

(3-)3.5-4.5 [ $\bar{x}$  = 4]  $\mu\text{m}$ ); apical cell conic, colourless, thin-walled, smooth, 2.5-4 [ $\bar{x}$  = 3]  $\mu\text{m}$  long; appendages tubular, attenuated, unbranched; apical appendage single, 3-10 [ $\bar{x}$  = 6.2]  $\mu\text{m}$  long; basal appendage single, excentric, 2-11 [ $\bar{x}$  = 6.5]  $\mu\text{m}$  long; mean conidium length/width ratio = 3.1:1.

Habitat: On *Arbutus menziesii*.

Specimens examined: 1. DAOM 81545, on *A. menziesii*, Smith River, del Norte Co., California, U.S.A., V.1933, H.E.Parks 3990; 2. BPI, on senescent leaves of *A. menziesii*, Store Gulch campground N. of Selma, Josephine Co., Oregon, U.S.A., 2.VII.1972, M.Sherwood 543.

Known distribution: U.S.A.

The fungus is associated with oval to irregular, brown spots with indented margins. The median cells of the conidia are ornamented with verrucosities aligned on the periclinal wall as more or less longitudinal striae.

Sutton (1963) included *Amphichaeta hispanica* and *A. rhododendri* in the synonymy of *Cryptostictis arbuti*, and also added *Cistus* sp., *Ledum glandulosum* and *Rhododendron* sp. to the host list of the fungus and Algeria, Portugal and Spain to its geographical distribution records. These have not been verified here.

111.3. *Sarcostroma berberidis* (Lind) Nag Raj comb. nov.

Fig. 111.3

≡ *Monochaetia berberidis* Lind, Rostrup's Danish Fungi: 489, 1913.

Caulicolous and foliicolous. Conidiomata acervular, hypophyllous, scattered to gregarious and occasionally confluent, subepidermal or intraperidermal in origin, innate-erumpent, elongate, oval, rounded or irregular in outline, 150-300  $\mu\text{m}$  wide, 40-130  $\mu\text{m}$  deep, glabrous, dull black to glistening black, dehiscing by an irregular rupture in the overlying host tissue; basal stroma of a few cells and up to 20  $\mu\text{m}$  thick, of colourless textura angularis. Conidiophores arising from the upper cells of the basal stroma, unbranched or branched, 1-2-septate, colourless, smooth, up to 30  $\mu\text{m}$  long, invested in mucus. Conidiogenous cells subcylindrical, lageniform or ampulliform with moderate apical periclinal thickenings, colourless, thin-walled, smooth, 7-22 X 2-3.5 [ $\bar{x}$  = 14.5 X 2.7]  $\mu\text{m}$ , with up to 4 proliferations. Conidia fusiform, 4-septate, 17-22 X 6-8(-8.5) [ $\bar{x}$  = 19.5 X 6.7]  $\mu\text{m}$ , bearing appendages; basal cell obconic with a truncate base, colourless to almost colourless in the upper half, colourless below, thin-walled, smooth, (2-)2.5-3.5 [ $\bar{x}$  = 3]  $\mu\text{m}$  long; 3 median cells doliiform, walls thick, verrucose, constricted at the septa or not, brown, together 13-15(-16) [ $\bar{x}$  = 14]  $\mu\text{m}$  long (second cell from the base (3.5-)4-6 [ $\bar{x}$  = 5]  $\mu\text{m}$ , third cell 4-5(-6) [ $\bar{x}$  = 4.7]  $\mu\text{m}$ , fourth cell 4-4.5(-5) [ $\bar{x}$  = 4.3]  $\mu\text{m}$ ); apical cell conic, almost colourless in the lower half, colourless above, thin-walled, smooth, (2-)2.5-3 [ $\bar{x}$  = 2.8]  $\mu\text{m}$  long; appendages tubular, attenuated, unbranched, flexuous; apical appendage single, 15-33 [ $\bar{x}$  = 24]  $\mu\text{m}$  long; basal appendage single, excentric, 9-36 [ $\bar{x}$  = 22.5]  $\mu\text{m}$  long; mean conidium length/width ratio = 2.9:1.

Habitat: On leaves and twigs of *Berberis buxifolia*.

Specimen examined: C [Holotype], Gaardbogaard, Jylland, Denmark, XII.1897, Jørg. Larsen.

Known distribution: Denmark.

111.4. *Sarcostroma bisetulatum* (Guba) Nag Raj comb. nov.

Fig. 111.4

≡ *Cryptostictis bisetulata* Guba, Monograph of *Monochaetia* and *Pestalotia*: 272, 1961 [as 'nom. nov.' for *Pestalotia bicornis* Durieu & Montagne, ?invalidly published].

Foliicolous. Conidiomata stromatic, acervuloid, epiphyllous, scattered to gregarious, intraepidermal in origin, innate-erumpent, oval to rounded in outline, 200-300  $\mu\text{m}$  wide, 90-170  $\mu\text{m}$  deep, unilocular, glabrous, black, dehiscing by an irregular rupture in the overlying host tissue; basal stroma moderately developed, up to 20  $\mu\text{m}$  thick, of textura angularis, cells thick-walled, encrusted, pale brown, becoming thin-walled and paler toward the conidial hymenium. Conidiophores arising at the base and part way up the sides, unbranched, 1-2-septate, colourless, smooth, up to 40  $\mu\text{m}$  long, invested in mucus. Conidiogenous cells cylindrical to subcylindrical, colourless, thin-walled, smooth, 7-13(-16) X 2-3 [ $\bar{x}$  = 10 X 2.5]  $\mu\text{m}$ , with up to 3 annellations. Conidia fusiform, 4-septate, 17-21 X 6.5-7.5 [ $\bar{x}$  = 18.5 X 7]  $\mu\text{m}$ , bearing appendages; basal cell obconic with a truncate base, colourless to almost colourless, thin-walled, 1.5-4 [ $\bar{x}$  = 2.7]  $\mu\text{m}$  long; 3 median cells doliiform to short cylindrical with thick, verruculose walls often constricted at the septa, pale yellowish brown, together 12.5-13.5(-15) [ $\bar{x}$  = 13]  $\mu\text{m}$  long (second cell from the base 4.5-5 [ $\bar{x}$  = 4.7]  $\mu\text{m}$ , third and

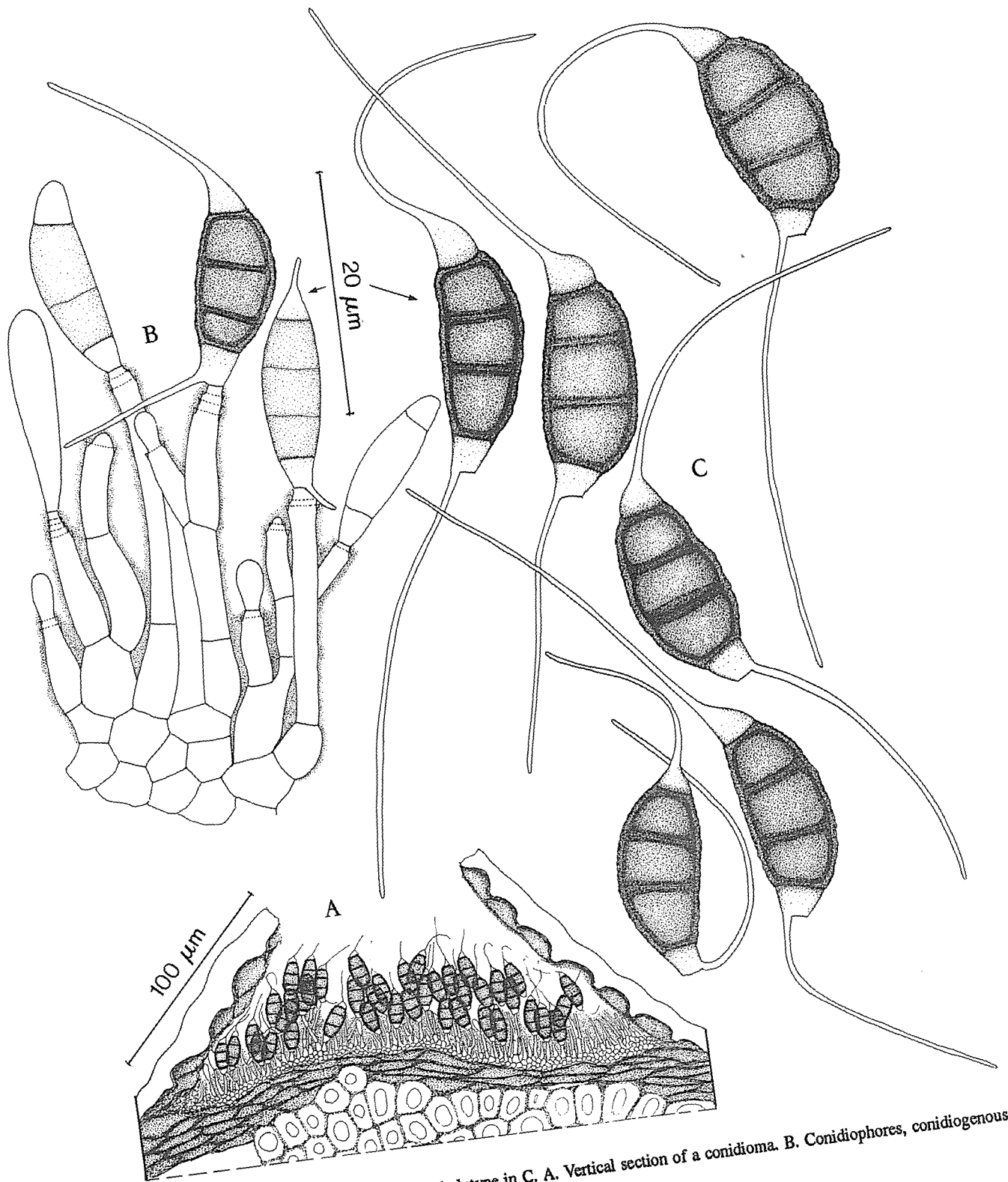


Figure 111.3. *Sarcostroma berberidis* ex holotype in C. A. Vertical section of a conidioma. B. Conidiophores, conidiogenous cells and developing conidia. C. Mature conidia.