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Lucy M. Cavanagh
State University of Iowa

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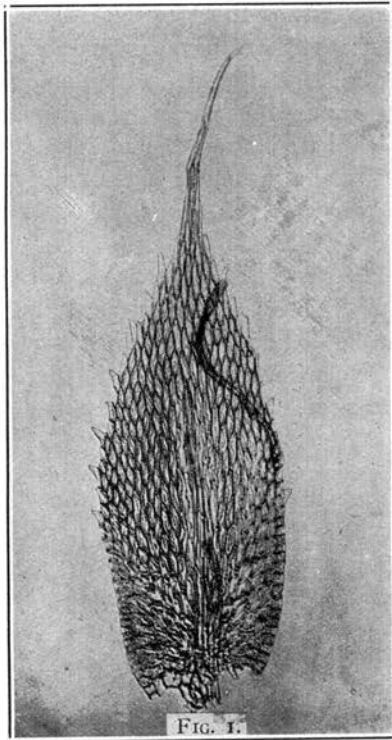
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NOTES ON IOWA MOSSES — VI

LUCY M. CAVANAGH

In a paper presented before this Academy in 1931, the writer reported a species of *Fabronia* under the name *F. gymnostoma*. The species was collected by Dr. B. Shimek August 16, 1916, near West Lake Okoboji, where it occurred very sparingly near the base of a large partly decorticated red cedar (*Juniperus virginiana*). Only a few old fruits were found. There were no peristomes,



but a few rather ragged cells at the mouth of the capsule were taken to be a remnant of a membrane which closed the opening as in *F. gymnostoma*.

As *F. gymnostoma* is the only described species which is not peristomate, the specimens were referred to this species despite the statement by Grout, in his discussion of the genus *Fabronia*

in "Mosses with Hand Lens and Microscope," that *F. octoblepharis* "is the only species likely to be found in our range." Conard and Wolden, however, after examining the specimens, state in "A Key to the Mosses of the Okoboji Region," that they believe the form to be "better referred to *F. octoblepharis*," the idea being that the peristome may have been broken away.

A more careful study has brought out a number of differences between our specimens and both the above-named species, as well as the related *F. Wrightii*, which seem to warrant the recognition of our form as a new species. The species may be characterized as follows:

Fabronia iowensis n.s. — (Fig. 1) — *Capsule* similar to that figured for *F. gymnostoma* in Sullivant's "Icones Muscorum," and the peristome apparently without teeth. *Leaves* ovate-lanceolate, gradually acuminate, with a long colorless point, costate to well above the middle; the cells at base quadrate and extending well up the margin, the remaining cells elongated and pointed at the ends; the margin usually ciliate-dentate, but in some of the leaves, and even entire plants, there is only a slight indication of marginal cilia. *Perichaetial leaves* oblong, abruptly long-acuminate, ecostate and ciliate-dentate.

The following table, which was compiled (with the exception of the part concerning *F. iowensis*) from the Lesquereux and James Manual and from the text and figures in Sullivant's "Icones Muscorum," gives a comparison of the four related species, *Fabronia octoblepharis* Schwaegr., *F. Wrightii* Sulliv., *F. gymnostoma* Sulliv. & Lesq. and *F. iowensis* (n.s.).

The following species should also be added to the list of mosses contained in "A Key to the Mosses of the Okoboji Region" published in the University of Iowa Studies in Natural History by H. S. Conard and B. O. Wolden (1932). All had been previously reported from Iowa, and three, namely, *Pottia littoralis*, *Amphidium californicum* and *Pyramidula tetragona*, from the particular region in question.

- Pleuridium palustre B. & S.
- Didymidon rubellus (Hoffm.) B. & S.
- Pottia truncatula (L.) Lindb.
- Pottia littoralis Mitt. var. (?)
- Amphidium californicum Hampe
- Physcomitrium acuminatum B. & S.
- Pyramidula tetragona Brid.
- Bryum inclinatum (Sw.) Bland
- Pylasia Schimperii R. & C.
- Pylasia polyantha (Schreb.) B. & S.

Comparative Table

	F. OCTOBLEPHARIS	F. WRIGHTII	F. GYMNOSTOMA	F. IOWENSIS
Peristome	of 8 geminate dark brown teeth, bifid when old.	of 16 orange colored teeth, approximate in pairs.	absent, the orifice closed by a horizontal membrane.	
Leaves	coarsely dentate. costate to below the middle,	serrate or subciliate-dentate, costate to the middle,	ciliate-dentate, costa diminishing to near the middle,	ciliate-dentate (in some plants only slightly so). costate to well beyond the middle,
Perichaetial leaves	quadrate basal cells forming nearly $\frac{1}{3}$ of leaf and extending slightly up the margin.	quadrate basal cells few at the costa and extending slightly up the margin. oblong, abruptly short acuminate, ecostate, coarsely serrate.	quadrate basal cells similar to those of <i>F. Wrightii</i> oblong, gradually acuminate, ecostate, ciliate-dentate.	quadrate cells few at base near the costa but extending well up the margin. oblong abruptly long acuminate, ending in a single long colorless cell, ecostate, ciliate-dentate near the apex.

The following list was contributed by Dr. H. S. Conard:

MOSSES NEW TO IOWA

FISSIDENTACEAE

Fissidens incurvus exiguus Austin.

1. On limestone ledge, Ledges State Park. Boone County. April 8, 1933. Collected by Jess Fufts.
2. On sandstone, Fink's Riprap, one mile east of Turner. Jasper County. Nov. 4, 1933. Coll. H. S. Conard, H. French, G. Sayre.

DICRANACEAE

Pleuridium alternifolium (Kaulf.) Rabenh.

1. In thin clayey pasture, one mile south of Moore. Poweshiek County. April 2, 1932. Coll. H. S. Conard, H. French, M. Rex.
2. In edge of pasture, under fence, with *Ceratodon* and *Bryum*, 10th and Summer Streets, Grinnell. Poweshiek County. July 3, 1932. Coll. Conard.
4. In grass, sandstone quarry east of Kellogg. Jasper County. March 1, 1933. Coll. Conard.

Dicranum Bonjeani De Not.

Taxus bed near *Abies balsamea*, Old Stone House. Allamakee County. June 14, 1932. Coll. Conard.

Dicranum pallidum B. & S.

Fink's Riprap. Jasper County. Nov. 4, 1933. Coll. Conard, French, Sayre.

GRIMMIACEAE

Grimmia alpicola Hedw.

On various rocks. Boone County; coll. B. Blagg. Clayton County; coll. Conard. Dubuque County; coll. Conard. Henry County; coll. Blagg. Jasper County, coll. Conard.

Grimmia apocarpa var. *gracilis* (Schleich.) Web. and Mohr.

On ferruginous sandstone, Fink's Riprap. Jasper County. Nov. 4, 1933. Coll. Conard, French, Sayre.

Grimmia apocarpa var. *conferta* (Funck.) Spreng.

Fink's Riprap. Jasper County. Nov. 4, 1933. Coll. Conard, French, Sayre.

Grimmia plagiopodia Hedw.

Fink's Riprap. Jasper County. April 25, 1930; coll. Conard. Nov. 4, 1933; coll. Conard, French, Sayre.

Grimmia pulvi nata (Hedw.) Sm.

Fink's Riprap. Jasper County. April 25, 1930; coll. Conard. Nov. 4, 1933; coll. Conard, French, Sayre.

EPHEMERACEAE

Acaulon rufescens Jaeg.

With *Bruchia* and *Weisia*. Field with scattered clover plants and ground cover of dead grass litter. Below Arbor Lake, Grinnell. Poweshiek County. April 23, 1932. Coll. French.

TORTULACEAE

Tortella caespitosa (Schwaegr.) Limpr.

Taxus bed near *Abies balsamea*, Old Stone House. Allamakee County. June 14, 1932. Coll. Conard.

Desmatodon plinthobius Sulliv. and Lesq.

1. On sandstone, Fink's Riprap. Jasper County. April 25, 1930. Coll. Conard.
2. On south-facing sandstone wall, west track, 1½ miles west of Grinnell. Poweshiek County. May 23, 1932. Coll. Conard.

ORTHOTRICHACEAE

Orthotrichum obtusifolium Schrad.

- White birch hillside 10 miles north-west of Waukon. Allamakee County.
June 14, 1932 Coll. Conard.

FUNARIACEAE

Physcomitrium Kellermani Eliz. Britt.

- Hanging bog, north field, Iowa Lakeside Laboratory. Dickinson County.
July 1, 1932. Coll. W. Welch.

BRYACEAE

Mniobryum carneum (L.) Limpr.

- Jackson Township, Guthrie County. June 13, 1933. Coll. Sayre.

HYPNACEAE

Rhytidium rugosum (Ehrh., Hedw.) Kindb.

- On dry, flat areas under *Pinus strobus* on high limestone knob ¼ mile east of Waterville Allamakee County. June 14, 1932. Coll. Conard.

Eurhynchium strigosum var. *praecox* (Hedw.) Husnot

- With *Eurhynchium serrulatum*. Wooded glen one mile south of Hickory Grove. Jasper County. June 9, 1931. Coll. G. Lane and Conard.

Leptodictyum riparium forma *flaccidum* (L. & J.)

1. On wet ground among reeds, west side of Gull Pond, West Okoboji. Dickinson County. July 1, 1930. Coll. Conard.
2. Lotus pond. Fremont County. July 7, 1932. Coll. Conard.
3. Slough near Scout Camp, Clear Lake. Cerro Gordo County. Oct. 7, 1933. Coll. Conard.

Leptodictyum riparium var. *abbreviatum* (Br. & Sch.) Grout

- North sloping pasture ¼ mile north of highway No. 6. Six miles west of Grinnell. Jasper County. March 17, 1929. Coll. C. Clarke.

Amblystegium varium var. *parvulum* (Aust)

1. With *Brachythecium oxycladon*. Quarry north of Le Grand. Marshall County. March 24, 1929. Coll. Conard.
2. With *Brachythecium* and *Eurhynchium*. Fallen Rock, Eldora. Hardin County. May 17, 1929. Coll. Conard.

Amblystegium varium var. *ovatum* Grout

1. With *Weisia viridula*. Coal mine area, Moore. Poweshiek County. April 16, 1932. Coll. Conard.
2. With *Brachythecium cyrtophyllum*, *Amblystegium varium* and *Barbula unguiculata*. On sandstone, near Grinnell. Poweshiek County. May, 1932. Coll. Conard.
3. Lake and woods, ½ mile south of Lewis. Cass County. May 22, 1932. Coll. Conard.
4. *Taxus* bed, near *Abies balsamea*, Old Stone House. Allamakee County. June 14, 1932. Coll. Conard.
5. Wabonsie State Park. Fremont County. July 7, 1933. Coll. Conard.

Hypnum cupressiforme L., Hedw.

Taxus bed near Abies balsamea, Old Stone House. Allamakee County.
June 14, 1932. Coll. Conard. Matches a form from Nova Scotia
(Grout).

Hypnum arcuatum var. *elatum* Schimp.

Near Iowa river, 2 miles north of Homestead. Iowa County. May 6,
1933. Coll. Conard.

Hypnum pratense Knoch, Brid.

Fallen Rock, Eldora. Hardin County. May 17, 1930. Coll. Conard.

DEPARTMENT OF BOTANY,
STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.