

Oviascoma, a new genus of Otideaceae

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A new genus *Oviascoma* is proposed to accommodate the fungus previously described as *Lamprospora crec'hqueraultii* var. *paludosa*. The genus is characterized by ovoid apothecia which are attached to the substratum at a narrow base, have a strongly convex hymenium, excipulum consisting of globose to subglobose cells and lacking a distinct margin. The operculate ascus with iodine negative reaction justifies its position in the *Otideaceae*.

In their account of *Ramsbottomia* W. D. Buckley, Benkert & Schumacher (1985) listed *Lamprospora crec'hqueraultii* var. *paludosa* Dennis as a doubtful species because the type collection no longer bears apothecia. They stated that the type material was fragmentary and considered that the species involved could be *Boudiera walkerae* Seaver. However, investigation of the type packet in K reveals more than 20 apothecia in good condition. Examination of this material shows that it represents a species distinct from *Lamprospora crec'hqueraultii* (P. Crouan & H. Crouan) Boud. and that there is no appropriate genus in which it can be placed. Therefore, a new genus is proposed here to accommodate this species. A full description of the species is also given.

The methods employed in this investigation are those given in Yao & Spooner (1995).

Oviascoma Y. J. Yao & Spooner, gen. nov. (Figs 1–5)

Etym.: *ovi-* Latin, egg-; *ascoma* Latin, ascus-containing structure; referring to the egg-shaped apothecium of the type species.

Apothecia solitaria vel gregaria, albida, in sicco brunneola, primum cylindrica demum ovoidea vel obovoidea vel globosa. *Discus* valde convexus, laevis. *Receptaculum* emarginatum, glabrum, ad basin angustatum. *Excipulum* e textura globulosa compositum; muri cellularum tenues; cellulae marginem versus elongatiusculae vel clavatae. *Asci* operculati, cylindrici, I-. *Ascospores* unicellulares, hyalinae, globosae vel subglobosae, spinis ornatae. *Paraphyses* filiformes, septatae.

Species typica: *Lamprospora crec'hqueraultii* var. *paludosa* Dennis (syn. *Oviascoma paludosum* (Dennis) Y. J. Yao & Spooner).

Apothecia solitaria or gregarious; whitish when fresh, brownish-orange to brown after drying; cylindrical at first, becoming ovoid or obovoid to almost globose. *Disc* strongly convex,

smooth. *Receptacle* emarginate, deeply cupulate, outer surface glabrous, attached to the substratum at a narrow base. *Excipulum* a *textura globulosa*, cells thin-walled, broadly ellipsoid to subglobose, marginal cells slightly elongate or clavate. *Asci* operculate, cylindric, I-. *Ascospores* unicellular, colourless, globose to subglobose, ornamented with spines. *Paraphyses* filiform, septate, flexuous.

Type species: *Lamprospora crec'hqueraultii* var. *paludosa* Dennis (syn. *Oviascoma paludosum* (Dennis) Y. J. Yao & Spooner).

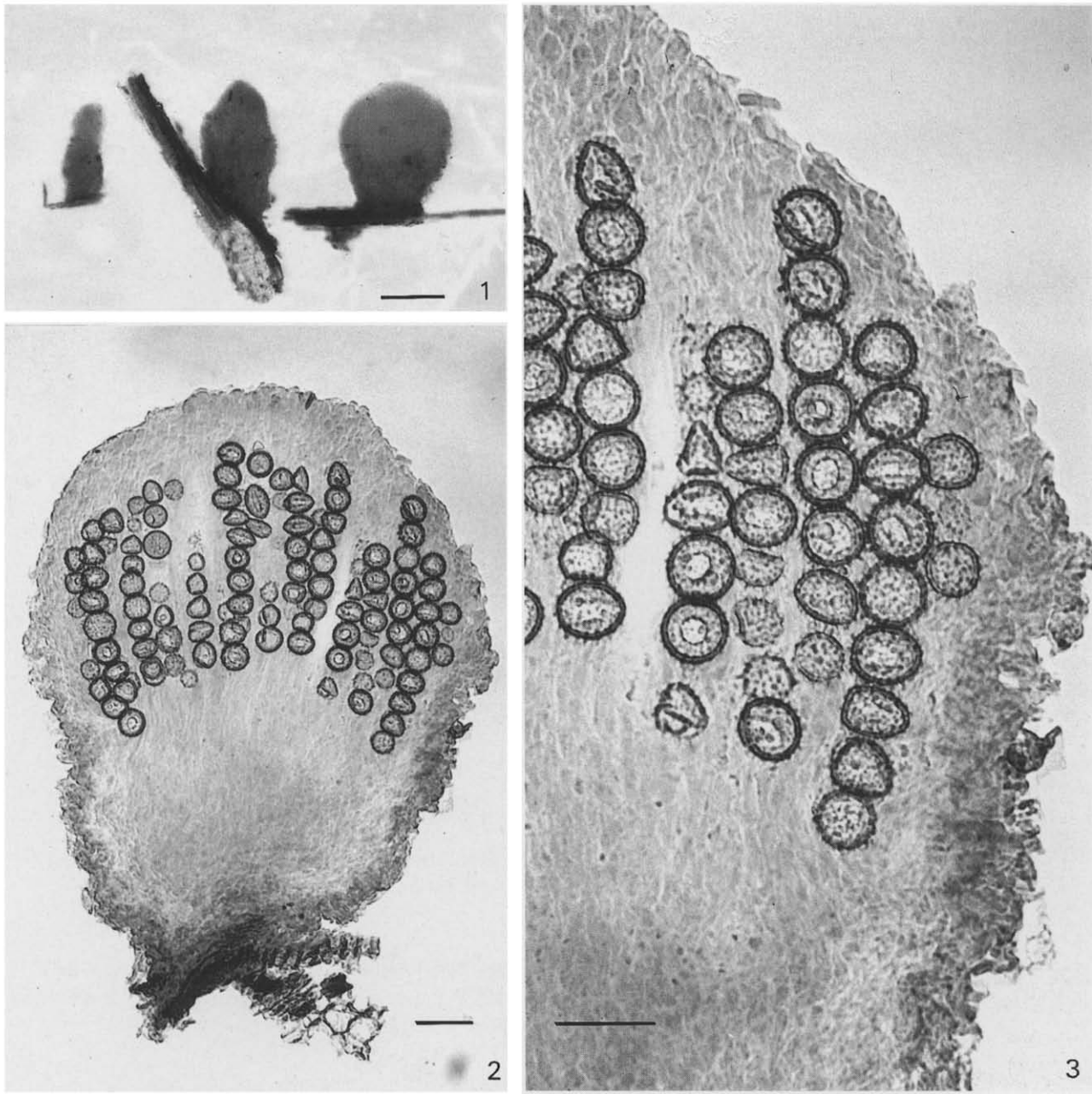
Oviascoma paludosum (Dennis) Y. J. Yao & Spooner, comb. nov. (Figs 1–5)

Lamprospora crec'hqueraultii var. *paludosa* Dennis in *Kew Bull.* 1955: 572 (1956).

Apothecia solitaria or gregarious; whitish when fresh, brownish-orange to brown after drying; cylindrical at first, becoming ovoid or obovoid to almost globose; taller than broad, 0.5–1.0 mm high, 0.3–0.8 mm diam. *Disc* strongly convex, smooth. *Receptacle* emarginate, deeply cupulate, outer surface glabrous, attached to the substratum at a narrow base. *Excipulum* a *textura globulosa*, cells thin-walled, almost uniform, broadly ellipsoid to subglobose, slightly smaller towards the surface, 18.0–31.0 × 14.0–25.0 µm, marginal cells slightly elongate or clavate, 28.0–35.0 × 15.0–20.0 µm. *Asci* operculate, I-, cylindric, 310–350 × 30.0–35.0 (–40.0) µm; 8-spored, spores uniseriate. *Ascospores* unicellular, colourless, globose to subglobose, 24.0–32.0 (–35.0) µm diam.; spore ornament of slender, often curved spines, 4.0–6.0 µm long, 1.0–2.0 µm broad at the base. *Paraphyses* filiform, septate, flexuous, thin-walled, 5.0–8.0 µm diam., gradually enlarged towards the clavate apex to 12.0–19.0 µm diam.

Specimen examined: England, Norfolk, Wheatfen, on rotting culms of *Carex riparia*, 3 Nov. 1946, E. A. Ellis (holotype, K).

This species resembles members of *Lamprospora* De Not. and *Ramsbottomia* in having globose to subglobose, ornamented



Figs 1–3. Photomicrograph of *Oviascoma paludosum* from the holotype. **Fig. 1.** Apothecia. Bar = 0.3 mm. **Fig. 2.** Vertical section of apothecium. Bar = 65 μ m. **Fig. 3.** Enlargement of the structure in the excipulum near the margin. Bar = 50 μ m.

spores. However, it is distinct in several respects. The apothecia in *O. paludosum* are emarginate, egg-shaped, taller than broad, and attached by a narrow base; the hymenium is strongly convex, even in dried material; and the excipulum consists of globose to subglobose cells. The apothecia of species of *Ramsbottomia* and those of *Lamprospora* are disc-shaped or cupulate with distinct margin, hymenium flat or concave when dried, and excipulum near the margin consisting of elongate cells. Moreover, the substratum of these fungi is also different. *Oviascoma paludosum* occurs on rotting vegetation, whilst *Lamprospora* and *Ramsbottomia* species are directly on bare soil or are associated with mosses.

From our examination of the type material, this species

differs from *Boudiera walkerae* (Seaver, 1939) in apothecial shape and spore size. *Oviascoma* may be confused with *Boudiera* Cooke as both include species with globose ascospores having echinulate ornament. However, the ascus wall of *Boudiera* stains blue in iodine, a crucial character which distinguishes Otideaceae from Pezizaceae. Ecology may, also, serve to distinguish these two genera, as species of *Boudiera* grow directly on soil (Dissing & Schumacher, 1979).

We wish to thank Dr R.W.G. Dennis for valuable discussion and permission to reproduce here his original drawings of apothecium and spores, and for reading the manuscript.

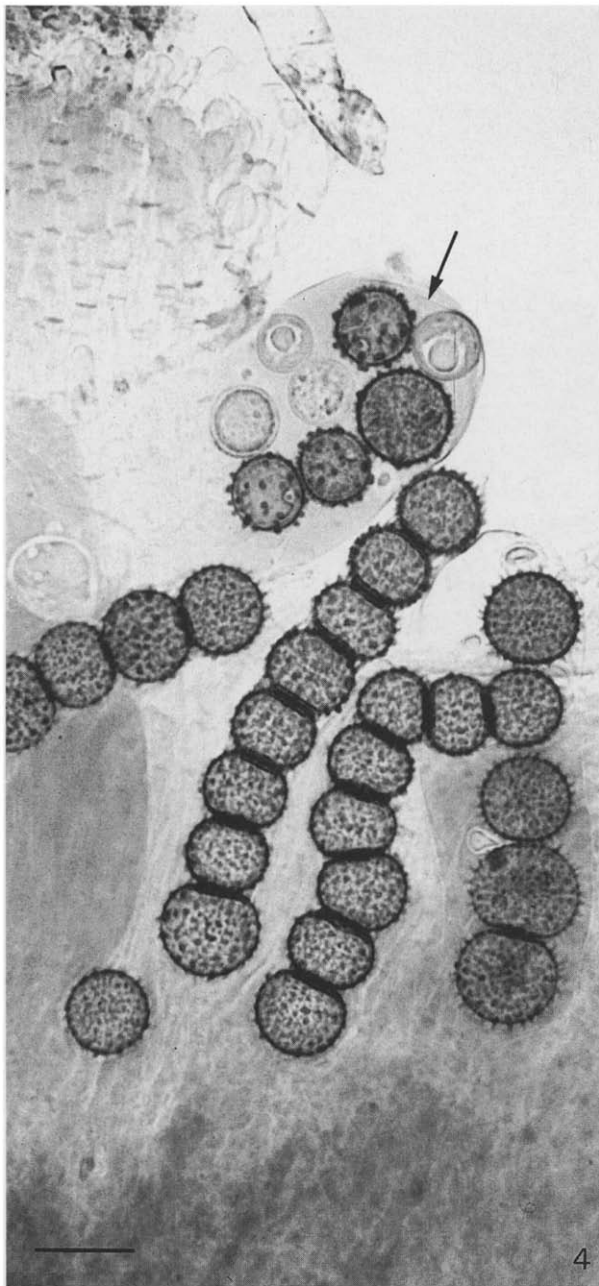
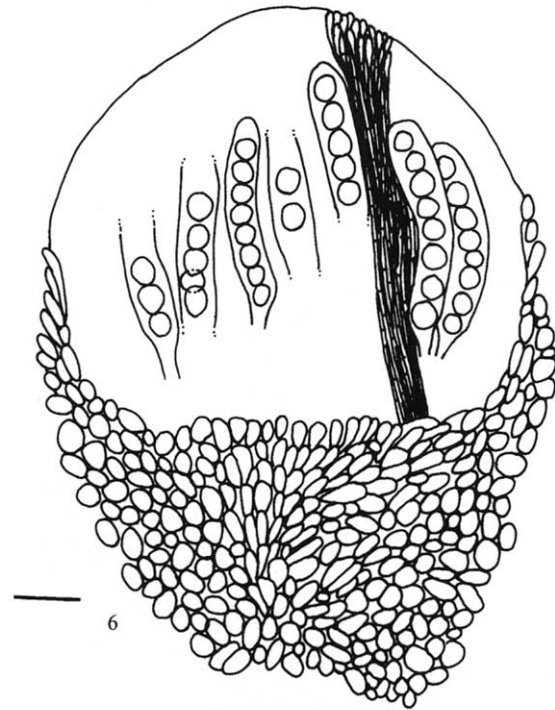
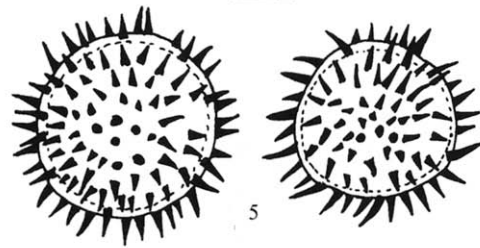


Fig. 4. Photomicrograph of *Oviascoma paludosum* from the holotype. Enlargement of asci and ascospores. An abnormal ascus with four degenerating spores is indicated by an arrow. Bar = 40 μ m.

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Figs 5–6. *Oviascoma paludosum* (holotype). **Fig. 5.** Ascospores. Bar = 10 μ m. **Fig. 6.** Vertical section of apothecium. Bar = 0.1 mm.

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