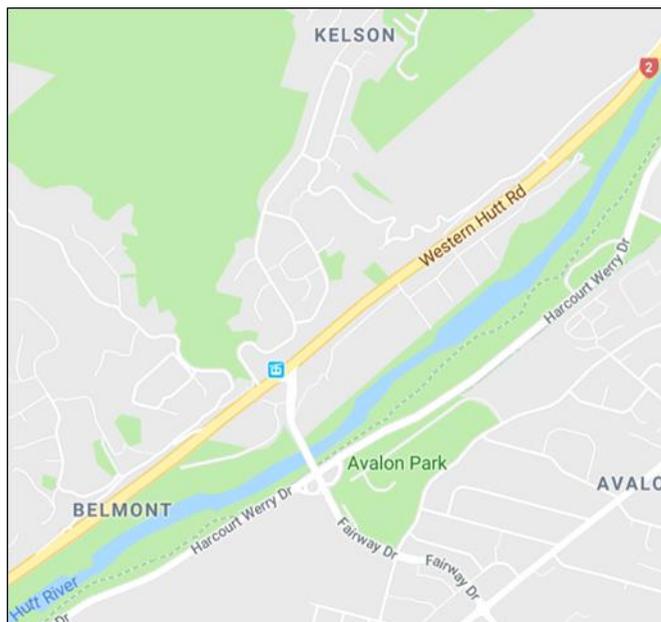


***Rosellinia communis* L.E. Petrini with *Geniculosporium* anamorph AEB 1325 (= PDD 117243) - A good match**

Collection date: 1 May 2019

Collection site: Avalon Park, Lower Hutt



Substrate: decorticated, soft, decayed, dry *Eucalyptus* wood – a dead, downed, branch fragment approx. 3 cm in diameter.

Collector and Identifier: Dan Mahoney

Voucher material: dried herbarium specimen AEB 1325 (= PDD 117243) [herbarium packet includes 2 SMF (Shear's mounting fluid) and 1 Melzer's reagent semi-permanent slide mounts]; Dan's in situ dissecting scope photos and his compound scope photos of microscopic detail.

Description and comment:

See the annotated description and illustrations of *R. communis* (pp. 92–96) in 'Petrini, L.E. 2003. *Rosellinia* and related genera in New Zealand. *New Zealand Journal of Botany* 41: 71–138', on the following pages.

The AEB 1325 collection closely matched Petrini's 2003 description of the teleomorph and anamorph. For illustrations and descriptions of other AEB *Rosellinia communis* collections, the reader is referred to pdfs in the PDD website under Datastore in 'External Links' for **1181** (= PDD 102623), **1227** (= PDD 110469), **1238** (= PDD 110480), **1313** (= PDD 117242) and **1335** (= PDD 117241).

Numbers in red below refer to numbered pdf photo pages. AEB 1325 comments are also in red.

New Zealand Journal of Botany, 2003, Vol. 41 – selected portions of pages 92–96

3. *Rosellinia communis* L.E.Petrini, sp. nov. Figs 11, 12 O–R **ANAMORPH: *Geniculosporium*.**

HOLOTYPE (hic designatus): New Zealand, North Island, Northland: Hokianga County, on decorticated wood, 13 May 1983, G. J. Samuels, T. Matsushi-ma, & R. H. Petersen, PDD 45775, anamorph on host.

Subiculum evanescent, restricted, approx. to 1 mm in extension, as white, cream patches in early stages (**rarely seen in this older, drier collection, photo page 1**), later light brown, felty, bearing conidiophores (**lowermost portions of some stromata in 2–8, best seen in photo pages 6 & 7**), subsequently reduced while stromata progressively emerge, until absent in old material (**often the case here**). **Stromata** (400) $687 \pm 119.5(1050) \mu\text{m}$ high, $(550)804 \pm 131(1250) \mu\text{m}$ wide ($n = 134$), conical to columnar with bluntly rounded top, side walls often with concentric rings (**esp. 2–4 here**), wavy (Fig. 11E,H), dark brown (**mottled brown/black**), black around the ostioles (**ostiole area smooth with a ring of small black bead-like structures – seen with difficulty in 6 & 7**), completely black when old, solitary or crowded, touching each other, sometimes 2–3 fused together, when young completely covered by the subiculum, during development gradually exposed. **Ostioles** finely papillate to pointed or not pronounced. **Ectostroma** 50–75 μm thick, black. **Entostroma** light brown, confined to the base. **Perithecia** detached (**i.e., separated from its surrounding ectostroma. After the perithecium is eroded and gone, best seen in 5 with the black-rimmed empty stromatal chamber**) and collapsed in mature material (**see 8 with the collapsed perithecium still within the basal remnants of its black-rimmed stromatal ectostromal chamber – the brittle ectostroma mostly dehiscent in older material**). **Ascus apical rings** $(1.9)2.7 \pm 0.5(3.8) \mu\text{m}$ high, upper width 3.3–4.8 μm (**$\approx 4 \mu\text{m}$ in 9B–E**), lower width 2–2.8 μm ($n = 63$), J+, pale blue (**fairly dark blue in 9B,C&E**). **Ascospores** $(13.4)17.3 \pm 1.3(21.6) \mu\text{m}$ long, $(6.7)8.9 \pm 0.7(11.5) \mu\text{m}$ wide ($n = 710$), inequilaterally ellipsoidal, dark brown, with straight germ slit, extending almost over the whole spore length (**AEB 1325 ascospores closely matching Petrini’s description**). **Conidia** 3–4 × 2.5–3 μm .

HOSTS: *Beilschmiedia tawa*, *Brachyglottis repanda*, *Freycinetia baueriana* subsp. *banksii*, *Hedycarya arborea*, *Macropiper excelsum*, *Meliccytus ramiflorus*, *Neopanax arboreum*, *Nothofagus solandri*, *Populus* sp., *Rhopalostylis sapida*, *Schefflera digitata*, *Sophora microphylla*.

MATRIX: Corticated or decorticated, heavily decomposed wood. (**decorticated & decomposed wood**)

ETYMOLOGY: communis (common), referring to the frequent occurrence of this species.

NOTES: *Rosellinia communis* is characterised by its conical to columnar, black stromata covered by a whitish cream subiculum when young. The side walls regularly show concentric rings, thus giving their surface a wavy appearance. *Rosellinia communis* can be distinguished easily from *R. johnstonii* and *R. mammoidea* by its larger, differently shaped stromata and ascospore size.

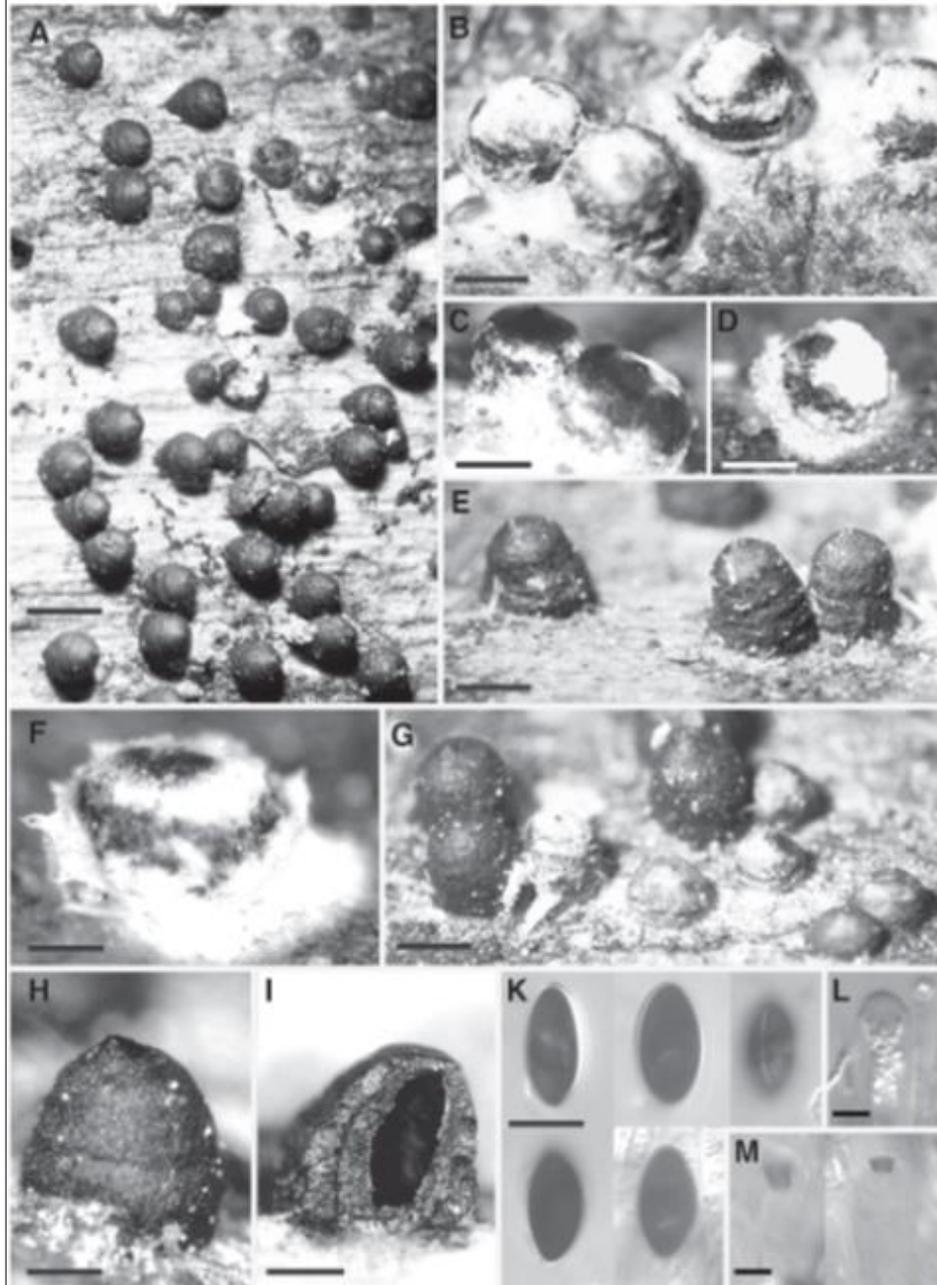


Fig. 11 *Rosellinia communis*. A–H, Stromata, B–D, F, showing subiculum, E, concentric rings on surface; I, Vertical section of stroma, outer shell stroma, inner perithecium; K, Ascospores, 3rd showing germ slit; L, Ascus apical ring shown by Nomarski contrast; M, Ascus apical rings in Melzer's reagent. Type, PDD 45775; PDD 16903: second picture of M. Scale bars: A = 1 mm; B–E, G = 0.5 mm; F, H, I = 0.25 mm; K = 10 μ m; L, M = 5 μ m.

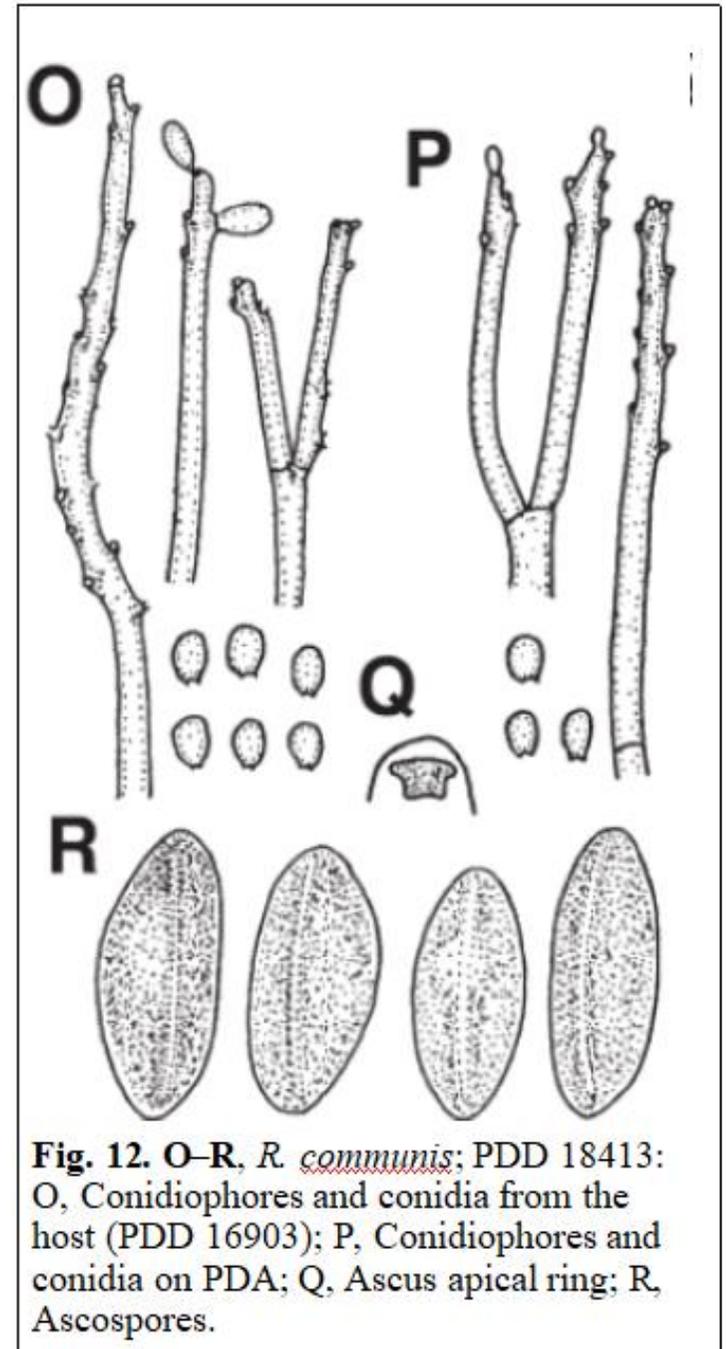


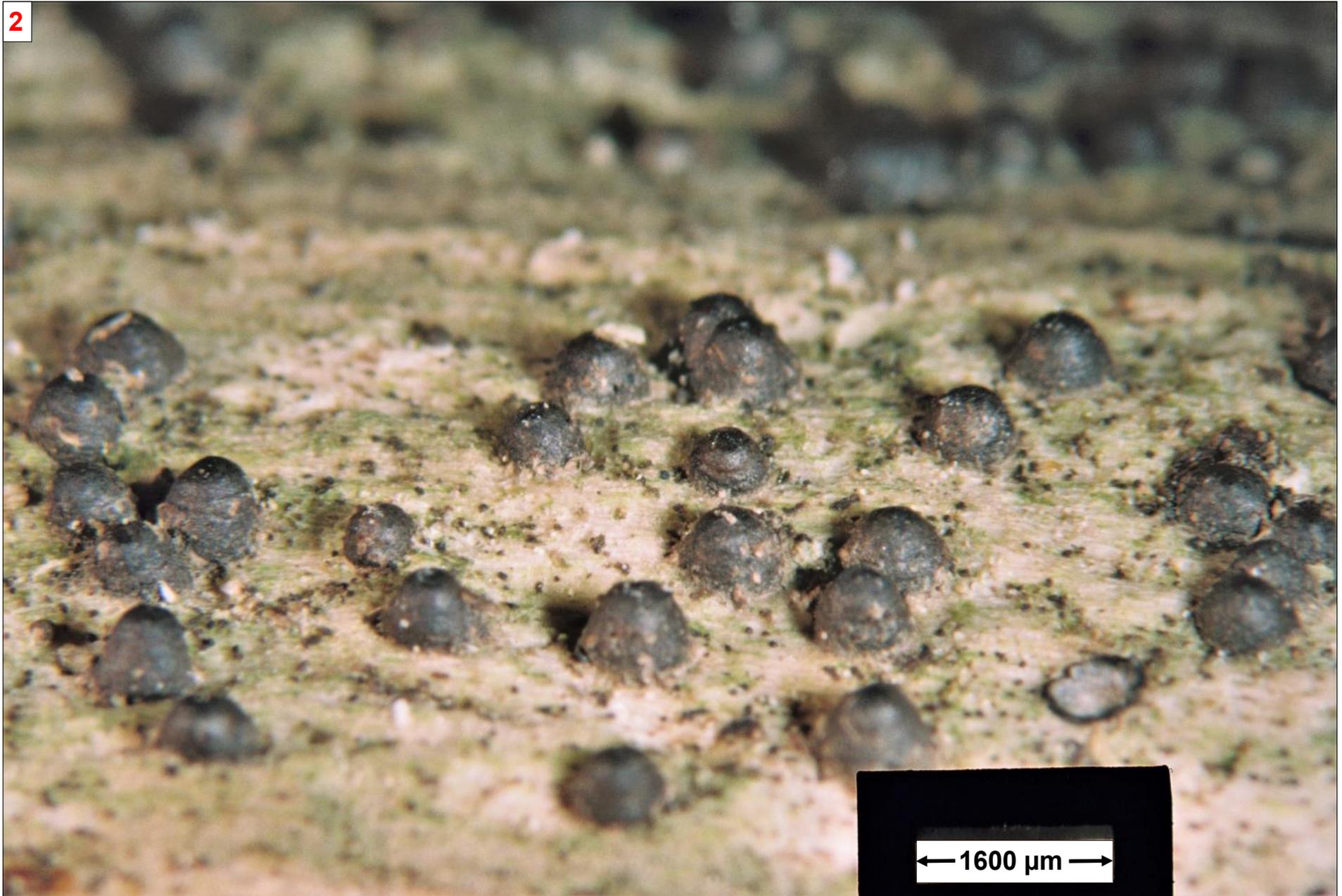
Fig. 12. O–R, *R. communis*; PDD 18413: O, Conidiophores and conidia from the host (PDD 16903); P, Conidiophores and conidia on PDA; Q, Ascus apical ring; R, Ascospores.

1



Rosellinia communis AEB 1325. Overhead views of young subiculum-covered stromata.

2



Rosellinia communis AEB 1325. Side views of conical stromata with concentric rings.

3



Rosellinia communis AEB 1325. Side views of conical stromata with concentric rings.

4



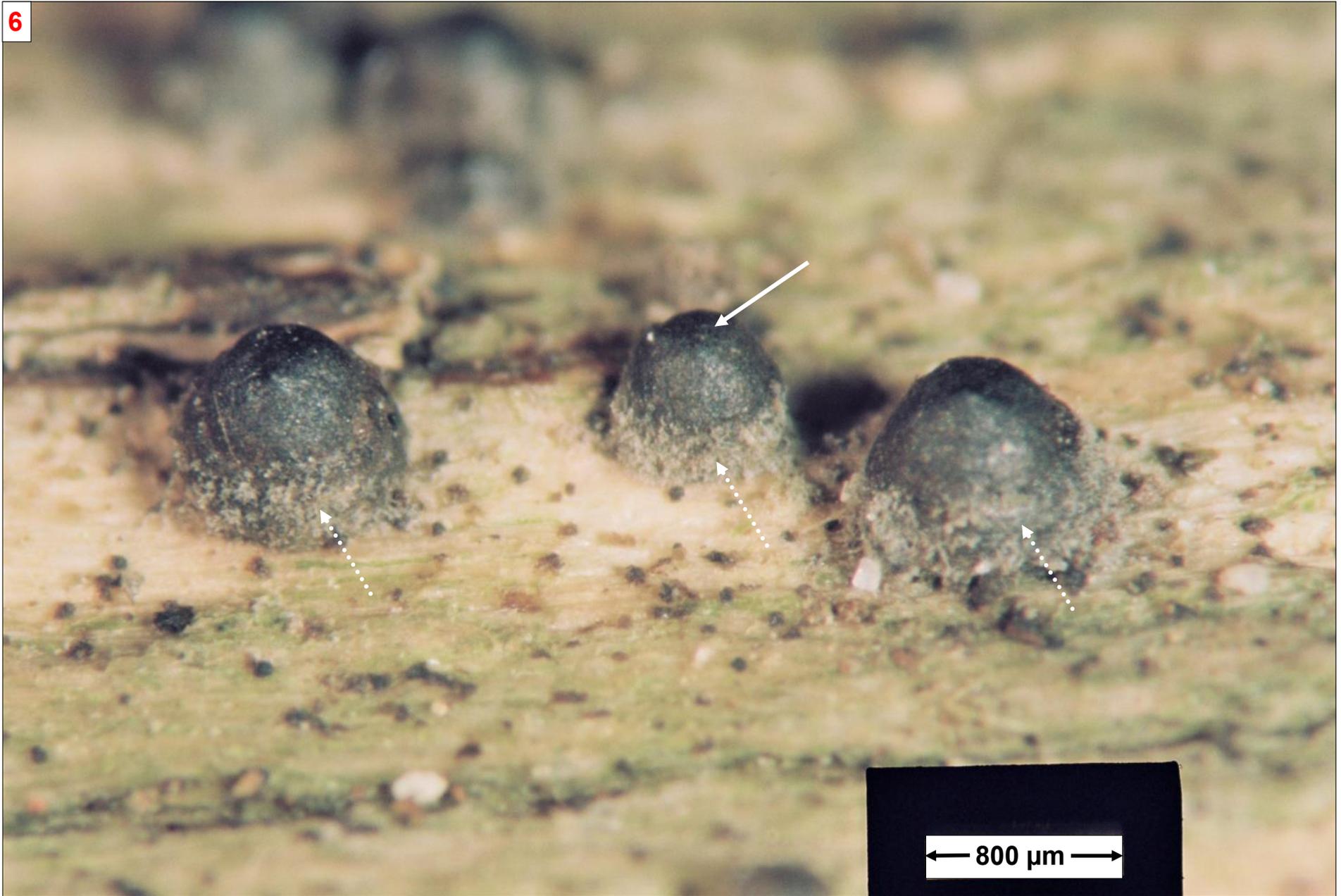
Rosellinia communis AEB 1325. Side views of conical stromata with concentric rings.

5



Rosellinia communis AEB 1325. Overhead views of 4 stromata & 1 empty stroma locule with the inner perithecium gone and most of its ectostroma dehiscent. Ectostroma with only its basal portion remaining (arrowed).

6



Rosellinia communis AEB 1325. Side views of conical stromata with dried, older *Geniculosporium* anamorph at their bases (dotted arrows) & short ostiolar papillae. Stroma immediately surrounding the ostiole – smooth, black, with tiny indistinct black ‘beads’ (solid arrow).

7

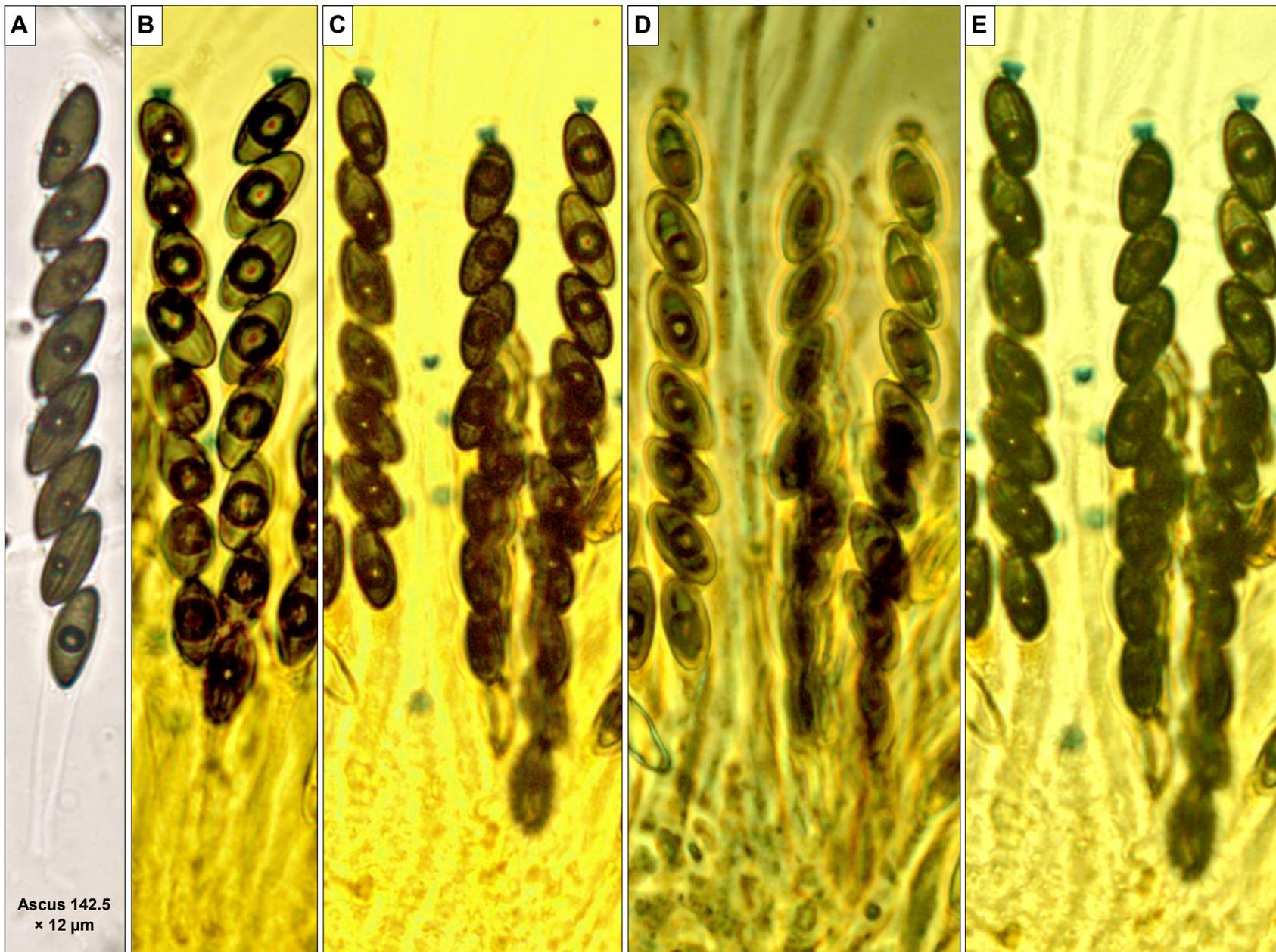


Rosellinia communis AEB 1325. Side views of conical stromata with dried, older *Geniculosporium* anamorph at their bases (dotted arrows) & short ostiolar papillae. Stroma immediately surrounding the ostiole – smooth, black, with tiny indistinct black ‘beads’ (solid arrow).

8



Rosellinia communis AEB 1325. Overhead view of a stroma locule with most of its black ectostroma dehiscent and its inner perithecium collapsed (the latter arrowed).

9

A–E. *Rosellinia communis* AEB 1325 asci & ascospores. All ×40 objective. A. SMF slide mount. B–E. Melzer's reagent slide mount (note apical ring bluing). A,E. DIC microscopy. B,C. Brightfield microscopy. D. Phase microscopy. A–E. Note also ascospores with prominent deBary bubble and straight full-length germ slit.