strains of *P. carpinea*, while the morphology of these species is quite divergent.

Of the other species occurring on alders in North America, *P. aurantiaca* also has ellipsoid ascospores (average L/W 2.5–2.7), but its apothecia are sessile and barely protruding from the bark, with a pruinose to almost pulverulent and persistent margin, and paraphyses only up to 5.5 µm wide at the top (10 µm in *P. heterochroma*). In addition, the macroconidia of *P. aurantiaca* are on average 8.7–11.3 µm wide (5.5–7.2 µm in *P. heterochroma*).

16. Pezicula linda Korf — Fig. 25.

Pezicula linda Korf, Mycotaxon 7: 489. 1978.
Type.— CANARY ISLANDS: Tenerife, Fuente de las Pulgas, Las Yedras, Monte de las Mercedes, on cut wood, Korf *et al.* (s.n.?), 7.I.1976. (CUP-MM 264, holotype).

ANAMORPH.— Unknown.

DESCRIPTION *in vivo*.— **Apothecia** erumpent, solitary, rarely 2–3 on a basal stroma, subsessile. **Disc** circular, initially plane, then convex, pruinose, pale greyish ochreous to pale cinnamon when dry, brighter when moist ('white', cf. Korf, 1978), 0.2–0.5 mm diam. **Receptacle** concolorous, somewhat darker at the base, pruinose; margin at first entire, with a slightly raised rim, soon irregularly torn and hidden.

Basal stroma mostly weakly developed, superficial on bare wood, colourless to pale yellow-brown, consisting of isodiametric cells with thickened and gelatinized walls. **Medullary excipulum** hyaline to pale yellowish, consisting of vertical rows of hyphal to prismatic cells with hyaline, gelatinized, thick walls. **Ectal excipulum** pale yellow to pale orange-brown, composed of angular to globose cells in the lower part and hyphal cells near the margin, with pale yellow and gelatinized cell walls, this tissue ending in numerous subclavate to pyriform cells at the surface. **Subhymenium** hyaline, composed of interwoven elements, which are easily separated in water mounts.

Asci clavate to cylindrical–clavate, the apex truncate–rounded (NT), narrowed gradually into a stalk of variable length, 85–120 × 15.5–20 µm (NT), 8-spored; the apical apparatus IKI–, red in fresh state (cf. Korf, 1978), but blue in herbarium material, Mlz+. **Ascospores** inequilateral, ellipsoid to fusoid (average L/W 3.2), straight or slightly curved, ends rounded or one somewhat pointed, 0-septate, thin-walled, hyaline, filled with greenish oil droplets (T, cf. Korf, 1978); (18–)22.0–27.4(–32) × (5.5–)6.6–9.0(–10) µm, average 24.7 × 7.8 µm (holotype, N = 30; NT); later 2–3-septate; conidia unknown. **Paraphyses** filiform, septate, obtuse, branched, anastomosing in the lower part, hyaline, 1.5–2.5 µm wide; apical cells swollen up to 7 µm, with hyaline and smooth walls.

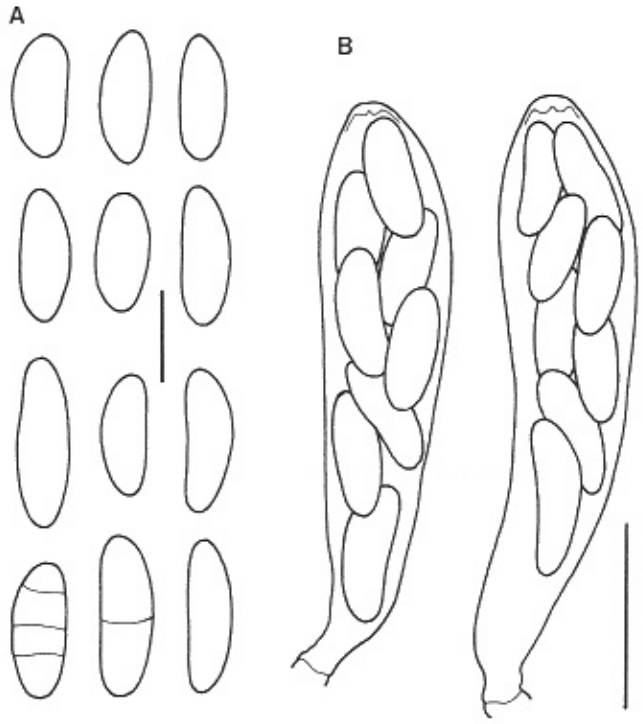

Fig. 26. *Pezicula melastomatis*, holotype (S).— **A.** Ascospores (NT; scale bar = 10 µm). **B.** Asci (NT; scale bar = 25 µm).

SUBSTRATUM.— On cut, decorticated wood.

DISTRIBUTION.— Known only from the type-locality on Tenerife.

DISCUSSION.— The apothecia were described by Korf (1978) as nearly white, and in the holotype they are still quite pale, slightly greyish ochreous-cinnamon when dry, brighter after rehydration. The apothecia arise directly from the transverse and radial surfaces of a piece of bare, unidentified hardwood. No anamorph is present in this material. Bare wood is a rather unusual substratum for *Pezicula*, but *P. cinnamomea* sometimes also appears on the woody surface of stubs with apothecia arising from a minute superficial stroma.

This species is probably very closely related to *P. cinnamomea*, but it can be distinguished morphologically by paler apothecia, and strongly gelatinized cells throughout the excipulum. The subclavate to pyriform cells are also found on the receptacle of *P. cinnamomea*, but rarely in such an abundance as in *P. linda*. The ascospores of *P. cinnamomea* usually quickly form transverse septa and produce conidia. In *P. linda* septa are tardily formed, and conidia are unknown. Only the collection of additional material and isolation in pure culture may shed more light on a possible anamorph of *P.*

linda, and its relationship with other species of the genus.

In their key to the *Pezicula* species from Macaronesia, Iturriaga & Korf (1997) characterized the tips of the paraphyses in *P. linda* as 'propoloid-anastomosing', versus 'non-propoloid' in other species of the genus. I would not use this term, as these paraphyses of *P. linda* are much less irregular in outline than those of *Propolis* or *Polydesmia* ('propoloid' *sensu auct.*), in fact they are quite typical of *Pezicula*. Moreover, I have only observed anastomosis in the lower part of the paraphyses.

17. Pezicula melastomatis Rehm — Fig. 26, 45 D, E.

Pezicula melastomatis Rehm, Ann. Mycol. 9: 368. 1911.

Type.— BRAZIL: São Leopoldo, Rio Grande do Sul, on branch of unidentified *Melastomataceae*, S. J. Theißen s.n., 19.I.1910 (S, holotype).

ANAMORPH.— Unknown.

DESCRIPTION *in vivo*.— **Apothecia** erumpent, solitary or 2–4 on a basal stroma, subsessile. **Disc** circular, initially plane, then convex, pruinose, pale ochreous when dry, pale luteous to almost colourless when moist, 0.3–1.0 mm diam. **Receptacle** concolorous, pruinose; margin first entire, with a slightly raised rim, later torn and hidden.

Basal stroma weakly developed, immersed, hyaline, consisting of angular cells with thickened walls. **Medullary excipulum** hyaline, consisting of vertical rows of prismatic to hyphal cells with slightly thickened walls. **Ectal excipulum** pale luteous, composed of angular cells 8–15 µm diam with hyaline walls up to 1.5 µm thick, towards the margin of more elongated cells, which at the surface give rise to numerous pyriform or clavate cells 12–18 × 5–7 µm with hyaline walls. **Subhymenium** hyaline, composed of interwoven hyphae, which are easily separated in water mounts.

Asci clavate to cylindrical–clavate, the apex truncate–rounded (NT), narrowed gradually or abruptly into a short stalk, 65–75 × 12.5–16 µm (NT), 8-spored; the apical apparatus IKI+ or –, grey in rehydrated herbarium material, Mlz–. **Ascospores** inequilateral, ellipsoid (average L/W 2.6), straight or slightly curved, with rounded or slightly tapering ends, 0-septate, thin-walled, hyaline, filled with greenish oil masses (NT), (13.5–)13.7–16.5(–19) × (4.5–)5.2–6.4(–8) µm, average 15.1 × 5.8 µm (holotype, N = 30; NT); tardily becoming 1–3-septate, the walls thicker, hyaline; conidia unknown. **Paraphyses** filiform, septate, obtuse, branched, hyaline, 1.5–2.5 µm wide; apical cells swollen up to 4.5 µm, with hyaline, smooth or minutely roughened walls.

SUBSTRATUM.— On dead bark of a melastomataceous host.

DISTRIBUTION.— Known only from the type locality in Brazil.

DISCUSSION.— No anamorph was observed in the type material, which is the only collection so far reported of this species. The type contains few but well-preserved apothecia in various stages of development. The species is characterized by unusually pale apothecia, and abundant club-shaped cells on the receptacle. The asci and ascospores are rather small, but morphologically typical of *Pezicula*. Somewhat similar species have recently been described in the genus *Polydesmia* (Korf, 1978; Raitviir & Galan, 1995), but these are distinct from *Pezicula melastomatis* as they lack a basal stroma, have long-stalked asci, and 'propoloid' paraphyses, i.e. irregularly coiled in the upper part.

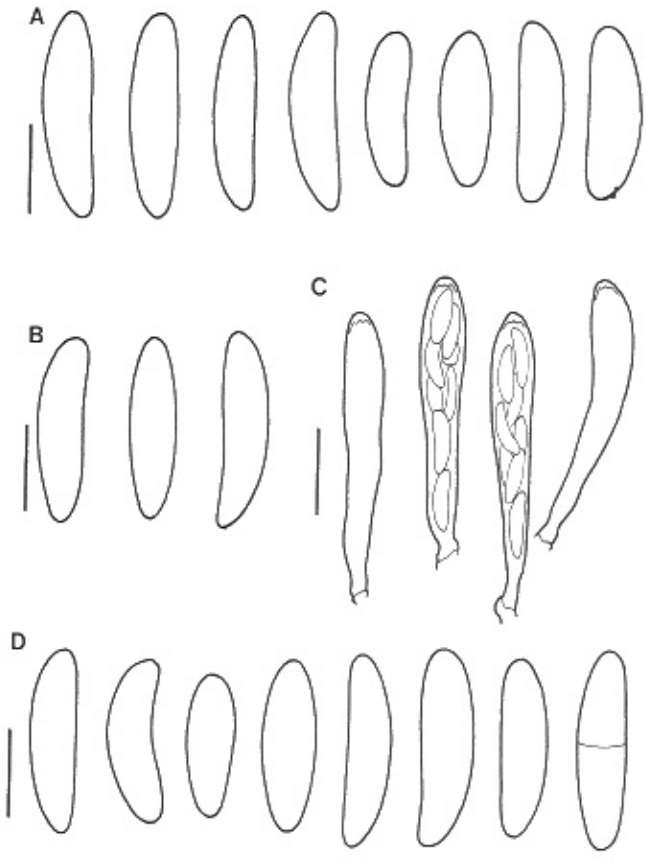

Fig. 27. *Pezicula myrtillina*.— **A.** Lectotype *P. myrtillina*, ascospores (NT; scale bar = 10 µm). **B, C.** Holotype of *P. callunae*. B. Ascospores (NT; scale bar = 10 µm). C. Asci (NT; scale bar = 25 µm). **D.** DAOM 107179, ascospores (NT; scale bar = 10 µm).