***Platystomum incisum* (Ellis & Everh.) Sacc. & D. Sacc. AEB 1069 (= PDD 97386) – A good match to this infrequently collected species**

Substrate: On dead decorticated wood ('possibly pine'). The wood was stained reddish by the fungus.

Collection site: Snowbank Lake, 22 miles NE of Ely, Minnesota, United States

Collection date: 31 August 2008

Collector and identifier: Ann Bell

Voucher materials: Dried herbarium specimen AEB 1069 (= PDD 97386) accompanied by 2 Shear's mounting fluid (SMF) slides, Dan Mahoney's notes (see below) and Dan's digitized photos from in-situ dissecting microscope images and compound scope slide microscopic detail.

Brief description: **Ascomata** immersed with only the uppermost portion of the ascomata visible (see photos); wood near the ascomata staining reddish. Ascomata were situated in line with the grain of the wood where most appeared as low black conical bulges. These bulges were irregularly elongate to ellipsoid with small, often obscure, pore-like to slit-like ostioles. Ascomatal cavities (where ascomata had eroded) were reasonably large and irregularly shaped. **Asci** were striking, cylindrical to cylindrically clavate with a short stalk, thick wall and no obvious apical specialization. Whole asci were easily observed and measured in water mounts (170–210 × mostly 20–25 but up to 32.5 µm, n=10). **Ascospores** 8 per ascus, arranged uniseriately overlapping or partially biseriate, with numerous transverse, longitudinal and oblique septa, broadly fusoid with tapered but rounded apices, often slightly broader in the apical half, smooth, brown to dark brown, with usually 8(–10) prominent transverse layers of cells and an invagination between the 4th and 5th layers (invaginations lacking or obscure between other transverse layers) – see photos; ascospores in water mount 25–35 × 12.5 µm (n=10). Ascospore discharge from fissitunicate asci (see photo).

Chesters C.G.C. & Bell A. 1970. STUDIES IN THE LOPHIOSTOMATACEAE SACC. Mycological Papers #120, 55 pp. Publ. by the Imperial/Commonwealth Mycological Institute, Kew, Surrey, England.

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THE GENUS PLATYSTOMUM TREV.

The genus *Platystomum* Trev. is synonymous with *Lophidium* Sacc., but *Platistomum* Trevisan antidates *Lophidium* Saccardo. All the species which will be described under this generic name have some of their ascospores with vertical septa.

It should be noted that certain specimens of *Lophiostoma pseudomacrostomoides* are difficult to place under an exact name. If, in any specimen, there are few ascospores having vertical septa, that specimen has here been referred to *Lophiostoma macrostomoides* de Not. But a proportion of specimens have many ascospores with 4-5 vertical septa, and these have been referred to *L. pseudomacrostomum* (here placed under *Platystomum compressum* as variety *pseudomacrostomum).*

From this evidence it is apparent that the genus *Platystomum* is not completely distinct from the genus *Lophiostoma* and a certain degree of overlap exists between them.

KEY TO THE SPECIES

(1) Ascospores with a single transverse septum and numerous pseudosepta, spores 90-110 x 20-30µ. . . . . .Platystomum macrosporum (p. 46)

(1) Ascospores with true vertical septa, spores smaller than above . . . . . .(2)

(2) Ascospores more than 30µ in length . . . . . .(5)

(2) Ascospores (majority) less than 30µ in length . . . . . (3)

(3) Ascospores hyaline . . . . . *P. compressum* var. *nuculoides* . . . . . (p. 48)

(3) Ascospores brown . . . . . (4)

(4) Nearly all spores with 1-3 vertical septa, (17)20-30 X 7-8µ . . . . . .*P. compressum* (p. 48)

(4) Many spores with no vertical septa, some samples remaining maize yellow, others brown, 20-34 X 6-10µ. . . . . .*P. compressum* var. *pseudomacrostomum* (p. 49)

(5) All spores with numerous vertical and oblique septa, constricted at the central transverse septum only, 30-40 x 11µ . . . . . .*P. incisum* (p. 50)

(5) Spores botryoidal, constricted at all septa, 30-50(54) x 15-20µ . . . *P. pachysporum* (p. 50)

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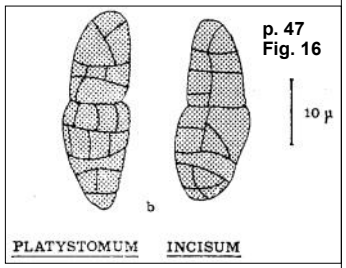
***Platystomum incisum* (Ell. & Ev.) Chesters & Bell, comb. nov.**

***Lophidium incisum* Ell. & Ev., No. 5754, Herb. Ellis (NY), 1894.**

The pseudothecia are clustered in small groups, semi-immersed or more or less superficial on the host. The asci are cylindrical with a short stalk, each ascus containing 8 irregularly uniseriate ascospores. Spores are 30-40 X 11u, each having a central constricted septum and numerous non-constricting, oblique, vertical and transverse septa (Fig. 16). Pseudoparaphyses abundant.



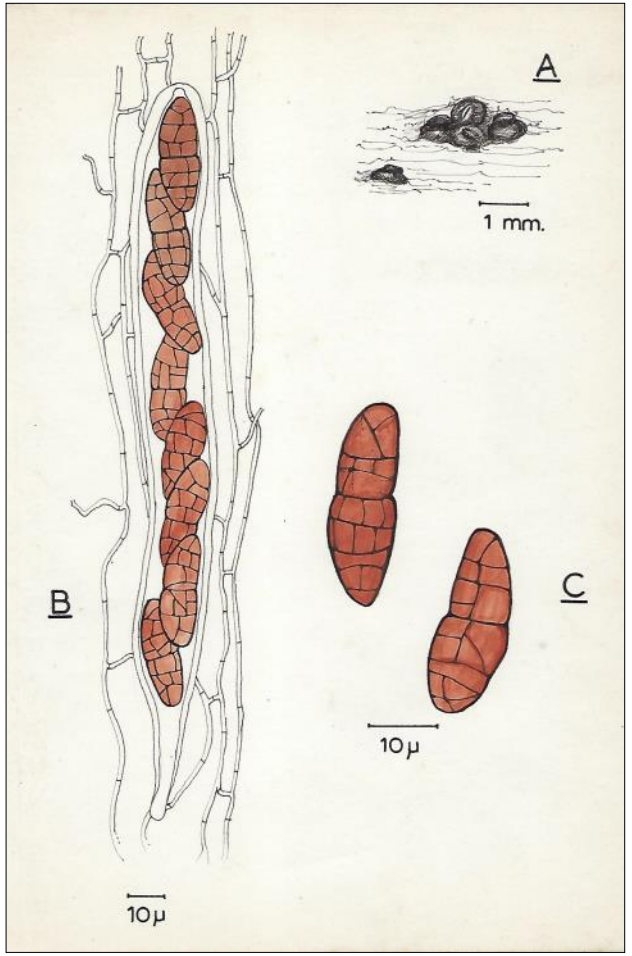
p. 47 Fig. 16

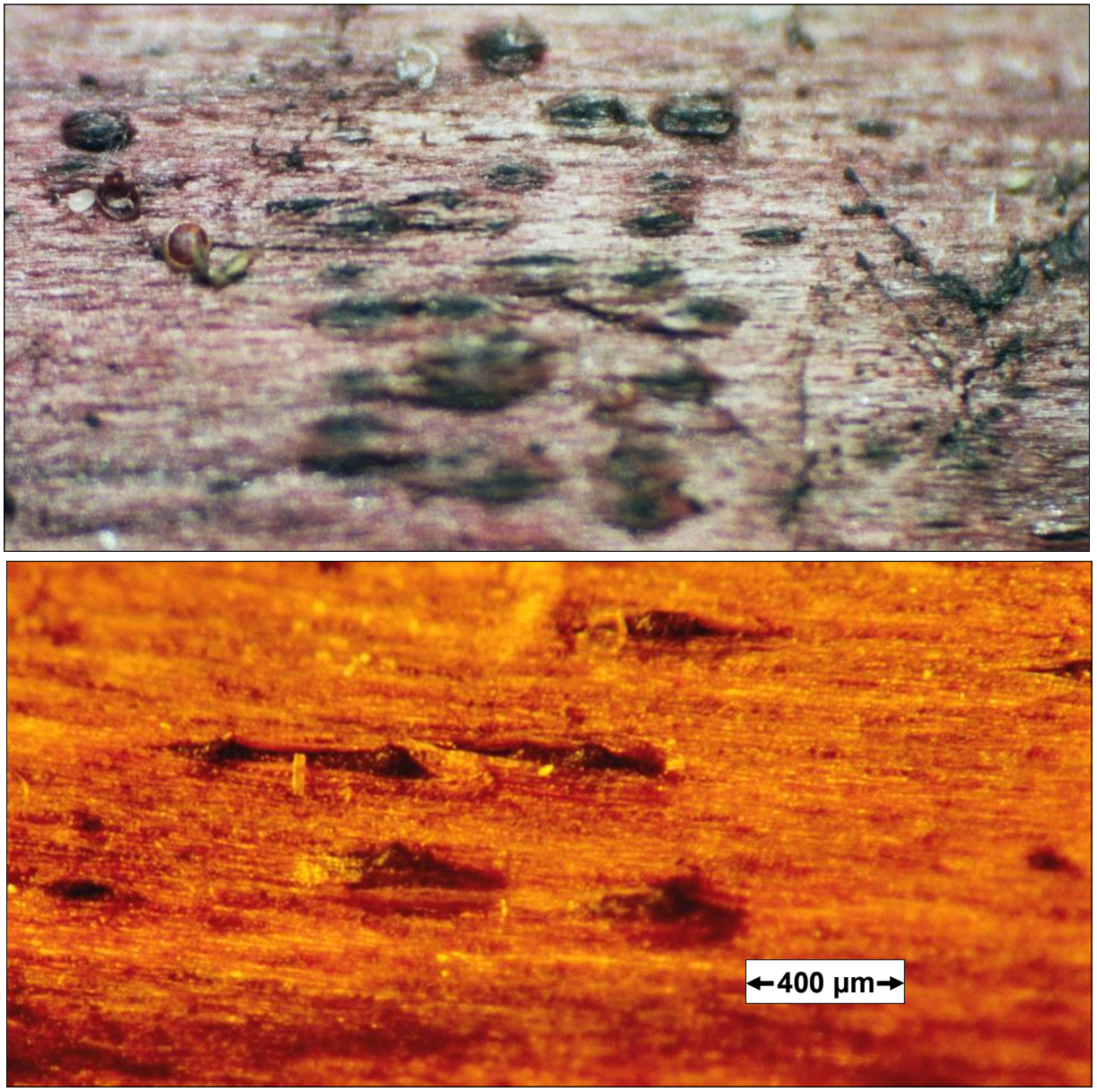
SPECIMEN EXAMINED

Ex Herb. NY.

***Lophidium incisum* Ell. & Ev., on *Symphoricarpos,* leg. M. E. Jones, No . 5754, 1894.**

Ann's Ph.D. thesis illustration. Fig. 116. *Platystomum incisum*: A. Habit. B. Ascus, ascospores & pseudoparaphyses. C. Mature ascospores.





AEB 1069. Ascomata immersed with only the uppermost portion visible; wood near the ascomata staining reddish. The top picture shows fresh ascomata and has more natural color. The bottom picture of dried herbarium material was taken several months later.
Ostioles slit-like (top picture) and pore-like (bottom picture).

AEB 1069. Asci with uniseriate & biseriate ascospores (same field of view – left brightfield, right phase). SMF mount, X20 objective.

AEB 1069. Asci with uniseriate & biseriate ascospores (same field of view – left brightfield, right phase). SMF mount, X40 objective.

AEB 1069. A–F. Asci with uniseriate & biseriate ascospores – SMF mounts, X40 objectives. A, B, D. Brightfield microscopy; C, E, F. Phase microscopy. B, C. Same field of view. D, E. Same field of view. F. A fissitunicate ascus – note the point of breakage (arrowed) where the inner wall pops out of the outer wall during dehiscence.