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Additions to the Diatom Flora of Pilot Knob Sphagnum Bog, Hancock County, Iowa¹

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With the addition of the present group of taxa to those reported by Christensen (1969, 1976, 1981) the total number of taxa reported for Pilot Knob Bog is 143, representing 20 genera.

INDEX DESCRIPTORS: Diatoms, *Sphagnum* bog, Hancock County, Iowa.

This report is an addendum to those of Christensen (1969, 1976, 1981) and is based primarily on examination of a series of slides of material from Pilot Knob Bog in the Iowa State University diatom collection. These slides were prepared by J.D. Dodd from collections made during the past 20 years. Collection methods were essentially as described by Christensen (1981) and slides were prepared according to the hydrogen peroxide method of Van der Werff (1955). Pilot Knob Bog and the associated Dead Man's Lake were described by Grant and Thorne (1955).

Critical references used in making identifications were: Begres (1971), Hustedt (1930, 1949, 1962), Lund (1946), Patrick and Reimer (1966, 1975), and Stoermer (1963).

SYSTEMATIC SECTION

The following taxa of diatoms (Bacillariophyceae) should be added to the flora of Pilot Knob Bog:

Achnanthes

A. lanceolata v. *dubia* Grun.

Caloneis

C. lewisii Patr. v. *lewisii*

C. lewisii v. *inflata* (Schultze) Patr.

Cymbella

C. cuspidata Kütz. v. *cuspidata*

C. hauckii V.H. v. *hauckii*

C. minuta v. *pseudogracilis* (Choln.) Reim.

C. naviculiformis Auers. v. *naviculiformis*

Epithemia

E. turgida (Ehr.) Kütz. v. *turgida*

Eunotia

E. flexuosa Bréb. ex. Kütz. v. *flexuosa*

Fragilaria

F. construens (Ehr.) Grun. v. *construens*

F. virescens Ralfs v. *virescens*

Gomphonema

G. acuminatum Ehr. v. *acuminatum*

G. affine v. *insigne* (Greg.) Andrews

Hantzschia

H. amphioxys (Ehr.) Grun. v. *amphioxys*

H. amphioxys v. *vivax* (Hantzsch) Grun.

Meridion

M. circulare v. *constrictum* (Ralfs) V.H.

Navicula

N. abiskoensis Hust. v. *abiskoensis*

N. americana Ehr. v. *americana*

N. americana v. *moesta* Temp. & Perag.

N. anglica Ralfs v. *anglica*

N. begeri Krasske v. *begeri*

N. confervacea (Kütz.) Grun. v. *confervacea*

N. cryptocephala Kütz. v. *cryptocephala*

N. elginensis (Greg.) Ralfs v. *elginensis*

N. hambergii Hust. v. *hambergii*

N. ignota Krasske v. *ignota*

N. nigrii De Notaris v. *nigrii*

N. pupula (Greg.) Grun. v. *pupula*

N. seminulum Grun. v. *seminulum*

Neidium

N. affine (Ehr.) Pfitz. v. *affine*

N. affine v. *amphirhynchus* (Ehr.) Cl.

N. decens (Pant.) Stoermer v. *decens*

N. iridis (Ehr.) Cl. v. *iridis*

N. maximum (Cl.) Meist. v. *maximum*

Nitzschia

N. amphibia Grun. v. *amphibia*

N. diserta Hust. v. *diserta*

N. frustulum v. *perminuta* Grun.

N. gracilis Hantzsch v. *gracilis*

N. obtusa v. *brevissima* Grun.

N. palea (Kütz.) W.Sm. v. *palea*

N. sublinearis Hust. v. *sublinearis*

Pinnularia

P. appendiculata (Ag.) Cl. v. *appendiculata*

P. mesolepta v. *angusta* Cl.

P. obscura Krasske v. *obscura*

Rhopalodia

R. gibba (Ehr.) O. Müll. v. *gibba*

Stauroneis

S. anceps Ehr. v. *anceps*

S. anceps f. *gracilis* Rabh.

S. phoenicenteron v. *brunii* (M. Perag. & Herib.) Voigt

S. phoenicenteron f. *gracilis* (Ehr.) Hust.

S. pygmaea Krieger v. *pygmaea*

Surirella

S. angusta Kütz. v. *angusta*

S. delicatissima Lewis v. *delicatissima*

Synedra

S. ulna v. *spatulifera* (Grun.) V.H.

¹I wish to dedicate this paper to the memory of C.L. Christensen, a teacher and scientist of great ability who will not be forgotten by anyone who knew him. Had he been spared to complete his original research design for this site, most if not all the species listed would doubtless have appeared in publications bearing his name.

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SUMMARY

Of the 53 species, varieties and forms I found, about half were extremely rare (only one or two valves encountered during the search). The rest of the taxa were more widespread but were never common in any sample (usually less than 20 valves per thousand).

With the addition of the present group of taxa to those reported by Christensen (1976, 1981) the total number of taxa reported for Pilot Knob Bog is 143, representing 20 genera.

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