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SKYTTEA REFRACTIVA, A NEW LICHENICOLOUS DISCOMYCETE

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ABSTRACT. A new lichenicolous, odontotremoid discomycete, *Skyttea refractiva* Coppins is described from the British Isles and Luxembourg, where it is hosted by *Bacidia sabuletorum* and *Toninia lobulata*.

Sherwood *et al.* (1981) introduced the genus *Skyttea* for seven species of lichenicolous, odontotremoid discomycetes. A further five species have been added or described in Hawksworth (1982) and Diederich (1986). Careful scrutiny of lichens in both the field and herbarium will certainly lead to the discovery of many more of these inconspicuous fungi. The following new species is one such example.

Skyttea refractiva Coppins, **sp. nov.** Fig. 1.

S. thallophilae (P. Karsten) Sherw. & D. Hawksw. affinis, a qua imprimis differt pilis excipulorum longioribus et refractivis.

Holotypus. Anglia, Suffolk, Lakenheath Warren, in thallo *Toniniae lobulatae*, viii 1985, *V. J. Giavarini* (E).

Ascomata apothecia, erumpent from host thallus but soon appearing sessile, solitary or in small clusters, dark reddish brown but sometimes greyish (due to excipular hairs), at first ± globose, later cupulate with incurved excipulum, 160–360μm diam. at maturity. *Ectal excipulum* c.25–50μm thick, prolonged below to form a short, immersed, stipe-like base, red-brown in KOH, pseudoparenchymatous with cells c.4–7μm diam., but towards the margin the cells often becoming ± rectangular 5–14 × 2·5–5μm; hairs (setae) numerous, 18–57 × 3·5–4·5(–5)μm, slightly curved or flexuose, aseptate or with a single septum towards the base, each solid and with a refractive appearance in upper part (although some hairs at the margin tip are ± thin-walled throughout), hyaline or partly surrounded by a thin layer of red-brown pigment (± detaching in KOH). *Hymenium* dilute red-brown (K + purplish tinge), 50–55μm tall; paraphyses unbranched, usually simple but sometimes with a single septum in the lower half, 1·7–2μm wide, not swollen at apices. *Asci* subcylindrical, without any pronounced thickening at apex, 45–54 × 7μm, 8-spored. *Ascospores* ellipsoid or oblong-ellipsoid, aseptate, 2-guttulate, hyaline, 7–9 × 2·7–3·5μm. All parts non-amyloid, even after pre-treatment with 10% KOH.

ENGLAND. N Lincolnshire, Walesby, 90m, on *Bacidia sabuletorum* on limestone wall, 17 iv 1977, *P. M. Earland-Bennet* (E). E Suffolk, Stadbroke Church, on *B. sabuletorum*, 21 iv 1987, *C. J. B. Hitch* (E).

SCOTLAND. Mid-Perthshire, Ben Chonzie, 690m, on sterile whitish thallus [probably *Bacidia sabuletorum*] growing over bryophytes in dry crevice in calcareous rock, 4 viii 1976, *Coppins* 2103 (E).

LUXEMBOURG. Gutland: SSW Bascharage, près du Moulin de Bascharage, on *Bacidia sabuletorum*, 5 viii 1987, *P. Diederich* (Hb Diederich 8332).

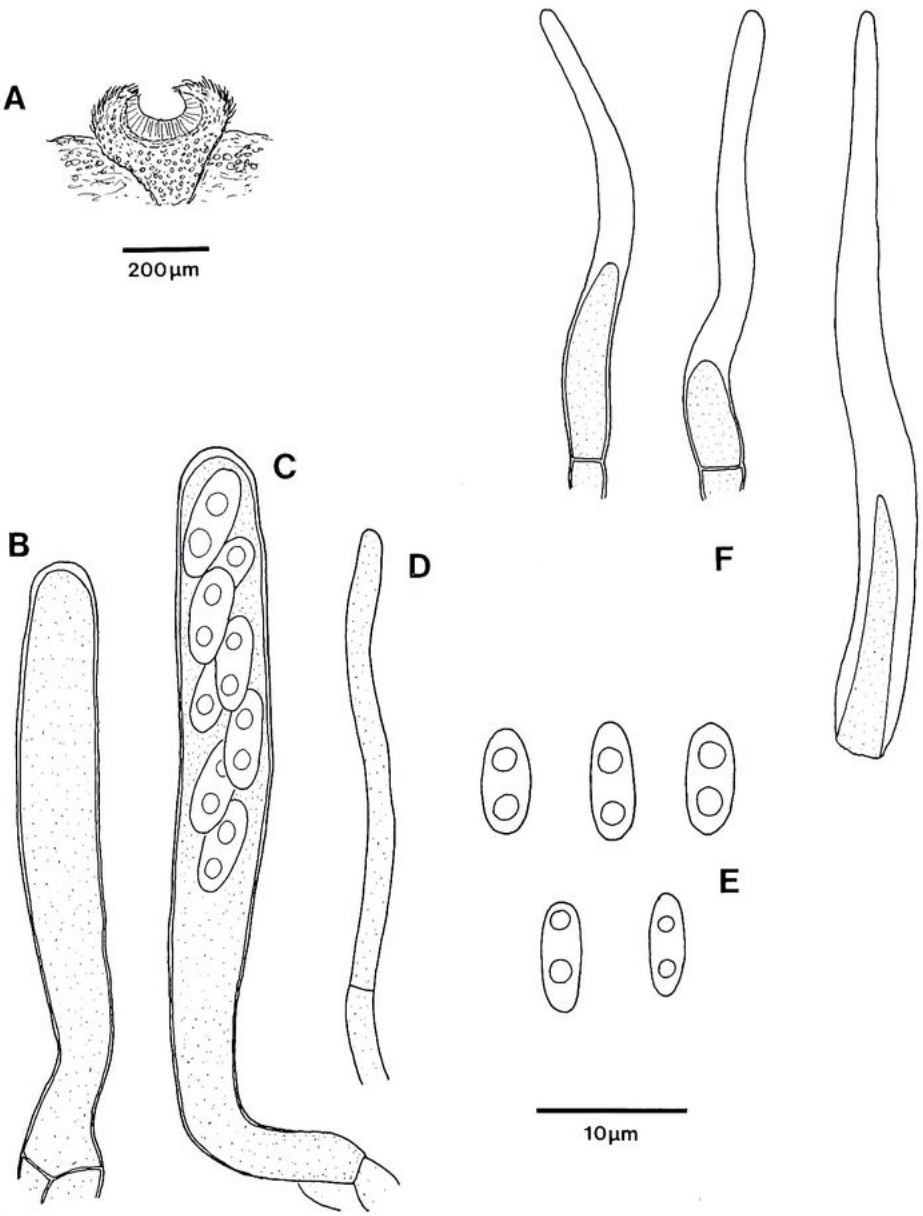

FIG. 1. *Skyttea refractiva*. A, vertical section of apothecium (sketch); B, immature ascus; C, mature ascus; D, paraphysis; E, ascopores; F, excipular hairs. From the holotype (E).

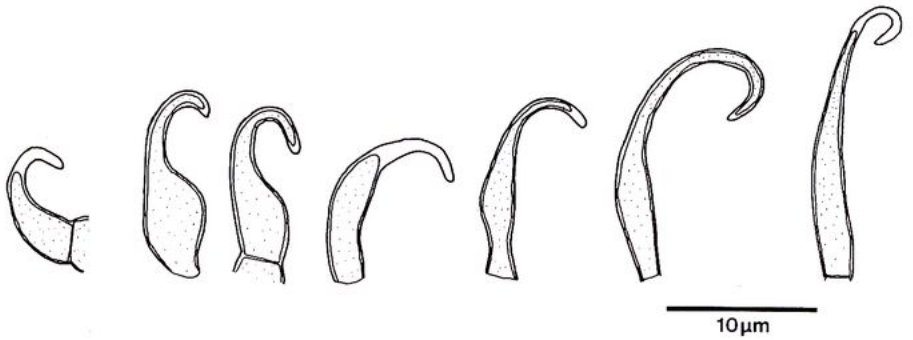

FIG. 2. *Skyttea lettaui*. Excipular hairs. From *Coppins* 12002 (E).

Skyttea refractiva is similar (especially regarding pigmentation of excipulum and apical structure of asci) to *S. thallophila* (Hawksworth, 1980; Sherwood *et al.*, 1981) but can be distinguished by its longer excipular hairs which are solid and refractive for more than half their length (Fig. 1F). The hairs of *S. thallophila* are thin-walled and scarcely exceed 30µm in length. *S. thallophila* occurs on thalli (and rarely apothecia) of *Lecanora chlarotera* agg. and *L. saligna* (Schrader) Zahlbr. whereas *S. refractiva* is so far known on *Bacidia sabuletorum* (Schreber) Lettau and *Toninia lobulata* (Sommerf.) Lynge. It should be noted that the last two host species are probably congeneric, neither of them belonging to the genus to which they are traditionally assigned.

Two other species of *Skyttea* have noticeably internally thickened, refractive hairs. *S. spinosa* D. Hawksw. & Coppins (Hawksworth, 1982) has smaller ascomata (to 150µm diam.) with a greenish excipulum, shorter hairs and smaller ascospores (6–7 × 1·5–2µm), and occurs on *Verrucaria* spp. *S. hawksworthii* Diederich (Diederich, 1986), that occurs on an unidentified crust (perhaps a *Verrucaria*), also has small apothecia (75–175µm diam.) and a greenish excipulum, but differs from both the preceding species in having 1-septate ascospores.

Examination of a recent collection of *S. lettaui* (Grumm.) D. Hawksw. (Italy, Toscana, Siena prov., SE of Radda in Chianti, 5 v 1985, *Coppins* 12002, E, IMI) shows it to have a similar ascus structure and excipulum pigmentation to *S. refractiva* and *S. thallophila*. However, this weak parasite of *Evernia prunastri* differs from both these species in having small (10–25 × 2–2·7µm) hairs with slender (0·7–1µm wide), strongly curved, 'hooked' apices (that sometimes appear to be solid) (Fig. 2).

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