Some forgotten names among British Helotiales

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Transfer of the British Museum fungus collections to Kew on permanent loan has provided an opportunity of reassessing the status of a few names in Helotiales proposed by Phillips and others but largely ignored by subsequent authors.

Dermatea nectrioides *Phillips*, Manual of British Discomycetes: 340 (1887).

Pezicula nectrioides (Phill.) Sacc., Sylloge Fungorum 8: 313 (1889).
Cenangium nectrioides (Phill.) Massee, British Fungus Flora 4: 119 (1895).

On scales of pine cones, Barnt Green, leg. Grove.

This is *Pezicula livida* (Berk. & Br.) Rehm, common on dead woody tissue of many conifers.

Dermatea nidulariformis *Rea* in Trans. Brit. mycol. Soc. 5: 256 (1916).

The badly preserved type, said to have been yellowish when fresh, is now dark sooty brown, about 3 mm. diameter, sessile, cupulate, with the surface of the receptacle corrugated but neither pruinose nor pulverulent. The ascus wall is blued by Melzer's reagent and the eight broadly elliptical ascospores, 13–14 × 8μ (14–17 × 9–10μ according to Rea) are covered with coarse, closely spaced warts; the paraphyses are straight, enlarged to about 4μ wide at the apex.

On decorticated wood, Monsal Dale, Derbyshire, 25 May 1915.

Clearly this is a *Peziza* (= *Galactinia*) species but whether it is sufficiently characterized to be recognized again is somewhat doubtful, the ascospores suggest comparison with *Galactinia succosella* Le Gal & Romagnesi and *G. plebeia* Le Gal. Unfortunately the epithet is not preoccupied in *Peziza* and it is necessary to make the new combination **Peziza nidulariformis** (*Rea*) *Dennis*, comb. nov.

Hymenoscypha symphoricarpi *Phillips* in Scottish Naturalist, N.S. 5: 89 (1891).

On dead branches of *Symphoricarpus racemosus*, Orkney.

No apothecia remain but the author's sketches indicate that this was *Hymenoscyphus repandus* (Phill.) Dennis.

Lachnella brunneociliata *Phillips* in Scottish Naturalist, N.S. 5: 90 (1891).

Apothecia scattered, superficial, sessile, cupulate, scarcely 1 mm. diameter, yellowish but clothed with short, adpressed, blackish hairs. Asci cylindric-clavate, 8-spored, 50–65 × 7 μ, pore blued by Melzer's reagent; ascospores fusiform, 11–15 × 2–2·5 μ; paraphyses lanceolate, 4 μ wide, longer than the

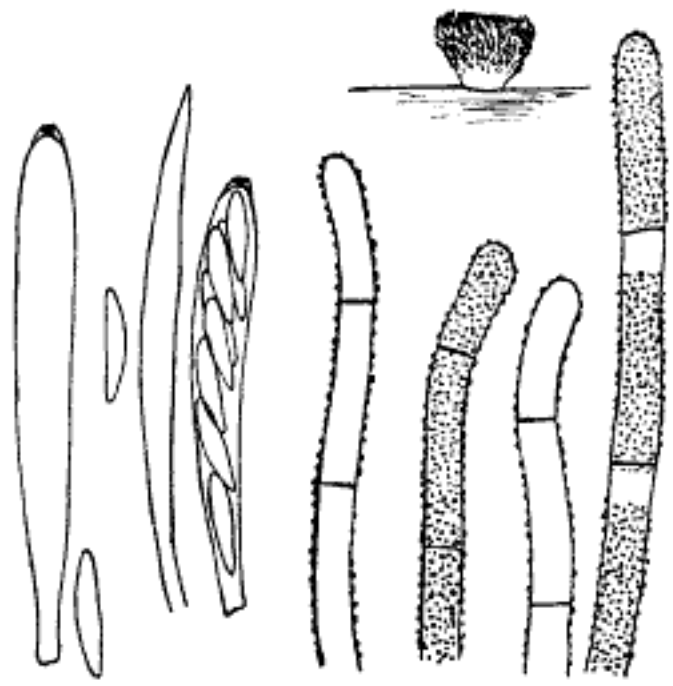

FIG. 1. *Lachnella brunneociliata*. Habit sketch, × 10; asci, ascospores, paraphysis and hairs, × 660.

asci; hairs cylindrical, obtuse, not enlarged at the apex, septate, with thin brown walls covered with closely spaced, rather coarse granules. There is often a narrow bare zone just below each septum. Fig. 1.

On *Juncus squarrosus*, Orkney, Aug. 1888, leg. *Trail*.

Obviously this is a synonym of *Dasyscyphus rehmii* (Staritz) Sacc.

Lachnella laburni *Phillips* in Scottish Naturalist, N.S. 5: 90 (1891).

On twigs of *Cytisus laburni*.

No trace of apothecia can now be found on the type and I am unable to dispose of the name.

Lachnella orbicularis *Phillips* in Scottish Naturalist, N.S. 5: 89 (1891).

On *Juncus squarrosus*, Orkney, Aug. 1888, leg. *Trail*.

Only very immature apothecia survive but these bear hairs identical with those of *L. brunneociliata*, collected at the same time on the same substrate, and I have no doubt this, too, is a synonym of *D. rehmii*.

Ombrophila brunnea *Phillips* in Grevillea 8: 103 (1880).

Pachydisca brunnea (Phill.) Boudier, Hist. Class. Discom. d'Europe: 94 (1907).

The published description runs: 'Crowded, sessile, or substipitate, concave, then expanded, becoming flexuous, yellowish brown, glabrous, disk darker than margin; asci cylindrical; sporidia 8, ovate–oblong, rough, bi- or multinucleate, ·016–·02 × ·005–·008 mm., paraphyses enlarged at the summits, adhering.'

On damp garden prunings, Greeshop, Forres. *Dr. Keith*.

The indication of broadly elliptical rough ascospores at once suggests that this is an operculate fungus but, far from being a '*Humaria*', as suggested

diameter, with a stout smooth stalk, whitish, drying some cream coloured, others dark brown or partly cream partly brown, receptacle wrinkling slightly on drying. Asci cylindrical, 115–120 (135, Rea) × 10 (12–13 μ, Rea), 8-spored, pore not blued by Melzer's reagent; ascospores biseriate, fusoid, often inequilateral, sharply pointed at each end, nonseptate, without large guttules, 27–30 × 5–6 μ; paraphyses slender, cylindrical, obtuse, up to 3 μ wide at the apex. Excipulum composed of subparallel hyphae, lumen 4–5 μ wide, with glassy, subgelatinised walls, terminal cells often thin-walled but adpressed and not forming downy hairs. Fig. 2, p. 471.

On dead leaves of *Carex inflata*, Inver, Dunkeld, 1 Aug. 1915.

This is the fungus which British mycologists have taken to be *Helotium magnificum* Vel. described in 1934 from *Eriophorum vaginatum* in Czechoslovakia. It is, however, not typical of either of the components of *Helotium* auct. non Fr., *Cudoniella* and *Hymenoscyphus*, nor of *Ombrophila*. Structure, stature and habit are distinctly phialeoid and it will find a more natural place as **Phialea megalospora** (*Rea*) *Dennis* comb. nov., in spite of the very large ascospores. There is already a different *Helotium megalosporum* Speg., on *Nothofagus* in Chile. '*Helotium*' *longisporum* Schweers is a very different fungus, with dermateacous excipulum.

Patellaria rubrotingens *Berk. & Br.* apud Phillips, Manual of British Discomycetes: 367, (1887).

Patinella rubrotingens (Berk. & Br.) Sacc., Sylloge Fungorum 8: 773 (1889).

Apothecia gregarious, superficial, sessile, cupulate, about 250 μ diameter, smooth, black. Asci cylindric-clavate, 8-spored, 45–50 × 6 μ, pore iodine-negative; ascospores narrowly ellipsoidal, pointed below, 7–9 × 1·5 μ, nonseptate; paraphyses very slender, obtuse, not forming an epithecium. Excipulum opaque even in microtome sections at 20 μ but apparently composed of firmly agglutinated, slender, parallel hyphae, dark red-brown except at their tips, which may be hyaline but do not protrude as hairs. Some apothecia are surrounded by a slight red cottony subiculum and there is red staining of the substrate, both superficially and in depth; sections yield a red-brown stain in ammonia. Fig. 3.

On decorticated wood of *Quercus*, Batheaston, March 1872.

Broome's sketch shows ascospores 3-guttulate, 0·0005 inches long, *i.e.* 13 μ. The structure seems durelloid and one would expect the fungus to be *Patinellaria sanguinea* (Pers.) Karst. This, however, has the ascus-pore blued by iodine and I am not wholly convinced the two species are identical.

Peziza (Mollisia) epithalina *Phillips & Plowright* in Grevillea 6: 24 (1877)

Mollisia epithalina (Phill. & Plowr.) Phillips, Manual of British Discomycetes: 173 (1887).
Pezizella epithalina (Phill. & Plowr.) Sacc., Sylloge Fungorum 8: 282 (1889).
Mollisiella epithalina (Phill. & Plowr.) Boudier, Hist. Class. Discom. d'Europe: 142 (1907).

Apothecia scattered, erumpent, subsessile, receptacle discoid on a rooting base, about 0·5 mm. diameter, whitish, minutely pruinose. Asci cylindric-

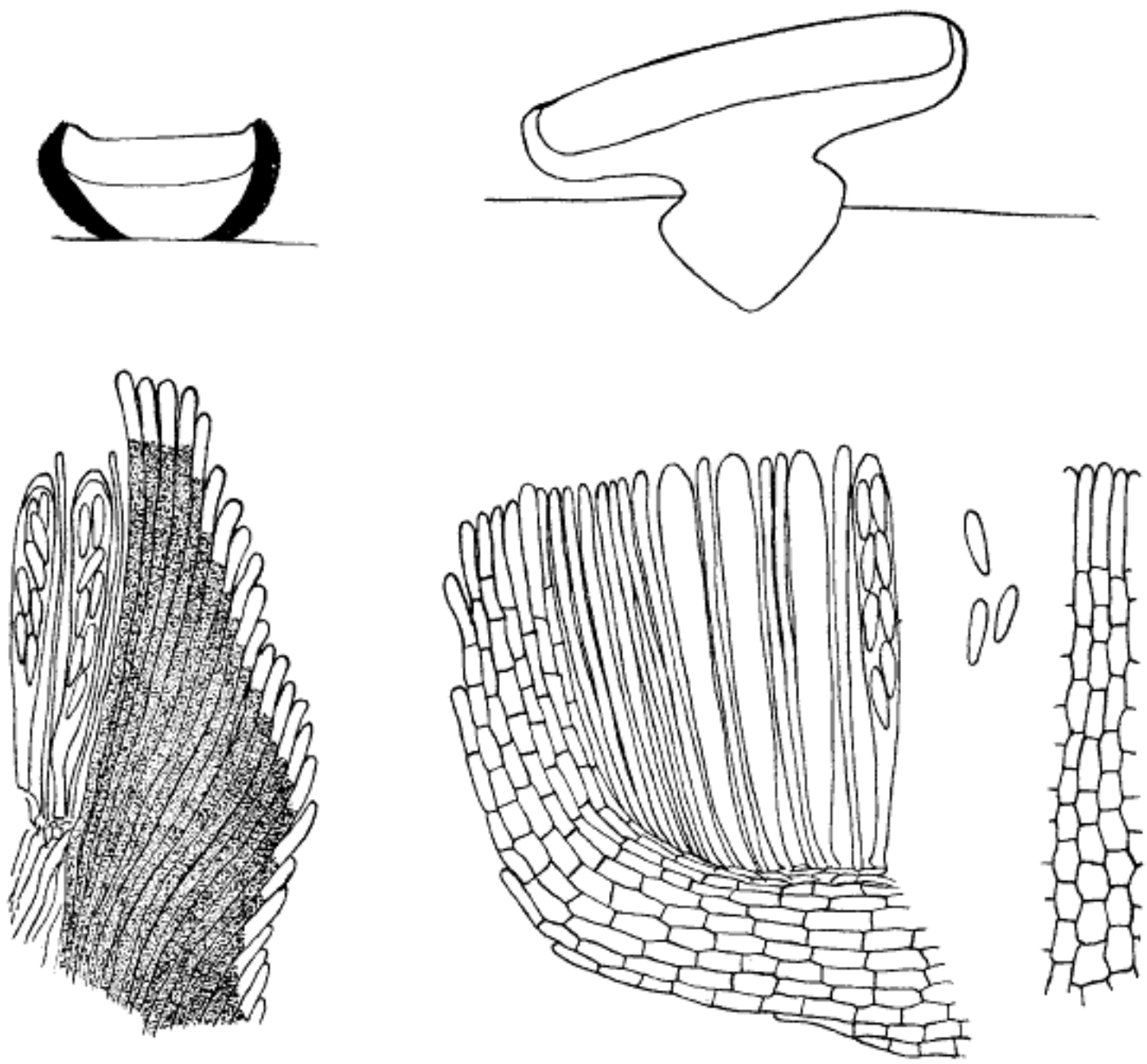

FIG. 3. *Patinella rubrotingens*. Diagrammatic section, × 100; section of margin, × 660.

FIG. 4. *Pezizella epithalina*. Diagrammatic section, × 100; section of margin, free ascospores and strip of excipulum in surface view, × 660.

clavate, 60 × 6 μ, 8-spored, pore probably blued by iodine; ascospores biseriate, ellipsoid, 9–10 × 2–2·5 μ, nonseptate; paraphyses cylindric, obtuse, 2 μ wide; excipulum composed of prismatic cells in rows at a low angle to the surface, sometimes terminating in minute, cylindrical, obtuse, smooth-walled, downy hairs. Fig. 4.

On thallus of *Peltigera canina*. Folly wood, North Wootton, Norfolk, 15 Nov. 1875.

This bears considerable resemblance to *Helotium herbarum* but seems distinguished by the smaller, nonseptate ascospores and may appropriately remain in *Pezizella* in the meantime.

Peziza (Mollisia) erythrostigma *Berk. & Br.* in Ann. Mag. nat. Hist. Ser. 3, 18: 126 (1866).

Lachnella erythrostigma (Berk. & Br.) Phillips, Manual of British Discomycetes: 254 (1887).

Pithyella erythrostigma (Berk. & Br.) Boudier, Hist. Class. Discom. d'Europe: 125 (1907).

Apothecia scattered, superficial, subsessile, cupulate with a flat disk scarcely 200 μ diameter, pinkish throughout and subtranslucent. Asci clavate, flat-topped, 8-spored, 28–30 × 4 μ, iodine negative; ascospores 1- or 2-seriate, subglobose, 2 × 1·5 μ; paraphyses cylindrical, slightly capitate and then 2 μ wide; excipulum of thin-walled prismatic cells about 10–12 × 6 μ, in vertical rows, without hairs or free hyphal tips. Fig. 5.

Seated on mycelium and perithecia of *Thaxteria phaeostroma*, Batheaston, Jan. 1859.

The appropriate genus for this tiny fungus is doubtful, texture and appearance suggest *Orbilia* but the asci apparently lack the characteristic forked base and the paraphyses are not very distinctly capitate. Boudier referred it to *Pithyella* with some doubt and this seems ill advised for there are no hairs and the ascospores are not perfectly globose. The epithet cannot be transferred to *Orbilia* for there is already an *O. erythrostigma* (Mont.) Sacc.

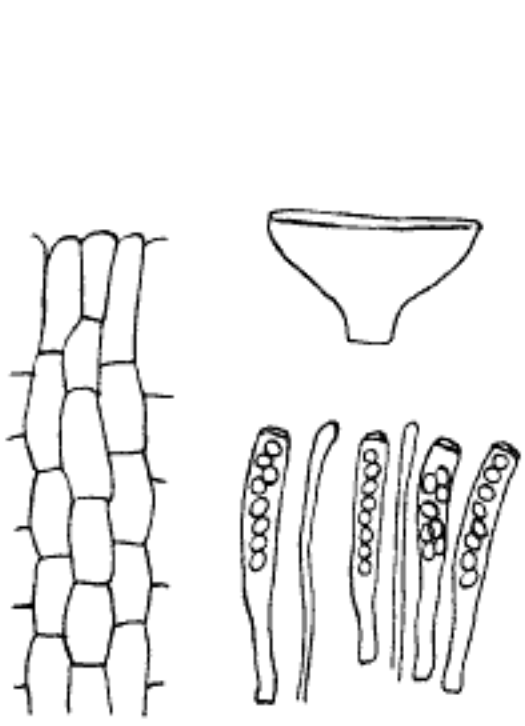

FIG. 5. *Peziza erythrostigma*. Apothecium, × 100; excipulum in surface view, asci and paraphyses, × 660.

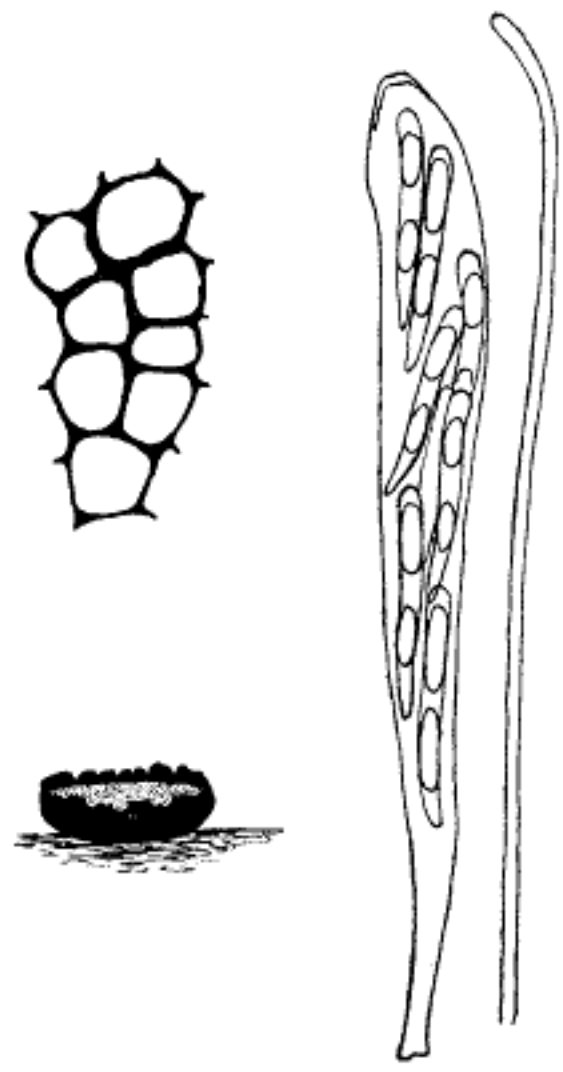

FIG. 6. *Peziza maura*. Habit sketch, × 15, after Phillips; surface cells, ascus and paraphysis, × 660.

Peziza (Mollisia) maura *Phillips & Plowright* in Grevillea 4: 122 (1876).

Patellaria maura (Phill. & Plowr.) Phill. & Plowr. apud Phillips, Manual of British Discomycetes: 368 (1887).

Lecanidion maurum (Phill. & Plowr.) Sacc., Sylloge Fungorum 8: 797 (1889).

The type material is a mere scrap of unidentified and very rotten wood

bearing a single apothecium, about 1 mm. diameter, sessile, with black, somewhat corrugated receptacle, incurved crenate margin and flat disk which now appears somewhat yellowish but is shown as gray in Phillips's painting. As so little survives I have not ventured to section it, but a minute portion picked off indicates a dermateaceous excipulum with surface cells 10–12 μ diameter, isodiametric, with dark red-brown walls. The underlying tissue, though paler, is also composed of isodiametric cells. Asci clavate, 8-spored, 115 × 12 μ, pore iodine-negative, ascospores irregularly biseriate, cylindric-clavate, often slightly curved, 25–28 × 3 μ (but 30–38 × 5–6 μ according to Phillips), nonseptate, with two large guttules; paraphyses slender, curved above, obtuse, 2 μ wide, not forming an epithecium. Phillips's sketch shows multiguttulate ascospores. Fig. 6.

Clearly this has nothing to do with Patellariaceae. The gross appearance and in some ways the characters of the hymenium suggest a *Godronia* but what little can be seen of the excipular structure seems rather dermateaceous. It is unwise to attempt placing the species until more abundant material comes to hand.

Peziza melatheja *Fr.*, Syst. Myc. 2, corrigenda: un-numbered sheet (1823).

Peziza melaxantha Fr., Syst. Myc. 2: 151 (1822), *non P. melaxantha* Fr., Syst. Myc. 2: 150 (1822).
Lachnella melaxantha (Fr.) Phillips, Manual of British Discomycetes: 266 (1887).
Trichopeziza melaxantha (Fr.) Sacc. Sylloge Fungorum 8: 428 (1889).
Dasyscypha melaxantha (Fr.) Massee, British Fungus Flora 4: 353 (1889).

Fries carelessly used the epithet *melaxantha* twice in *Peziza* in the same work and corrected the name of the present species to *melatheja* on a sheet of corrigenda appended to the second part of the volume. Though type material is not available at Kew, the species has been uniformly interpreted in this country for a century and a half and there seems no reason to suppose this interpretation is wrong. The systematic position of the fungus, however, has not been so clear and a good recent collection makes it advisable to discuss this afresh.

Apothecia scattered, superficial or with the base slightly inserted in the substrate, sessile, cup-shaped, becoming expanded, about 0·5 mm. diameter, disk black, receptacle often appearing vertically ribbed and furrowed, black but concealed by downy sulphur yellow hairs. Asci cylindric-clavate 25–35 × 4–5 μ, 8-spored, pore minute and iodine reaction doubtful; ascospores cylindric-clavate, 4–6 × 1 μ, straight or slightly curved, sometimes with minute polar guttules; paraphyses filiform, obtuse, 1 μ thick, scarcely exceeding the asci. Excipulum composed of brown-walled prismatic cells which run out into long tapering hairs, up to 60 μ long and 3 μ wide at the base, with walls colourless at the tip and coarsely encrusted with a yellow substance not readily soluble in water but at once dissolved in ammonia to give a yellow solution. Fig. 7, p. 476.

On dead branches of *Rubus* '*fruticosus*', lying in a wet ditch near the mausoleum at the foot of Loch Ba, Isle of Mull, 16 March 1971.

At first sight the fungus appears hyaloscyphaceous and the combination

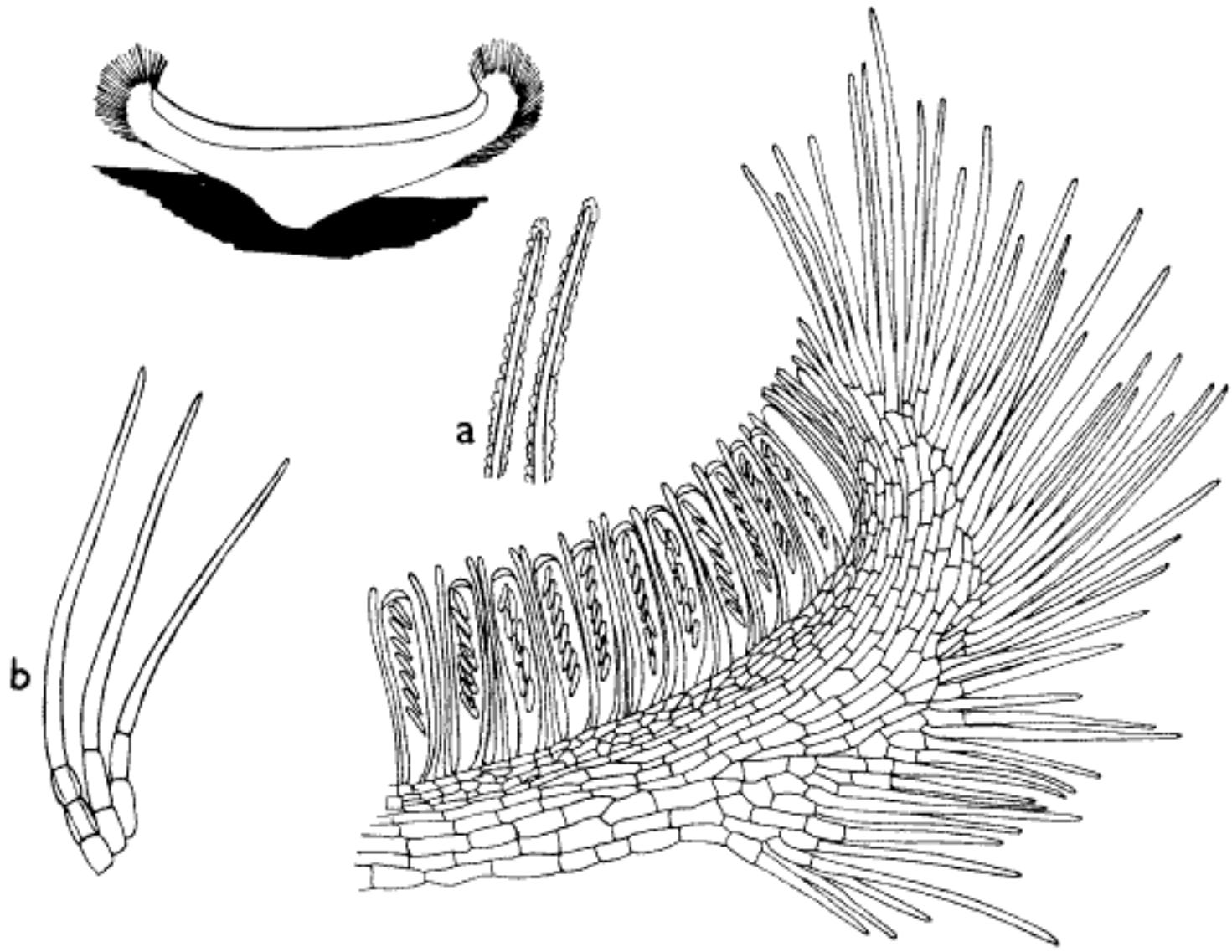

FIG. 7. *Chlorosplenium melatheja*. Diagrammatic section, × 100; section of margin and detached hairs as seen (a) in water and (b) in ammonia, × 660.

of slender tapering hairs with filiform paraphyses would then point to *Hyaloscypha*. The coarse incrustation of the hairs, their septate character below and the dark excipular hyphae are out of place there, however. Encrusted hairs and dark excipular cells would fit *Trichodiscus* but its type species has a more parenchymatous structure and much larger asci and ascospores. In spite of the conspicuous hairs the real affinity seems to lie rather with *Chlorosplenium*. The binomial **Chlorosplenium melatheja** (*Fr.*) *Dennis*, comb. nov., is therefore proposed. The type species, *C. chlora*, has much the same size and stature, is similarly clothed with fine downy hairs, though they are much shorter, has similar colouring and also yields a yellow solution with alkalis. It also has very similar rod-shaped ascospores and filiform paraphyses. Thin-walled slender hairs are also present in *C. aeruginellum*. The close relationship with *C. viridulum* (Massee & Morgan) Dennis is obvious, compare figure in Kew Bull. 17: 378 (1963), but that species seems to show dimorphism in the hairs which is not apparent in *C. melatheja*.