

3126 (IMI 102783!). PHILIPPINES: Prov. Laguna, nr Los Baños, Mt Maquiling, Oct. 1913, on dead *Bambusa vulgaris*, C. F. Baker 5 & suppl. 2 [mixed with *Rosellinia* sp.], Fungi Malayana (K!). SRI LANKA: Peradeniya, March 1912, 3486 (K!). TAIWAN: Kaohsiung, Yako, Liyuan, 29 Jan. 1988, indet. wood [bamboo!], A. Sivanesan 324, as *Rosellinia* sp. (IMI 323692!).

Astrocystis mirabilis differs from *A. bambusae* in being truly erumpent and in having a different spore shape and size. Furthermore, the conidia are smooth, unlike those of *A. bambusae*. Long-stalked asci were reported for this species by Ju & Rogers (1990), but we have been unable to observe these. These authors also stated that a primary appendage probably is present in immature spores, a character which is likely to occur throughout the genus.

Rehm (1916) cited *Auerswaldia arengae* Racib. as a synonym of '*Anthostomella mirabilis* forma *discophora* Syd.' [*Anthostomella discophora* Syd. & P. Syd., Philipp. J. Sci., C. Bot. 8(6): 485, (1913) 1914], but, on the following page, he also made the combination for the *Auerswaldia* in *Anthostomella*. This synonymy and/or placement seem highly unlikely since Raciborski (1900) described *Auerswaldia arengae* as having globose ascospores and stromata several cm long. Clearly, it does not belong in the *Xylariaceae*, although we have not seen the type of either name.

Anthostomella caulicola (Ces.) Sacc. may be a synonym of *Astrocystis mirabilis* Eriksson & Yue 1988, but we have not seen material of this species.

2. *Astrocystis bambusae* (Henn.) Læssøe & Spooner comb. nov.

Rosellinia bambusae Henn. in Hedwigia 47(5): 256 (1908). Type: Philippines, prov. Pampanga, Luzon, Mt Arayat, Feb. 1906, E. D. Merrill, Bureau of Science 5030 (isotypes K!, BPI).

Anthostomella mirabilis (Berk. & Broome) Höhn. var. *bambusae* (Henn.) Rehm in Leaflet. Philipp. Bot. 6: 2196 (1914).

DESCRIPTION & ILLUSTRATION. See Ju & Rogers (1990). We have obtained the following spore measurements: (11–)12–14.5(–15.5) × 4–5.5(–5.8) µm (type: (11–)12–13.5 × 4–4.5(–5) µm). This range agrees with that reported in Ju & Rogers (1990). Figs. 9F–G.

ANAMORPH. *Acanthodochium* sp. (Ju & Rogers 1990).

HOSTS. *Bambusa*, *Schizostachyum* sp., **Dendrocalamus latiflorus*, *Oxytenanthera* sp., **Phyllostachys makinoi* (Gramineae; Bambuseae) (* from Ju & Rogers 1990).

DISTRIBUTION. Widespread: *Guyana, Ghana, India, Philippines, Thailand, *Taiwan, *China (*from Ju & Rogers 1990).

ADDITIONAL COLLECTIONS STUDIED. [GHANA], Gold Coast, Kamponase, 8 May 1949, on *Oxytenanthera abyssinica* [corrected on K label to *Bambusa vulgaris* by Hughes?], S. J. Hughes 230 as *R. sublimbata* (IMI 43505!, K!). INDIA: Jabalpur, 29 July 1983, on *Bambusa* sp., A. Pandey 12, as *Astrocystis sublimbata* (IMI 279814!); Jabalpur, comm. 20 Aug. 1977, on *Bambusa* sp., R. C. Rajak 10 (IMI 215860!);

FIG. 3. A *Anthostoma amoenum*: A Ascus tips and ascospores (type). B *Euepixylon udum*. Ascus (× 666), ascus tips and ascospores (Scotland, Wester Ross, Loch Maree, on *Quercus*, 22 Aug. 1963, Dennis; K). C *Helicogermstila raudejrovi*: ascospores. (France ex herb. Hawley; K). D *Anthostoma amoenum* sensu Hawley: ascus tips and ascospores (England, Keswick; K). All × 1000 unless otherwise stated.

B. Plowright as *S. cubicular* (K!) is immature *Nemania* cf. *confluens*. Another collection in K, without locality details, but probably British, also ex herb. *Plowright*, is *Nemania confluens*. '*Anthostoma*' *cubicular* should be deleted from the British list.

Auerswald (1868a, b) was the first to realise that the true *Sphaeria cubicularis* was a species of *Robergea* Desm. (*Ostropales*) and renamed the pyrenomycete as *Sordaria fleischhakii* under heated protests from Nitschke (1868). He only gave very limited descriptive notes but we accept them as sufficient for valid publication, rather than introducing yet another name. Rehm (1912) and Höhnelt (1918a) rejected Nitschke's viewpoint but Martin (1969) ignored their arguments. In the British Checklist, Cannon *et al.* (1985) accept both views!

The carbonized stroma is not nearly as obvious as that in *H. celastri*. The species is evidently very similar to *H. gaudefroyi*, but that appears to be completely without 'carbonization' in the stroma.

4. *Helicogermis* *gaudefroyi* (Fabre) Læssøe & Spooner comb. nov.

Rosellinia gaudefroyi Fabre in Ann. Sci. Nat. Bot. ser. 6, 9: 79, tab. 1. fig. 8 (1878) (1879). Type: France, Vaucluse, Sérignan, on *Quercus pubescens*, June ['Julio' in Fabre] 1879, H. Fabre (FAB; citation after Petrini (1992)).

Anthostoma vincensii G. Arnaud in Ann. Sci. Nat. Bot. ser. 10, 7 (5-6): 717 & Fig. p. 662. Type: France, Montpellier, sur rameau tombé de *Quercus sessiliflora pubescens*, 31 May 1911 (not seen).

Stromata immersed to semi-immersed in strongly decayed wood, uni-peritheciate, ostiole surrounded by white evanescent stromatic tissue; perithecia embedded in sparse soft stromatic tissue, spherical, 0.6-0.9 mm diam.

Asci 8-spored, c. 20 μ m wide, short-stalked (no undamaged mature asci seen), apical apparatus 4.8-5.5 \times 6.4-6.8 μ m, medium blue in Melzer's Reagent, not very clearly outlined, tapering towards base; ascospores (29-)30.4-36(-44) \times (12-)13-15(-17) μ m, oblong, inequilateral, medium brown, 0-1-guttulate, germ slit very prominent, spiralling the whole circumference, no appendages or gel sheath observed. Fig. 3C.

ANAMORPH. Unknown.

HOST. *Fagaceae*.

DISTRIBUTION. France.

COLLECTION STUDIED. [France], Melundun[o?] [Melun near Paris], ad asseris [pieces of wood; either *Quercus* or *Castanea* det. P. Gasson], 1849, Baker[?], as *Sphaeria cubicular* f. *major* (K!, ex herb. Hawley).

The description of *R. gaudefroyi* (spores 30-34 \times 11-13 μ m) and the substrate make it safe to assume that this taxon is conspecific with the Melun material described above. Furthermore, Petrini (1992) concluded, based on type study, that this taxon is a synonym of *Anthostomella calligoni*, which shares many characters with the material described above, but which we have kept separate for the time being (see below).

Although we have not seen the type of *Anthostoma vincensii*, with spores described as 25-30 \times 10 μ m, we are confident that the Melun material described above is

specific with the Montpellier material. This is further supported by the host termination. The material is too sparse for detailed description.

Anthostomella calligoni Frolov in Novosti Sist. Nizsh. Rast. 7: 189–190, Fig. (1970).

We have not studied material of this taxon. Petrini, L. E. *et al.* (1987) gave a description based on endophytic material isolated from specimens of *Suaeda frutescens* Forssk. (*Chenopodiaceae*) from Britain. Their material did not produce spores and the extent of stromatic development is not clear from their description. The perithecia are said to be either completely immersed in the medium or partially superficial and then with a white tomentose covering. The apical apparatus of the ascus is drawn as very massive but additional material fruiting on stems of *Suaeda* is said to have an ascus apparatus with blurred contours. The spores and asci are remarkably similar to those of the preceding species of *Helicogermis* and we feel justified in referring it provisionally to this genus.

The description by Frolov (*loc. cit.*) is rather superficial but his plate indicates a stromatic configuration typical of *Anthostomella*. The species was described from *Calligonum* sp. (*Polygonaceae*). It has asci which are short-stipitate, but no details are given concerning the apical apparatus. The spore size and slit morphology match that given by Petrini, L. E. *et al.* (1987). However, in view of difference in host, the identity of the material reported by Petrini, L. E. *et al.* requires confirmation.

14. *Obolarina* Pouzar Česká Mykol. 40(1): 7 (1986).

Type: *O. dryophila* (Tul. & C. Tul.) Pouzar.

Pouzar (1986) erected this genus for *Nummularia dryophila* Tul. & C. Tul., characterized by pulvinate, subcortical stromata with ostiolate ascocarps, but indehiscent asci (Candoussau & Rogers 1990). The ascospores have a spiral germ slit (Fig. 6D) and, based on this character, both Hawksworth (in Eriksson & Hawksworth 1986) and Eriksson & Hawksworth (1991) suggested that the genus is synonymous with *Helicogermis*. However, the two genera share no other characters and are clearly distinct. The position of *Obolarina* within the *Xylariaceae* was doubted by Pouzar but the possession of a *Rhinoctadiella*-like anamorph reported by Candoussau & Rogers (1990) would suggest that it is, indeed, correctly placed in this family.

15. *Lopadostoma* (Nitschke) Traverso Fl. ital. crypt. 2(1): 169 (1906).

Type: *L. turgidum* (Pers.: Fr.) Traverso.

Martin (1969) studied this genus to which he referred 16 species, including 14 which were new but invalid combinations, 12 of which were later validated by Martin (1976). Amongst these was *Anthostoma cubiculare* (Fr.) Nitschke sensu Nitschke, which is here referred to *Helicogermis* (as *H. fleischhakeri*). Martin

