI (Lund.) Luetkem. (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

35. COSMARIUM COMMISURALE Bréb. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939 - FLORIDA

Borge, 1909; Salisbury, 1936; Wollé, 1879 - KENTUCKY

McInteer, 1939.

36. COSMARIUM COMMISURALE var. CRASSUM Nordst. (Irène-Marie (f))

(Nordstedt) (Prescott I)

SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939 -

FLORIDA Borge, 1909 - Prescott & Scott, 1942.

37. Cosmarium commutatum Kuetz.

FLORIDA Johnson, 1895.

Perhaps this was intended to be C. commutatum P. Richt, which is a synonym for C. punctulatum DeNot. More likely possibility is that Phycastrum commutatum Kuetz, which became Staurastrum commutatum Kuetz. listed in Wollé, was intended.

38. COSMARIUM COMMATUM Bréb. (Irène-Marie (f)) (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Poteat,

1888 as Calocylindrus connatus Kirch; Whitford, 1943 as

Cosmarium connatus Kirch. - FLORIDA Bailey, 1851; Salisbury,

1936; Wollé, 1884 as Calocylindrus connatus. Kirch. -

KENTUCKY McInteer, 1944 - ALABAMA Brown, 1933.

Whitford also lists Cosmarium connatus var. minor Nordst. which was interpolated from Poteat's Calocylindrus connatus var. minor Nordst. Wollé, 1884, lists the latter name, and was

presumably Poteat's source, but Nordstedt described no such plant and questioned Wolle's reference to it, so it is altogether uncertain just what plant the name was supposed to represent.

39. COSMARIUM CONSPERSUM var. LATUM (Bréb.) West & West (Nordstedt)
(Prescott I)
ALABAMA Brown, 1930.
40. COSMARIUM CONTRACTUM Kirch. (Irène-Marie (f)) (Nordstedt)
(Prescott I)
VIRGINIA Hutchinson & Pickford, 1932; Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer, 1939 - MISSISSIPPI Prescott & Scott, 1942.
41. COSMARIUM CONTRACTUM var. ELLIPSOIDEUM (Elfv.) West & West
(Irène-Marie (f)) (Nordstedt)(Prescott I)
KENTUCKY McInteer, 1939 - MISSISSIPPI Brown, 1930.
42. COSMARIUM CONTRACTUM f. JACOBSENII (Roy) West & West (Nordstedt)
KENTUCKY McInteer, 1939.
43. COSMARIUM CONTRACTUM var. PAPILLATUM West & West (Nordstedt)
VIRGINIA Hutchinson & Pickford, 1932.
44. COSMARIUM COSMETUM West & West (Nordstedt) (Prescott I)
MISSISSIPPI Prescott & Scott, 1942.
45. COSMARIUM COSTATUM Nordst. (Nordstedt) (Prescott I)
NO. CAROLINA Johnson, 1895; Whitford, 1943 - TENNESSEE Brown, 1930.
46. COSMARIUM CRENATUM Ralfs (Nordstedt) (Prescott I)
KENTUCKY McInteer, 1944.
47. COSMARIUM CUCUMINIS (Corda) Ralfs (Irène-Marie (f)) (Nordstedt)
(Prescott I)

NO. CAROLINA Brown, 1930; Poteat, 1888; Whitford, 1943
 - SO. CAROLINA Bailey, 1851; Wood, 1874 - GEORGIA Bailey,
 1851; Wood, 1874 - FLORIDA Bailey, 1851; Wolle, 1884; Wood,
 1874.

48. COSMARIUM CUCURBITUM Bréb. (Irène-Marie) (Nordstedt) (Prescott I)
 FLORIDA Whelden, 1941; Wolle, 1879; # F 6, 7(GP) -
 KENTUCKY McInteer, 1944 - ALABAMA Brown, 1930 - MISSISSIPPI
 Prescott & Scott, 1942.

49. COSMARIUM CUNNATUM var. AMERICANUM Borge (Borge, 09(f))
 FLORIDA Borge, 1909.

50. COSMARIUM CURTUM (Bréb.) Ralfs. (Nordstedt) (Prescott I)
 KENTUCKY McInteer, 1939.

51. COSMARIUM CYCLICUM Lund. (Nordstedt) (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933.

52. COSMARIUM CYLINDRICUM Ralfs. (Nordstedt) (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933.

53. COSMARIUM DENTATUM Wolle (Nordstedt) (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Borge,
 1909; Wolle, 1884 - KENTUCKY McInteer, 1939 - MISSISSIPPI
 Prescott & Scott, 1942.

54. COSMARIUM DENTICULATUM f. BORGEI Irène-Marie (Irène-Marie (f))
 MISSISSIPPI Prescott & Scott, 1943.

55. Cosmarium depressum Bailey
 see COSMARIUM BAILEYII Wolle

56. COSMARIUM DEPRESSUM var. ACHONDRUM (Boldt) West & West
 (Nordstedt) (Prescott I)
 KENTUCKY McInteer, 1939.

57. COSMARIUM DISPERSUM Johns. (Nordstedt) (Prescott I)

LOUISIANA Johnson, 1895.

58. COSMARIUM ^N~~DO~~NELLII Wolle (Nordstedt)

FLORIDA Wolle, 1884.

59. COSMARIUM ELEGANTISSIMUM Lund. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

FLORIDA Johnson, 1895; Wolle 1884.

60. COSMARIUM ELEGANTISSIMUM var. SIMPLICIUS West & West (Irène-Marie

(f)) (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943.

61. COSMARIUM ENTOCHONDRUM West & West (Prescott I)

KENTUCKY McInteer, 1939.

62. COSMARIUM EXCAVATUM var. TRIGONUM Lagerh. (Nordstedt) (Prescott I)

GEORGIA Lagerheim, 1885.

63. COSMARIUM EXCAVATUM f. DUPLO-MAJOR Lund. (Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

64. COSMARIUM EXIGUUM Arch. (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Wolle, 1892.

65. COSMARIUM ^I~~FASTID~~OSUM West & West (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

66. COSMARIUM FORMULOSUM Holf. (Irène-Marie) (Nordstedt) (Prescott I)

GEORGIA Frohne, 1939.

67. COSMARIUM FORMULOSUM var. NATHORSTII (Boldt) West & West

(Prescott I)

KENTUCKY McInteer, 1939 - LOUISIANA Brown, 1930.

68. COSMARIUM ^{AL}~~GN~~ERITUM Nordst. (Irène-Marie (f)) (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943.

69. COSMARIUM GAYANUM DeToni (Irène-Marie (f)) (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

70. *COSMARIUM GEMINATUM* Lund. (Irène-Marie (f)) (Nordstedt) (Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

71. *COSMARIUM GLOBOSUM* f. *MINOR* Boldt. (Nordstedt)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

72. *COSMARIUM GRANATUM* Bréb. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Borge,

1909; Salisbury, 1936; Wollé, 1884; # F 4(GP) - KENTUCKY

McInteer, 1939.

73. *COSMARIUM GRANATUM* var. *SUBANGULARE* West & West (Nordstedt)

(Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

74. *COSMARIUM GRANATUM* var. *SUBGRANATUM* Nordst. (Nordstedt)

(Prescott I)

KENTUCKY Lillick & Lee, 1934; McInteer, 1939.

75. *COSMARIUM HAMMERI* Reinsch (Irène-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Whitford, 1943 - FLORIDA Whelden, 1941.

76. *COSMARIUM HAMMERI* var. *HOMALODERMUM* (Nordst.) West (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

77. *COSMARIUM HAMMERI* var. *PROTUBERANS* West & West (Irène-Marie (f))

(Nordstedt) (Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

78. *COSMARIUM HOLMIENSE* Lund. (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY

McInteer, 1939.

79. *COSMARIUM HOLMIENSE* var. *INTEGRUM* Lund. (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

80. COSMARIUM HUMILE (Gay) Nordst. (Irène-Marie (f)) (Nordstedt)
(Prescott I)

FLORIDA Whelden, 1941.

81. COSMARIUM IMPRESSULUM Elfv. (Irène-Marie (f)) (Nordstedt)
(Prescott I)

GEORGIA Frohne, 1939 - FLORIDA Whelden, 1941 - KENTUCKY
McInteer, 1939.

82. COSMARIUM ISTHMIUM West (Irène-Marie (f)) (Nordstedt) (Prescott I)
NO. CAROLINA Bold collection (UT record) - FLORIDA
Salisbury, 1936 - KENTUCKY McInteer, 1939.

83. COSMARIUM ISTHMIUM f. HIBERNICUM West (Irène-Marie (f))
(Nordstedt) (Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - ALABAMA
Brown, 1930 - MISSISSIPPI Brown, 1930.

84. COSMARIUM ISTHMOCHONDRUM Nordst. (Irène-Marie (f)) (Nordstedt)
(Prescott I)
KENTUCKY McInteer, 1939.

85. COSMARIUM JOCOBSENII Roy (Nordstedt)
FLORIDA Borge, 1909.

86. COSMARIUM JENISEJENSE Boldt (Nordstedt) (Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933.

87. COSMARIUM KJELLMANI var. GRANDE Wille (Nordstedt) (Prescott I)
KENTUCKY McInteer, 1939.

88. COSMARIUM LAEVE Rabenh. (Nordstedt) (Prescott I)
KENTUCKY McInteer, 1939.

89. COSMARIUM LATUM Bréb. (Nordstedt) (Prescott I)
FLORIDA Borge, 1909.

90. *Cosmarium latum* var. *margaritatum* Lund.

see COSMARIUM MARGARITATUM (Lund.) Roy & Bliss.

91. COSMARIUM LOGIENSE Biss. (Nordstedt) (Prescott I)

MISSISSIPPI Brown, 1930.

92. COSMARIUM LUNATUM var. DEPRESSUM West & West (Nordstedt)

FLORIDA West & West, 1898.

93. COSMARIUM LUNDELLI var. ELLIPTICUM West (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Bold # 37(UT record).

94. COSMARIUM MAMILLIFERUM Nordst. (Nordstedt) (Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

95. COSMARIUM MARGARITATUM (Lund.) Roy & Biss. (Ireneé-Marie (f))

(Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - GEORGIA Frohne,

1939 - FLORIDA Borge, 1909 as *C. latum* var. *margaritatum* (Lund.)

Roy & Biss.; Whelden, 1941 - KENTUCKY McInteer, 1938,

1939 - MISSISSIPPI Brown, 1930.

96. COSMARIUM MARGARITATUM f. MINOR (Boldt) West & West (Ireneé-Marie (f))

(Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

97. COSMARIUM MARGARITIFERUM (Turp.) Menegh. (Ireneé-Marie (f))

(Nordstedt) (Prescott I)

SO. CAROLINA Bailey, 1851; Wood, 1874 - GEORGIA Bailey,

1851 - FLORIDA Wille, 1892, Wood, 1874.

98. COSMARIUM MENEGHINII Bréb. (Nordstedt) (Prescott I)

SO. CAROLINA Frohne, 1939 - GEORGIA Brown, 1930; Frohne,

1939; Lagerheim, 1885 - FLORIDA Brown, 1930; Whelden, 1941 -

KENTUCKY McInteer, 1939.

99. COSMARIUM MENECHINII f. LATIUSCULA Jacobs. (Nordstedt)
VIRGINIA Lewis, Zirkle & Patrick, 1933.
100. COSMARIUM MENECHINII var. NANUM Wille (Nordstedt) (Prescott I)
GEORGIA Frohne, 1939.
101. COSMARIUM MICROSPHINCTUM Nordst. (Nordstedt) (Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - GEORGIA Bold
collection (UT record) - MISSISSIPPI Brown, 1930.
102. COSMARIUM MICROSPHINCTUM var. PARVULA Wille (Nordstedt)
(Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933.
103. COSMARIUM MIEDYR^{ZE}CENSE var. MONILAZUM Groenb. (Prescott I)
MISSISSIPPI Prescott & Scott, 1942.
104. COSMARIUM MINUTUM Delp. (Nordstedt) (Prescott I)
NO. CAROLINA Poteat, 1888 as Calocylinndrus minutus (Ralfs)
Kirch; Whitford, 1943 as Cosmarium minutus Kirch. inter-
polated from Poteat's report - SO. CAROLINA Wolle, 1884
as Calocylinndrus minutus - FLORIDA Wolle, 1884 as
Calocylinndrus minutus.
105. COSMARIUM MONILIFORME (Turp.) Ralfs. (Irène-Marie (f))
(Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
Whitford, 1943 - FLORIDA Borge, 1909; Wolle, 1884 -
KENTUCKY McInteer, 1939.
106. COSMARIUM MONILIFORME var. PANDURIFORMIS Heimerl. (Irène-Marie
(f)) (Nordstedt) (Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933.
107. COSMARIUM MONILIFORME var. PUNCTATUM Lagerh.
KENTUCKY McInteer, 1939.

108. COSMARIUM NAEGELIANUM Bréb. (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY

McInteer, 1939.

109. COSMARIUM NITIDULUM DeNot. (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Whelden,

1941 - KENTUCKY McInteer, 1939.

110. COSMARIUM NOTABILE Bréb. (Nordstedt) (Prescott I)

NO. CAROLINA Poteat, 1888; Whitford, 1943 - KENTUCKY

McInteer, 1944.

111. COSMARIUM NYMNIANUM Groenb. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

GEORGIA Frohne, 1939.

112. COSMARIUM OBSOLETUM (Hantzsch) Reinsch (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

113. COSMARIUM OBTUSATUM Schm. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY

McInteer, 1939, 1944.

114. COSMARIUM OBTUSATUM var. BEANLANDII West & West

(West & West, 12)

KENTUCKY McInteer, 1939.

115. COSMARIUM OCELLATUM Eich. & Gutw. (Nordstedt) (Prescott I)

GEORGIA Bold # 62(UT record).

116. COSMARIUM OCELLATUM var. INCRASSATUM West & West (Nordstedt)

(Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

117. COSMARIUM OCHTHODES Nordst. (Nordstedt) (Prescott I)

FLORIDA Salisbury, 1936 - KENTUCKY McInteer, 1939.

118. COSMARIUM OCHTHODES var. AMOEBUM West (Nordstedt) (Prescott I)
NO. CAROLINA Whitford, 1943 - MISSISSIPPI Brown, 1930.
119. COSMARIUM ORBICULATUM Ralfs (Nordstedt) (Prescott I)
NO. CAROLINA Poteat, 1888; Whitford, 1943.
120. COSMARIUM ORBICULATUM f. MAJOR (Ralfs) West & West
(Prescott I)
ALABAMA Brown, 1930.
121. COSMARIUM ORDINATUM (Borge) West & West (Nordstedt)
(Prescott I)
FLORIDA West & West, 1898.
122. COSMARIUM ORDINATUM var. DEPRESSUM West & West (Nordstedt)
(Prescott I)
SO. CAROLINA Bailey, 1851 - FLORIDA Baley, 1851; Borge,
1909; Salisbury, 1936; # F 10(GP) - KENTUCKY McInteer,
1939 - ALABAMA Brown, 1930.
123. COSMARIUM ORTHOGONUM Delp. (Nordstedt) (Prescott I)
FLORIDA Salisbury, 1936 - ALABAMA Brown, 1930.
124. COSMARIUM ORTHOSTICHUM var. COMPACTUM West & West (Prescott I)
KENTUCKY McInteer, 1939.
125. COSMARIUM ORTHOSTICHUM var. PUMILUM Lund. (Irène-Marie (f))
(Nordstedt) (Prescott I)
FLORIDA # F 7(GP) - MISSISSIPPI Prescott & Scott,
1942 - LOUISIANA Brown, 1930.
126. COSMARIUM OVALE Ralfs. (Irène-Marie (f)) (Nordstedt) (Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
Poteat, 1888; Whitford, 1943 - SO. CAROLINA Bailey, 1851;
Wolle, 1884; Wood, 1874; Bold # 132(UT record) - GEORGIA
Frohne, 1939 - FLORIDA Salisbury, 1936 - KENTUCKY McInteer,

1939 - LOUISIANA Brown, 1930; Prescott, 1942.

127. COSMARIUM OVALE var. PRESCOTTII Irène-Marie (Irène-Marie (f))

LOUISIANA Prescott, 1942.

128. COSMARIUM OVALE var. SUBGLABRUM West & West (Irène-Marie (f))

(Nordstedt) (Prescott I)

FLORIDA Salisbury, 1936.

129. COSMARIUM PACHYDERMUM Lund. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Whelden,

1941 - KENTUCKY McInteer, 1944 - MISSISSIPPI Prescott &

Scott, 1942.

130. COSMARIUM PACHYDERMUM var. AETHIOPICUM West & West (Irène-Marie

(f)) (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

131. COSMARIUM PACHYDERMUM var. MINUS West & West (Nordstedt) (Prescott I)

FLORIDA West & West, 1898.

Nordstedt considered this preempted by his expression

'beta' minus, but it seems more usable in modern nomen-

clatural practice, and is preferred by the writer.

132. COSMARIUM PALAENSE Prescott (Prescott I)

LOUISIANA Prescott, 1942.

133. COSMARIUM PARVULUM Bréb. (Nordstedt) (Prescott I)

FLORIDA Wille, 1884.

134. COSMARIUM PAULENSE (Boerg.) Johns. (Nordstedt) (Prescott I)

FLORIDA Johnson, 1895.

135. COSMARIUM PERICYMATIUM Nordst. (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1941.

136. COSMARIUM PHASEOLUS Bréb. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

FLORIDA Borge, 1909.

137. COSMARIUM PHASEOLUS var. OMPHALUM Borge, (Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

138. COSMARIUM PHASEOLUS f. MINOR Boldt (Irène-Marie) (Nordstedt)

(Prescott I)

KENTUCKY McInteer, 1939.

139. COSMARIUM PLICATUM var. MAJOR Reinsch (Nordstedt) (Prescott I)

FLORIDA Brown, 1930.

140. COSMARIUM PODLACHIAE Eich. & Gutw. (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

141. COSMARIUM POKORNYANUM (Grun.) West & West (Nordstedt) (Prescott I)

NO. CAROLINA Bold # 106(UT record) - KENTUCKY McInteer,

1941, 1944.

142. COSMARIUM POLYMORPHUM Nordst. (Nordstedt) (Prescott I)

FLORIDA Borge, 1909; West & West, 1898.

143. COSMARIUM PORRECTUM Nordst. (Nordstedt) (Prescott I)

FLORIDA Borge, 1909.

144. COSMARIUM PORTIANUM Arch. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Poteat, 1888; Whitford, 1943 - SO. CAROLINA Frohne, 1939

- GEORGIA Frohne, 1939 - FLORIDA Borge, 1909; Salisbury,

1936 - KENTUCKY McInteer, 1938, 1939, 1944 - ALABAMA

Brown, 1930 - MISSISSIPPI Brown, 1930.

145. COSMARIUM PORTIANUM var. NEPHROIDEUM Witttr. (Irène-Marie (f))

(Nordstedt) (Prescott I)

FLORIDA # F 9(GP).

146. COSMARIUM PORTIANUM var. ORTHOSTICHUM Schm. (Irène-Marie (f))
 (Nordstedt) (Prescott I)
 FLORIDA Borge, 1909.
147. COSMARIUM PROTRACTUM (Naeg.) DeBary (Irène-Marie (f)) (Nordstedt)
 (Prescott I)
 KENTUCKY McInteer, 1939.
148. COSMARIUM PSEUDAMOENUM Wille (Irene-Marie (f)) (Nordstedt)
 (Prescott I)
 FLORIDA Borge, 1909 - ALABAMA Brown, 1930.
149. COSMARIUM PSEUDOBROOMEI Wolle (Nordstedt) (Prescott I)
 NO. CAROLINA Poteat, 1888; Whitford, 1943 - FLORIDA Whelden,
 1941 - KENTUCKY McInteer, 1939.
150. COSMARIUM PSEUDOCONNATUM Nordst. (Irène-Marie (f)) (Nordstedt)
 (Prescott I)
 NO. CAROLINA Whitford, 1943 - SO. CAROLINA Frohne, 1939 -
 GEORGIA Frohne, 1939, 1942 - FLORIDA Borge, 1909 -
 KENTUCKY McInteer, 1939.
151. COSMARIUM PSEUDOCONNATUM var. ELLIPSOIDEUM West & West
 (Irène-Marie (f)) (Nordstedt) (Prescott I)
 KENTUCKY McInteer, 1939, 1944 - MISSISSIPPI Brown, 1930.
152. COSMARIUM PSEUDONITIDULUM Nordt. (Irène-Marie (f)) (Nordstedt)
 (Prescott I)
 FLORIDA Brown, 1930 - KENTUCKY McInteer, 1944.
153. COSMARIUM PSEUDONITIDULUM var. VALIDUM West & West (Irène-Marie (f))
 (Nordstedt) (Prescott I)
 FLORIDA Brown, 1930; # F 9(GP).
154. COSMARIUM PSEUDOPECTINOIDEA Wolle (Nordstedt)
 FLORIDA Wolle, 1892.

This is one of the several recognized desmid names which must refer to the same plant passing under other titles. A thorough study is required however before any valid conclusions could be reached.

155. COSMARIUM PSEUDOP^YROTUBERANS Kirch. (Irène-Marie (f)) (Nordstedt)
(Prescott I)

FLORIDA Whelden, 1941 - KENTUCKY McInteer, 1939 -

MISSISSIPPI Brown, 1930.

156. COSMARIUM PSEUDOP^YRAMIDATUM Lund. (Irène-Marie (f)) (Nordstedt)
(Prescott I)

FLORIDA Borge, 1909; Whelden, 1941; # F 5(GP) - ALABAMA

Brown, 1930.

157. COSMARIUM PSEUDOP^YRAMIDATUM var. STENONOTUM Nordst. (Irène-Marie (f))
(Nordstedt) (Prescott I)

FLORIDA Brown, 1930.

158. COSMARIUM PSEUCOP^YRAMIDATUM f. TUBERCULATUM Prescott & Scott
(Prescott & Scott, 42(f))

MISSISSIPPI Prescott & Scott, 1942.

159. COSMARIUM PSEUDOTAXICHONDRUM var. FLORIDENSE West & West (Nordstedt)

FLORIDA West & West, 1898.

160. COSMARIUM PSEUDOTAXICHONDRUM var. FOGGII Taylor (Prescott & Scott,
42(f))

MISSISSIPPI Prescott & Scott, 1942.

161. COSMARIUM PUNCTULATUM Bréb. (Irène-Marie (f)) (Nordstedt)
(Prescott I)

NO. CAROLINA Poteat, 1888; Whitford, 1943; Bold # 30

(UT record) - FLORIDA Whelden, 1941; # F 4(GP) - KENTUCKY

McInteer, 1939.

162. COSMARIUM PUNCTULATUM var. ROTUNDATUM (Bréb.) Klebs (Nordstedt)

(Prescott I)

ALABAMA Brown, 1930.

163. COSMARIUM PUNCTULATUM var. SUBPUNCTULATUM (Nordst.) Borge

(Irène-Marie (f)) (Nordstedt) (Prescott I)

FLORIDA Borge, 1909 - KENTUCKY McInteer, 1939 - ALABAMA

Brown, 1930.

164. COSMARIUM PYGMAEUM Arch. (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

165. COSMARIUM PYRAMIDATUM Bréb. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Whitford, 1943 - GEORGIA Bailey, 1851; Wood,

1874 - FLORIDA Bailey, 1851; Borge, 1909; Salisbury, 1936;

Wood, 1874 - KENTUCKY McInteer, 1939 - MISSISSIPPI Brown,

1930; Prescott & Scott, 1942.

166. COSMARIUM QUADRATUM Ralfs. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

167. COSMARIUM QUADRIFARIUM Lund. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

168. COSMARIUM QUADRILOBUM Prescott & Scott (Prescott & Scott, 42(f))

MISSISSIPPI Prescott & Scott, 1942.

This is the only report.

169. COSMARIUM QUADREUM Lund. (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

170. COSMARIUM QUINARIUM Lund. (Irène-Marie (f)) (Nordstedt) (Prescott I)

GEORGIA Frohne, 1939 - MISSISSIPPI Prescott & Scott, 1942.

171. COSMARIUM REGNELLII Wille (Irène-Marie (f)) (Nordstedt)

(Prescott I)

FLORIDA Borge, 1909 - KENTUCKY McInteer, 1939.

172. COSMARIUM REGNELLII var. MADAGASCARIENSE West & West (Nordstedt)

(Prescott I)

FLORIDA West & West, 1898.

173. COSMARIUM REGNESII Reinsch (Irène-Marie (f)) (Nordstedt)

(Prescott I)

FLORIDA Salisbury, 1936.

174. COSMARIUM RENIFORME (Ralfs.) Arch. (Irene-Marie (f)) (Nordstedt)

(Prescott I)

FLORIDA Wolle, 1884 - KENTUCKY McInteer, 1939 - TENNESSEE

Bold collection (UT record) - MISSISSIPPI Brown, 1930 -

LOUISIANA Brown, 1930.

175. COSMARIUM RENIFORME var. APERTUM West & West (Prescott I)

KENTUCKY McInteer, 1939.

176. COSMARIUM RENIFORME var. COMPRESSUM Nordst. (Nordstedt)

(Prescott I)

TENNESSEE Brown, 1930.

177. COSMARIUM RETUSIFORME var. ALPINUM Schm. (Nordstedt) (Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

178. COSMARIUM SCHLEIPHACKENIANUM Grun. (Nordstedt) (Prescott I)

NO. CAROLINA Poteat, 1888; Whitford, 1943.

179. COSMARIUM SEXANGULARE Lund. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1939.

180. COSMARIUM SEXANGULARE var. SUBANGULARE Fritsch & Rich (Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

181. *COSMARIUM SEXNOTATUM* var. *TRISTRIATUM* (Luetkem.) Schm.
(Nordstedt) (Prescott I)
KENTUCKY McInteer, 1939.
182. *COSMARIUM SIMII* Roy & Biss. (Nordstedt) (Prescott I)
ALABAMA Brown, 1930.
183. *COSMARIUM SPECIOSUM* Lund. (Irène-Marie (f)) (Nordstedt)
(Prescott I)
NO. CAROLINA Poteat, 1888; Whitford, 1943 - KENTUCKY
McInteer, 1939.
184. *COSMARIUM SPECIOSUM* var. *ROSTAFINSKII* (Gutw.) West & West
(Irène-Marie (f)) (Prescott I)
KENTUCKY McInteer, 1944.
185. *COSMARIUM SPECIOSUM* var. *SIMPLEX* (Irène-Marie (f)) (Nordstedt)
(Prescott I)
KENTUCKY McInteer, 1944.
186. *COSMARIUM SUBARCTUM* (Lagerh.) Racib. (Nordstedt) (Prescott I)
FLORIDA Brown, 1930.
187. *COSMARIUM SUBCRENATUM* Hantzsh (Irène-Marie (f)) (Nordstedt)
(Prescott I)
KENTUCKY McInteer, 1939.
188. *COSMARIUM SUBCUCUMIS* Schm. (Irène-Marie (f)) (Nordstedt)
(Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
Bold # 82(UT record) - FLORIDA # F 10(GP) - KENTUCKY
McInteer, 1939 - ALABAMA Brown, 1930.
189. *COSMARIUM SUBLOBATIFORME* Prescott & Scott (Prescott & Scott,
42(f))
MISSISSIPPI Prescott & Scott, 1942.

190. COSMARIUM SUBLOBATUM (Bréb.) Arch. (Nordstedt) (Prescott I)
 GEORGIA Wood, 1874 - FLORIDA Wood, 1874.
191. COSMARIUM SUBNOTABILE Wille (Nordstedt) (Prescott I)
 KENTUCKY McInteer, 1939.
192. COSMARIUM SUBPROTUMIDUM Nordst. (Nordstedt) (Prescott I)
 KENTUCKY McInteer, 1944.
193. COSMARIUM SUBRENIFORME Nordst. (Irène-Marie (f)) (Nordstedt)
 (Prescott I)
 KENTUCKY McInteer, 1939.
194. COSMARIUM SUBSPECIOSUM var. VALIDUS Nordst. (Irène-Marie (f))
 (Nordstedt) (Prescott I)
 KENTUCKY McInteer, 1939.
195. COSMARIUM SUBTRINODULUM West & West (Nordstedt) (Prescott I)
 KENTUCKY McInteer, 1939.
196. COSMARIUM SUBTUMIDIUM Nordst. (Irène-Marie (f)) (Nordstedt)
 (Prescott I)
 FLORIDA Whelden, 1941 - KENTUCKY McInteer, 1941 -
 TENNESSEE Brown, 1930 - MISSISSIPPI (CM).
197. COSMARIUM SUBUNDULATUM Wille (Nordstedt) (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933.
198. COSMARIUM SUCCISUM West (Nordstedt) (Prescott I)
 KENTUCKY McInteer, 1939.
199. COSMARIUM TAXICHONDRUM Lund. (Irène-Marie (f)) (Nordstedt)
 (Prescott I)
 KENTUCKY McInteer, 1939.
200. COSMARIUM TENUE var. MINUS Prescott & Scott (Prescott & Scott, 42)
 MISSISSIPPI Prescott & Scott, 1942.

This is the only report.

201. COSMARIUM TETRAGONUM (Naeg.) Arch. (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

202. COSMARIUM TETRO^APTHALMUM Bréb. (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939 - MISSISSIPPI Brown, 1930.

203. COSMARIUM THWAITSEII Ralfs (Nordstedt) (Prescott I)

NO. CAROLINA Poteat, 1888 as Calocylinthus Thwaitesii Ralfs;

Whitford, 1943 - FLORIDA Bailey, 1851; Brown, 1930; Wolle,

1884 as Calocylinthus Thwaitesii; Wood, 1874.

204. COSMARIUM TRACHYPLEURUM var. MINUS Racib. (Nordstedt)

(Prescott I)

ALABAMA Brown, 1930.

205. COSMARIUM TRIPLICATUM Wolle West & West (Irène-Marie (f))

(Nordstedt) (Prescott I)

FLORIDA West & West, 1898.

206. COSMARIUM TRILOBATUM var. BASICHONDRUM Nordst. (Nordstedt)

(Prescott I)

FLORIDA Borge, 1909.

207. COSMARIUM TURPINII Bréb. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY

McInteer, 1939, 1944 - LOUISIANA Johnson, 1895.

208. COSMARIUM TURPINII var. EXIMIUM West & West (Irène-Marie (f))

(Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

209. COSMARIUM UNDULATUM Corda (Nordstedt) (Prescott I)

SO. CAROLINA Bailey, 1851; Wood, 1874.

210. Cosmarium undulatum var. crenulatum Wolle

see COSMARIUM UNDULATUM var. WOLLEI West

211. COSMARIUM UNDULATUM var. MINUTUM Witttr. (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Bold
collection (UT record) - GEORGIA Bold # 106(UT record).

212. COSMARIUM UNDULATUM var. WOLLEI West (Nordstedt)

NO. CAROLINA Poteat, 1888; Whitford, 1943 both as C.
undulatum var. crenulatum Wolle - SO. CAROLINA Wolle,
1884 as C. undulatum var. crenulatum Wolle.

213. COSMARIUM UNGERIANUM var. SUBTRIPLICATUM West & West (Nordstedt)

(Prescott I)

KENTUCKY McInteer, 1939.

214. COSMARIUM USMENSE Skuja (Prescott I)

FLORIDA Salisbury, 1936.

215. COSMARIUM VENUSTUM (Bréb.) Arch. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

FLORIDA Borge, 1909.

216. COSMARIUM VENUSTUM f. MINOR Wille (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

217. COSMARIUM VEXATUM West (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939 - LOUISIANA Prescott, 1942.

218. COSMARIUM VIRIDE (Corda) Josh. (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

COSMOCLADIUM de Brébisson 1856

1. COSMOCLADIUM PULCHELLUM (Smith) (Nordstedt) (Prescott I)

FLORIDA Brown, 1930.

2. COSMOCLADIUM ~~SAX~~CONICUM DeBary (Smith (f)) (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943.

3. COSMOCLADIUM TUBERCULATUM Prescott (Prescott & Scott, 42(f))

(Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

The genus has also been reported from Virginia by Hutchinson & Pickford, 1932, and from Georgia by Frohne, 1939.

DESMIDIUM Agardh 1825

1. DESMIDIUM APTOGON~~UM~~ (Smith (f)) (Irène-Marie (f)) (Nordstedt)
(Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Brown, 1930; Poteat, 1888; Whitford, 1943 - SO. CAROLINA Brown, 1930; Frohne, 1939; Wolle, 1884; Wood, 1874 - GEORGIA Frohne, 1939, 1942; Wood, 1874 - FLORIDA Borge, 1909; Salisbury, 1936; West & West, 1898; Wolle, 1884 including D. diagon~~um~~ (Delp.) Wolle; # F 7, 9(GP) - MISSISSIPPI Brown, 1930; Prescott & Scott, 1942.
2. DESMIDIUM APTOGON~~UM~~ var. ACUTIUS Nordst. (Irène-Marie (f))
(Nordstedt) (Prescott I)
KENTUCKY McInteer, 1939.
3. DESMIDIUM APTOGON~~UM~~ var. EHRENBURGII Kuetz. (Irène-Marie (f))
(Nordstedt) (Prescott I)
FLORIDA Salisbury, 1936 - KENTUCKY McInteer, 1939.
4. DESMIDIUM BAILEYII (Ralfs) Nordst. (Smith (f)) (Irène-Marie (f))
(Nordstedt) (Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Poteat, 1888; Whitford, 1943 - SO. CAROLINA Frohne, 1939; Bold # 123(UT record) - GEORGIA Bailey, 1851 as Aptogon~~um~~ desmidium Ralfs; Frohne, 1939, 1942 - FLORIDA Borge, 1909; Brown, 1930; Salisbury, 1936; # F 9(GP) - KENTUCKY McInteer, 1939 - ALABAMA Brown, 1930.
5. DESMIDIUM BAILEYII var. MINOR Allorge & Allorge (Prescott I)

FLORIDA # F 1(GP).

6. DESMIDIUM BORRERI Ralfs (Nordstedt)

SO. CAROLINA Bailey, 1851 - GEORGIA Bailey, 1851 - FLORIDA
Bailey, 1851 as Didymoprium borreri Ralfs.

Although Nordstedt accepted this name, with reservations,
he noted that it should be compared with Gymnozyga moniliformis
Ehr. In the more than fifty years since the species has not
been reported, and should apparently be put into synonymy.

7. DESMIDIUM COARCTATUM Nordst. (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - FLORIDA Borge, 1909; Salisbury,
1936.

8. DESMIDIUM COARCTATUM var. CAMBRICUM West (Nordstedt) (Prescott I)

MISSISSIPPI Brown, 1930.

9. DESMIDIUM CYLINDRICUM Grev. (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
Whitford, 1943; Bold # 34(UT record) - SO. CAROLINA Bold
collection (UT record) - FLORIDA Borge, 1909; Salisbury,
1936 - MISSISSIPPI Brown, 1930.

10. Desmidium diagonium (Delp.) Wille

see DESMIDIUM APTOGONIUM Bréb.

11. DESMIDIUM GRACILIPES (Nordst.) Lagerh. (Nordstedt) (Prescott I)

FLORIDA Salisbury, 1936.

12. DESMIDIUM GREVILLEI (Kuetz.) DeBary (Smith (f)) (Irène-Marie (f))
(Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Bailey, 1851;
Frohne, 1939 - GEORGIA Bailey, 1851; Frohne, 1939; Wood,
1874 as Didymoprium Grevillei Kuetz. - FLORIDA # F 4, 8, 10
(GP) - MISSISSIPPI Prescott & Scott, 1942.

13. DESMIDIUM ^N~~GYMOZYGOFORME~~ Prescott & Scott (Prescott & Scott, 42(f))

MISSISSIPPI Prescott & Scott, 1942.

This is the only report.

14. DESMIDIUM MAJUS Lagerh. (Nordstedt)

FLORIDA Borge, 1909.

Nordstedt placed this species in synonymy with the earlier described Desmidium graciliceps f. major Lagerh. but Borge, much later, uses the new name, and no subsequent references have been seen by the writer.

15. DESMIDIUM OCCIDENTALE West & West (Nordstedt) (Prescott I)

ALABAMA Brown, 1930.

16. DESMIDIUM QUADRANGULATUM Kuetz. (Nordstedt) (Prescott I)

SO. CAROLINA Wood, 1874 - FLORIDA Bailey, 1851 with species authorship Ralfs.

17. DESMIDIUM QUADRATUM Nordst. (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - GEORGIA Frohne, 1942 - FLORIDA Borge, 1909, Brown, 1930, Salisbury, 1936; West & West, 1898 - ALABAMA Brown, 1930 - MISSISSIPPI Brown, 1930.

18. DESMIDIUM SWARTZII Agardh. (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Poteat, 1888; Whitford, 1943; Bold # 316(UT record) - SO. CAROLINA Bailey, 1851; Wood, 1874 - GEORGIA Bailey, 1851; Wood, 1874 - FLORIDA Salisbury, 1936 - KENTUCKY McInteer, 1938, 1939 - ALABAMA Brown, 1930 - MISSISSIPPI Brown, 1930 - LOUISIANA Brown, 1930.

19. DESMIDIUM SWARTZII var. QUADRANGULATUM (Ralfs) Roy (Nordstedt)
(Prescott I)

FLORIDA Salisbury, 1936 with the variety ending --- are instead

of --- atum.

20. DESMIDIUM SWARTZII var. RALFSII Kuetz. (Nordstedt)

FLORIDA Borge, 1909.

DIDYMOCLADON (obsolete)

1. Didymocladon cerberus Bail.

see STAUROSTRUM CERBERUS (Bail.) Arch.

2. Didymocladon furcigerum Ralfs

see STAUROSTRUM FURCIGERUM Bréb.

3. Didymocladon longispinum Bail.

see STAUROSTRUM LONGISPINUM (Bail.) Arch.

DIDYMOPRIUM (obsolete)

1. Didymoprium Borreri Ralfs

see DESMIDIUM BORRERI Ralfs

2. Didymoprium Grevillii Kuetz.

see DESMIDIUM GREVILLII (Kuetz.) DeBary

DOCIDIUM de Brébisson 1844 emend. Lundell 1871

1. Docidium baculum Bréb. (Smith) (Irène-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Whitford, 1943 - GEORGIA Bailey, 1851; Wille,

1892, Wood, 1874 as Pleurotaenium baculum (Bréb.) DeBary -

FLORIDA Borge, 1909; Wille, 1892; # F 4(GP) - LOUISIANA

Featherman, 1871.

2. Docidium baculum var. floridense Wille

see PLEUROTOAENIUM HYPOCYMATIUM West & West

This is directed by West & West, 1898.

3. Docidium constrictum Bailey

see PLEUROTOAENIUM CONSTRICTUM (Bail.) Wood

4. Docidium clavatum (Kuetz.) DeBary

see PLEUROTAEINIUM TRUNCATUM Naeg.

5. Docidium coronulatum Grun.

see PLEUROTAEINIUM CORONULATUM (Grun.) Wille

6. Docidium crenulatum (Ehr.) Rabenh.

see PLEUROTAEINIUM CRENULATUM (Ehr.) Rabenh.

7. Docidium Ehrenbergii Ralfs

see PLEUROTAEINIUM EHRENBURGII (Bréb.) DeBary

8. Docidium Ehrenbergii var. flordense Wille

see PLEUROTAEINIUM EHRENBURGII var. FLORIDENSE Wille

9. Docidium Georgicum Lagerh.

see PLEUROTAEINIUM GEORGICUM Lagerh.

Wille should have written this D. Georgicum (Lagerh.)

Wille if he preferred Docidium.

10. Docidium hirsutum Bail.

see PLEUROTAEINIUM TRABECULA var. HIRSUTUM (Bail.) Krieg.

11. Docidium minutum Ralfs

see PLEUROTAEINIUM MINUTUM (Ralfs) Delp.

12. Docidium trabecula (Ehr.) Naeg.

see PLEUROTAEINIUM TRABECULA (Ehr.) Naeg.

13. Docidium truncatum Bréb.

see PLEUROTAEINIUM TRUNCATUM (Bréb.) Naeg.

14. DOCIDIUM UNDULATUM Bail.

GEORGIA Frohne, 1942 - FLORIDA Bailey, 1851; Borge, 1909;
Salisbury, 1936; Wille, 1884; Wood, 1874 as Pleurotaenium
undulatum (Bail.) Rabenh.; # F 1, 4, 6(GP) - MISSISSIPPI
Prescott & Scott, 1942.

15. Docidium verrucosum (Bail.) Ralfs

see PLEUROTAEINIUM VERRUCOSUM (Bail.) Lund.

EUASTRUM Ehrenberg 1832 emend. Ralfs 1844

1. EUASTRUM ABRUPTUM Nordst. (Irène-Marie (f)) (Nordstedt) (Prescott I)

FLORIDA Whelden, 1941 - LOUISIANA Prescott & Scott, 1942.

2. Euastrum abruptum var. evolutum Nordst.

see EUASTRUM EVOLUTUM (Nordst.) West & West

3. EUASTRUM ABRUPTUM var. MINOR West & West (Irène-Marie (f))

(Nordstedt) (Prescott I)

FLORIDA Prescott & Scott, 1945; Whelden, 1941; # F 9(GP).

4. EUASTRUM AFFINE Ralfs (Irène-Marie (f)) (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Wood, 1874 -

GEORGIA Bailey, 1851; Frohne, 1939; Wollé, 1884 ("-- to

New Jersey"); Wood, 1874 - MISSISSIPPI Brown, 1930; Prescott

& Scott, 1945 - LOUISIANA Prescott & Scott, 1945.

5. EUASTRUM AFFINE f. EQUILATERALE Prescott & Scott (Prescott &

Scott, 45(f))

MISSISSIPPI Prescott & Scott, 1945 - LOUISIANA Prescott &

Scott, 1945.

This is the only report.

6. EUASTRUM AMPULLACEUM Hass. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford,

1943 - SO. CAROLINA Bailey, 1851; Wood, 1874 - FLORIDA Bailey,

1851; Wood, 1874.

7. EUASTRUM ANSATUM Ralfs (Irène-Marie (f)) (Nordstedt) (Prescott I)

NO. CAROLINA Poteat, 1888; Whitford, 1943 - SO. CAROLINA

Bailey, 1851 - FLORIDA Prescott & Scott, 1945; Salisbury,

1936 - KENTUCKY McInteer, 1939 - MISSISSIPPI Brown, 1930;

Prescott & Scott, 1942 - LOUISIANA Prescott & Scott, 1945.

8. EUASTRUM ANSATUM var. DIDELTIFORME Ducellier (Prescott I)
LOUISIANA Prescott & Scott, 1945.
9. EUASTRUM ANSATUM var. PYXIDATUM Delp. (Irène-Marie (f))
(Nordstedt) (Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - MISSISSIPPI
Prescott & Scott, 1942, 1945.
10. EUASTRUM ATTENUATUM Wille (Irène-Marie (f)) (Nordstedt)
(Prescott I)
FLORIDA Prescott & Scott, 1945; Salisbury, 1936.
11. EUASTRUM ATTENUATUM var. LITHUANICUM f. PULCHELLUM Prescott &
Scott (Prescott & Scott, 45(f))
MISSISSIPPI Prescott & Scott, 1945 - LOUISIANA Prescott
& Scott, 1945.
12. EUASTRUM BIDENTATUM Naeg. (Irène-Marie (f)) (Nordstedt)
(Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
Whitford, 1943 - FLORIDA Prescott & Scott, 1945; Whelden,
1941 - MISSISSIPPI Brown, 1930; Prescott & Scott, 1945 -
LOUISIANA Prescott & Scott, 1945.
13. EUASTRUM BIDENTATUM var. SPECIOSUM (Boldt) Schm. (Nordstedt)
(Prescott I)
MISSISSIPPI Prescott & Scott, 1942, 1945.
14. EUASTRUM BINALE (Turp.) Ehr. (Irène-Marie (f)) (Nordstedt)
(Prescott I)
NO. CAROLINA Poteat, 1888; Whitford, 1943 - FLORIDA Bailey,
1851; Borge, 1909; Wood, 1874; # F 4, 6, 9(GP) - KENTUCKY
McInteer, 1939 - MISSISSIPPI Prescott & Scott, 1942, 1945.
15. EUASTRUM BINALE var. ELOBATUM (Turp.) Ehr. (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943.

16. EUASTRUM BINALE var. GROEBLADII Krieg. (Prescott I)

FLORIDA # F 2(GP).

17. EUASTRUM BINALE f. GUTWINSKII Schm. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

KENTUCKY McInteer, 1939 - MISSISSIPPI Prescott & Scott, 1942 -

LOUISIANA Prescott & Scott, 1945.

18. EUASTRUM BINALE f. HANS (Turp.) West (Irene-Marie (f)) (Nordstedt)

(Prescott I)

MISSISSIPPI Brown, 1930; Prescott & Scott, 1945.

19. EUASTRUM CLASCONII Racib. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

FLORIDA Borge, 1909; Prescott & Scott, 1945 - MISSISSIPPI

Prescott & Scott, 1942, 1945 - LOUISIANA Prescott & Scott, 1945.

20. EUASTRUM CORNUBIENSE f. GRANULATUM Prescott & Scott (Prescott &

Scott, 45(f))

MISSISSIPPI Prescott & Scott, 1945.

This is the only report.

21. EUASTRUM GRASSICOLLE Lund. (Irène-Marie (f)) (Nordstedt) (Prescott I)

LOUISIANA Prescott & Scott, 1945.

22. EUASTRUM CRASSUM (Bréb.) Kuetz. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - GEORGIA Bailey,

1851; Wollé, 1879 - FLORIDA Bailey, 1851; Prescott & Scott,

1945; Whelden, 1941; Wollé, 1879; # F 7(GP) - MISSISSIPPI

Prescott & Scott, 1942.

23. EUASTRUM CRASSUM var. MICHIGANENSE Prescott (Prescott I)

MISSISSIPPI Prescott & Scott, 1942 - LOUISIANA Prescott & Scott, 1945.

24. EUASTRUM CRASSUM var. MICROCEPHALUM Krieg. (Prescott I)
LOUISIANA Prescott & Scott, 1945.
25. EUASTRUM CRASSUM var. SCROBICULATUM Lund. (Irène-Marie (f))
(Nordstedt) (Prescott I)
FLORIDA # F 4, 10(GP) - LOUISIANA Prescott & Scott, 1945.
26. EUASTRUM CUSPIDATUM Wille (Nordstedt) (Prescott I)
LOUISIANA Prescott & Scott, 1945.
27. EUASTRUM DENTICULATUM (Kirch.) Gay (Nordstedt) (Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Whelden,
1941 - KENTUCKY McInteer, 1939 - MISSISSIPPI Prescott & Scott,
1942 - LOUISIANA Prescott & Scott, 1945.
28. EUASTRUM DIDELTA (Turp.) Ralfs (Irène-Marie (f)) (Nordstedt)
(Prescott I)
SO. CAROLINA Bailey, 1851; Frohne, 1939; Wood, 1874 - GEORGIA
Bailey, 1851; Frohne, 1939; Wood, 1874 - FLORIDA Brown, 1930;
Prescott & Scott, 1945 - KENTUCKY McInteer, 1939 - MISSISSIPPI
Prescott & Scott, 1942, 1945 - LOUISIANA Featherman, 1871.
29. EUASTRUM DIVARICATUM Lund. (Irène-Marie (f)) (Nordstedt)
(Prescott I)
LOUISIANA Prescott & Scott, 1945.
30. EUASTRUM DOLIFORME West & West (Nordstedt) (Prescott I)
FLORIDA West & West, 1898.
31. EUASTRUM DONNELLII Wille (Nordstedt)
FLORIDA Wille, 1884.

This seems to be the only report.
32. EUASTRUM DUBIUM Naeg. (Irène-Marie (f)) (Nordstedt) (Prescott I)
MISSISSIPPI Brown, 1930, Prescott & Scott, 1945.
33. EUASTRUM DUBIUM var. ANGLICANUM (Turp.) West & West (Nordstedt)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer, 1939.

34. EUASTRUM DUBIUM var. CAMBRENSIS (Turn.) West (Nordstedt)

MISSISSIPPI Brown, 1930; Prescott & Scott, 1945.

35. EUASTRUM DUBIUM var. PORIFERUM Prescott & Scott (Prescott & Scott, 45(f))

MISSISSIPPI Prescott & Scott, 1945 - LOUISIANA Prescott & Scott,
1945.

This is the only report.

36. EUASTRUM ELEGANS (Br  b.) Kuetz. (Ir  n  e-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Poteat, 1888; Whitford, 1943 - SO. CAROLINA

Bailey, 1851; Wood, 1874 - GEORGIA Bailey, 1851; Frohne, 1942;

Wood, 1874 - FLORIDA Bailey, 1851; Borge, 1909; Wood, 1874 -

KENTUCKY McInteer, 1939 - ALABAMA Brown, 1930; Prescott & Scott,
1945 - LOUISIANA Prescott & Scott, 1945.

37. EUASTRUM ELEGANS var. COMPACTUM (Wolle) Krieg. (Prescott I)

LOUISIANA Prescott & Scott, 1945.

38. EUASTRUM ELEGANS var. NOXAE-SEMLIAE Wille (Nordstedt) (Prescott I)

FLORIDA Brown, 1930; Prescott & Scott, 1945.

39. EUASTRUM ELEGANS var. ORNATUM W. West (Nordstedt) (Prescott I)

LOUISIANA Prescott & Scott, 1945.

40. EUASTRUM ELEGANS var. PSEUDELEGANS (Turn.) West & West (Nordstedt)

(Prescott I)

FLORIDA Brown, 1930; Prescott & Scott, 1945.

41. EUASTRUM EVOLUTUM (Nordst.) West & West (Nordstedt) (Prescott I)

SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939; Wolle,

1879 - FLORIDA Borge, 1909; Prescott & Scott, 1945; Salisbury,

1936 - MISSISSIPPI Prescott & Scott, 1945.

42. EUASTRUM EVOLUTUM var. GLAZIOVII (Boerg.) West & West (Ir  n  e-Marie (f))

(Nordstedt) (Prescott I)

FLORIDA Prescott & Scott, 1945; Whelden, 1941 - KENTUCKY

McInteer, 1939 - MISSISSIPPI Prescott & Scott, 1942, 1945.

43. *EUASTRUM EVOLUTUM* var. *INTEGRUM* West & West (Irène-Marie (f))

(Nordstedt) (Prescott I)

SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939, 1942 -

FLORIDA West & West, 1898, re-identifying Wollé, 1879 E.

spinosum Ralfs - MISSISSIPPI Prescott & Scott, 1945 -

LOUISIANA Prescott & Scott, 1945.

44. *Euastrum floridianum* Turn.

see *EUASTRUM VENTRICOSUM* var. *FLORIDIANUM* Turn.

45. *EUASTRUM GEMMATUM* Bréb. (Irène-Marie (f)) (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - GEORGIA Frohne, 1939 -

FLORIDA Prescott & Scott, 1945; Whelden, 1941 - KENTUCKY

McInteer, 1939 - ALABAMA Brown, 1930; Prescott & Scott, 1945 -

MISSISSIPPI Prescott & Scott, 1942, 1945.

46. *EUASTRUM HUMEROSUM* Ralfs

NO. CAROLINA Whitford, 1943; Bold collection (UT record) -

GEORGIA Frohne, 1942; Wollé, 1879 - FLORIDA Prescott & Scott,

1945; Salisbury, 1936; West & West, 1898.

47. *EUASTRUM HUMEROSUM* var. *EVOLUTUM* Krige. (Prescott I)

MISSISSIPPI Prescott & Scott, 1942, 1945 - LOUISIANA Prescott

& Scott, 1945.

48. *EUASTRUM HUMEROSUM* var. *MAMMOSUM* West & West (Nordstedt) (Prescott I)

FLORIDA West & West, 1898.

49. *EUASTRUM HUMEROSUM* f. *SCROBICULATUM* Nordst. (Nordstedt) (Prescott I)

FLORIDA Borge, 1909.

50. *EUASTRUM HYPOCHONDRUM* Nordst. (Nordstedt) (Prescott I)

FLORIDA Borge, 1909; Prescott & Scott, 1945.

51. EUASTRUM INDICUM Krieg. (Prescott I)

MISSISSIPPI Prescott & Scott, 1942, 1945.

52. EUASTRUM INERME (Ralfs) Lund. (Nordstedt) (Prescott I)

NO. CAROLINA Poteat, 1888; Whitford, 1943 - MISSISSIPPI

Prescott & Scott, 1942, 1945 - LOUISIANA PRESCOTT & Scott, 1945.

53. EUASTRUM INSIGNE Hass. (Nordstedt) (Prescott I)

GEORGIA Frohne, 1942; Wollé, 1879 - FLORIDA Bailey, 1851;

Prescott, 1945; Salisbury, 1936; Wood, 1874.

54. EUASTRUM INSIGNE var. LOBATUM Prescott & Scott (Prescott & Scott,

45(f))

FLORIDA # F 4(GP) - LOUISIANA Prescott & Scott, 1945.

55. EUASTRUM INSIGNE var. LOBATUM f. TAYLORII Prescott & Scott

(Prescott & Scott, 45(f))

LOUISIANA Prescott & Scott, 1945.

This is the only report.

56. EUASTRUM INSULARE (Witttr.) Roy (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Whelden,

1941; # F 10(GP) - KENTUCKY McInteer, 1939.

57. EUASTRUM INSULARE var. LACUSTRE (Messik.) Krieg. (Prescott I)

MISSISSIPPI Prescott & Scott, 1945 - LOUISIANA Prescott & Scott, 1945.

58. EUASTRUM INSULARE var. SILESIACUM f. MINUS Prescott & Scott

(Prescott & Scott, 45(f))

LOUISIANA Prescott & Scott, 1945.

This is the only report.

59. EUASTRUM INTERMEDIUM Cleve (Nordstedt) (Prescott I)

FLORIDA Prescott & Scott, 1945; West & West, 1898; Whelden,
1941; # F 4, 7(GP) - LOUISIANA Prescott & Scott, 1945.

60. EUASTRUM INTERMEDIUM var. LONGICOLLE Borge (Irène-Marie (f))
(Prescott I)

FLORIDA Prescott & Scott, 1945 - MISSISSIPPI Prescott & Scott,
1942, 1945 - LOUISIANA Prescott & Scott, 1945.

61. EUASTRUM INTERMEDIUM var. PURUM (Wolle) West & West (Nordstedt)

FLORIDA Wolle, 1892 as Euastrum purum Wolle; West & West, 1898.

62. EUASTRUM INTERMEDIUM var. SCROBICULATUM Schm. (Nordstedt)
(Prescott I)

MISSISSIPPI Prescott & Scott, 1945.

63. EUASTRUM INTERMEDIUM var. VALIDUM West & West (Irène-Marie (f))
(Nordstedt) (Prescott I)

SO. CAROLINA Frohne, 1939 - FLORIDA Prescott & Scott, 1945;
West & West, 1898.

64. EUASTRUM JOHNSONII var. NUDUM Prescott & Scott (Prescott & Scott, 1942
(f))

LOUISIANA Prescott & Scott, 1942, 1945.

65. EUASTRUM LAPPONICUM Schm. (Irène-Marie (f)) (Nordstedt) (Prescott I)
MISSISSIPPI Prescott & Scott, 1942, 1945.

66. EUASTRUM LUETKEMUELLERI Duce'llier (Prescott I)
MISSISSIPPI Prescott & Scott, 1945.

67. Euastrum muricatum Bail.

see MICRASTERIAS MURICATA (Bail.) Ralfs

68. EUASTRUM OBESUM Josh. (Irène-Marie (f)) (Nordstedt) (Prescott I)
GEORGIA Frohne, 1942 - KENTUCKY McInteer, 1939.

69. EUASTRUM OBESUM var. CRASSUM Prescott & Scott (Prescott & Scott, 42(f))
MISSISSIPPI Prescott & Scott, 1942.

70. *EUASTRUM OBLONGUM* (Grev.) Ralfs. (Irénée-Marie (f)) (Nordstedt)
(Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1939 - NO. CAROLINA Brown,
1930; Poteat, 1888; Whitford, 1943 - FLORIDA Borge, 1909;
Prescott & Scott, 1945; Salisbury, 1936 - KENTUCKY McInteer,
1939 - TENNESSEE Bold collection (UT record) - MISSISSIPPI
Prescott & Scott, 1945 - LOUISIANA Prescott & Scott, 1945.
71. *EUASTRUM OBLONGUM* var. *CEPHALOPHORUM* West (Nordstedt) (Prescott I)
KENTUCKY McInteer, 1939.
72. *EUASTRUM OCULATUM* Boerg. (Nordstedt) (Prescott I)
FLORIDA Prescott & Scott, 1945; West & West, 1898.
73. *EUASTRUM OCULATUM* var. *TONSUM* West & West (Irénée-Marie (f))
(Nordstedt) (Prescott I)
MISSISSIPPI Prescott & Scott, 1942, 1945 - LOUISIANA Prescott &
Scott, 1945.
74. *EUASTRUM PECTINATUM* var. *BRACHYLOBUM* Wittr. (Irénée-Marie (f))
(Nordstedt) (Prescott I)
MISSISSIPPI Prescott & Scott, 1945 - LOUISIANA Prescott & Scott,
1945.
75. *EUASTRUM PECTINATUM* var. *REDUCTUM* Taylor (Prescott I)
LOUISIANA Prescott & Scott, 1945.
76. *EUASTRUM PINNATUM* RALFS. (Irénée-Marie (f)) (Nordstedt) (Prescott I)
NO. CAROLINA Brown, 1930; Whitford, 1943 - GEORGIA Frohne, 1942;
Wolle, 1879 - FLORIDA Brown, 1930; Johnson, 1895; Salisbury,
1945; # F 4(GP) - KENTUCKY McInteer, 1939 - MISSISSIPPI Brown,
1930; Prescott & Scott, 1942, 1945 - LOUISIANA Prescott &
Scott, 1945.
77. *EUASTRUM PLATYCERUM* var. *ACTUILOBUM* Borge (Prescott I)

FLORIDA Prescott & Scott, 1945 (Salisbury unpublished).

78. EUASTRUM PULCHELLUM Bréb. (Nordstedt) (Prescott I)

FLORIDA Prescott & Scott, 1945; Whelden, 1941 - KENTUCKY

McInteer, 1941 - MISSISSIPPI Brown, 1930; Prescott &
Scott, 1945.

79. EUASTRUM PULCHELLUM var. ABRUPTUM Groenb. (Prescott & Scott, 42(f))

MISSISSIPPI Prescott & Scott, 1942.

80. EUASTRUM PULCHELLUM var. RETUSUM West & West (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

81. Euastrum purum Wolle

see EUASTRUM INTERMEDIUM var. PURUM (Wolle) West & West

82. EUASTRUM PYRAMIDATUM West (Nordstedt) (Prescott I)

FLORIDA West & West, 1898.

83. EUASTRUM RALFSII Rabenh. (Nordstedt) (Prescott I)

SO. CAROLINA Wood, 1874 - GEORGIA Wolle, 1879.

84. EUASTRUM ROSTRATUM Ralfs. (Nordstedt) (Prescott I)

GEORGIA Bailey, 1851 - FLORIDA Bailey, 1851 - KENTUCKY
McInteer, 1939.

85. EUASTRUM SIBIRICUM Boldt (Nordstedt) (Prescott I)

FLORIDA Johnson, 1895; West & West, 1898.

86. EUASTRUM SIBIRICUM var. EXSECTUM Groenb. (Prescott I)

LOUISIANA Prescott & Scott, 1945.

87. EUASTRUM SIBIRICUM var. REDUCTUM Prescott & Scott (Prescott &
Scott, 45(f))

LOUISIANA Prescott & Scott, 1945.

88. EUASTRUM SINUOSUM Lenor. (Irénée-Marie (f)) (Nordstedt) (Prescott I)

NO. CAROLINA Bold collection (UT record) - FLORIDA Brown,
1930; # F 5, 6, 10(GP) - MISSISSIPPI Brown, 1930; Prescott &

Scott, 1942, 1945.

89. *EUASTRUM SINUOSUM* var. *DIDELTOIDES* f. *GLABRUM* Prescott & Scott

(Prescott & Scott, 45(f))

LOUISIANA Prescott & Scott, 1945.

90. *EUASTRUM SINUOSUM* var. *GANGENSE* (Turn.) Krieg. (Prescott I)

MISSISSIPPI Prescott & Scott, 1945.

91. *EUASTRUM SINUOSUM* var. *PARALLELUM* Krieg. (Prescott I)

MISSISSIPPI Prescott & Scott, 1942, 1945 - LOUISIANA Prescott & Scott, 1945.

92. *EUASTRUM SINUOSUM* var. *REDUCTUM* West & West (Irène-Marie (f))

(Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - FLORIDA West & West, 1898;

F 4(GP) - LOUISIANA Prescott & Scott, 1945.

93. *EUASTRUM SINUOSUM* var. *SUBJENNERI* West & West (Nordstedt) (Prescott I)

MISSISSIPPI Prescott & Scott, 1945 - LOUISIANA Prescott & Scott, 1945.

94. *Euastrum spinosum* Ralfs

see *EUASTRUM EVOLUTUM* var. *INTEGRUS* West & West.

95. *EUASTRUM SPINULOSUM* Delp. (Nordstedt) (Prescott I)

LOUISIANA Prescott & Scott, 1945.

96. *EUASTRUM SUBHEXALOBUM* West & West (Irène-Marie (f)) (Nordstedt)

(Prescott I)

FLORIDA West & West, 1898; # F 7(GP) - LOUISIANA Prescott & Scott, 1945.

97. *EUASTRUM SUBHEXALOBUM* var. *PORIFERUM* Prescott & Scott (Prescott

& Scott, 45(f))

LOUISIANA Prescott & Scott, 1945.

98. *EUASTRUM SUBLOBATUM* Bréb. (Nordstedt) (Prescott I)

GEORGIA Bailey, 1851 - FLORIDA Bailey, 1851; Prescott
& Scott, 1945 - LOUISIANA Brown, 1930; Prescott & Scott,
1945.

99. EUASTRUM SUBLOBATUM var. OBTUSATUM (Gutw.) Krieg. (Prescott I)

LOUISIANA Prescott & Scott, 1945.

100. EUASTRUM TRIGIBERUM West & West (Nordstedt) (Prescott I)

MISSISSIPPI Prescott & Scott, 1945.

101. EUASTRUM TURNERII West (Nordstedt) (Prescott I)

NO. CAROLINA Bold # 87(UT record) - KENTUCKY McInteer, 1939.

102. EUASTRUM VALIDUM West & West (Irène-Marie (f)) (Nordstedt)

(Prescott I)

FLORIDA # F 5(GP) - KENTUCKY McInteer, 1939 - LOUISIANA

Prescott & Scott, 1945.

103. EUASTRUM VALIDUM var. GLABRUM Krieg. (Prescott I)

FLORIDA Prescott & Scott, 1945 - LOUISIANA Prescott & Scott, 1945.

104. EUASTRUM VENTRICOSUM Lund. (Nordstedt) (Prescott I)

FLORIDA Prescott & Scott, 1945; Salisbury, 1936; Wollé, 1887.

105. EUASTRUM VENTRICOSUM var. FLORIDANUM Turn. (Nordstedt) (Prescott I)

FLORIDA Prescott & Scott, 1945; Turner, 1885.

106. EUASTRUM VENTRICOSUM var. GLABRUM Prescott & Scott (Prescott &

Scott, 45(f))

LOUISIANA Prescott & Scott, 1945.

107. EUASTRUM VENTRICOSUM var. RECTANGULARE Prescott & Scott (Prescott &

Scott, 45(f))

LOUISIANA Prescott & Scott, 1945.

108. EUASTRUM VERRUCOSUM Ehr. (Irène-Marie (f)) (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

1943 - SO. CAROLINA Bailey, 1851; Wood, 1874 Bold collection

(UT record) - GEORGIA Bailey, 1851; Wood, 1874 - FLORIDA Bailey,

1851; Prescott & Scott, 1945; Salisbury, 1936 - KENTUCKY
McInteer, 1939, 1944.

109. *Euastrum verrucosum* var. *africanum* Wolle

see *EUASTRUM VERRUCOSUM* var. *CRUX AFRICANUM* Wolle

Apparently this was a missprint by Poteat.

110. *EUASTRUM VERRUCOSUM* var. *ALATUM* (Ehr.) Wolle (Irène-Marie (f))

(Nordstedt) (Prescott I)

NO. CAROLINA Poteat, 1888; W. West, 1890; Whitford, 1943 -
FLORIDA Borge, 1909 - KENTUCKY McInteer, 1939 - MISSISSIPPI
Brown, 1930; Prescott & Scott, 1945 - LOUISIANA Prescott &
Scott, 1945.

111. *EUASTRUM VERRUCOSUM* var. ^{STA}~~COARCTATUM~~ (Ehr.) Delp. (Nordstedt)

(Prescott I)

MISSISSIPPI Brown, 1930; Prescott & Scott, 1945.

112. *EUASTRUM VERRUCOSUM* var. *CRUX AFRICANUM* Wolle (Nordstedt)

(Prescott I)

NO. CAROLINA Poteat, 1888 as E. verrucosum var. africanum
Wolle.

113. *EUASTRUM VERRUCOSUM* var. *DALBII* f. *MINUS* Prescott & Scott (Prescott

& Scott, 45(f))

MISSISSIPPI Prescott & Scott, 1945.

114. *EUASTRUM VERRUCOSUM* var. *PLANCTONICUM* West & West (Nordstedt)

(Prescott I)

FLORIDA Prescott & Scott, 1945; Salisbury, 1936.

115. *EUASTRUM VERRUCOSUM* var. *REDUCTUM* Nordst. (Nordstedt) (Prescott I)

NO. CAROLINA Poteat, 1888; Whitford, 1943 - FLORIDA West & West,
1898 - LOUISIANA Brown, 1930; Prescott & Scott, 1945.

116. *EUASTRUM VERRUCOSUM* var. *SUBLATUM* Hueb. (Prescott I)

FLORIDA # F 4(GP).

117 EUASTRUM WOLLEI Lagerh. (Nordstedt) (Prescott I)

FLORIDA Brown, 1930; Prescott & Scott, 1945; Salisbury,
1936; Wolle, 1892; # F 7(GP).

118. EUASTRUM WOLLEI var. CUSPIDATUM Wolle (Nordstedt)

LOUISIANA Prescott & Scott, 1945.

119. EUASTRUM WOLLEI var. PEARLINGTONENSE Prescott & Scott (Prescott
& Scott, 42(f))

MISSISSIPPI Prescott & Scott, 1942, 1945.

GYMNOZYGA Ehrenberg 1841

1. GYMNOZYGA DELICATISSIMA (Wolle) Nordst. (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - FLORIDA Salisbury, 1936;
F 1, 8(GP).

2. GYMNOZYGA MONILIFORMIS Ehr. (Irène-Marie (f)) (Nordstedt)
(Prescott I)

NO. CAROLINA Whitford, 1943; Bold # 323 (UT record) -
SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939, 1942 -
FLORIDA Borge, 1909; Brown, 1930; Prescott, 1945 - KENTUCKY
McInteer, 1939 - ALABAMA Brown, 1930 - MISSISSIPPI Brown,
1930; Prescott & Scott, 1942.

3. GYMNOZYGA MONILIFORMIS var. GRACILESCENS Nordst. (Irène-Marie (f))
(Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Frohne, 1939 -
GEORGIA Frohne, 1939; Lagerheim, 1885 as Bambusia gracilescens
Nordst. - FLORIDA Borge, 1909; West & West, 1898; Wolle, 1887
as Bambusia gracilescens; # F 1, 4(GP) - ALABAMA Brown, 1930 -
MISSISSIPPI Prescott & Scott, 1942.

HYALOTHECA Ehrenberg 1841

1. *HYALOTHECA DISSILIENS* (Smith) Bréb. (*Irénée-Marie* (f)) (Nordstedt)
(Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Brown,
1930; Poteat, 1888; Whitford, 1943; Bold collection (UT record)
- SO. CAROLINA Bailey, 1851; Brown, 1930; Frohne, 1939; Bold
collection (UT record) - GEORGIA Bailey, 1851; Brown, 1930;
Frohne, 1939, 1942 - FLORIDA Bailey, 1851; Brown, 1930; Salisbury,
1936; Wood, 1874; # F 1,7,10(GP) - KENTUCKY McInteer, 1939 -
TENNESSEE Bold collection (UT record) - MISSISSIPPI Prescott &
Scott, 1942.
2. *HYALOTHECA DISSILIENS* var. *BIDENTULA* Nordst. (Nordstedt) (Prescott I)
FLORIDA Borge, 1909 - MISSISSIPPI Brown, 1930.
3. *HYALOTHECA DISSILIENS* var. *HLANS* Wolle (*Irénée-Marie* (f)) (Nordstedt)
(Prescott I)
NO. CAROLINA Whitford, 1943 - FLORIDA Wolle, 1887 - MISSISSIPPI
Brown, 1930.
4. *HYALOTHECA DISSILIENS* var. *MINOR* Delp. (Nordstedt) (Prescott I)
FLORIDA # F 4(GP) - MISSISSIPPI Brown, 1930 - LOUISIANA Prescott
& Scott, 1942.
5. *HYALOTHECA DISSILIENS* f. *TRIDENTULA* Nordst. (*Irénée-Marie* (f))
(Nordstedt) (Prescott I)
NO. CAROLINA Whitford, 1943.
6. *HYALOTHECA DISSILIENS* var. *TATRICA* (*Irénée-Marie* (f)) (Nordstedt)
(Prescott I)
NO. CAROLINA Whitford, 1943.
7. *HYALOTHECA INDICA* Turn. (Nordstedt) (Prescott I)
MISSISSIPPI Prescott & Scott, 1942.
8. *HYALOTHECA LAEVICINCTA* Taylor (Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

9. *HYALOTHECA MUCOSA*(Dillw.)Ehr. (*Irénée-Marie*(f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Brown, 1930; Poteat, 1888; Whitford, 1943
 - SO. CAROLINA Wolle, 1884 - GEORGIA Brown, 1930; Lagerheim,
 1885; Bold collection (UT record) - FLORIDA Borge, 1909;
 Salisbury, 1936; Wolle, 1884; - TENNESSEE Bold Collection
 (UT record) - # F4(GP) - KENTUCKY McInteer, 1939, 1942 -
 MISSISSIPPI Prescott & Scott, 1942.

Brown listed the authorship as (Mert.) Ehr.

10. *HYALOTHECA NEGLECTA* Racib. (*Irénée-Marie*(f)) (Nordstedt)

(Prescott I)

NORTH CAROLINA Whitford, 1943 - FLORIDA Salisbury, 1936;
 West & West 1898 - MISSISSIPPI Prescott & Scott, 1942.

11. *HYALOTHECA UNDULATA* Nordst. (*Irénée-Marie*(f)) (Nordstedt)

(Prescott I)

FLORIDA # F 7(GP).

MATEOLA Salisbury 1936

1. *MATEOLA ACUTILOBA* Salisbury (Salisbury, 36(f))

FLORIDA Salisbury, 1936.

MICRASTERIAS Agardh 1827

1. *MICRASTERIAS ABRUPTA* West & West (*Irénée-Marie*(f))Nordstedt)

(Prescott I)

FLORIDA Salisbury, 1936.

2. *MICRASTERIAS AMERICANA* (Ehrw.) Ralfs (*Irénée-Marie* (f))

(Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
 Poteat, 1888; Whitford,

1943 - SO. CAROLINA Bailey, 1851; Wood, 1874 - GEORGIA
 Bailey, 1851; Frohne, 1939 - FLORIDA Bailey, 1851; Borge,
 1909; Prescott, 1942b; Salisbury, 1936; Wood, 1874 -
 KENTUCKY McInteer, 1939 - TENNESSEE Bold collection (UT record)
 - LOUISIANA Brown, 1930.

3. MICRASTERIAS AMERICANA var. BOLDTII Gutw. (~~Nordstedt~~) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

4. MICRASTERIAS AMERICANA var. HERMANNIANA Reinsch (Nordstedt)

FLORIDA Prescott & Scott, 1942b; Wolle, 1884

5. MICRASTERIAS AMERICANA var. LEWISIANA West (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

6. MICRASTERIAS APICULATA (Ehrw.) Menegh. (Irénée-Marie (f))

(Nordstedt) (Prescott I) FLORIDA Brown, 1930; West

& West, 1898 - TENNESSEE Bold collection (UT record) -

LOUISIANA Brown, 1930.

7. MICRASTERIAS APICULATA var. FIMBRIATA (Raf.) Nordst. (Irénée-

Marie(f)) (Nordstedt) (Prescott I) GEORGIA Frohne, 1939 -

FLORIDA Salisbury, 1936 - ALABAMA Brown, 1930.

8. MICRASTERIAS APICULATA var. FIMBRIATA f. SPINOSA (Biss.) West

& West (Irénée-Marie (f)) (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Frohne, 1939 -

GEORGIA Frohne, 1939 - FLORIDA Salisbury, 1936.

The Frohne references incorrectly list G.M. Smith as
 the species author.

9. MICRASTERIAS ARCUATA Bailey (Nordstedt) (Prescott I)

FLORIDA Bailey, 1851; Prescott & Scott, 1942b; Wolle, 1884;

Wood, 1874 - ALABAMA Brown, 1930.

10. MICRASTERIAS ARCUATA var. EXPANSA (Baile) Nordst. (Nordstedt)
(Prescott I)
NO. CAROLINA Whitford, 1943 - FLORIDA Prescott & Scott,
1942b; Salisbury, 1936; # F 1,6(GP) - LOUISIANA Prescott
& Scott, 1942b.
11. MICRASTERIAS ARCUATA var. GRACILIS (Bail.) West & West (Nordstedt)
(Prescott I)
NO. CAROLINA Whitford, 1943 - FLORIDA Prescott & Scott,
1942b; Salisbury, 1936; West & West, 1898; # F 4(GP) -
ALABAMA Brown, 1930; Prescott & Scott, 1942b.
12. MICRASTERIAS ARCUATA v. INTERMEDIA Nordst. (Nordstedt)
FLORIDA Salisbury, 1936.
13. MICRASTERIAS ARCUATA var. IATA Prescott & Scott (Prescott &
Scott, 42b(f))
FLORIDA Prescott & Scott, 1942b.
14. MICRASTERIAS ARCUATA var. ROBUSTA Borge (Nordstedt) Prescott I)
FLORIDA Whelden, 1941 - LOUISIANA Prescott & Scott 1942b.
15. MICRASTERIAS BAILEYI Ralfs (Nordstedt)
SO. CAROLINA Bailey, 1851, Wolle, 1884, Wood, 1874 -
FLORIDA Bailey, 1851; Wolle, 1884; Wood, 1874.
16. MICRASTERIAS CONFERTA Lund. (Irénée-Marie (f)) (Nordstedt)
(Prescott I)
NO. CAROLINA Poteat, 1888; Whitford, SO. CAROLINA Wolle,
1884; Wood, 1874 as M. granulata Wood - GOERGIA Frohne,
1942 - FLORIDA Salisbury, 1936.
17. MICRASTERIAS CONFERTA var. GLABRA Prescott & Scott (Prescott &
Scott, 1942b(f))
MISSISSIPPI Prescott & Scott, 1942b.

18. MICRASTERIAS CONFERTA var. HAMATA Wolle (Irénée-Marie (f))
 (Nordstedt) (Prescott I)
 FLORIDA Brown, 1930 with the species authorship (Lund.)
 Wolle; Prescott & Scott, 1942b; Salisbury, 1936 -
 MISSISSIPPI Prescott & Scott, 1942b.
19. MICRASTERIAS CONFERTA var. HAMATA f. SPINOSA Prescott & Scott
 (Prescott & Scott, 42b(f))
 MISSISSIPPI Prescott & Scott, 1942b.
20. MICRASTERIAS CRENATA Bréb. (NORDSTEDT) (Prescott I)
 NO. CAROLINA Poteat, 1888; Whitford, 1943 - SO. CAROLINA
 Bailey, 1851 - FLORIDA Bailey, 1851; Prescott & Scott,
 1942b; Wolle, 1884.
21. MICRASTERIAS CRUX - MELITENSIS (Ehrw.) Hass. (Irénée-Marie (f))
 (Nordstedt) (Prescott I)
 VIRGINIA Lewis, Zirkle & Prescott, 1933 - FLORIDA Prescott
 & Scott, 1942b; Whelden, 1941.
22. MICRASTERIAS DECURRENTATA (Naeg.) Arch. (~~Nordstedt~~) (Prescott I)
 NO. CAROLINA Poteat, 1888; Whitford, 1943 - FLORIDA Borge,
 1909; Prescott & Scott, 1942b; Wolle, 1884.
23. MICRASTERIAS DENTICULATA Bréb. (Irénée-Marie (f)) (Nordstedt)
 (Prescott I)
 NO. CAROLINA Poteat, 1888; Whitford, 1943 - SO. CAROLINA
 Bailey, 1851 - GEORGIA Bailey, 1851 - FLORIDA Bailey, 1851;
 Prescott & Scott, 1942b; Salisbury, 1936; Wood, 1874; # F
 4(GP) - KENTUCKY McInteer, 1939 - ALABAMA Brown, 1930 -
 Brown, 1930 - MISSISSIPPI Prescott & Scott, 1942b -
 LOUISIANA Prescott & Scott, 1942b.
24. MICRASTERIAS DENTICULATA var. ANGULOSA (Hantzsche) West & West

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Whitford, 1943; Bold # 90 (UT record) - FLORIDA Brown, 1930;

Prescott & Scott, 1942b.

25. MICRASTERIAS DENTICULATA var. INTERMEDIA (Nordst) (Prescott I)

LOUISIANA Prescott & Scott, 1942b.

26. MICRASTERIAS DENTICULATA var. TAYLORII Krieg. (Prescott I)

LOUISIANA Prescott & Scott, 1942b.

27. MICRASTERIAS DEPAUPERATA var. CONVEXA Prescott & Scott

(Prescott & Scott, 42b (f))

FLORIDA Prescott & Scott, 1942b.

28. MICRASTERIAS DEPAUPERATA var. KITCHELII (Wolle) W. West (Nordstedt)

(Prescott I)

NO. CAROLINA Whitford, 1943 - FLORIDA Salisbury, 1936; Wolle,

1884 as M. Kitchelii Wolle - LOUISIANA Prescott & Scott, 1942b.

29. MICRASTERIAS DEPAUPERATA var. WOLLEI Cush. (Nordstedt) (Prescott I)

FLORIDA # F 7(GP).

30. MICRASTERIAS EXPANSA Bail. NORDSTEDT) (Prescott I)

FLORIDA Bailey, 1851; Wolle, 1892; Wood, 1874.

31. MICRASTERIAS FIMBRIATA Ralfs (Nordstedt) (Prescott I)

NO. CAROLINA Polteat, 1888; Whitford, 1943 - SO. CAROLINA

Bailey, 1851; Wood, 1874 - GEORGIA Wolle, 1879 - FLORIDA

Prescott & Scott, 1942b - Wood, 1874; - ALABAMA Prescott

& Scott, 1942b - MISSISSIPPI Prescott & Scott, 1942b.

32. MICRASTERIAS FIMBRIATA f. SIMPLEX Wolle (Nordstedt)

FLORIDA Wolle, 1884.

Wolle was uncertain about this form, and it has not
been reported since.

33. MICRASTERIAS FIMBRIATA var. SPINOSA (Nordstedt) (Prescott I)

6

NO. CAROLINA Whitford, 1943 - MISSISSIPPI Prescott & Scott,
1942b - LOUISIANA Prescott & Scott, 1942b.

34. MICRASTERIAS FLORIDIENSIS Salisbury (Prescott I)

No. CAROLINA Whitford, 1943 - FLORIDA Salisbury, 1936;
F 1,7(GP).

35. MICRASTERIAS FLORIDIENSIS var. Spinosa (Salisbury) Prescott &
Scott, 42b (f))

FLORIDA Prescott & Scott, 1942b; Salisbury 1936 as f.
spinosa Salisbury.

36. MICRASTERIAS FOLIACEA Bail. (Irene-Marie (f)) (Nordstedt)
(Prescott I)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Frohne, 1939 -
GEORGIA Frohne, 1939 - FLORIDA Salisbury, 1936; # F 1,7(GP)
- ALABAMA Brown, 1930; Prescott & Scott, 1942b - LOUISIANA
Prescott & Scott, 1942b.

37. MICRASTERIAS FURCATA Ralfs (Nordstedt) (Prescott I)

NO. CAROLINA Brown, 1930; Poteat, 1888; Whitford, 1943 -
SO. CAROLINA Bailey, 1851; Brown, 1930 - GEORGIA Bailey,
1851, Brown, 1930; Lagerheim 1885 - FLORIDA Bailey, 1851;
Borge, 1909; Brown, 1930; Prescott & Scott, 1942b.

38. MICRASTERIAS FURCATA var. SIMPLEX Wolle (Nordstedt)

GEORGIA Frohne, 1939 as Me. radiata var. simplex (Wolle)
G.M. Smith - FLORIDA Prescott & Scott, 1942b; Wolle, 1892.

39. MICRASTERIAS granulata Wood

see MICRASTERIAS CONFERTA Lund.

40. MICRASTERIAS INCISA Bréb. (Nordstedt) (Prescott I)

SO. CAROLINA Bailey, 1851 - GEORGIA Bailey, 1851; Prescott &
Scott, 1942b.

41. MICRASTERIAS JENNERI Ralfs (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Whitford, 1943 - FLORIDA Salisbury, 1936 - McInteer, 1939 -

MISSISSIPPI Prescott & Scott, 1942b.

42. MICRASTERIAS JENNERI var. SIMPLEX W. West (Nordstedt) (Prescott I)

MISSISSIPPI Prescott & Scott, 1942b.

43. MICRASTERIAS JOHNSONII West & West (Nordstedt) (Prescott I)

FLORIDA Prescott & Scott, 1942b; West & West, 1898; # F 1(GP).

44. MICRASTERIAS JOHNSONII var. RANOIDES (Salisbury) Krieg. (Prescott I)

FLORIDA Prescott & Scott, 1942b; Salisbury, 1936 as M. ranoides

Salisbury # F 7,10(GP).

45. Micrasterias Kitchellii Wolle

see MICRASTERIAS DEPAUPERATA var. KITCHELLII (Wolle) West &
West

46. MICRASTERIAS LATICEPS Nordst. (Irénée-Marie (f)) (Nordstedt)
(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Whitford, 1943 - SO. CAROLINA Frohne, 1939 - GEORGIA Frohne,

1939 - FLORIDA Borge, 1909; Salisbury, 1936; # F 2(GP) -

KENTUCKY McInteer, 1939, 1944 - MISSISSIPPI Prescott & Scott,

1942b - LOUISIANA Prescott & Scott, 1942b.

47. MICRASTERIAS LATICEPS var. CRASSA Prescott (Prescott & Scott, 42b (f))

MISSISSIPPI Prescott & Scott, 1942b - LOUISIANA Prescott &
Scott, 1942b.

48. MICRASTERIAS MAHABUS^SLEHWARENSIS Hobson (Irénée-Marie (f))
(Nordstedt) (Prescott I)

GEORGIA Frohne, 1939 - FLORIDA Borge, 1909; Prescott & Scott,

1942b; Salisbury, 1936 - MISSISSIPPI Prescott & Scott, 1942b -

49. MICRASTERIAS MAHABULESHWARENSIS var. DICHOTOMA G.M. Smith

(Irénée-Marie (f)) (Prescott I)

FLORIDA Prescott & Scott, 1942b.

50. MICRASTERIAS MAHABULESHWARENSIS var. RINGENS (Bail.) Krieg.

(Prescott I)

FLORIDA Bailey, 1851 ^u as M. ringens Bail., Prescott & Scott,
1942b; Wolle, 1879, 1884; Wood, 1874 both authors as M. ringens
Bail.

51. MICRASTERIAS MAHABULESHWARENSIS var. SERRULATA (Wolle) G.M. Smith

(Irénée-Marie (f)) (Prescott I)

NO. CAROLINA Whitford, 1943 - FLORIDA Salisbury, 1936 as M.
ringens var. serrulata Wolle; Whelden, 1941.

NO. CAROLINA Whitford, 1943 - Bold collection (UT record)

SO. CAROLINA Frohne, 1939 - GEORGIA Bailey, 1851 as

Euastrum muricata Bail; Frohne, 1939 - FLORIDA Prescott &

Scott, 1942b; Salisbury, 1936 - KENTUCKY McInteer, 1939 - MISS-

ISSIPPI Prescott & Scott, 1942b - LOUISIANA Prescott & Scott,

1942b.

53. MICRASTERIAS MURICATA var. TUMIDA West & West (Irénée-Marie (f))

(Nordstedt) (Prescott I)

SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939.

54. MICRASTERIAS MURRAYI West & West (Nordstedt) Prescott I)

FLORIDA Salisbury, 1936.

55. MICRASTERIAS NOVAE-TERRAE (Cush.) Krieg. (Prescott I)

FLORIDA Prescott & Scott, 1942b.

56. MICRASTERIAS OSCITANS Ralfs (Nordstedt) Prescott I)

FLORIDA Bailey, 1851; Prescott & Scott, 1942b; Wolle, 1884;

Wood, 1874- MISSISSIPPI Prescott & Scott, 1942b.

57. MICRASTERIAS OSCITANS var. MUCRONATA (Dix.) Wille (Nordstedt)

(Prescott I)

FLORIDA # F 2(GP) - LOUISIANA Prescott & Scott, 1942b.

58. MICRASTERIAS PAPILLIFERA Bréb. (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - GEORGIA Frohne, 1939-

FLORIDA Bailey, 1851; Brown, 1930; Prescott & Scott, 1942b;

Wood, 1874 - KENTUCKY McInteer, 1939.

59. MICRASTERIAS PAPILLIFERA var. GLABRA Nordst. (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

60. MICRASTERIAS PAPILLIFERA f. MAJOR Bréb. (Nordstedt)

KENTUCKY McInteer, 1939.

61. MICRASTERIAS PAPILLIFERA var. SPECIOSA (Wolle) Krieg. (Prescott I)

FLORIDA Prescott & Scott, 1942b; Wolle, 1892 as Mespeciosa Wolle - LOUISIANA Prescott & Scott, 1942b.

62. MICRASTERIAS PINNATIFIDA (Kuetz.) Ralfs (Irénée-Marie (f))

(Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Whitford, 1943; (UT record) Bold collection - SO. CAROLINA

Bailey, 1851; Frohne, 1939 ; Bold #387 (UT record) - GEORGIA

Bailey, 1851; Frohne, 1939 - FLORIDA Bailey, 1851; Borge,

1909; Prescott & Scott, 1942b; Salisbury, 1936; Whelden,

1941; Wood, 1874; # F 10(GP) - KENTUCKY McInteer, 1939,

1944 - MISSISSIPPI Prescott & Scott, 1942, 1942b -

LOUISIANA Prescott & Scott, 1942b.

63. MICRASTERIAS PINNATIFIDA var. QUADRATA (Bail.) Kreig. (Prescott I)

FLORIDA Bailey, 1851; Wolle, 1884; Wood, 1874 all three as



M. quadrata Bail; Prescott & Scott, 1942b.

64. MICRASTERIAS PIQUATA Salisbury (Prescott I)

FLORIDA Prescott & Scott, 1942b, Salisbury, 1936 -

MISSISSIPPI Prescott & Scott, 1942b.

65. MICRASTERIAS PIQUATA f. PICAYUNENSIS Prescott & Scott (Prescott & Scott, 42b(f))

MISSISSIPPI Prescott & Scott, 1942b - LOUISIANA Prescott & Scott, 1942b.

66. *Micrasterias quadrata* Bailey

see MICRASTERIAS PINNATIFIDA var. QUADRATA (Bail.) Krieg.

67. MICRASTERIAS RABENHORSTII Kiroh. (Nordstedt) (Prescott I)

NO. CAROLINA Poteat, 1888; Whitford, 1943 - FLORIDA West & West, 1898/

68. MICRASTERIAS RADIATA Hass. (Irénée-Marie (f)) (Nordstedt) (Prescott I)

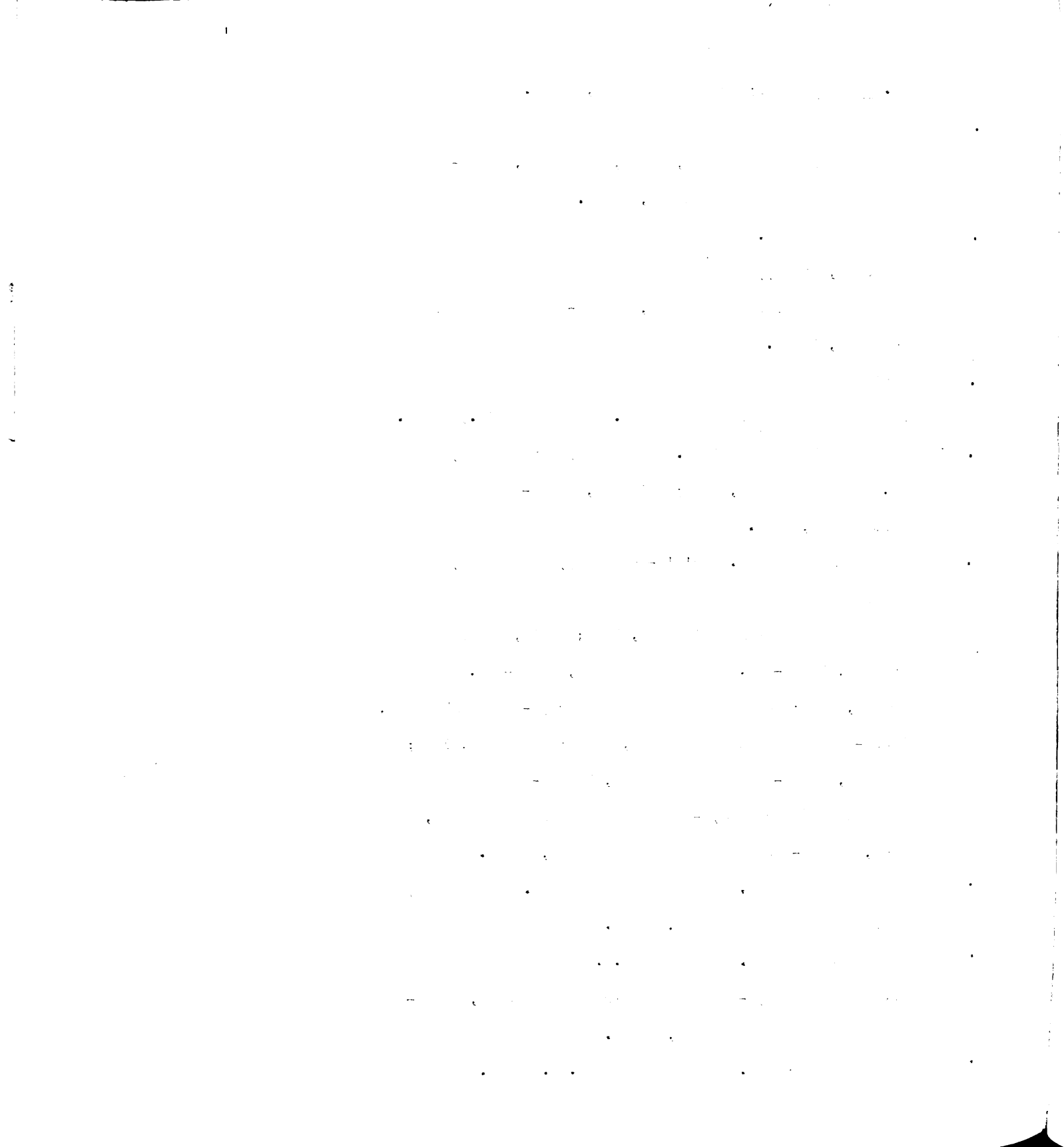
VIRGINIA Hutchinson & Pickford, 1932; Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford, 1943 - SO. CAROLINA Frohne, 1939; Bold collection (UT record) - GEORGIA Frohne, 1939 - FLORIDA Prescott & Scott, 1942b; Salisbury, 1936; Whelden, 1941 - KENTUCKY McInteer, 1939 - TENNESSEE Bold collection (UT record) - MISSISSIPPI Prescott & Scott, 1942, 1942b - LOUISIANA Prescott & Scott, 1942b.

69. MICRASTERIAS RADIATA var. DICHOTOMA (Wolle) Cushe. (Prescott I) LOUISIANA Prescott & Scott, 1942b.

70. MICRASTERIAS RADIATA var. GRACILLIMA G.M. Smith (Prescott I)

FLORIDA # F 4(GP) - MISSISSIPPI Prescott & Scott, 1942 - LOUISIANA Prescott & Scott, 1942b.

71. *Micrasterias radiata* var. *simplex* (Wolle) G. M. Smith.



see MICRASTERIAS FURCATA var. SIMPLEX Nolle

The writer follows Prescott & Scott, 1942b in retaining the older name.

72. MICRASTERIAS RADIOSA Ralfs (Irène-Marie) (Nordstedt) (Prescott I)

This species is identical with M. sol (Ehr.) Kuetz. listed below. Krieger, 1939, who made a thorough study of the genus preferred M. sol, but Prescott & Scott, 1942, considering the genus from a part of southeastern United States used M. radiosa, and Nordstedt's data seem to support their view, but opinion is reserved by this writer pending clarification of Krieger's reasons for his nomenclature.

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Frohne, 1939 -
GEORGIA Frohne, 1939, 1942 - FLORIDA Bailey, 1851; Prescott
& Scott, 1942b; Whelden, 1941; Wood, 1874 - MISSISSIPPI
Prescott & Scott, 1942b - LOUISIANA Prescott & Scott, 1942b.

73. MICRASTERIAS RADIOSA var. ACULEATA Krieg. (Prescott I)

MISSISSIPPI Prescott & Scott, 1942b.

see note under M. radiosa Ralfs

74. MICRASTERIA RADIOSA var. ELEGANTIOR G. S. West (Prescott I)

NO. CAROLINA Whitford, 1943 - GEORGIA Frohne, 1939 both
as M. radiosa var. ornata f. elegantior West & West -
FLORIDA Prescott & Scott, 1942b - MISSISSIPPI Prescott &
Scott, 1942b - LOUISIANA Prescott & Scott, 1942b.

see note under M. radiosa Ralfs.

75. MICRASTERIAS RADIOSA var. EXTENSA Prescott & Scott (Prescott &
Scott, 42b(f))

LOUISIANA Prescott & Scott, 1942b.

76. MICRASTERIAS RADIOSA var. ORNATA Nordst. (Nordstedt) (Prescott I)

SO. CAROLINA Frohne, 1939 - MISSISSIPPI Prescott & Scott,
1942b.

see note under M. radiosa Ralfs.

77. *Micrasterias radiosa* var. *ornata* f. *elegantior* West & West

see MICRASTERIAS RADIOSA var. ELEGANTIOR G. S. West.

78. *Micrasterias ranoides* Salisbury

see MICRASTERIAS JOHNSONII var. RANOIDES (Salisbury) Krieg.

79. *Micrasterias ringens* Bail.

see MICRASTERIAS MAHABULESHWARENSIS (Bail.) Krieg.

80. *Micrasterias ringens* var. *serrulata* Wolle

see MICRASTERIAS MAHABULESHWARENSIS var. SERRULATA

(Wolle) Krieg.

81. MICRASTERIAS ROTATA (Grev.) Ralfs. (Irène-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Hutchinson & Pickford, 1932; Lewis, Zirkle &

Patrick, 1933 - NO. CAROLINA Brown, 1930; Whitford, 1943;

Bold collection (UT record) - SO. CAROLINA Bailey, 1851 -

GEORGIA Bailey, 1851 - FLORIDA Bailey, 1851; Wolle, 1879 -

KENTUCKY McInteer, 1939 - MISSISSIPPI Prescott & Scott, 1942b.

82. MICRASTERIAS SOL (Ehr.) Kuetz. (Nordstedt) (Prescott I)

NO. CAROLINA Bold collection (UT record) - FLORIDA Salisbury,

1936 - KENTUCKY McInteer, 1939 - ALABAMA Brown, 1930 -

MISSISSIPPI Brown, 1930 - LOUISIANA Brown, 1930

see note under M. radiosa.

83. MICRASTERIAS SOL var. *ORNATA* Nordst. (Nordstedt) (Prescott I)

SO. CAROLINA Bold collection (UT record) & FLORIDA Salisbury,

1936 - KENTUCKY McInteer, 1939.

see note under M. radiosa and M. radiosa var. *ornata* Nordst.

84. MICRASTERIAS SOL var. SWAINII (Hastings) West & West (Prescott I)

FLORIDA Salisbury, 1936.

see note under M. radiosa.

85. Micrasterias speciosa Wolle

see MICRASTERIAS PAPILLIFERA var. SPECIOSA (Wolle) Krieg.

86. MICRASTERIAS SUBLONGA var. MAXIMA Prescott & Scott (Prescott & Scott, 1942b (f))

MISSISSIPPI Prescott & Scott, 1942b.

This is the only report.

87. MICRASTERIAS TETRAPTERA West & West (Nordstedt) (Prescott I)

FLORIDA West & West, 1898.

88. MICRASTERIAS TETRAPTERA var. PROTUBERANS Prescott & Scott (Prescott & Scott, 42b(f))

FLORIDA Prescott & Scott, 1942b.

89. MICRASTERIAS TETRAPTERA var. TAYLORII Krieg. (Prescott I)

LOUISIANA Prescott & Scott, 1942b.

90. MICRASTERIAS THOMASIANA var. NOTATA (Nordst.) Groenb.

NO. CAROLINA Whitford, 1943.

91. MICRASTERIAS TORREYI Bailey

NO. CAROLINA Whitford, 1943 with species author (Bail.)

Ralfs - FLORIDA Prescott & Scott, 1942b; Salisbury, 1936;
West & West, 1898.

92. MICRASTERIAS TORREYI var. NORDESTEDTIANA (Hieron.) Schm.

FLORIDA Prescott & Scott, 1942b; # F 1(GP).

93. MICRASTERIAS TRIANGULARIS Wolle (Nordstedt) (Prescott I)

FLORIDA Wolle, 1884 - MISSISSIPPI Prescott & Scott, 1942b.

94. MICRASTERIAS TRUNCATA (Corda) Bréb. (Irène-Marie (f)) (Nordstedt)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford,

1943; Bold # 102 (WT record) - GEORGIA Bailey, 1851;
 Frohne, 1939, 1942 - FLORIDA Bailey, 1851; Borge, 1909;
 Prescott & Scott, 1942b; Salisbury, 1936; # F 10(GP) -
 KENTUCKY McInteer, 1939, 1944 - TENNESSEE Bold collection
 (UT record) - ALABAMA Brown, 1930 - MISSISSIPPI Prescott
 & Scott, 1942, 1942b - LOUISIANA Prescott & Scott, 1942b.

95. MICRASTERIAS TRUNCATA var. CRENATA Reinsch (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943.

96. MICRASTERIAS TRUNCATA var. CONVEXA Prescott & Scott (Prescott &
 Scott, 42b(f))

MISSISSIPPI Prescott & Scott, 1942b - LOUISIANA Prescott
 & Scott, 1942b.

97. MICRASTERIAS TRUNCATA var. GRANULATA Racib. (Nordstedt)

NO. CAROLINA Bold # 37 (UT record).

98. MICRASTERIAS TRUNCATA var. PUSILLA f. CUNEATA Prescott & Scott
 (Prescott & Scott, 42(f))

FLORIDA Prescott & Scott, 1942b - LOUISIANA Prescott &
 Scott, 1942b.

99. MICRASTERIAS TRUNCATA var. QUADRATA Bulnh. (Nordstedt) (Prescott I)

MISSISSIPPI Prescott & Scott, 1942b.

100. MICRASTERIAS TRUNCATA var. SEMIRADIATA (Naeg.) Cleve (Nordstedt)
 (Prescott I)

LOUISIANA Prescott & Scott, 1942b.

101. MICRASTERIAS TRUNCATA var. TRIDENTATA Benn. (Irène-Marié (f))
 (Nordstedt)

FLORIDA # F 1(GP) - MISSISSIPPI Prescott & Scott, 1942b.

ONYCHONEMA Wallich 1860

1. ONYCHONEMA FILIFORME (Ehr.) Roy & Biss. (Irène-Marié (f))

(Nordstedt) (Prescott I)

SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939 - FLORIDA

Salisbury, 1936 - KENTUCKY McInteer, 1939 - MISSISSIPPI

Prescott & Scott, 1942.

2. *ONYCHONEMA LAEVE* Nordst. (Irène-Marie (f)) (Nordstedt) (Prescott I)

SO. CAROLINA Bailey, 1851 as Sphaerozozma serratum Bail.;

Frohne, 1939; Wollé, 1879, 1892; Wood, 1874 both as Sphaerozozma

serratum - GEORGIA Bailey, 1851 as Sphaerozozma serratum; Frohne,

1939; Lagerheim, 1885, Wollé, 1879, 1892; Wood, 1874 both as

Sphaerozozma serratum - FLORIDA Bailey, 1851 as Sphaerozozma

serratum; Borge, 1909; Salisbury, 1936; Wollé, 1879, 1892, Wood,

1874 as Sphaerozozma serratum - KENTUCKY McInteer, 1939.

3. *ONYCHONEMA LAEVE* var. *LATUM* West & West (Irène-Marie (f))

(Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - GEORGIA Frohne, 1939, 1942 -

FLORIDA # F 4(GP) - KENTUCKY McInteer, 1939 - MISSISSIPPI

Prescott & Scott, 1942.

4. *ONYCHONEMA LAEVE* var. *MICRANTHUM* Nordst. (Irène-Marie (f))

(Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 with species authorship as

West & West - GEORGIA Lagerheim, 1885 - FLORIDA Borge, 1909;

Salisbury, 1936.

PENIUM de Brébisson 1844

1. *PENIUM ANNULARE* W. West (Prescott I)

FLORIDA West & West, 1891 - LOUISIANA Johnson, 1895.

2. *Penium Brébissonii* (Menegh.) Ralfs

see *CYLINDROCYSTIS BREBISSEONII* Menegh.

3. *PENIUM CLOSTERIOPES* Ralfs (Nordstedt) (Prescott I)

NO. CAROLINA Poteat, 1888; Whitford, 1943 - SO. CAROLINA
Bailey, 1851, Wood, 1874.

4. PENIUM CRUCIFERUM (DeBary) Witttr. (Nordstedt) (Prescott I)

FLORIDA Wolle, 1887.

5. PENIUM CUCURBITUM^{IN} Biss. (Nordstedt) (Prescott I)

GEORGIA Frohne, 1939, 1942 - FLORIDA # F 7(GP).

6. PENIUM CYLINDRUS (Ehr.) Bréb. (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Bold # 41a (UT record) - KENTUCKY McInteer, 1941.

7. PENIUM CYLINDRUS var. SILESIACUM Kirch. (Nordstedt) (Prescott I)

LOUISIANA Johnson, 1895.

8. PENIUM CYLINDRUS var. SUB^TTRUNCATUM Schm. (Nordstedt)

ALABAMA Brown, 1930.

9. Penium digitus

see NETRIUM DIGITUS (Ehr.) Bréb.

10. Penium inter^Truptum Bréb.

see NETRIUM INTERRUPTUM (Bréb.) Luetkem.

11. Penium Jenneri Ralfs (Nordstedt) (Prescott I)

see CYLINDROCYSTIS BRÉBISSEONII Menegh.

FLORIDA Bailey, 1851, Wolle, 1892, Wood, 1874.

Nordstedt gives this name as a synonym for Cylindrocystis Brébissonii Menegh., but it appears as late as 1906. Furthermore Bailey and Wood both reported Penium Brébissonii (Menegh.) Ralfs, a synonym of Cylindrocystis Brébissonii at the same time. However Wood admits that the two forms were scarcely distinguishable, so apparently now they are considered as one.

12. PENIUM LAMELLOSUM (Bréb.) Kuetz. (Nordstedt) (Prescott I)

NO. CAROLINA Poteat, 1888; Whitford, 1943 - FLORIDA Borge, 1909.

13. *PENIUM LIBELLULA* (Focke) Nordst. (Nordstedt) (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
 Bold # 117(UT record) - SO. CAROLINA Frohne, 1939 -
 GEORGIA Frohne, 1939 - FLORIDA Borge, 1909 - ALABAMA
 Brown, 1930.
14. *PENIUM LIBELLULA* var. *INTERMPTUM* West & West (Nordstedt)
 (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933 - SO. CAROLINA
 Frohne, 1939 - FLORIDA Salisbury, 1936.
15. *PENIUM MARGARITACEUM* (Ehr.) Bréb. (Irène-Marie (f)) (Nordstedt)
 (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
 Whitford, 1943 - FLORIDA Bailey, 1851; Brown, 1930; Wollé,
 1884, Wood, 1874 - KENTUCKY McInteer, 1938, 1939, 1944 -
 TENNESSEE Bold # 24(UT record) - MISSISSIPPI Brown, 1930 -
 LOUISIANA Brown, 1930.
16. *Penium minutum* (Ralfs) Cleve
 see *PLEUROTAENIUM MINUTUM* (Ralfs) Delp.
17. *Penium minutum* var. *crassum* West
 see *PLEUROTAENIUM MINUTUM* var. *CRASSUM* West
18. *Penium minutum* f. *major* Lund.
 see *PLEUROTAENIUM MINUTUM* f. *MAJOR* Lund.
19. *Penium Naegeli* Bréb.
 see *NETRIUM DIGITUS* var. *NAEGELI* (Bréb.) Krieg.
20. *PENIUM NAVICULA* Bréb. (Nordstedt) (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA Borge, 1909 -
 KENTUCKY Lillick & Lee, 1934.
21. *Penium oblongum* DeBary

see NETRIUM OBLONGUM (DeBary) Luetkem.

22. PENIUM PHYMATOSPORUM Nordst. (Nordstedt) (Prescott I)

GEORGIA Frohne, 1942.

23. PENIUM SPINOSPERMUM Josh. (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
Bold # 142(UT redord).

24. PENIUM SPIROSTRIOLATUM Barker (Irène-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Whitford, 1943 - GEORGIA Frohne, 1942 -

FLORIDA West & West, 1898 - KENTUCKY McInteer, 1939.

25. Penium tumidum Gay

see CYLINDROCYSTIS TUMIDA Gay

Wolle should properly have listed his transfer as

Penium tumidum (Gay) Wolle.

26. Penium truncatum Bréb.

see PLEUROTAENIUM TRUNCATUM (Bréb.) Naeg.

PHYMATODOCIS Nordstedt 1877

1. PHYMATODOCIS NORDSTEDTIANA Wolle (Nordstedt) (Prescott I)

VIRGINIA Iltis # 3692(UT)(CM) - NO. CAROLINA Whitford,
1943, - SO. CAROLINA Frohne, 1939, 1942b - FLORIDA Salisbury,
1936.

2. PHYMATODOCIS NORDSTEDTIANA f. MINOR Boerg. (Smith (f) as var.

minor) (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - GEORGIA Frohne, 1942b -
FLORIDA Salisbury - LOUISIANA Prescott & Scott, 1942.

All the references except those of Prescott and of
Nordstedt list the form as a variety, although the writer is
unable to find a basis for this.

PLEUROTAENIUM Naegeli 1849

1. *Pleurotaenium baculum* (Br  b.) DeBary
 see DOCIDIUM BACULUM Br  b.
2. *Pleurotaenium clavatum* (Kuetz.) DeBary
 see PLEUROTAENIUM TRABECULA f. CLAVATA (Kuetz.)
 West & West.
3. PLEUROTAENIUM CONSTRICTUM (Bail.) Wood (Ir  n    -Marie (f))
 (Nordstedt) (Prescott I)
 SO. CAROLINA Wolle, 1892 as Docidium constrictum Bail. -
 GEORGIA Bailey, 1851; Wolle, 1892 both as Docidium constrictum
 - MISSISSIPPI Prescott & Scott, 1942.
4. PLEUROTAENIUM CORONATUM (Br  b.) Ralfs (Ir  n    -Marie) (Nordstedt)
 (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
 Whitford, 1943; Bold # 54(UT record) - KENTUCKY McInteer,
 1941 - MISSISSIPPI Brown, 1930; Prescott & Scott, 1942.
5. PLEUROTAENIUM CORONATUM var. NODULOSUM (Br  b.) West (Nordstedt)
 (Prescott I)
 KENTUCKY McInteer, 1939 - LOUISIANA Brown, 1930.
6. PLEUROTAENIUM CORONATUM var. EXTENSUM (Borge) Krieg. (Prescott I)
 MISSISSIPPI Prescott & Scott, 1942.
7. PLEUROTAENIUM CORONULATUM (Grun.) Wille (Nordstedt) (Prescott I)
 GEORGIA Lagerheim, 1885 - FLORIDA Wolle, 1892 as Docidium
 coronulatum Grun.
8. *Pleurotaenium crenulatum* (Br  b.) Rabenh.
 see PLEUROTAENIUM NODULOSUM (Br  b.) DeBary
9. PLEUROTAENIUM EHRENBERGII (Br  b.) DeBary (Ir  n    -Marie (f))
 (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943; Bold # 117 (UT record) - SO.

CAROLINA Bailey, 1851 as Docidium Ehrenbergii Ralfs; Frohne, 1939 - GEORGIA Bailey, 1851 as Docidium Ehrenbergii Frohne, 1939 - FLORIDA Bailey, 1851 as Docidium Ehrenbergii Whelden, 1941; Wolle, 1887 as Docidium Ehrenbergii - KENTUCKY McInteer, 1939, 1944 - ALABAMA Brown, 1930.

10. PLEUROTAENIUM EHRENBURGII var. ELONGATUM West (Irénee-Marie (f))
(Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - GEORGIA Frohne, 1939 - MISSISSIPPI Prescott & Scott, 1942 - LOUISIANA Brown, 1930.

11. Pleurotaenium Ehrenbergii var. granulatum Whelden.

see PLEUROTAENIUM EHRENBURGII var. GRANULATUM Ralfs.

12. PLEUROTAENIUM EHRENBURGII var. GRANULATUM Ralfs.

FLORIDA Whelden, 1941 as a new variety.

The use of granulatum as a variety name by Whelden overlooked the previous use of the name, and is incorrect. The writer does not believe that another variety name is necessary, however, inasmuch as he has compared Whelden's drawing and description with that of the Ralfs variety, at least as interpreted by Irénée-Marie, 1939, and making allowance only for the scale of the drawings, they seem to check remarkably well. The unlikely case seems to have occurred in which the same name was used for the same variety almost a hundred years apart.

13. PLEUROTAENIUM EHRENBURGII var. UNDULATUM Schaar. (Nordstedt)
(Prescott I)

KENTUCKY McInteer, 1939.

14. PLEUROTAENIUM EUGENEUM (Turn.) West & West

GEORGIA Frohne, 1939.

15. PLEUROTAENIUM GEORGICUM Lagerh. (Nordstedt) (Prescott I)

GEORGIA Lagerheim, 1885; Wolle, 1887 as Docidium Georgicum
Lagerh.

16. Pleurotaenium hirsutum (Bail.) Wood

see PLEUROTAENIUM TRAVECULA var. HIRSWTUM (Bail.)Krieg.

17. PLEUROTAENIUM HYPOCYMATIUM West & West (Nordstedt) (Prescott I)

FLORIDA West & West, 1898; Wolle, 1887 as Docidium baculum
var. floridense Wolle.

18. PLEUROTAENIUM INDICUM (Grun.) Lund. (Nordstedt) Prescott I)

GEORGIA Lagerheim, 1885.

19. PLEUROTAENIUM MAXIMUM (Reinsch) Lund. (Irénée-Marie (f))

(Nordstedt) (Prescott I)

NO. CAROLINA Bold # 37(UT record) - ALABAMA Brown, 1930 -
MISSISSIPPI Brown, 1930.

20. PLEUROTAENIUM MINUTUM (Ralfs)Delp. (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Bold # 43M(UT record) - SO. CAROLINA Bailey,
1851; as Docidium minutum Ralfs; Wood, 1874 as Penium
minutum (Ralfs)Cleve* - FLORIDA Bailey, 1851 as Docidium min-
utum; Borge, 1909; Brown, 1930 both as Penium minutum; Wolle,
1884 as Docidium minutum; Wood, 1874 as Penium minutum* -
KENTUCKY McInteer, 1939.

Wolle, 1884, also reported Penium minutum from FLORIDA,
but the form he figures under this name is not recogniz-
able as what is now known as Pleurotaenium minutum or
Penium minutum.

* Wood reports that this species was unconstricted in

the middle, which leaves the writer in doubt that he was discussing the plant usually thought of as bearing the name.

21. PLEUROTAENIUM MINUTUM var. CRASSUM West

FLORIDA West & West, 1898 - ALABAMA Brown, 1930 both as

Penium minutum var. crassum West.

The writer has not seen this name in print, but if the species is given a place in the genus Pleurotaenium the variety of course accompanies it.

22. PLEUROTAENIUM MINUTUM var. ELONGATUM West & West (Irénée-Marie (f))

(Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - FLORIDA # F 1,10(GP).

23. PLEUROTAENIUM MINUTUM f. MAJOR Lund. (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Whitford, 1943 - FLORIDA # 4,5(GP).

24. PLEUROTAENIUM MINUTUM var. POLONICUM (Racib.) West (Nordstedt)

KENTUCKY McInteer, 1939.

25. PLEUROTAENIUM NODOSUM (Bail.) Lund. (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Bold collection (UT record) - SO. CAROLINA Frohne,

1939; Wood, 1874 - GEORGIA Bailey, 1851 as Docidium nodosum

Bail.; Frohne, 1939; Wood, 1874 - FLORIDA Johnson, 1895;

Salisbury, 1936; West & West, 1898; Wood, 1874 - ALABAMA

Brown, 1930.

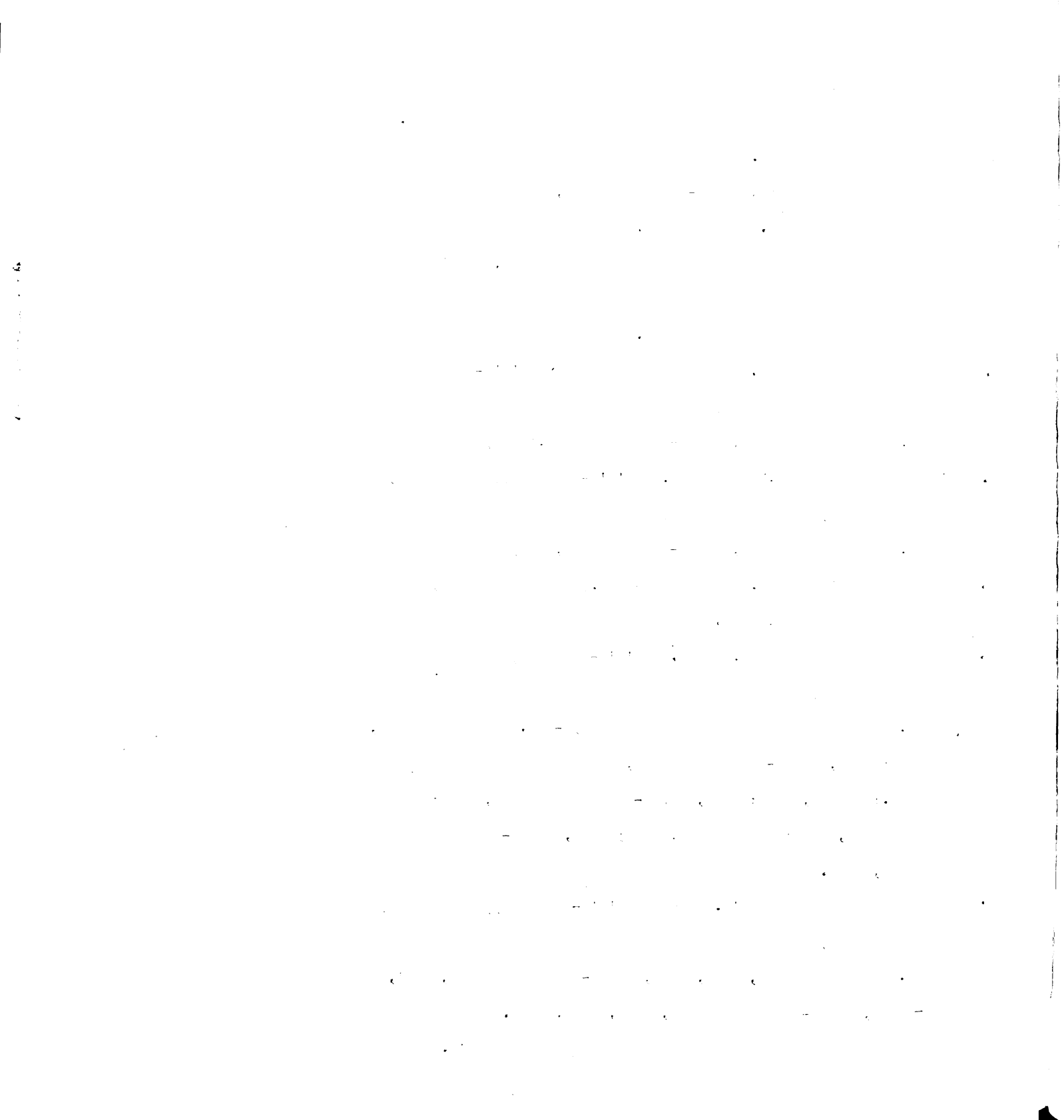
26. PLEUROTAENIUM NODULOSUM (Bréb.) DeBary (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

SO. CAROLINA Bailey, 1851, Wood, 1874 - GEORGIA Bailey, 1851,

- Wood, 1874 - FLORIDA Bailey, 1851, Wood, 1874.

All Bailey reports are as Docidium nodulosum Bréb. Wood



reports are as Pleurotaenium crenulatum (Br  b) Rabenh.

27. PLEUROTOAENIUM SCEPTRUM (Kuetz.) West & West (Nordstedt)

(Prescott I)

FLORIDA West & West, 1898.

28. PLEUROTOAENIUM SUBCORONULATUM (Turn.) West & West (Nordstedt)

(Prescott I)

SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939 - KENTUCKY McInteer, 1939.

29. PLEUROTOAENIUM SUBCORONULATUM var. DETUM (Turn.) West & West

(Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Frohne, 1939.

30. PLEUROTOAENIUM TESSELLATUM (Josh.) Lagerh. (Nordstedt)

(Prescott I)

FLORIDA Borge, 1909.

This is another of the several forms which the writer feels need comparing with possibly identical ones under different names.

31. PLEUROTOAENIUM TRABECULA (Ehr.) Naeg. (Ir  n  e-Marie (f))

(Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick - NO. CAROLINA Poteat, 1888 as Docidium trabecula (Ehr.) Naeg. ; Whitford, 1943; Bold collection (UT record) - SO. CAROLINA Brown, 1930; Frohne, 1939; Wood, 1874 ~~including~~ - GEORGIA Brown, 1930; Frohne, 1939; Wood, 1874 - FLORIDA Brown, 1930; Wood, 1874 - KENTUCKY McInteer, 1938, 1939 - MISSISSIPPI Brown, 1930 - LOUISIANA Brown, 1930.

32. PLEUROTOAENIUM TRABECULA f. CLAVATA (Kuetz.) West (Ir  n  e-Marie (f))

(Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Bailey, 1851
as Docidium clavatum Kuetz.; Wolle, 1892 as Docidium
clavatum (Kuetz.) DeBary; Wood, 1874 as Pleurotaenium
clavatum (Kuetz.) DeBary - GEORGIA Bailey, 1851 as Doc-
idium clavatum; Wolle, 1892, as Docidium clavatum; Wood
as Pleurotaenium clavatum - MISSISSIPPI Brown, 1930.

33. PLEUROTOAENIUM TRABECULA f. GRANULATA (Ralfs) Rabenh. (Nordstedt)

FLORIDA Brown, 1930 with the species author given as G.S. West.

Data from Nordstedt favor the authorship assigned here.

34. PLEUROTOAENIUM TRABECULA var. HIRSUTUM (Bail.) Krieg. (Prescott I)

FLORIDA Bailey, 1851 as Docidium hirsutum Bail.; Whelden,

1941; Wood, 1874 as Pleurotaenium hirsutum (Bail.) Wood.

35. PLEUROTOAENIUM TRABECULA var. MAXIMA (Reinsch) Roll. (Prescott)

KENTUCKY McInteer, 1939.

36. PLEUROTOAENIUM TRABECULA var. RECTUM (Irénée-Marie (f))

(Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - GEORGIA Frohne, 1939 -

FLORIDA Whelden, 1941 - MISSISSIPPI Prescott & Scott, 1942.

37. PLEUROTOAENIUM TRIDENTATUM var. BORGEI Krieg. (Prescott I)

FLORIDA Whelden, 1941.

38. PLEUROTOAENIUM TRIDENTULUM var. CAPITATUM West (Nordstedt)

(Prescott I)

NO. CAROLINA Whitford, 1943.

39. PLEUROTOAENIUM TROCHISCUM West & West (Irénée-Marie (f))

(Nordstedt) (Prescott I)

SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939 -

FLORIDA Borge, 1909; Salisbury, 1936; West & West, 1898

7(GP).

40. PLEUROTAENIUM TROCHISCUM var. TUBERCULATUM G. M. SMITH (Irénée-Marie (f)) (Prescott I)

NO. CAROLINA Whitford, 1943 with the species authorship
West & West - SO. CAROLINA Frohne, 1939 - GEORGIA Frohne,
1939 - FLORIDA # F 5(GP).

41. PLEUROTAENIUM TRUNCATUM (Bréb.) Naeg. (Irénée-Marie (f))
(Nordstedt) (Prescott I)

FLORIDA Wolle, 1892 as Docidium truncatum Bréb. - KENTUCKY
McInteer, 1939 as Penium truncatum Bréb. - MISSISSIPPI
Prescott & Scott, 1942 with species authorship Naegeli only.

42. Pleurotaenium undulatum Bail.

see DOCIDIUM UNDULATUM Bail.

In proper usage, Wood's name, given above, should
have been Pleurotaenium undulatum (Bail.) Rabenh.

43. PLEUROTAENIUM VERRUCOSUM (Bail.) Lund. (Nordstedt) (Prescott I)

GEORGIA Bailey, 1851 - FLORIDA Johnson, 1895 both as
Docidium verrucosum (Bail.) Ralfs - MISSISSIPPI Prescott
& Scott, 1942.

SPHAEROZOSMA Corda 1834

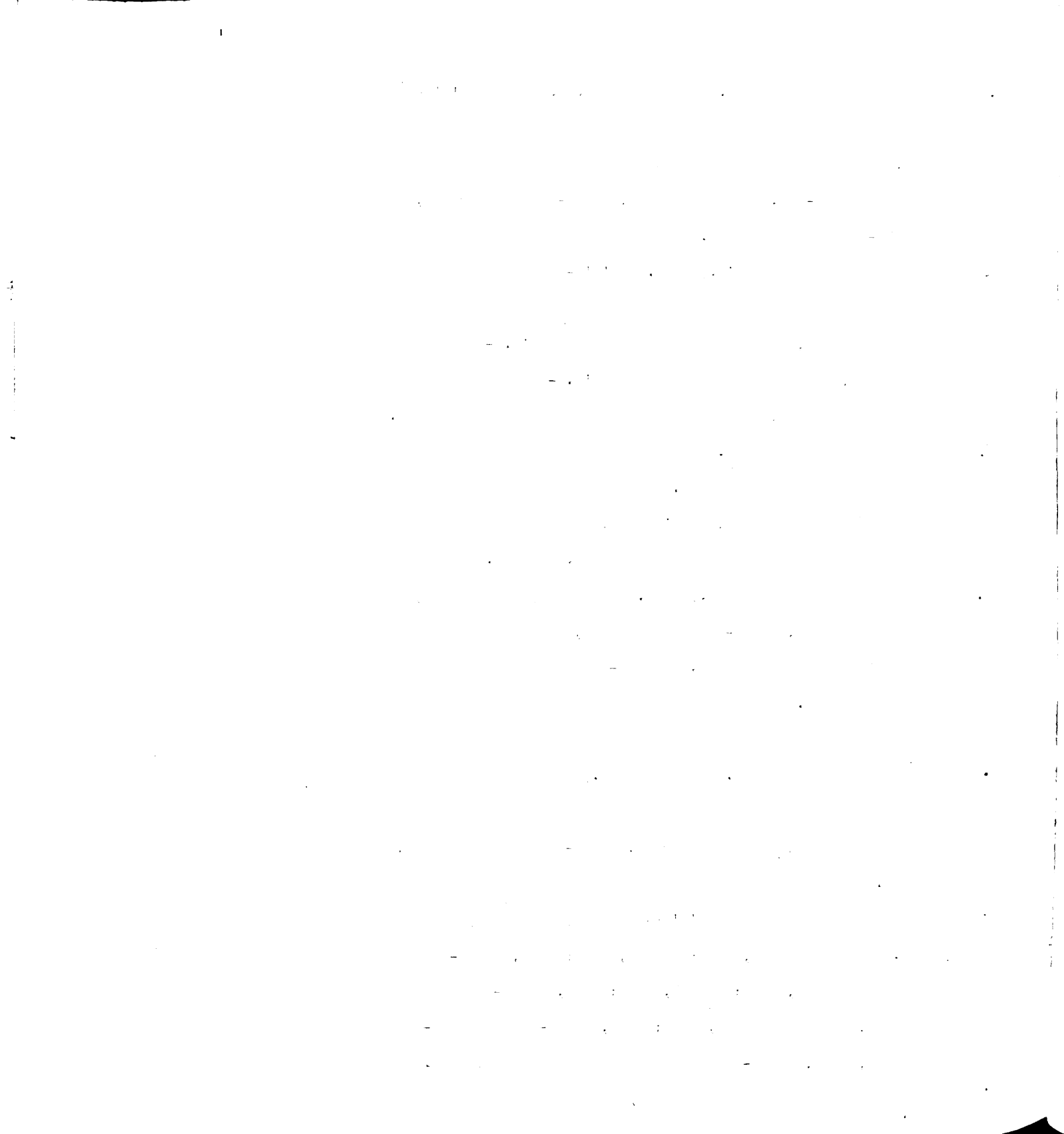
1. SPHAEROZOSMA AUBERTIANA var. ARCHERI (Gutw.) West & West (Nordstedt)
(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer,
1939.

2. SPHAEROZOSMA EXCAVATA Ralfs (Irénée-Marie (f)) Nordstedt) (Prescott I)

SO. CAROLINA Bailey, 1851; Fröhne, 1939; Wood, 1874 -
GEORGIA Bailey, 1851; Frohne, 1939; Wood, 1874 - FLORIDA
Bailey, 1851; Salisbury, 1936; Wood, 1874 - KENTUCKY Mc-
Inteer, 1939, 1944 - MISSISSIPPI Prescott & Scott, 1942.

3. SPHAEROZOSMA EXCAVATA Ralfs (Nordstedt) (Prescott I)



SO. CAROLINA Frohne, 1939 a form - GEORGIA Frohne, 1939.

4. SPHAEROZOSMA EXCAVATA var. SPINULOSA (Delp.) Hansg. (Nordstedt)

NO. CAROLINA Poteat, 1888; Whitford, 1943 - FLORIDA

Wolle, 1884.

All of these as Sphaerosoma spinulosum Delp.

5. SPHAEROZOSMA GRANULATA Roy & Biss. (Irene-Marie (f))

(Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - KENTUCKY McInteer, 1939, 1944 -

MISSISSIPPI Prescott & Scott, 1942.

6. SPHAEROZOSMA GRANULATA var. TRIGRANULATA West & West (Nordstedt)

(Prescott I)

KENTUCKY McInteer, 1939.

7. Sphaerosoma moniliforme Lund.

see SPONDYLIUM MONILIFORME Lund.

Wolle should have listed the species authorship as
(Lund.) Wolle.

8. Sphaerosoma pulchrum Bail.

see SPONDYLIUM PULCHRUM (Bail.) Arch.

9. Sphaerosoma pulchrum var. constrictum Wolle

see SPONDYLIUM PULCHRUM var. CONSTRICTUM Wolle.

10. Sphaerosoma pulchrum var. inflatum Wolle

see SPONDYLIUM PULCHRUM var. INFLATUM Wolle.

11. Sphaerosoma rectangulare (Corda) Wolle

see SPONDYLIUM RECTANGULARE (Wolle) West & West

On the basis of Nordstedt's data it appears that Brown was wrong in listing the species author as (Corda) Wolle. Wolle was the original author.

12. Sphaerosoma serratum Bail.

see ONYCHONEMA LEAVE Turn.

13. *Sphaerosozma spinulosum* Delp.

see SPHAEROSOSMA EXCAVATA var. SPINULOSA (Delp.) Hansg.

14. SPHAEROSOSMA VERTEBRATA f. MINOR W. West (Nordstedt)

(Prescott I)
FLORIDA Salisbury, 1936.

SPINOCOSMARIUM Prescott & Scott 1942

1. SPINOCOSMARIUM LACONIENSE (West & West) (Prescott & Scott,
42(f))

MISSISSIPPI Prescott & Scott, 1942.

2. SPINOCOSMARIUM QUADRIDENS (Wood) Prescott & Scott (Prescott &
Scott, 42(f))

FLORIDA Whelden, 1941 as Arthrodesmus quadridens Wood -
MISSISSIPPI Prescott & Scott, 1942.

3. SPINOCOSMARIUM QUADRIDENS f. FORFICULATA (West & West) Prescott
& Scott (Prescott & Scott, 42(f))
MISSISSIPPI Prescott & Scott, 1942.

SPONDYLOSIUM de Brébisson 1844

1. SPONDYLOSIUM MONILIFORME Lund. (Nordstedt) (Prescott I)

FLORIDA Wille, as Sphaerosozma moniliforme Lund.

2. SPONDYLOSIUM PLANUM (Wille) West & West (Prescott I)

NO. CAROLINA Whitford, 1943 - SO CAROLINA Frohne, 1939

GEORGIA Frohne, 1939, 1942 - FLORIDA Salisbury, 1936;

F 4(GP) - ALABAMA Brown, 1930.

3. SPONDYLOSIUM PULCHELLUM var. BAMBUSINOIDES (Witttr.) Lund.
(Nordstedt) (Prescott I)

FLORIDA Borge, 1909.

4. SPONDYLOSIUM PULCHRUM (Bail.) Arch. (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - FLORIDA Bailey, 1851

as Sphaerosozma pulchrum Bail.; Salisbury, 1936 -

MISSISSIPPI Brown, 1930; Prescott & Scott, 1942.

5. SPONDYLIOSIUM PULCHRUM var. INFLATUM Wille (Irénée-Marie (f))

(Nordstedt) (Prescott I)

SO. CAROLINA Wille, 1884 as Sphaerososma pulchrum var.

inflatum Wille - FLORIDA Borge, 1909; Wille, 1884 as

Sphaerososma pulchrum var. inflatum.

6. SPONDYLIOSIUM RECTANGULARE (Wille) West & West (Nordstedt)

(Prescott I)

FLORIDA Brown, 1930 as Sphaerososma rectangulare (Corda)

Wille; West & West, 1898 - MISSISSIPPI Brown, 1930 as

Sphaerososma rectangulare.

7. SPONDYLIOSIUM SECEDENS (DeBary) Arch. (Irénée-Marie) (Nordstedt)

(Prescott I)

KENTUCKY McInteer, 1939.

STAUSTRUM Meyen 1829

1. STAUSTRUM ACULEATUM (Ehr.) Menegh. (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

MISSISSIPPI Brown, 1930.

2. STAUSTRUM ALTERNANS Bréb. (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - GEORGIA Bailey,

1851; Wood, 1874 - FLORIDA Whelden, 1941; Wood, 1874 -

KENTUCKY McInteer, 1939.

3. STAUSTRUM ALTERNANS var. PULCHRUM Wille (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

4. STAUSTRUM ANATINUM var. DENTICULATUM G.M. Smith (Prescott I)

KENTUCKY McInteer, 1939.

5. ^{UR}STAU^IASTRUM ANATINUM var. LONGE^ABRACHIATUM West & West (Irénée-Marie (f)) (Nordstedt) (Prescott I)
FLORIDA # F 9(GP).
6. STAUASTRUM ANYKROIDES Wolle (Irénée-Marie (f)) (Nordstedt)
(Prescott I)
FLORIDA Whelden, 1941.
7. STAUASTRUM ARACHNE^{CE} Ralfs (Irénée-Marie (f)) (Nordstedt)
(Prescott)
SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939 - FLORIDA West & West, 1898; Wolle, 1892.
8. STAUASTRUM ARCHERI West (Nordstedt) (Prescott I)
FLORIDA # F 7(GP).
9. STAUASTRUM ARCTISCON (Ehr.) Lund. (Irénée-Marie (f)) (Nordstedt)
(Prescott I)
VIRGINIA Hutchinson & Pickford, 1932; Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Poteat, 1888; FLORIDA Whelden, 1941 - KENTUCKY McInteer, 1939 - MISSISSIPPI Brown, 1930.
10. STAUASTRUM ARCTISCON var. GLABRUM West & West (Nordstedt)
(Prescott I)
VIRGINIA Hutchinson & Pickford, 1932 - GEORGIA Frohne, 1939 - FLORIDA Salisbury, 1936, Whelden, 1941.
11. STAUASTRUM ARCUATUM Nordst. (Nordstedt) (^{Prescott}~~Prescott~~ I)
FLORIDA Salisbury, 1936.
12. STAUASTRUM ARISTIFERUM Ralfs (Nordstedt) (Prescott I)
GEORGIA Bailey, 1851; Wolle, 1884; Wood, 1874
13. STAUASTRUM ARNELLI^{II} Boldt (Nordstedt) (Prescott I)
MISSISSIPPI Prescott & Scott, 1942.
14. STAUASTRUM BIENEANUM Rabenh. (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

15. STAUSTRUM BIENNANUM var. ELLIPTICUM Wille (Nordstedt)
 (Prescott I)

FLORIDA Wille, 1884.

16. STAUSTRUM BIFIDUM (Ehr.) Bréb. (Nordstedt) (Prescott I)
 MISSISSIPPI Brown, 1930.

17. STAUSTRUM BOTROPHILUM Wille (Nordstedt) (Prescott I)
 NO. CAROLINA Poteat, 1888; Whitford, 1943 - KENTUCKY
 McInteer, 1939, 1944 .

18. STAUSTRUM BRACHIATUM Ralfs (Irénée-Marie (f)) (Nordstedt)
 (Prescott I)
 NO. CAROLINA Whitford, 1943 - FLORIDA Johnson, 1895;
 Salisbury, 1936 - MISSISSIPPI Prescott & Scott, 1942.

19. STAUSTRUM BRASILIENSE Nordst. (Nordstedt) (Prescott I)
 ALABAMA Brown, 1930.

20. STAUSTRUM BRASILIENSE var. LUNDELLII West & West (Nordstedt)
 Prescott I)
 FLORIDA Salisbury, 1936 - ALABAMA Brown, 1930 - MISS-
 ISSIPPI Prescott & Scott, 1942.

21. STAUSTRUM BREBISSEONII Arch. (Irénée-Marie (f)) (Nordstedt)
 (Prescott I)
 FLORIDA Wille, 1884.

22. STAUSTRUM BREVIACULEATUM G.M. Smith (Irénée-Marie (f))
 (Nordstedt) (Prescott I)
 KENTUCKY McInteer, 1939.

23. STAUSTRUM BREVISPINUM Bréb. (Irénée-Marie (f)) (Nordstedt)
 NO. CAROLINA Whitford, 1943.

24. STAUSTRUM BREVISPINUM var. INERME Wille (Nordstedt) (Prescott I)

FLORIDA Wolle, 1887.

25. STAUSTRUM BREVISPINUM f. MAJOR West & West (Irène-Marie (f))
(Nordstedt) (Prescott I)

FLORIDA Salisbury, 1936.

26. STAUSTRUM CAPITULUM Bréb. (Nordstedt) (Prescott I)

NO. CAROLINA Bold # 41 (UT record) - KENTUCKY McInteer, 1941.

27. STAUSTRUM CERASTES Lund. (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - GEORGIA Frohne, 1939 -

FLORIDA Brown, 1930; Smith, 1924; # F 8(GP) - MISS-

ISSIPPI Prescott & Scott, 1942.

28. STAUSTRUM CERBERUS (Bail.) Arch. (Nordstedt)

FLORIDA Bailey, 1851 as Didymocladon cerberus Bail.; Wolle,
1879, 1884; Wood, 1874.

29. STAUSTRUM CHAETOCERAS (Schrod.) G.M. Smith (Prescott I)

KENTUCKY McInteer, 1939.

30. STAUSTRUM CLEVEI (Witttr.) Roy & Biss. (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943.

31. STAUSTRUM CONNATUM (Lund.) Roy & Biss. (Irène-Marie (f))

~~(Nordstedt)~~
(NORDSTEDT) (Prescott I)

FLORIDA # F 10(GP).

32. STAUSTRUM CONCINNUM West & West (Nordstedt) (Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

33. STAUSTRUM CONTROVERSUM Bréb. Irène-Marie (f)) (Nordstedt)
(Prescott)

FLORIDA Borge, 1909.

34. STAUSTRUM CORONULATUM Wolle (Nordstedt)

FLORIDA Brown, 1930; West & West, 1898.

35. STAUSTRUM CORONULATUM var. FLORIDENSE Wolle (Nordstedt)

FLORIDA Wolle, 1884.

36. STAUSTRUM COSMARIOIDES Reinsch (Irénée-Marie (f)) (Nordstedt)
(Prescott I)

FLORIDA West & West, 1898.

37. STAUSTRUM COSMARIOIDES f. ELEVATUM Prescott & Scott (Prescott
& Scott, 42(f))

MISSISSIPPI Prescott & Scott, 1942.

38. STAUSTRUM CORNUTUM Arch. (Irénée-Marie (f)) (Nordstedt)
(Prescott I)

ALABAMA Brown, 1930.

39. STAUSTRUM CRENULATUM (Naeg.) Delp. (Irénée-Marie (f)) (Nordstedt)
(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

40. STAUSTRUM CURVATUM W. West (Smith (f)) (Nordstedt) (Prescott I)
NO. CAROLINA Whitford, 1943.

41. STAUSTRUM CURVATUM var. ELONGATUM G. M. Smith (Prescott I)
NO. CAROLINA Whitford, 1943 - FLORIDA Salisbury, 1936.

42. STAUSTRUM CUSPIDATUM Bréb. (Irénée-Marie (f)) (Nordstedt)
(Prescott I)

FLORIDA Borge, 1909; Whelden, 1941 - KENTUCKY McInteer, 1939.

43. STAUSTRUM CUSPIDATUM var. DIVERGENS Nordst. (Irénée-Marie (f))
(Nordstedt) (Prescott I)

FLORIDA Borge, 1909; # 4,6,10(GP).

44. STAUSTRUM CYRTOCERUM Bréb. (Irénée-Marie (f)) (Nordstedt)
(Prescott I)

VIRGINIA * Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Poteat, 1888; Whitford, 1943 - GEORGIA Bailey, 1851.

45. STAUSTRUM DEJECTUM Bréb. (Irénée-Marie (f)) (Nordstedt)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - SO. CAROLINA Wood,
1874 - GEORGIA Bailey, 1851; Lagerheim 1885 - FLORIDA Bailey,
1851; Borge, 1909; # F 4(GP) KENTUCKY McInteer, 1939 -
ALABAMA Brown, 1930 - MISSISSIPPI Prescott & Scott 1942.

46. STAUSTRUM DICKIEI Ralfs (Irénée-Marie (f)) (Nordstedt)
(Prescott I)

LOUISIANA Prescott, 1942.

47. STAUSTRUM DICKIEI var. CIRCULARE Turn. (Irénée-Marie (f))
(Nordstedt) (Prescott I)
KENTUCKY McInteer, 1939.

48. STAUSTRUM DICKIEI var. MAXIMUM West & West (Irénée-Marie (f))
(Nordstedt) (Prescott I)
FLORIDA Borge, 1909; Salisbury, 1936.

49. STAUSTRUM DILATATUM Ehr. (Irénée-Marie (f)) (Nordstedt)
(Prescott I)
NO. CAROLINA Poteat, 1888; Whitford, 1943 - FLORIDA Borge,
1909.

Wood, 1874 gives the South Atlantic States as the
species distribution.

50. STAUSTRUM DIPTILUM Nordst. (Nordstedt) (Prescott I)
FLORIDA West & West, 1898.

51. STAUSTRUM DISPUTATUM var. EXTENSUM (Borge) West & West
(Prescott I)
MISSISSIPPI Prescott & Scott, 1942.

52. STAUSTRUM DISTENTUM Wollé (Nordstedt) (Prescott I)
FLORIDA West & West, 1898.

53. STAUSTRUM DONNELLII Wollé (Nordstedt)
FLORIDA Wollé, 1884.

54. STAURASTRUM ECHINATUM Bréb. (Nordstedt) (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
 Poteat, 1888; Whitford, 1943.
55. STAURASTRUM ELONGATUM Barker (Irénée-Marie (f)) (Nordstedt)
 (Prescott I)
 FLORIDA West & West, 1898.
56. STAURASTRUM ELONGATUM var. QUADRATUM Irénée-Marie (Irénée-Marie,
 39(f))
 NO. CAROLINA Whitford, 1943 - FLORIDA # F 9(GP).
57. Staurastrum enorme Ralfs
 see TETRAEDRON ENORME (Ralfs) Hansg. in the Oocystaceae.
58. STAURASTRUM EROSTELLUM West & West (Nordstedt) (Prescott I)
 KENTUCKY McInteer, 1939.
59. STAURASTRUM EUSTEPHANUM (Ehr.) Ralfs (Nordstedt) (Prescott I)
 SO. CAROLINA Wolle, 1884.
60. STAURASTRUM FLORIFERUM West & West (Nordstedt) (Prescott I)
 MISSISSIPPI Prescott & Scott, 1942.
61. Staurastrum forficulatum f. trigone Wolle
 NO. CAROLINA Whitford, 1943.
 Correspondence with the author of this report has produced only an intelligent guess as to what was intended. There apparently was no form by this name described by Wolle. Wolle did say that the species was sometimes three - more rarely four- or five-angled so it is assumed that Whitford, observing a three-angled specimen, listed it as f. trigone.
62. STAURASTRUM FURCATUM (Ehr.) Bréb. (Irénée-Marie (f)) (Nordstedt)
 (Prescott I)
 KENTUCKY McInteer, 1939 - MISSISSIPPI Prescott & Scott, 1942.

63. *STAURASTRUM FURCATUM* var. *PISCIFORME* Turn. (Irénée-Marie (f))
 (Nordstedt) (Prescott I))
 FLORIDA # F 10(GP).
64. *STAURASTRUM FURCIGERUM* Bréb. (Smith (f)) (Irénée-Marie (f))
 (Nordstedt) (Prescott I)
 SO. CAROLINA Bailey, 1851 as Didymocladon furcigerum
 Ralfs; Wolle, 1884; Wood, 1874 - GEORGIA Frohne, 1942 -
 FLORIDA Bailey, 1851 as Didymocladon furcigerum; Wolle,
 1884; Wood, 1874 - KENTUCKY McInteer, 1939.
65. *STAURASTRUM FURCIGERUM* var. *ARMIGERUM* f. *GRACILLIMUM* G.M. Smith
 (Smith, 24 (f))
 GEORGIA Frohne, 1942.
66. *STAURASTRUM FURCIGERUM* f. *EUSTEPHANA* (Ehr.) Nordst. (Irénée-Marie
 (f)) (Nordstedt) (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer, 1939.
67. *STAURASTRUM GLADIOSUM* Turn. (Irénée-Marie (f)) (Nordstedt)
 (Prescott I)
 NO. CAROLINA Bold collection (UT record) @ SO. CAROLINA
 Frohne, 1939 - GEORGIA Frohne, 1939, 1942 - KENTUCKY
 McInteer, 1939.
68. *STAURASTRUM GRACILE* Ralfs (Irénée-Marie (f)) (Nordstedt)
 (Prescott I)
 SO. CAROLINA Bailey, 1851; Wolle, 1884; Wood, 1874 -
 GEORGIA Bailey, 1851; Wolle, 1884; Wood, 1874 - FLORIDA
 Bailey, 1851; Borge, 1909; Wolle, 1884; Wood, 1874; # F 10(GP)
 - TENNESSEE Eddy, 1930.
69. *STAURASTRUM GRACILE* var. *NANUM* Wille (Irénée-Marie (f)) (Nordstedt)
 (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA # F

4,7(GP) - KENTUCKY McInteer, 1939 - MISSISSIPPI Prescott

& Scott, 1942.

70. STAUSTRUM GRACILE var. TENNUISSIMA Boldt (Irénée-Marie (f))

(Nordstedt) (Prescott I)

FLORIDA # F 5(GP).

71. STAUSTRUM GRALLATORIUM Nordst. (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

MISSISSIPPI Prescott & Scott, 1942 - LOUISIANA Brown, 1930.

72. STAUSTRUM GRALLATORIUM var. FORCIPIGERUM Lagerh. (Irénée-Marie

(f)) (Nordstedt) (Prescott I)

FLORIDA Salisbury, 1936.

73. STAUSTRUM GRALLATORIUM var. QUADRATUM Irénée-Marie, 39 (f))

FLORIDA Whelden, 1941.

74. STAUSTRUM GRALLATORIUM var. UNGULATUM Wolle (Nordstedt)

FLORIDA Wolle, 1884.

75. STAUSTRUM GRANDE Bulnh. (Nordstedt) (Prescott I)

SO. CAROLINA Bold collection (UT record).

76. STAUSTRUM GRANDE var. PARVUM West (Irénée-Marie (f))

(Nordstedt) (Prescott I)

FLORIDA # F 9(GP).

77. STAUSTRUM GRANULOSUM (Ehr.) Ralfs. (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1944.

78. STAUSTRUM GYRANS Johns. (Nordstedt)

FLORIDA # F 10(GP) - MISSISSIPPI Prescott & Scott, 1942.

79. STAUSTRUM HEXACERUM (Ehr.) Wittr. (Irénée-Marie (f)) (Nordstedt)

Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - FLORIDA # F 7(GP).

80. *STAURASTRUM HIRSUTUM* (Ehr.) Bréb. (Nordstedt) (Prescott I)
 NO. CAROLINA Poteat, 1888; Whitford, 1943 - FLORIDA
 Bailey 1851; Wood, 1874 - ALABAMA Brown, 1930.
81. *STAURASTRUM HYSTRIX* Ralfs (Nordstedt) (Prescott I)
 FLORIDA Borge, 1909.
82. *STAURASTRUM HYSTRIX* var. *PANNONICUM* Groenb. (Prescott I)
 MISSISSIPPI Prescott & Scott, 1942.
83. *STAURASTRUM HYSTRIX* var. *RECURVATUM* Prescott & Scott (Prescott
 & Scott, 42(f))
 MISSISSIPPI Prescott & Scott, 1942.
84. *STAURASTRUM INCONSPICUUM* Nordst. (Nordstedt) (Prescott I)
 GEORGIA Frohne 1939, 1942 a form - FLORIDA Borge, 1909 -
 MISSISSIPPI Prescott & Scott, 1942.
85. *STAURASTRUM INCONSPICUUM* var. *CRASSUM* Gay (Prescott I)
 SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939.
86. *STAURASTRUM IOTANUM* Wille (*Irénée-Marie* (f)) (Nordstedt)
 (Prescott I)
 FLORIDA Whelden, 1941.
87. *STAURASTRUM IRREGULARE* West (Nordstedt) (Prescott I)
 FLORIDA West & West, 1898.
88. *STAURASTRUM KITCHELLI* Wille (Nordstedt) (Prescott I)
 FLORIDA West & West, 1898.
89. *STAURASTRUM LACUSTRE* G.M. Smith (*Irénée-Marie* (f)) (Prescott I)
 FLORIDA # F 9(GP).
90. *STAURASTRUM LANCEOLATUM* Arch. (Nordstedt) (Prescott I).
 VIRGINIA Lewis, Zirkle & Patrick, 1933.
91. *STAURASTRUM LEPTACANTHUM* Nordst. (*Irénée-Marie* (f)) (Nordstedt)
 (Prescott I)
 FLORIDA Borge, 1909 - MISSISSIPPI Prescott & Scott, 1942.

92. STAUSTRUM LEPTOCLADUM Nordst. (Irénée-Marie (f)) (Nordstedt)
(Prescott I)
FLORIDA Salisbury, 1936; Wille, 1884; # F 10(GP) - KENTUCKY McInteer, 1939 - MISSISSIPPI Prescott & Scott, 1942.
93. STAUSTRUM LEPTOCLADUM var. CORNUTUM Wille (Nordstedt) (Prescott I)
FLORIDA Borge, 1909.
94. STAUSTRUM LIMNETICUM var. CORNUTUM G. M. Smith (Smith (f))
(Prescott I)
NO. CAROLINA Whitford, 1943 - FLORIDA Salisbury, 1936.
95. STAUSTRUM LONGISPINUM (Bail.) Arch. (Nordstedt) (Prescott I)
FLORIDA Bailey, 1851 as Didymocladon longispinum Bail.;
Wille, 1884; Wood, 1874.
96. STAUSTRUM MACROCERUM Wille (Nordstedt)
FLORIDA West & West, 1898 - ALABAMA Brown, 1930 - MISSISSIPPI Brown, 1930.
97. STAUSTRUM MAGNUM Wille (Nordstedt)
FLORIDA Wille, 1892.
98. STAUSTRUM MAMILLATUM Nordst. (Nordstedt) (Prescott I)
FLORIDA Borge, 1909; Wille, 1892.
99. STAUSTRUM MANFELDTII Delp. (Irénée-Marie (f)) (Nordstedt)
(Prescott I)
KENTUCKY McInteer, 1939.
100. STAUSTRUM MARGARITACEUM Ehr. (Irénée-Marie (f)) (Nordstedt)
(Prescott I)
SO. CAROLINA Bailey, 1851; Wood, 1874 - GEORGIA Bailey, 1851; Wood, 1874 - FLORIDA Bailey, 1851; Wood, 1874.
Wille gives the species Rhode Island to Florida distribution.

101. STAUSTRUM MARGARITACEUM var. ROBUSTUM West & West (Nordstedt)
 Prescott I)
 NO. CAROLINA Whitford, 1943.
102. STAUSTRUM MEGACANTHUM Lund. (Irénée-Marie (f)) (Nordstedt)
 Prescott I)
 NO. CAROLINA Whitford, 1943.
103. STAUSTRUM MERIANI Reinsch (Irénée-Marie (f)) (Nordstedt)
 (Prescott I)
 NO. CAROLINA Bold # 83 (UT record) - KENTUCKY McInteer,
 1939.
104. STAUSTRUM MICRON W. West (Irénée-Marie (f)) (Nordstedt)
 (Prescott I)
 MISSISSIPPI Prescott & Scott, 1942.
105. STAUSTRUM MINNES^{OT}ENSE Wille (Irénée-Marie (f)) (Nordstedt)
 (Prescott I)
 FLORIDA Salisbury, 1936.
106. STAUSTRUM MONTICULOSUM Bréb. (Irénée-Marie (f)) (Nordstedt)
 Prescott I)
 NO. CAROLINA Whitford, 1943.
107. STAUSTRUM MUCRONATUM Ralfs (Nordstedt) (Prescott I)
 MISSISSIPPI Prescott & Scott, 1942.
108. STAUSTRUM MURICATUM Bréb. (Nordstedt) (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933.
109. STAUSTRUM MUTICUM Bréb. (Irénée-Marie (f)) (Nordstedt)
 (Prescott I)
 NO. CAROLINA Bold # 84 (UT record) - SO. CAROLINA Bailey,
 1851; Wood, 1874 - FLORIDA Whelden, 1941; # F 10(GP)
110. STAUSTRUM MUTICUM var. MINOR Wille (Nordstedt) (Prescott I)

FLORIDA Salisbury, 1936.

111. STAUSTRUM NATATOR West (~~Irene-Marie~~ (f)) (Nordstedt)
(Prescott I)

ALABAMA Brown, 1930.

112. STAUSTRUM NOVAE-CAESARIAE Wollé (Nordstedt)

FLORIDA Wollé, 1884.

113. STAUSTRUM NOVAE-TERRAE var. LONGIBRACHIATUM (Taylor) Prescott

& Scott (Prescott & Scott, 1942 (f))

MISSISSIPPI Prescott & Scott, 1942.

114. STAUSTRUM OPHIURA Lund. (~~Irene-Marie~~ (f)) (Nordstedt)
(Prescott I).

VIRGINIA Hutchinson & Pickford - NO. CAROLINA Whitford,

1943; Bold # 37 (UT record) - FLORIDA Salisbury, 1936; -

F 1,4,7(GP) - MISSISSIPPI Prescott & Scott, 1942.

115. STAUSTRUM OPHIURA var. CAMBRICUM (Lund.) West & West (Nordstedt)
(Prescott)

ALABAMA Brown, 1930.

116. STAUSTRUM OPHIURA var. MINUS Prescott & Scott (Prescott & Scott,
42 (f))

FLORIDA # F 5(GP) - MISSISSIPPI Prescott & Scott, 1942.

117. STAUSTRUM ORBICULARE Ralfs (~~Irene-Marie~~ (f)) (Nordstedt)
(Prescott I)

NO. CAROLINA Poteat, 1888; Whitford, 1943 - FLORIDA Borge, 1909.

118. STAUSTRUM ORBICULARE var. DEPRESSUM Roy & Biss. (Nordstedt)
(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer, 1944.

119. STAUSTRUM ORBICULARE var. EXTENSUM Nordst. (Nordstedt)
(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

120. STAUROSTRUM ORBICULARE var. HIBERNICUM W. West (Irénée-Marie
(f)) (Prescott I) ~~# F 4 (GP)~~
FLORIDA # F 4 (GP).
121. STAUROSTRUM ORBICULARE var. RALPHSII West & West (Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - KENTUCKY McInteer,
1939.
122. STAUROSTRUM ORNITHOPODUM West & West (Nordstedt) (Prescott I)
FLORIDA Salisbury, 1936.
123. STAUROSTRUM OXYCANTHUM Arch. (Nordstedt) (Prescott I)
ALABAMA Brown, 1930.
124. STAUROSTRUM PACHYRHYNCHUM Nordst. (Irénée-Marie (f)) (Nordstedt)
(Prescott I)
FLORIDA # F 9 (GP).
125. STAUROSTRUM PARADOXUM Meyen (Irénée-Marie (f)) (Nordstedt)
(Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA
Whitford, 1943; Bold # 87 (UT record) - FLORIDA Wolle, 1887;
F 9 (GP) - KENTUCKY McInteer, 1939 - TENNESSEE Bold collect-
ion (UT record) - MISSISSIPPI Prescott & Scott, 1942.
126. STAUROSTRUM PARADOXUM var. CINGULUM West & West (Nordstedt)
(Prescott I)
NO. CAROLINA Whitford, 1943.
127. STAUROSTRUM PARADOXUM var. OSCEOLENSE Wolle, (Nordstedt) (Prescott I)
FLORIDA Salisbury, 1936; Wolle, 1892.
128. STAUROSTRUM PARADOXUM var. PARVUM West. (Irénée-Marie (f))
(Nordstedt) (Prescott I)
NO. CAROLINA Whitford, 1943 - FLORIDA Whelden, 1941 -
KENTUCKY McInteer, 1939 - MISSISSIPPI Prescott & Scott, 1942.
129. STAUROSTRUM PENTACERUM (Wolle) G. M. Smith (Irénée-Marie (f))

(Prescott I)

129 MISSISSIPPI Prescott & Scott, 1942.

130. STAUSTRUM PENTACERUM var. TETRAEDERUM (Wolle) G. M. Smith

(Irénée-Marie (f)) (Prescott I)

FLORIDA Whelden, 1941; # F 10(GP).

131. STAUSTRUM PINNATUM Turn. (Nordstedt) (Prescott I)

FLORIDA Johnson, 1895.

132 STAUSTRUM PINNATUM var. REDUCTUM Krieg. (Prescott I)

LOUISIANA Prescott, 1942.

133. STAUSTRUM PINNATUM var. SUBPINNATUM (Schm.) West (Nordstedt)

(Prescott I)

FLORIDA Borge, 1909.

134. STAUSTRUM POLYMORPHUM Bréb. (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

FLORIDA Bailey, 1851; Wood, 1874 - KENTUCKY McInteer, 1939,

1944 - MISSISSIPPI Prescott & Scott, 1942.

135. STAUSTRUM POLYMORPHUM var. SIMPLEX West & West (Nordstedt)

(Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

136. STAUSTRUM PROBOSCIDEUM (Bréb.) Arch. (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1944.

137. STAUSTRUM PROTECTUM var. PLANCTONICUM G. M. Smith (Irénée-

Marie (f)) (Prescott I)

KENTUCKY McInteer, 1939.

138. STAUSTRUM PSEUDOSEBALDI Wille (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

MISSISSIPPI Brown, 1930.

139. STAUSTRUM PSEUDOTETRACERUM (Nordst.) West & West (Nordstedt)

(Prescott I)

FLORIDA Borge, 1909 - KENTUCKY McInteer, 1939 - MISSISSIPPI

Prescott & Scott, 1942.

140. STAUSTRUM PUNCTATUM Bréb. (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

KENTUCKY McInteer, 1939.

141. STAUSTRUM PUNCTULATUM var. PYGMAEUM (Bréb.) West & West

(Irénée-Marie (f)) (Nordstedt) (Prescott I)

LOUISIANA Brown, 1930.

The three following forms of Staustrum pygmaeum Bréb. were reported from North Carolina by Poteat 1888, and noted by Whitford, 1943. Since West & West, 1912, placed the species as a variety of S. punctulatum, but made no mention of these particular forms their present disposition is unknown to the writer.

Staustrum pygmaeum f. genuina Bréb.

Staustrum pygmaeum f. truncata Wolle

Staustrum pygmaeum f. rhomboides Wolle

142. STAUSTRUM PYRAMIDATUM West (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

FLORIDA # F 1(GP)

143. STAUSTRUM QUADRANGULARE Bréb. (Nordstedt) (Prescott I)

FLORIDA Wolle, 1892 - KENTUCKY McInteer, 1939.

144. STAUSTRUM QUADRANGULARE var. ARMATUM West & West (Irénée-

Marie (f)) (Nordstedt) (Prescott I)

FLORIDA Borge, 1909; Salisbury, 1936.

145. Staustrum quadricuspidatum Turn.

see STAUSTRUM QUADRISPINATUM Turn.

This was a missprint.

146. STAUSTRUM QUADRISPINATUM Turn. (Nordstedt) (Prescott I)
 NO. CAROLINA Whitford, 1943 as S. quadricuspidatum Turn. -
 GEORGIA Frohne, 1942 - FLORIDA Borge, 1909; Salisbury, 1936.
147. STAUSTRUM RADIANS West & West (Nordstedt) (Prescott I)
 FLORIDA Salisbury, 1936; West & West, 1898.
148. STAUSTRUM RADIANS var. EXTENSUM West & West (Nordstedt)
 (Prescott I)
 FLORIDA West & West, 1898.
149. STAUSTRUM RAVENELII Wood (Irénée-Marie (f)) (Nordstedt)
 (Prescott I)
 NO. CAROLINA West & West, 1898 - SO. CAROLINA Wolle, 1884;
 Wood, 1874.
150. STAUSTRUM RECTANGULARE var. QUADRICORNUTUM Prescott & Scott
 (Prescott & Scott, 42 (f))
 MISSISSIPPI Prescott & Scott, 1942 - LOUISIANA Prescott, 1942.
- 151 STAUSTRUM REINSCHII Roy (Nordstedt)
 FLORIDA Johnson, 1895.
152. STAUSTRUM ROTULA Nordst. (Irénée-Marie (f)) (Nordstedt)
 (Prescott I)
 FLORIDA Borge, 1909; Salisbury, 1936; Wolle, 1892 -
 MISSISSIPPI Prescott & Scott, 1942.
153. STAUSTRUM SAXONICUM Bulnh. (Nordstedt) (Prescott I)
 VIRGINIA Lewis, Zirkle & Patrick, 1933.
154. STAUSTRUM SETIGERUM Cleve (Irénée-Marie (f)) (Nordstedt)
 (Prescott I)
 NO. CAROLINA Whitford, 1943 - GEORGIA Frohne, 1939 -
 FLORIDA Brown, 1930; Salisbury, 1936; Wolle, 1884 -

MISSISSIPPI Prescott & Scott, 1942.

155. STAUSTRUM SEXANGULARE (Bulnh.) Lund. (Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933.

156. STAUSTRUM SILATUM Nordst. (Nordstedt)

FLORIDA Wollé, 1892.

157. STAUSTRUM SIMONYI Heimer. (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

KENTUCKY McInteer, 1939.

158. STAUSTRUM SPICULIFERUM G.M. Smith (Prescott I)

NO. CAROLINA Whitford, 1943 - FLORIDA Salisbury, 1936.

159. STAUSTRUM SPONGIOSUM Bréb. (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA

Poteat, 1888; Whitford, 1943 - FLORIDA Salisbury, 1936 -

KENTUCKY McInteer, 1944.

160. STAUSTRUM SPONGIOSUM var. GRIFFITHSIANUM (Naeg.) Lagerh.

(Nordstedt) (Prescott I).

VIRGINIA Lewis, Zirkle & Patrick, 1933.

161. STAUSTRUM STRIOLATUM (Naeg.) Arch. (Nordstedt) (Prescott I)

SO. CAROLINA Wollé, 1892 - KENTUCKY McInteer, 1939.

162. STAUSTRUM SUBGRACILLIMUM West & West (Nordstedt) (Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

163. STAUSTRUM SUBGRANDE var. MINOR G. M. Smith (Prescott I)

GEORGIA Frohne, 1939.

164. STAUSTRUM SUBORBICULARE West & West (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

165. STAUSTRUM TELIFERUM Ralfs. (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

KENTUCKY McInteer, 1944 - MISSISSIPPI Prescott & Scott, 1942.

166. STAUSTRUM TENNUISSIMUM West & West (Nordstedt) (Prescott I)

FLORIDA West & West, 1898.

167. STAUSTRUM TETRACERUM Ralfs (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939 - FLORIDA

Whelden, 1941 - KENTUCKY McInteer, 1939 - MISSISSIPPI

Brown, 1930; Prescott & Scott, 1942.

168. STAUSTRUM TOHOPEKALIGENSE Wollé (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

FLORIDA Wollé, 1887 - MISSISSIPPI Prescott & Scott, 1942 - a

form.

169. STAUSTRUM TOHOPEKALIGENSE var. BREVISPINUM G. M. Smith

(Prescott I)

NO. CAROLINA Whitford, 1943 - FLORIDA Salisbury, 1936.

170. STAUSTRUM TRICORNE (Bréb.) Menegh. (Nordstedt) (Prescott I)

GEORGIA Wood, 1874 - FLORIDA Bailey, 1851; Wood, 1874.

171. STAUSTRUM TRIFIDUM var. INFLEXUM West & West (Nordstedt)

FLORIDA Borge, 1909; Salisbury, 1936.

172. STAUSTRUM TRIHEDRALE Wollé (Nordstedt)

FLORIDA Borge, 1909; Johnson, 1895 - LOUISIANA Prescott, 1942.

Prescott, 1942 observes that some forms are intermediate between the species and the following variety, the margins being convex, as described for the variety, but the length-width ratio that given for the species.

173. STAUSTRUM TRIHEDRALE var. RHOMBOIDEUM West & West (Nordstedt)

MISSISSIPPI Prescott & Scott, 1942.

174. STAUSTRUM TUMIDUM Bréb. (Irénée-Marie (f)) (Nordstedt)

FLORIDA Wolle, 1879.

NO. CAROLINA Bold collection (UT record) - KENTUCKY

McInteer, 1939.

176. STAUSTRUM VESTITUM Ralfs (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Whitford, 1943 - FLORIDA Salisbury, 1936 -

KENTUCKY McInteer, 1939 - ALABAMA Brown, 1930.

177. STAUSTRUM VESTITUM var. SEMIVESTITUM W. West (Nordstedt)

(Prescott I)

FLORIDA Salisbury, 1936.

178. STAUSTRUM WOLLEANUM var. KISSIMMENSE Wolle (Nordstedt)

(Prescott I)

FLORIDA Borge, 1909; Wolle, 1887.

179. STAUSTRUM WOLLEANUM var. INTERMEDIUM West & West (Nordstedt)

(Prescott I)

FLORIDA Salisbury, 1936.

180. STAUSTRUM ZONATUM Boerg. (Nordstedt) (Prescott I)

FLORIDA Borge. 1909.

TETMEMORUS Ralfs 1844

1. TETMEMORUS BREBISSEI (Menegh.) Ralfs (Smith (f)) (Irénée-Marie

(f)) (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Bailey, 1851;

Frohne, 1939 - GEORGIA Frohne, 1939 - FLORIDA Bailey, 1851;

Borge, 1909; Salisbury, 1936; Wolle, 1879; # F 5(GP) -

KENTUCKY McInteer, 1939 - MISSISSIPPI Prescott & Scott, 1942.

2. TETMEMORUS BREBISSEI var. MINOR De Bary (Irénée-Marie (f))

(Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 with the variety author as (Menegh.)

Ralfs - SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939,
1942 - FLORIDA # F 4,10(GP)

3. TETMEMORUS GRANULATUS (Bréb.) Ralfs (Smith) (Irénée-Marie (f))
(Nordstedt) (Prescott I)

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Bold
53 (UT record) - SO. CAROLINA Bailey, 1851; Wood, 1874 -
FLORIDA Whelden, 1941.

4. TETMEMORUS GRANULATUS var. ATTENUATUS (Ralfs) West (Nordstedt)
(Prescott I)

MISSISSIPPI Brown, 1930.

- LAEVIS**
5. TETMEMORUS (Kuetz.) Ralfs (Irénée-Marie (f)) (Nordstedt)

PRESCOTT I)

NO. CAROLINA Whitford, 1943; Bold # 37 (UT record) - GEORGIA
Frohne, 1942 - FLORIDA Whelden, 1941; # F 10(GP).

6. TETMEMORUS LAEVIS var. MINUTUS (DeBary) Krieg. (Prescott I) (Nordstedt
as Tetmemorus minutus DeBary)

FLORIDA Wolle, 1884 as T. minutus - MISSISSIPPI Prescott &
Scott, 1942.

TRIPLOCERAS Bailey, 1851

1. TRIPLOCERAS GRACILE Bail. 1851 (Irénée-Marie (f)) (Nordstedt)

(Prescott I) Frohne, 1939; Wood, 1874 - FLORIDA Bailey, 1851;
Borge, 1909; Salisbury, 1939; Wood, 1874; # F 9,10(GP) - MISSISSIPPI
Brown, 1930; Prescott & Scott, 1942.

2. TRIPLOCERAS VERTICILLATUM Bail. (Irénée-Marie (f)) (Nordstedt)
(Prescott I)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Frohne, 1939 -
GEORGIA Bailey, 1851; Frohne, 1942; Wood, 1874 - FLORIDA
Bailey, 1851; Borge, 1851; Salisbury, 1936; Wolle, 1884

Maine to; Wood, 1874; # F 1(GP) - MISSISSIPPI Brown, 1930;
Prescott & Scott, 1942.

XANTHIDIUM Ehrenberg 1837

1. XANTHIDIUM ACULEATUM Ehr. (Nordstedt) (Prescott I)
SO. CAROLINA Wolle 1884 - GEORGIA Bailey, 1851; Wolle, 1884;
Wood, 1874 - FLORIDA Brown, 1930; Wolle, 1884.
2. XANTHIDIUM ANTILOPAEUM (Bréb.) Kuetz. (~~Irene-Marie~~ (f)) (Nordstedt)
(Prescott I)
VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Whitford,
1943; Bold collection (UT record) - SO. CAROLINA Frohne, 1939 -
GEORGIA Frohne, 1939, 1942 - FLORIDA Borge, 1909; Salisbury,
1936 - KENTUCKY McInteer, 1939, 1944 - MISSISSIPPI Brown, 1930;
Prescott & Scott, 1942.
3. XANTHIDIUM ANTILOPAEUM var. CRAMERI Groen. (Prescott I)
MISSISSIPPI Prescott & Scott, 1942.
4. XANTHIDIUM ANTILOPAEUM var. DEPAUPERATUM West & West (Nordstedt)
(Prescott I)
FLORIDA Brown, 1930.
5. XANTHIDIUM ANTILOPAEUM var. HEBRIDARUM West & West (Nordstedt)
(Prescott I)
KENTUCKY McInteer, 1939;
6. XANTHIDIUM ANTILOPAEUM var. LAEVE (Bréb.) Kuetz. (Nordstedt)
(Prescott I)
(NO. CAROLINA Whitford, 1943.
7. XANTHIDIUM ANTILOPAEUM var. MINNEAPOLINSE^E_A Wolle (Nordstedt)
(Prescott I)
NO. CAROLINA Whitford, 1943; Bold collection (UT record) -
SO. CAROLINA Frohne, 1939 - GEORGIA Frohne, 1939, 1944 -

FLORIDA Borge, 1909 f. a. (Johnson); Salisbury, 1936; West & West, 1898 - KENTUCKY McInteer, 1939, 1944.

8. *XANTHIDIUM ANTILOPAEUM* var. *POLYMA~~UM~~* Nordst. (Nordstedt)

(Prescott I)

NO. CAROLINA Bold collection (UT record) - SO. CAROLINA

Frohne, 1939 - GEORGIA Frohne, 1939 - FLORIDA Borge, 1909;

Salisbury, 1936; # F 9,10(GP) - KENTUCKY McInteer, 1939, 1944.

9. *XANTHIDIUM ANTILOPAEUM* var. *TRIQUETRUM* Lund. (Nordstedt) (Prescott I)

FLORIDA Salisbury, 1936.

10. *XANTHIDIUM ANTILOPAEUM* var. *TRIQUETRUM* Lund. (Nordstedt) (Prescott I)

FLORIDA Salisbury, 1936.

11. *XANTHIDIUM ARMATUM* (Bréb.) Rabenh. (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

NO. CAROLINA Bold # 104 (UT) (CM) - SO. CAROLINA Bailey, 1851;

Brown, 1930; Wood, 1874 - FLORIDA Bailey, 1851; Brown, 1930;

Wood, 1874 - MISSISSIPPI Prescott & Scott, 1942.

12. *XANTHIDIUM ARMATUM* var. *CERVICORNE* West & West (Nordstedt)

FLORIDA Salisbury, 1936; West & West, 1898.

13. *XANTHIDIUM ARMATUM* var. *MEDIOLAEVE* G. M. Smith (Irénée-Marie (f))

(Prescott I)

FLORIDA # F 10(GP).

14. *XANTHIDIUM ROBINSONIANUM* var. *PARVULUM* Skuja (Prescott I)

FLORIDA # F 10(GP).

15. *XANTHIDIUM CONCINNUM* var. *BOLDTIANA* West (Nordstedt) (Prescott I)

FLORIDA Johnson, 1895 - McInteer, 1939.

16. *XANTHIDIUM CONTROVERSUM* West & West (Nordstedt) (Prescott I)

KENTUCKY McInteer, 1939.

17. *XANTHIDIUM CRISTATUM* Bréb. (Irénée-Marie (f)) (Nordstedt)

SO. CAROLINA Bailey, 1851; Frohne, 1939; Wille 1884 -
 GEORGIA Bailey, 1851; Frohne, 1939, 1942; Lagerheim, 1885;
 Wille, 1884 - FLORIDA Bailey, 1851; Borge, 1909; Salisbury,
 1936; Wille, 1879; # F 4(GP) KENTUCKY McInteer, 1939 -
 MISSISSIPPI Brown, 1930.

Wood, 1874, gives the South Atlantic States as the
 species distribution.

18. *XANTHIDIUM CRISTATUM* var. *LEIODERMUM* (Roy & Biss.) Turn. (Nordstedt)
 (Prescott I)

MISSISSIPPI Brown, 1930.

19. *XANTHIDIUM CRISTATUM* var. *UNCINATUM* Bréb. (Irénée-Marie (f))
 (Nordstedt) (Prescott I)

NO. CAROLINA Whitford, 1943 - GEORGIA Frohne, 1939 - MISS-
 ISSIPPI Prescott & Scott, 1942.

20. *XANTHIDIUM FASCICULATUM* Ehr. (Nordstedt) (Prescott I)

SO. CAROLINA Bailey, 1851; Wood, 1874 - GEORGIA Bailey,
 1851; Wood, 1874 - FLORIDA Bailey, 1851; Wood, 1874.

21. *XANTHIDIUM FASCICULATUM* var. *HEXAGONUM* Wille (Nordstedt)

NO. CAROLINA Poteat, 1888; Whitford, 1943.

Nordstedt questions this as a form of *X. antilopaeum*
 (Bréb.) Kuetz.

22. *XANTHIDIUM OCTOCORNE* Ralfs (Nordstedt) (Prescott I)

FLORIDA Bailey, 1851.

23. *XANTHIDIUM PSEUDOBENGALICUM* Groenb. (Irénée-Marie (f)) Prescott I)

FLORIDA # F 10(GP).

24. *XANTHIDIUM SMITHII* var. *VARIABILIS* Nordst. (Nordstedt) (Prescott I)

MISSISSIPPI Prescott & Scott, 1942.

25. *XANTHIDIUM SUBHASTIFERUM* W. West (Irénée-Marie (f)) (Nordstedt)

(Prescott I)

FLORIDA Salisbury, 1936 - KENTUCKY McInteer, 1939.

26. XANTHIDIUM TETRACENTROTUM Wolle (Nordstedt)(Prescott I)

ALABAMA Brown, 1930.

27. XANTHIDIUM TORREYII West & West (Nordstedt) (Prescott I)

FLORIDA West & West, 1898.

ORDER 14 Charales

FAMILY 1 Characeae

CHARA Linneaus 1754.

1. CHARA FRAGILIS Desv. (Prescott (f))

FLORIDA Whelden, 1941 - ALABAMA Mohr, 1901.

2. CHARA GYMNOFUS A. Braun (Dailey, 44 (f)) (Allen)

VIRGINIA Diegman # 701(CM).

3. CHARA GYMNOFUS var. HUMBOLDTII A. Braun (Allen)

ALABAMA Mohr, 1901.

Mohr gives LOUISIANA to the Northeast as the species distribution.

NITELLA Agardh 1824

1. NITELLA ACUMINATA A. Braun

ALABAMA Mohr, 1901.

The writer has been unable to find another reference to this species, but it is probably good since a variety is treated by Dailey, 1944.

2. NITELLA ACUMINATA var. BRACHYTELES A. Braun

ALABAMA Mohr, 1901.

See the note under N. acuminata.

3. NITELLA FLEXILIS Agardh (Prescott (f))(Migula (f))

Phylum EUGLENOPHYTA

Class EUGLENOPHYCEAE

ORDER 1 EuglenalesFAMILY 1 Euglenaceae

CRYPTOGLENA Ehrenberg 1831

1. CRYPTOGLENA PIGRA Ehr. (Smith (f))

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

EUGLENA Ehrenberg 1838

1. EUGLENA ACUS Ehr. (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Metcalf, 1947 -

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

2. EUGLENA ^UACTISSIMA Lemm. (Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943.

3. EUGLENA CAUDATA Hueb. (Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943.

4. EUGLENA DESES Ehr. (Prescott (f))(Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Bold

collection (UT record) - KENTUCKY Brinley & Katzin, 1942 -

TENNESSEE Lackey, 1942; Bold collection (UT record).

5. EUGLENA ^NEHREBERGII Klebs (Prescott (f))(Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY Brinley & Katzin,

1942 - TENNESSEE Lackey, 1942.

6. EUGLENA FUSCA Klebs (Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY Brinley &

Katzin, 1942 - TENNESSEE Lackey, 1942.

7. EUGLENA GRACILIS Klebs (Smith)(Prescott (f))(Pascher & Lemmermann (f))

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Bold

collection (UT record).

8. *EUGLENA INTERMEDIA* (Klebs) Schmitz (Smith (f))(Prescott (f))

NO. CAROLINA Whitford, 1943.

9. *EUGLENA LIMBOSA* Gard. (Fritsch I)

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

10. *EUGLENA OXYURIS* Schmarda (Pascher & Lemmermann (f))(Fritsch I (f))

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Metcalf, 1947 -

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

11. *EUGLENA PISCIFORMIS* Klebs (Pascher & Lemmermann (f))

(Fritsch I (f))

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

12. *EUGLENA PLEURONECTES* (O.F.M.) Duj. (Fritsch I (f))

VIRGINIA Meyer, 1940 - SO. CAROLINA Bailey, 1851 -

GEORGIA Bailey, 1851 - FLORIDA, 1851.

The Bailey references have Ehrenberg as author.

13. *EUGLENA POLYMORPHA* Dang. (Prescott (f))(Fritsch I (f))

NO. CAROLINA Bold # 49(UT record) - KENTUCKY Brinley

& Katzin, 1942 - TENNESSEE Lackey, 1942.

14. *EUGLENA PROXIMA* Dang. (Prescott (f))

NO. CAROLINA Whitford, 1943.

15. *EUGLENA RUBRA* Hardy (Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943.

16. *EUGLENA SANGUINEA* Ehr. (Prescott (f))(Pascher & Lemmermann
KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.
(f))(Fritsch I (f))

17. *EUGLENA SCIOTENSIS* Lackey (Lackey, 39(f))

TENNESSEE Lackey, 1942.

18. *EUGLENA SPIROGYRA* Ehr. (Prescott (f))(Fritsch I (f))

NO. CAROLINA Whitford, 1943; Bold collection (UT record) - SO. CAROLINA Metcalf, 1947, Bold # 69a (UT record) - KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

19. EUGLENA SPLENDENS Dang. (Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943 - TENNESSEE Bold collection (UT record).

20. EUGLENA TORTA Stokes (Pascher & Lemmermann (f))

KENTUCKY Brinley & Katzin, 1942.

21. EUGLENA TRIPTERIS (Duj.) Klebs (Prescott (f))(Pascher & Lemmermann (f))(Fritsch I (f))

NO. CAROLINA Cunningham & Hearne, 1924; Whitford, 1943 - TENNESSEE Bold collection (UT record).

22. EUGLENA TRUNCATA Walton (Walton, 15(f))

KENTUCKY Brinley & Katzin, 1942.

23. EUGLENA VARIABILIS Klebs (Pascher & Lemmermann (f))

KENTUCKY Brinley & Katzin, 1942.

24. EUGLENA VELATA Klebs (Pascher & Lemmermann (f))

TENNESSEE Lackey, 1942.

25. EUGLENA VIRIDIS Ehr. (Pascher & Lemmermann (f))

(Fritsch I)

NO. CAROLINA Whitford, 1943 - SO. CAROLINA Bailey, 1851; Metcalf, 1947 - GEORGIA Bailey, 1851 - FLORIDA Bailey, 1851 - KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Eddy, 1930; Lackey, 1940, 1942.

EUTREPTIA Perty 1852

1. EUTREPTIA VIRIDIS Perty (Smith (f))

NO. CAROLINA Whitford, 1943.

LEPOCINCLIS Perty 1849

1. LEPOCINCLIS OVUM (Ehr.) Lemm. (Smith)(Prescott (f))
(Pascher & Lemmermann (f))
KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.
2. LEPOCINCLIS TEXA^T_X (Duj.) Lemm. (Smith)(Pascher & Lemmermann
(f))
NO. CAROLINA Whitford, 1943 - KENTUCKY Brinley &
Katzin, 1942 - TENNESSEE Lackey, 1942.

PHACUS Dujardin 1841

1. PHACUS ACUMINATUS Stokes (Smith (f))(Prescott (f))
KENTUCKY Brinley & Katzin, 1942.
2. PHACUS ANACOELUS Stokes (Prescott (f))
TENNESSEE Lackey, 1942.
3. Phacus brevicaud^a_{us} Klebs
see PHACUS BREVICAUDATUS (Klebs.) Lemm.
4. PHACUS BREVICAUDATUS (Klebs.) Lemm.
TENNESSEE Lackey, 1942 - LOUISIANA Prescott, 1942
both as P. brevicauda Klebs.
5. PHACUS CAUDATUS Hueb. (Prescott (f))
VIRGINIA Meyer, 1940 - TENNESSEE Bold collection
(UT record).
6. PHACUS LONGICAUDUS (Ehr.) Duj. (Smith)(Prescott (f))
(Pascher & Lemmermann (f))
VIRGINIA Meyer, 1940 - NO. CAROLINA Whitford, 1943;
Bold collection (UT record) - KENTUCKY Brinley &
Katzin, 1939 - TENNESSEE Lackey, 1942; Bold collection
(UT record).
9. PHACUS LONGICAUDUS var. TORTA Lemm. (Pascher & Lemmermann)

NO. CAROLINA Whitford, 1943.

8. PHACUS ORBICULARIS Hueb. (Prescott (f))(Pascher & Lemmermann (f))
KENTUCKY Brinley & Katzin - TENNESSEE Bold collection (UT record).
9. PHACUS PLEURONECTES (O.F.M.) Duj. (Smith)(Prescott (f))
(Pascher & Lemmermann (f))
VIRGINIA Meyer, 1940 - SO. CAROLINA Metcalf, 1947 -
FLORIDA Brannon # 289(CM) - KENTUCKY Brinley & Katzin,
1942 - TENNESSEE Lackey, 1942; Bold collection (UT record); Silva # 687(UT)(CM).
10. PHACUS PYRUM (Ehr.) Stein (Smith)(Prescott (f))
(Pascher & Lemmermann (f))
VIRGINIA Meyer, 1940 - SO. CAROLINA Metcalf, 1947 -
KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.
11. PHACUS TRIQUETER (Ehr.) Duj. (Prescott)(Pascher & Lemmermann (f))
VIRGINIA Meyer, 1940 - NO. CAROLINA Whitford, 1943 -
KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.
12. PHACUS SUECICUS Lemm. (Pascher & Lemmermann (f))
NO. CAROLINA Whitford, 1943.

TRACHELOMONAS Ehrenberg 1833

1. TRACHELOMONAS ABRUPTA var. MINOR Deflandre (Deflandre, 26(f))
NO. CAROLINA Whitford, 1943.
2. TRACHELOMONAS ACANTHOSTOMA (Stokes) Deflandre (Prescott (f))
(Pascher & Lemmermann (f))
NO. CAROLINA Whitford, 1943.
3. TRACHELOMONAS ARMATA (Ehr.) Stein (Prescott (f))
KENTUCKY Brinley & Katzin, 1942.

4. TRACHELOMONAS ARMATA var. SPINOSA Whitford (Whitford, 43(f))
NO. CAROLINA Whitford, 1943.
5. TRACHELOMONAS ARMATA var. STEINII Lemm. (Prescott (f))
(Pascher & Lemmermann (f))
NO. CAROLINA Whitford, 1943.
6. TRACHELOMONAS CHARKOWIENSIS var. AFFINIS (Skv.) Deflandre
(Deflandre, 27(f))
NO. CAROLINA Whitford, 1943.
7. TRACHELOMONAS CREBEA Kelli. (Prescott)(Pascher & Lemmermann (f))
KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey,
1940, 1942.
8. TRACHELOMONAS CYLINDRICA Ehr. (Prescott (f))
TENNESSEE Lackey, 1942.
9. TRACHELOMONAS ENSIFERA (Daday) Deflandre. (Pascher &
Lemmermann (f))
NO. CAROLINA Whitford, 1943.
10. TRACHELOMONAS EUCHLORA (Ehr.) Lemm. (Prescott (f)) (Pascher
& Lemmermann (f))
NO. CAROLINA Whitford, 1943 - KENTUCKY Brinley &
Katzin, 1942.
11. TRACHELOMONAS EURYSTOMA Stein (Pascher & Lemmermann (f))
TENNESSEE Lackey, 1942.
12. TRACHELOMONAS HISPIDA (Perty) Stein (Prescott (f)) (Pascher
& Lemmermann (f))
NO. CAROLINA Whitford, 1943 - KENTUCKY Brinley & Katzin,
1942 - TENNESSEE Lackey, 1942.
13. TRACHELOMONAS HISPIDA var. CRENUIATOCOLLIS (Marsh.) Skv.
(Pascher & Lemmermann (f) with species authorship (Marsh.))

Lemm.) (a form is in Prescott)

NO. CAROLINA Whitford, 1943.

14. TRACHELOMONAS HISPIDA var. DUPLEX Deflandre (Deflandre, 27(f))

NO. CAROLINA Whitford, 1943.

15. TRACHELOMONAS HORRIDA Palmer (Prescott (f))(Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943.

16. TRACHELOMONAS ^NLEMMERMAN_AII var. ACUMINATA Deflandre (Deflandre, 26(f))

NO. CAROLINA Whitford, 1943.

17. TRACHELONOS LOLIENSIS Whitford (Whitford, 36(f))

NO. CAROLINA Whitford, 1936, 1943 - MISSISSIPPI Whitford, 1943.

18. Trachelomonas punctata

TENNESSEE Lackey, 1942.

The writer can only hazard a guess as to what was intended in this case. There is a remote chance that it was T. peridiniiformis var. punctata Skv.

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1940, 1942.

20. TRACHELOMONAS VOLVOGINA Ehr. (Prescott (f)) (Pascher & Lemmermann (f))

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1940, 1944.

FAMILY 2 Astasiaceae

ASTASIA Ehrenberg 1830 emend. Stein 1878

1. ASTASIA KLEBSII Lemm. (Fritsch I (f))

NO. CAROLINA Whitford, 1943.

The genus has also been reported from Kentucky
by Brinley & Katzin, 1942.

DISTIGMA Ehrenberg 1832

1. DISTIGMA PROTEUS Ehr. (Smith (f))

KENTUCKY Brinley & Katzin, 1942.

^I
MENODINIUM Perty 1852

1. ^IMENODINIUM INCURVUM (Fres.) Klebs (Smith (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY Brinley &
Katzin, 1942.

RHAEDOMONAS Fresenius 1858

1. RHAEDOMONAS COSTATA (Korshik.) E. G. Pringsheim

NO. CAROLINA Whitford, 1943.

FAMILY 3 Colaciaceae

COLACIUM Ehrenberg 1833

1. COLACIUM VESICULOSUM Ehr. (Smith) (Prescott (f))

NO. CAROLINA Whitford, 1943.

FAMILY 4 Peranemaceae

JENNINGSIA Schaeffer 1918

1. JENNINGSIA DIATOMOPHAGA Schaeff. (Smith (f))

TENNESSEE Smith, 1933; Schaeffer, 1918.

PERANEMA Dujardin 1841

1. PERANEMA TRICHOPHORUM (Ehr.) Stein. (Smith (f)) (Pascher
& Lemmermann (f))

NO. CAROLINA Whitford, 1943 - TENNESSEE Lackey, 1942.

The genus also has been reported from South Carolina
by Metcalf, 1947, and from Kentucky by Brinley &
Katzin, 1942.

PETALOMONAS Stein 1859

1. PETALOMONAS CARINATA France (Pascher & Lemmermann (f))

KENTUCKY Brinley & Katzin, 1942.

2. PETALOMONAS MEDIOCANELLATA Stein (Smith) (Pascher & Lemmermann (f))

KENTUCKY Brinley & Katzin, 1942.

Phylum PYRROPHYTA

Class CRYPTOPHYCEAE

ORDER 1 CryptomonadalesFAMILY 1 Cryptomonadaceae

CHILOMONAS Ehrenberg 1838

1. CHILOMONAS PARAMAECIUM Ehr. (Pascher & Lemmermann (f))

(Fritsch I)

NO. CAROLINA Whitford, 1943 - KENTUCKY Brinley &
Katzin, 1942.

CHROOMONAS Hansgrig 1885

The genus has been reported from Kentucky by Brinley
& Katzin, 1942, and Tennessee by Lackey, 1942.

CRYPTOCHRYISIS Pascher 1911

The genus has been reported from Tennessee by
Lackey, 1942.

CRYPTOMONAS Ehrenberg

1. CRYPTOMONAS EROSA Ehr. (Prescott) (Pascher & Lemmermann (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY Brinley & Katzin,
1942 - TENNESSEE Lackey, 1942.

2. CRYPTOMONAS OVATA Ehr. (Pascher & Lemmermann (f)) (Fritsch I (f))

NO. CAROLINA Whitford, 1943 - KENTUCKY Brinley & Katzin,
1942 - TENNESSEE Lackey, 1942.

MESOSTIGMA Korshikoff 1923.

The writer follows Fritsch in placing this genus
in the Cryptomonadaceae, whereas Korshikoff placed it in
the Protochlorinae, allied to the Volvocales.

1. MESOSTIGMA GRANDE Korsh. (Korshikoff, 1938(f))

KENTUCKY Brinley & Katzin, 1942.

2. MESOSTIGMA VIRIDE Lauterborn (Pascher, 27(f))

KENTUCKY Brinley & Katzin, 1942.

RHODOMONAS Karsten 1898

1. RHODOMONAS LACUSTRIS Pasch. & Rutt. (Pascher & Lemmermann (f))

KENTUCKY Brinley & Katzin, 1942 - TENNESSEE Lackey, 1942.

FAMILY 2 Nephroselmidaceae

NEPHROSELMIS Stein 1878

The genus only is reported by Lackey, 1942 from Tennessee, although only one species, Nephroselmis olivaceae Stein has been described. Pascher and Fritsch both figure the species, Fritsch remarking that it is slightly doubtful to whether or not Pascher's figure actually represented Stein's species. His own figure is the same as Pascher's.

Class Dinophyceae

Group Dinokontae (Dinoflagellata)

ORDER 1 GymmodinialesFAMILY 1 Gymonodiaceaeⁿⁱ

GYMONODINIUM Stein 1883 emend. Kofoed & Swezy 1921.

1. Gymmodinium gracilis

TENNESSEE Lackey, 1942.

The writer has been unable to find further reference to this name.

2. GYMNODINIUM LIMNETICUM Lackey (Lackey, 36(f))

TENNESSEE Lackey, 1936

This is the only report.

The writer has also observed the genus from Florida material and has no doubt but that it is found in every region.

HEMIDINIUM Stein 1883

The genus was recorded by Bold from North Carolina in his collection #323.

ORDER 2 PeridinialesFAMILY 1 Glenodiniaceae

GLENODINIUM Stein 1883

1. GLENODINIUM GYMNOINIUM Pennard (Prescott (f))

TENNESSEE Eddy, 1930.

The genus has also been reported from North Carolina by Whitford, 1943, and the writer has observed it in Florida material.

FAMILY 2 Gonyaulaceae^{ac}

GONYAULAX Diesing 1866 emend. Kofoid 1911

The genus was recorded by Bold from North Carolina in his collection #397.

FAMILY 3 Ceratiaceae

CERATIUM Schrank 1793

1. CERATIUM CAROLINIANUM (Bail.) Jorgenson (Prescott (f)) (Schilling

and others C. curvirostre Huitf. - Kass (f))

NO. CAROLINA Whitford, 1943 with the species authorship as (Bail.) Whitford - SO. CAROLINA Bailey, 1851 - GEORGIA Bailey, 1851 - FLORIDA Bailey, 1851; #F 1(GP).

The Bailey reports are as Peridinium carolinianum Bail.

2. CERATIUM HIRUNDINELLA (O.F.M.) Schrank (Smith (f)) (Prescott (f))

NO. CAROLINA Whitford, 1943 - TENNESSEE Eddy, 1930.

3. CERATIUM HIRUNDINELLA f. PILBURGENSE Zeder. (Schilling)

NO. CAROLINA Whitford, 1943.

FAMILY 4 Peridiniaceae

PERIDINIUM Ehrenberg 1830 emend. Stein 1883

1. *Peridinium carolinianum* Bail.
 see CERATIUM CAROLINIANUM (Bail.) Jorgenson
2. PERIDINIUM CINCTUM Ehr. (Prescott (f)) (Schilling (f))
 NO. CAROLINA Whitford, 1943 - SO. CAROLINA Bailey, 1851
 - GEORGIA Bailey, 1851 - FLORIDA Bailey, 1851 - TENNESSEE
 Eddy, 1930.
3. PERIDINIUM QUADRIDENS Stein (Prescott) (Schilling (f))
 TENNESSEE Lackey, 1942.
4. PERIDINIUM TABULATUM (Ehr.) Clapar. & Lachm. (Prescott)
 (Schilling (f))
 NO. CAROLINA Whitford, 1943.
5. PERIDINIUM VOLZII Lemm. (Prescott) (Eddy, 30b(f))
 NO. CAROLINA Whitford, 1943.
6. PERIDINIUM WESTII Lemm. (Prescott) (Schilling (f))
 NO. CAROLINA Whitford, 1943.
7. PERIDINIUM WILLEI Huitf. - Kass (Prescott (f)) (Schilling (f))
 TENNESSEE Eddy, 1930.
8. PERIDINIUM WISCONSINENSE Eddy (Smith (f)) (Prescott (f))
 NO. CAROLINA Whitford, 1943.

Phylum RHODOPHYTA

Class RHODOPHYCEAE

SUB-CLASS PROTOFLORIDEAEORDER 1 BangialesFAMILY 1 Erythrotrichaceae

COMP50POGON Montagne 1850

1. Comp50pogon chalybeus Kuetz.

FLORIDA Thaxter, 1900.

Apparently Thaxter did not see this species, he merely reported from an unknown source that it did grow in Florida.

2. COMP50POGON COERULEUS (Babis) Mont. (Smith (f))

, FLORIDA Smith, 1933; Thaxter, 1900; Wolle, 1887 -

LOUISIANA Flint, 1947.

3. COMP60POGON CAERULESCENS Agardh & Mont.

LOUISIANA Prescott, 1942.

4. COMP60POGON LUDOVICIANA Flint (Flint, 46(f))

LOUISIANA Flint, 1946.

This is the only report.

FAMILY Position uncertain

PORPHYRIDIDIUM Naegeli 1849

1. PORPHYRIDIDIUM CRUETUM^N_A Naeg. (Smith (f)) (Prescott)

VIRGINIA (CM) - KENTUCKY McInteer, 1939 - TENNESSEE (CM).

SUB-CLASS FLORIDEAEORDER 2 NemalionalesFAMILY 1 ChantrasiaceaeAUDOUINELLA Bory 1823

or

RHODOCHORTON Naegeli 1861

The view of the English phycologists is expressed in Fritsch II. They feel that there is no adequate basis of segregating the fresh-water species into a separate genus under the name of Audouinella. American practice universally uses the separate genus for fresh-water plants, however.

1. AUDOUINELLA VIOLACEA (Kuetz) Hamel. (Smith (f)) (Pascher & Schiller (f) as Chantransia violaceae Kuetz.)
KENTUCKY McInteer, 1939.

The genus was also recorded by Bold from North Carolina and has been collected by the writer both in that state and in Tennessee. Part of the Tennessee material seems to resemble A. chalybea (Lyngb.) Fries of Europe, but some of it is apparently a new species which is being checked by Mrs. Drew-Baker of England.

1. *Chantransia macrospora* Wood

see *BATRACHOSPERMUM MACROSPORA* Mont., and the explanatory note under *Batrachospermum australe* (Wood) Coll.

The genus is reported by Brown, 1911, from North Carolina, but probably a *Chantransia* stage of *Lemanea*.

FAMILY 2 Batrachospermaceae*BATRACHOSPERMUM* Roth 17971. *Batrachospermum australe* Coll.

see *BATRACHOSPERMUM MACROSPORUM* Mont.

This species name is seen in a footnote of Collins, 1906, who had just published the name *Batrachospermum macrosporum* (Wood) Coll. from Wood's *Chantransia macrosporum* Wood, because of his discovery that Montange had used the name *B. macrosporum* fifty years before. The strangest part of this complicated history, however, is that the plant of Wood, and Collins, was the same described by Montange, according to Dr. L. H. Flint.

2. *BATRACHOSPERMUM BORYANUM* Sirod. (Smith (f)) (Pascher & Schiller (f))

TENNESSEE Silva # 572(UT) (LSU).

3. *BATRACHOSPERMUM DENSUM* Sirod. (Pascher & Schiller (f))

NO. CAROLINA Bold collection (UT record).

4. BATRACHOSPERMUM MACROSPORUM Mont.

SO. CAROLINA Wood, 1874 as Chantransia macrosporum Wood;
 Ravenel # 484(CM) determined B. vagum (Roth) Agardh. and
 annotated B. australe (Wood) Coll. - GEORGIA Collins, 1906 -
 ALABAMA Collins, 1906, both Collins reports B. Macrosporum
 (Wood) Coll. or B. australe Coll.

In addition, a Brannon collection from Florida,
 labeled B. macrosporum, was examined by the writer and found
 to be another species, although which he is not yet prepared
 to say.

5. BATRACHOSPERMUM MONILIFORME Roth (Smith) (Prescott) Pascher &
 Schiller (f))

VIRGINIA Lewis, Zirkle & Patrick, 1933 - NO. CAROLINA Brown,
 1930: Curtis, 1867; Whitford, 1943 - FLORIDA Bailey, 1851 -
 KENTUCKY Lillick & Lee, 1934; McInteer, 1939 - TENNESSEE
 Silva # 148, 155(UT)(LSU) - ALABAMA Mohr, 1901.

6. BATRACHOSPERMUM PYRAMIDALE Sirod. (Pascher & Schiller (f))

NO. CAROLINA Whitford, 1943.

7. BATRACHOSPERMUM SPORULANS Sirod. (Pascher & Schiller (f))

NO. CAROLINA Bold # 45(UT record).

8. BATRACHOSPERMUM TESTALE Sirod. (Pascher & Schiller (f))

TENNESSEE Bold # 170(UT record).

9. BATRACHOSPERMUM VAGUM var. KERATOPHYLUM Bory (Pascher &
 Schiller)

NO. CAROLINA Whitford, 1943.

SIRODOTIA Kylin 1912

1. SIRODOTIA SUECICA Kylin (Pascher & Schiller)

LOUISIANA Flint, 1946.

FAMILY 3 Thoraceae

THOREA Bory 1808

1. THOREA RAMOSISSIMA Bory (Smith (f))

FLORIDA Smith, 1933; Wolle, 1887.

FAMILY 4 Lemaneaceae

LEMANEA Bory 1808 emend. Agardh 1838

including

SACHERIA Sirodot 1872

Palmer, 1945, recommended the restoration of Sacheria as a genus rather than a section of Lemanea, and although his criteria have gone unchallenged, there is a tendency to maintain the nomenclature in which the genus is monographed and by which it is familiarly known. Therefore, the writer is listing the species under the single heading with the members of the sections Sacheria and Eulemanea indicated.

1. (Eu-) LEMANEA AUSTRALIS Atk. (Atkinson, 90(f))

NO. CAROLINA Atkinson, 1890, 1931; Whitford, 1943; (CM)-

SO. CAROLINA Atkinson, 1931; (CM) - GEORGIA Atkinson, 1931 -

TENNESSEE Palmer, 1943; Silva & Sharp, 1944; Silva # 656.

2. LEMANEA (Sacheria) BOREALIS Atk. (Atkinson, 04) (Atkinson, 31)

VIRGINIA Atkinson, 1931.

3. LEMANEA (Sacheria) FLUVIATILIS Agardh (Atkinson, 90(f))

SO. CAROLINA Wolle, 1887 - TENNESSEE Silva #668(UT) -

ALABAMA Wolle, 1887; Wood, 1874.

4. *LEMANEA* (*Sacheria*) *FUCINA* Bory (Atkinson, 90(f)) (Pascher & Schiller (f))
 VIRGINIA (CM) - NO. CAROLINA Mohr, 1901; Whitford, 1943;
 (CM); Bold # 198(UT) - KENTUCKY McInteer, 1941 -
 TENNESSEE Palmer, 1941; Silva & Sharp, 1944; Silva # 620,
 658 - ALABAMA Mohr. 1901.
5. *LEMANEA* (*Sacheria*) *FUCINA* var. *MAMILLOSA* (Sudt.) Atk. (Atkinson, 90(f))
 NO. CAROLINA Atkinson, 1890, 1931.
6. *LEMANEA* (*Sacheria*) *FUCINA* var. *RIGIDA* Atk. (Atkinson, 90(f))
 (Pascher & Schiller (f) as *Lemanea rigida* (Sirod.)
 Pascher & Lemm.)
 NO. CAROLINA Whitford, 1943.
7. (Eu-) *LEMANEA* *GRANDIS* (Wolle) Atk. (Atkinson, 90(f))
 TENNESSEE letter C. M. Palmer to H. C. Bold, August 26, 1939.
 Palmer may have re-identified this later, since he never
 published on the rare find, and a letter to Palmer on the
 subject has been yet unanswered.
8. (Eu-) *LEMANEA* *PLEOCARPA* Atk. (Atkinson, 31) ;
 VIRGINIA Atkinson, 1931 - KENTUCKY Atkinson, 1931;
 Palmer, 1941.
 In addition, material collected by R. E. Shanks and
 Hugh Iltis for the writer at Island Home, Knoxville, Tenn.
 has been identified tentatively as this species. Included
 is the hitherto undescribed *Chantransia* stage.
9. (Eu-) *LEMANEA* *TORULOSA* (Roth) Agardh (Atkinson, 90(f)) (Pascher & Schiller (f))
 VIRGINIA Atkinson, 1931; Palmer, 1941; Wood, 1874 - NORTH
 CAROLINA Curtis, 1867 - KENTUCKY McInteer, 1939; Palmer, 1941;
 Wood 1874.

TUOMEYA Harvey 1858

1. TUOMEYA EDGERTONII Flint (from a herbarium specimen of the para-
type material at the Chicago Museum)
LOUISIANA Flint collection.
2. TUOMEYA FLUVIATILIS Harvey (Smith (f)) (Prescott (f))
VIRGINIA Wood, 1874 - NO. CAROLINA Curtis, 1867; Tilden,
Am. Al. Cen. III - 227; Whitford, 1943; (CM) - TENNESSEE
Silva #668 (UT)-ALABAMA Mohr, 1901; Smith, 1933; Wood, 1874.

Phylum CHLOROMONADOPHYTA

Class CHLOROMONADOPHYCEAE

ORDER 1 Chloromonadeles

FAMILY Chloromonadaceae

GONYOSTOMUM Diesing 1865

1. GONYOSTOMUM SEMEN Diesing (Prescott (f))

NO. CAROLINA Whitford, 1943.

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Figure 1. The effect of the number of trials on the number of correct responses. The number of correct responses was significantly higher for the 10 trials condition than for the 5 trials condition. Error bars represent the standard error of the mean.

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Figure 1. The effect of the concentration of the *Phytophthora* inoculum on the infection of the roots of the plants. The plants were infected with the *Phytophthora* inoculum of the concentration of 10², 10³, 10⁴, 10⁵, 10⁶, 10⁷, 10⁸, 10⁹, 10¹⁰, 10¹¹, 10¹², 10¹³, 10¹⁴, 10¹⁵, 10¹⁶, 10¹⁷, 10¹⁸, 10¹⁹, 10²⁰, 10²¹, 10²², 10²³, 10²⁴, 10²⁵, 10²⁶, 10²⁷, 10²⁸, 10²⁹, 10³⁰, 10³¹, 10³², 10³³, 10³⁴, 10³⁵, 10³⁶, 10³⁷, 10³⁸, 10³⁹, 10⁴⁰, 10⁴¹, 10⁴², 10⁴³, 10⁴⁴, 10⁴⁵, 10⁴⁶, 10⁴⁷, 10⁴⁸, 10⁴⁹, 10⁵⁰, 10⁵¹, 10⁵², 10⁵³, 10⁵⁴, 10⁵⁵, 10⁵⁶, 10⁵⁷, 10⁵⁸, 10⁵⁹, 10⁶⁰, 10⁶¹, 10⁶², 10⁶³, 10⁶⁴, 10⁶⁵, 10⁶⁶, 10⁶⁷, 10⁶⁸, 10⁶⁹, 10⁷⁰, 10⁷¹, 10⁷², 10⁷³, 10⁷⁴, 10⁷⁵, 10⁷⁶, 10⁷⁷, 10⁷⁸, 10⁷⁹, 10⁸⁰, 10⁸¹, 10⁸², 10⁸³, 10⁸⁴, 10⁸⁵, 10⁸⁶, 10⁸⁷, 10⁸⁸, 10⁸⁹, 10⁹⁰, 10⁹¹, 10⁹², 10⁹³, 10⁹⁴, 10⁹⁵, 10⁹⁶, 10⁹⁷, 10⁹⁸, 10⁹⁹, 10¹⁰⁰, 10¹⁰¹, 10¹⁰², 10¹⁰³, 10¹⁰⁴, 10¹⁰⁵, 10¹⁰⁶, 10¹⁰⁷, 10¹⁰⁸, 10¹⁰⁹, 10¹¹⁰, 10¹¹¹, 10¹¹², 10¹¹³, 10¹¹⁴, 10¹¹⁵, 10¹¹⁶, 10¹¹⁷, 10¹¹⁸, 10¹¹⁹, 10¹²⁰, 10¹²¹, 10¹²², 10¹²³, 10¹²⁴, 10¹²⁵, 10¹²⁶, 10¹²⁷, 10¹²⁸, 10¹²⁹, 10¹³⁰, 10¹³¹, 10¹³², 10¹³³, 10¹³⁴, 10¹³⁵, 10¹³⁶, 10¹³⁷, 10¹³⁸, 10¹³⁹, 10¹⁴⁰, 10¹⁴¹, 10¹⁴², 10¹⁴³, 10¹⁴⁴, 10¹⁴⁵, 10¹⁴⁶, 10¹⁴⁷, 10¹⁴⁸, 10¹⁴⁹, 10¹⁵⁰, 10¹⁵¹, 10¹⁵², 10¹⁵³, 10¹⁵⁴, 10¹⁵⁵, 10¹⁵⁶, 10¹⁵⁷, 10¹⁵⁸, 10¹⁵⁹, 10¹⁶⁰, 10¹⁶¹, 10¹⁶², 10¹⁶³, 10¹⁶⁴, 10¹⁶⁵, 10¹⁶⁶, 10¹⁶⁷, 10¹⁶⁸, 10¹⁶⁹, 10¹⁷⁰, 10¹⁷¹, 10¹⁷², 10¹⁷³, 10¹⁷⁴, 10¹⁷⁵, 10¹⁷⁶, 10¹⁷⁷, 10¹⁷⁸, 10¹⁷⁹, 10¹⁸⁰, 10¹⁸¹, 10¹⁸², 10¹⁸³, 10¹⁸⁴, 10¹⁸⁵, 10¹⁸⁶, 10¹⁸⁷, 10¹⁸⁸, 10¹⁸⁹, 10¹⁹⁰, 10¹⁹¹, 10¹⁹², 10¹⁹³, 10¹⁹⁴, 10¹⁹⁵, 10¹⁹⁶, 10¹⁹⁷, 10¹⁹⁸, 10¹⁹⁹, 10²⁰⁰, 10²⁰¹, 10²⁰², 10²⁰³, 10²⁰⁴, 10²⁰⁵, 10²⁰⁶, 10²⁰⁷, 10²⁰⁸, 10²⁰⁹, 10²¹⁰, 10²¹¹, 10²¹², 10²¹³, 10²¹⁴, 10²¹⁵, 10²¹⁶, 10²¹⁷, 10²¹⁸, 10²¹⁹, 10²²⁰, 10²²¹, 10²²², 10²²³, 10²²⁴, 10²²⁵, 10²²⁶, 10²²⁷, 10²²⁸, 10²²⁹, 10²³⁰, 10²³¹, 10²³², 10²³³, 10²³⁴, 10²³⁵, 10²³⁶, 10²³⁷, 10²³⁸, 10²³⁹, 10²⁴⁰, 10²⁴¹, 10²⁴², 10²⁴³, 10²⁴⁴, 10²⁴⁵, 10²⁴⁶, 10²⁴⁷, 10²⁴⁸, 10²⁴⁹, 10²⁵⁰, 10²⁵¹, 10²⁵², 10²⁵³, 10²⁵⁴, 10²⁵⁵, 10²⁵⁶, 10²⁵⁷, 10²⁵⁸, 10²⁵⁹, 10²⁶⁰, 10²⁶¹, 10²⁶², 10²⁶³, 10²⁶⁴, 10²⁶⁵, 10²⁶⁶, 10²⁶⁷, 10²⁶⁸, 10²⁶⁹, 10²⁷⁰, 10²⁷¹, 10²⁷², 10²⁷³, 10²⁷⁴, 10²⁷⁵, 10²⁷⁶, 10²⁷⁷, 10²⁷⁸, 10²⁷⁹, 10²⁸⁰, 10²⁸¹, 10²⁸², 10²⁸³, 10²⁸⁴, 10²⁸⁵, 10²⁸⁶, 10²⁸⁷, 10²⁸⁸, 10²⁸⁹, 10²⁹⁰, 10²⁹¹, 10²⁹², 10²⁹³, 10²⁹⁴, 10²⁹⁵, 10²⁹⁶, 10²⁹⁷, 10²⁹⁸, 10²⁹⁹, 10³⁰⁰, 10³⁰¹, 10³⁰², 10³⁰³, 10³⁰⁴, 10³⁰⁵, 10³⁰⁶, 10³⁰⁷, 10³⁰⁸, 10³⁰⁹, 10³¹⁰, 10³¹¹, 10³¹², 10³¹³, 10³¹⁴, 10³¹⁵, 10³¹⁶, 10³¹⁷, 10³¹⁸, 10³¹⁹, 10³²⁰, 10³²¹, 10³²², 10³²³, 10³²⁴, 10³²⁵, 10³²⁶, 10³²⁷, 10³²⁸, 10³²⁹, 10³³⁰, 10³³¹, 10³³², 10³³³, 10³³⁴, 10³³⁵, 10³³⁶, 10³³⁷, 10³³⁸, 10³³⁹, 10³⁴⁰, 10³⁴¹, 10³⁴², 10³⁴³, 10³⁴⁴, 10³⁴⁵, 10³⁴⁶, 10

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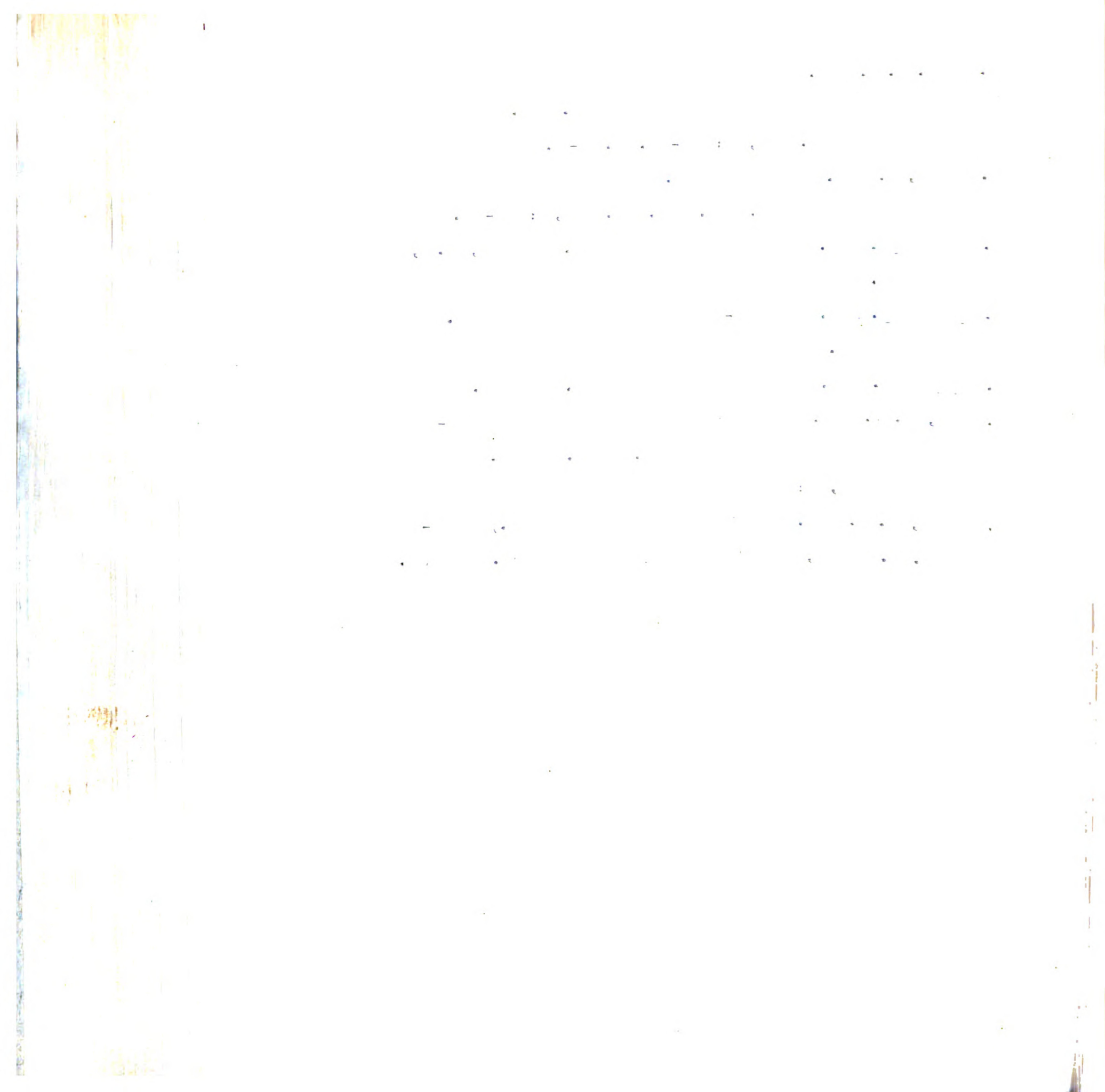
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| 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 463 | 464 | 465 | 466 | 467 | 468 | 469 | 470 | 471 | 472 | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 480 | 481 | 482 | 483 | 484 | 485 | 486 | 487 | 488 | 489 | 490 | 491 | 492 | 493 | 494 | 495 | 496 | 497 | 498 | 499 | 500 | 501 | 502 | 503 | 504 | 505 | 506 | 507 | 508 | 509 | 510 | 511 | 512 | 513 | 514 | 515 | 516 | 517 | 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| 685 | 686 | 687 | 688 | 689 | 690 | 691 | 692 | 693 | 694 | 695 | 696 | 697 | 698 | 699 | 700 | 701 | 702 | 703 | 704 | 705 | 706 | 707 | 708 | 709 | 710 | 711 | 712 | 713 | 714 | 715 | 716 | 717 | 718 | 719 | 720 | 721 | 722 | 723 | 724 | 725 | 726 | 727 | 728 | 729 | 730 | 731 | 732 | 733 | 734 | 735 | 736 | 737 | 738 | 739 | 740 | 741 | 742 | 743 | 744 | 745 | 746 | 747 | 748 | 749 | 750 | 751 | 752 | 753 | 754 | 755 | 756 | 757 | 758 | 759 | 760 | 761 | 762 | 763 | 764 | 765 | 766 | 767 | 768 | 769 | 770 | 771 | 772 | 773 | 774 | 775 | 776 | 777 | 778 | 779 | 780 | 781 | 782 | 783 | 784 | 785 | 786 | 787 | 788 | 789 | 790 | 791 | 792 | 793 | 794 | 795 | 796 | 797 | 798 | 799 | 800 | 801 | 802 | 803 | 804 | 805 | 806 | 807 | 808 | 809 | 810 | 811 | 812 | 813 | 814 | 815 | 816 | 817 | 818 | 819 | 820 | 821 | 822 | 823 | 824 | 825 | 826 | 827 | 828 | 829 | 830 | 831 | 832 | 833 | 834 | 835 | 836 | 837 | 838 | 839 | 840 | 841 | 842 | 843 | 844 | 845 | 846 | 847 | 848 | 849 | 850 | 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