

AEB 1238 (= PDD 110480)

***Rosellinia communis* L.E. Petrini with *Geniculosporium* anamorph** – see pp. 92–96 of ‘Petrini, Liliane E. 2003. *Rosellinia* and related genera in New Zealand. New Zealand Journal of Botany 41: 71–138.’ – A good match.

Substrate: dead unidentified decomposing wood

Collection site: Rangiwahia Township Reserve

Collection date: 21 May 2015, while attending the 29th annual NZ Fungus Foray centered at Sixtus Lodge

Collectors: Ann Bell and Dan Mahoney

Identifier: Dan Mahoney

Voucher material: Dried herbarium material [AEB 1238 (= PDD 110480)] accompanied by 2 Shear’s mounting fluid (SMF) & 1 Melzer’s reagent semi-permanent slide mounts; colored 35 mm positives of in-situ sporangia (best digitized) and digital photos from slide-mounted centrum contents; Dan’s brief comments

Brief comments: **Stromata** large, dark brown to black, separate to crowded, globular in bird’s eye view (approx. 800–900 µm diam) but broadly conical in side view, with concentric rings below and a shiny black blunt upper portion with a central slightly papillate ostiole. When young covered with a white subiculum, but gradually losing this to expose the dark brown to black stroma beneath. **Paraphyses** numerous, simple, longer than the asci. **Asci** 8-spored with moderately short stipe and a prominent apical ring (4 × 4 µm with the lower portion somewhat narrower) staining blue in Melzer’s reagent. **Ascospores** uniseriately overlapping, dark brown, inequilateral (plano-convex) in one view and symmetrical (ellipsoidal) in the other, its extremes narrowing to rounded sometimes almost pointed ends, a straight germ slit stretching the entire length of the spore, ascospores (15–)16–19(–21) × 8–9(–10) µm. One free-ascospore seen with what may have been a small, hyaline, apical cylindrical appendage (3 × 1 µm) – perhaps aberrant or a ‘confused’ germ tube. **Anamorph** a *Geniculosporium*. Seen as a grey fuzzy growth on and near the stromata.

***Rosellinia communis* L.E. Petrini, sp. nov. – portions of pp. 92, 94 & 96 in Petrini, 2003**

Description: Subiculum evanescent, restricted, approx. to 1 mm in extension, as white, cream patches in early stages, later light brown, felty, bearing conidiophores, subsequently reduced while stromata progressively emerge, until absent in old material. Stromata (400)687 ± 119.5(1050) µm high, (550)804 ± 131(1250) µm wide ($n = 134$), conical to columnar with bluntly rounded top, side walls often with concentric rings, wavy, dark brown, black around the ostioles, 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 and collapsed in mature material. Ascus apical rings (1.9)2.7 ± 0.5 (3.8) µm high, upper width 3.3–4.8 µm, lower width 2–2.8 µm ($n = 63$), J+, pale blue. Ascospores (13.4)17.3 ± 1.3(21.6) µm long, (6.7)8.9 ± 0.7 (11.5) µm wide ($n = 710$), inequilaterally ellipsoidal, dark brown, with straight germ slit, extending almost over the whole spore length. Conidia 3–4 x 2.5–3 µm.

ANAMORPH: *Geniculosporium*

HOLOTYPUS (hic designatus): New Zealand, North Island, Northland: Hokianga County, on decorticated wood, 13 May 1983, G. J. Samuels, T. Matsushima, & R. H. Petersen, PDD 45775, anamorph on host, culture on OA examined.

MATRIX: Corticated or decorticated, heavily decomposed wood.

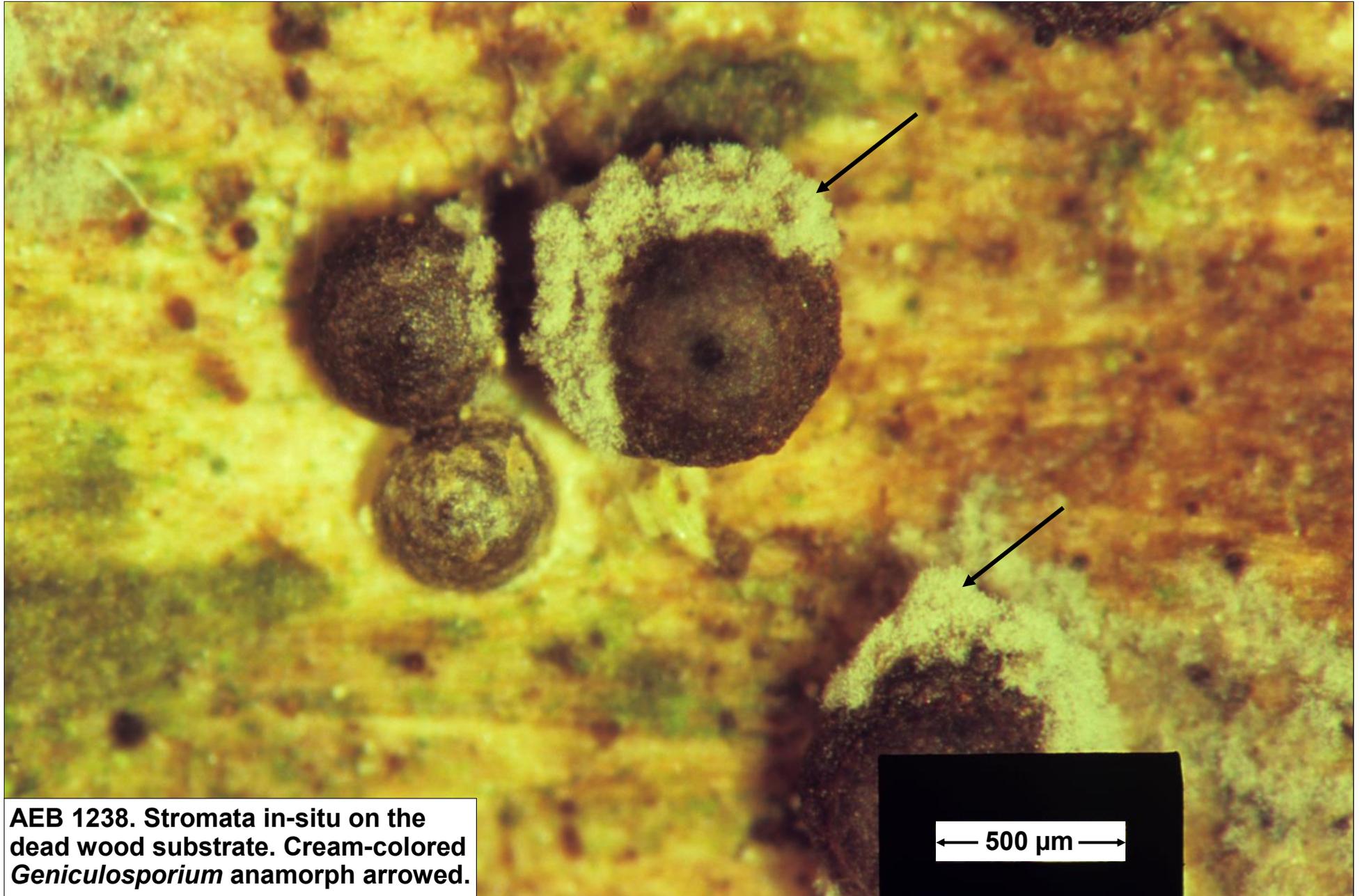
ETYMOLOGY: *communis* (common), referring to the frequent occurrence of this species.

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.

Many specimens of *R. communis* were assigned to *R. mammoidea*, as the spore size erroneously published for the latter by Cooke (1879) corresponds to that of *R. communis* ascospores. Cooke (1879) gave 16–18 x 8 µm for the Travers collection (the type of *R. mammoidea*), whereas the spores of this specimen actually measure 11–14 x 7–8 µm.

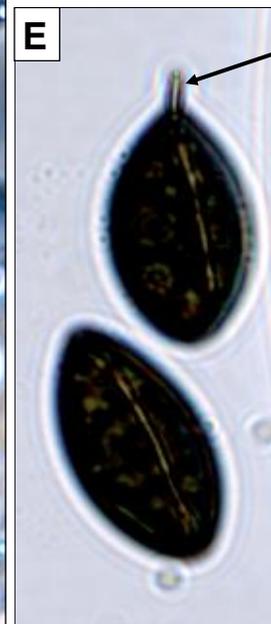
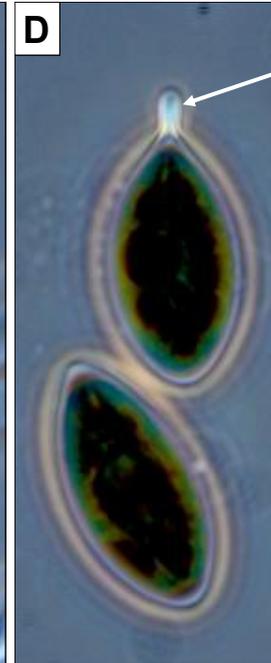
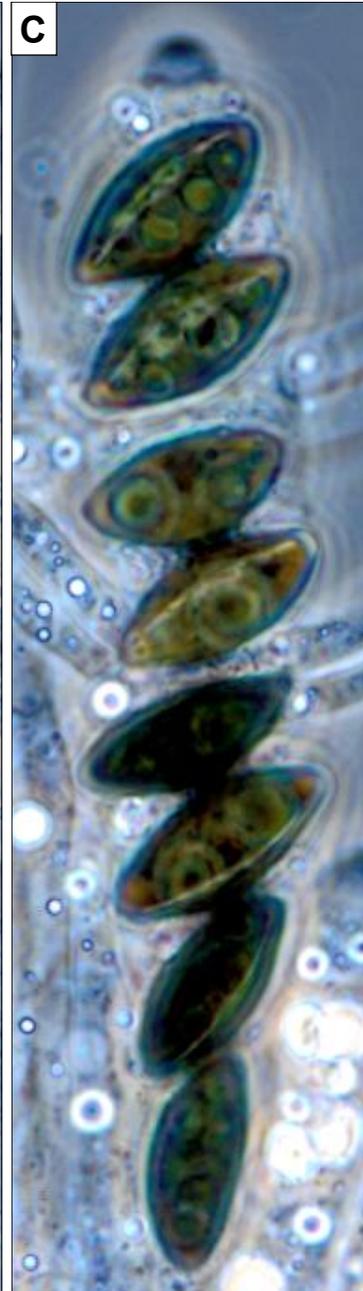
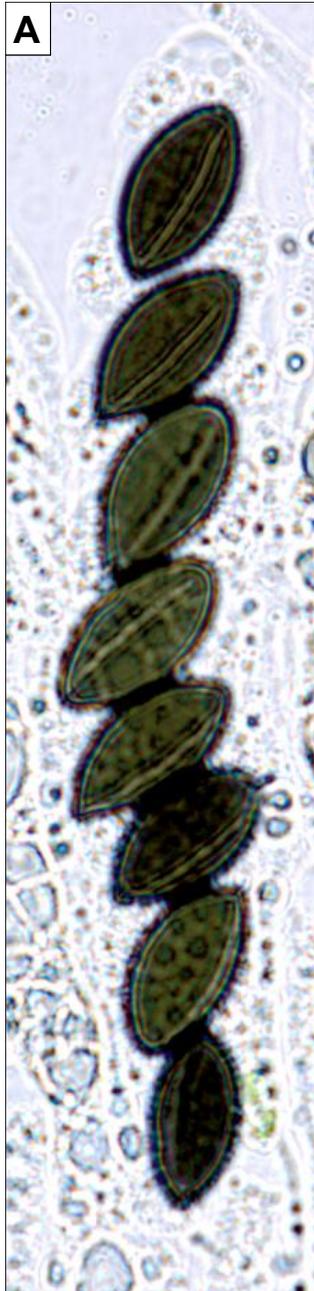
The closest species is *R. picta* (Berk.) Cooke described from Sri Lanka. The type material has regular, conical to semi-globose stromata lacking wavy side walls and ascospores with pinched ends. The stroma and ascospore size, however, do not differ among the two species as revealed by analysis of variance and discriminant analysis, respectively (results not shown).

The type material of *R. griseo-cincta* Starbäck, *R. indica* Thind, and *R. rickii* Bres. show roughly the same shape for stromata and ascospores; the stromata, however, are larger and lack the wavy surface and the ascospores are smaller (L. E. Petrini unpubl. data). *Rosellinia communis* differs from *R. subiculata* by stroma shape, size, and subiculum colour as well as much larger ascospores (Petrini 1993).

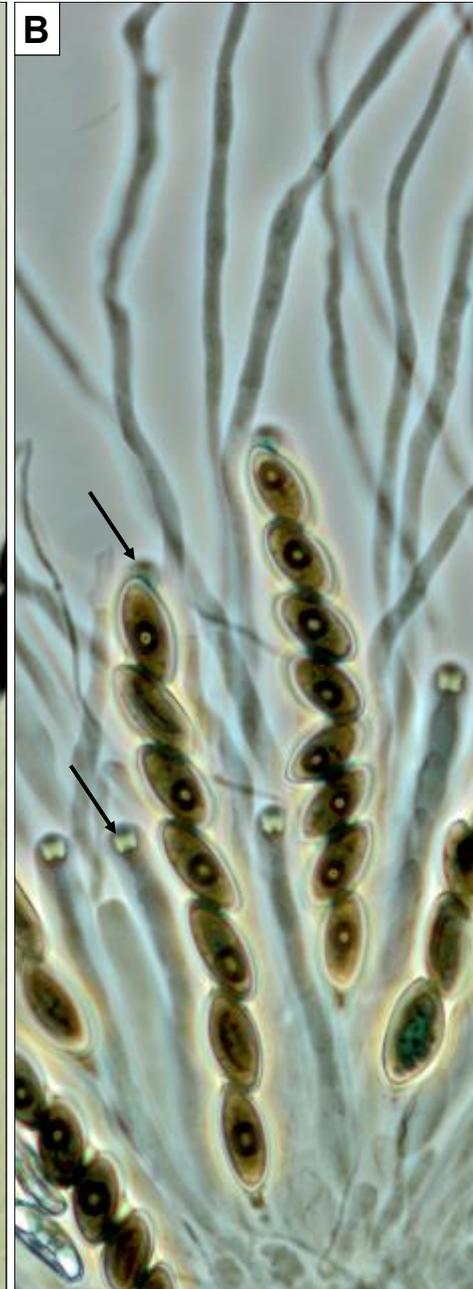
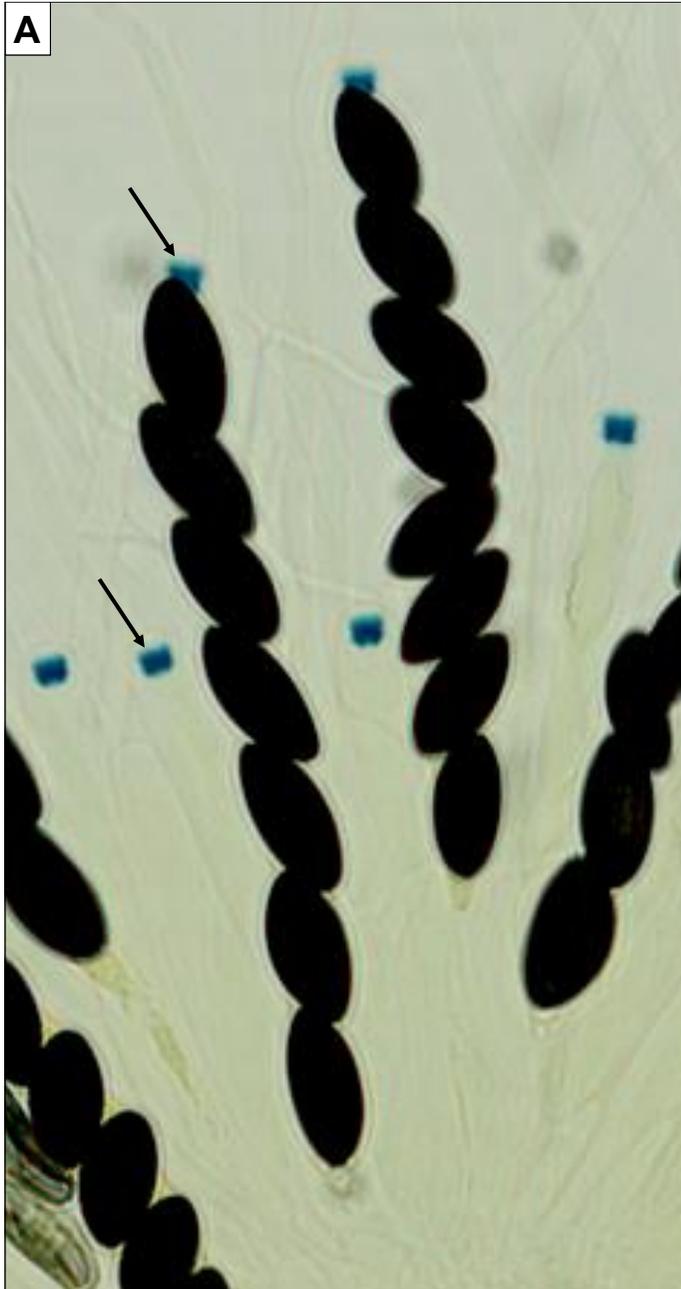


AEB 1238. Stromata in-situ on the dead wood substrate. Cream-colored *Geniculosporium* anamorph arrowed.

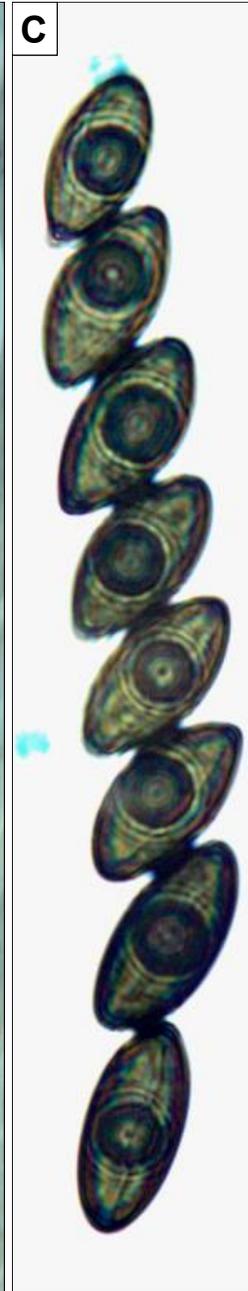
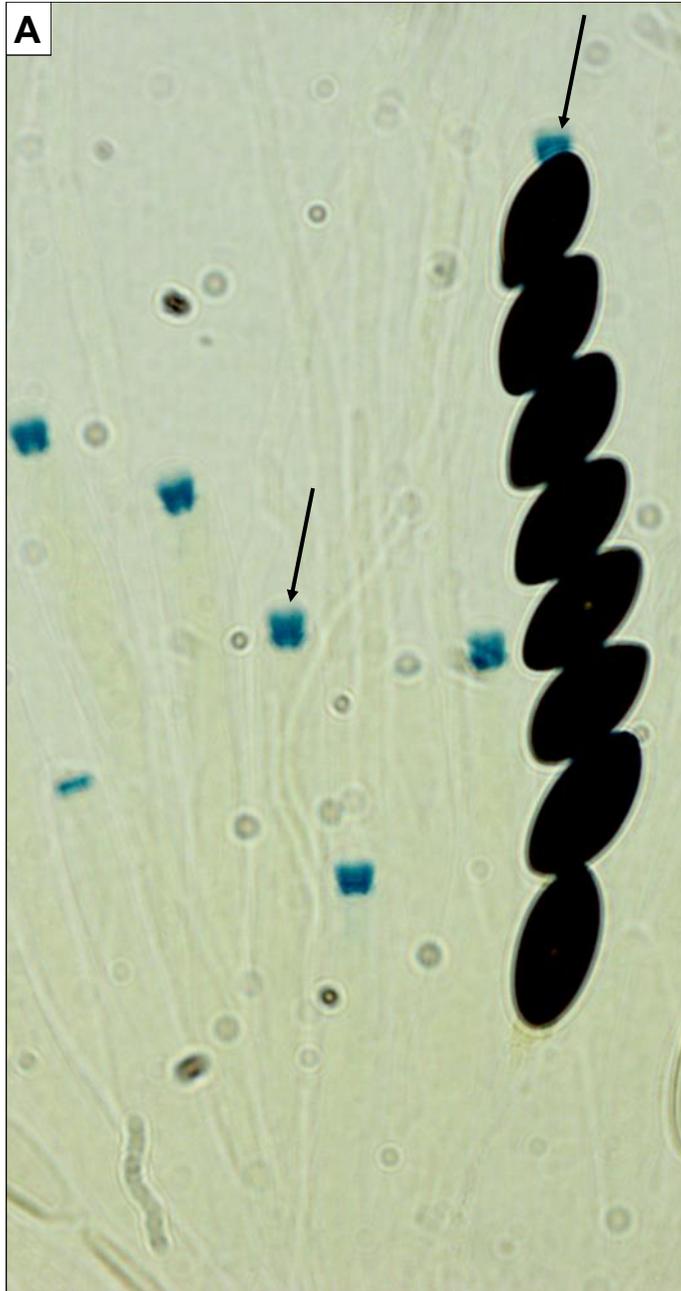
← 500 μm →



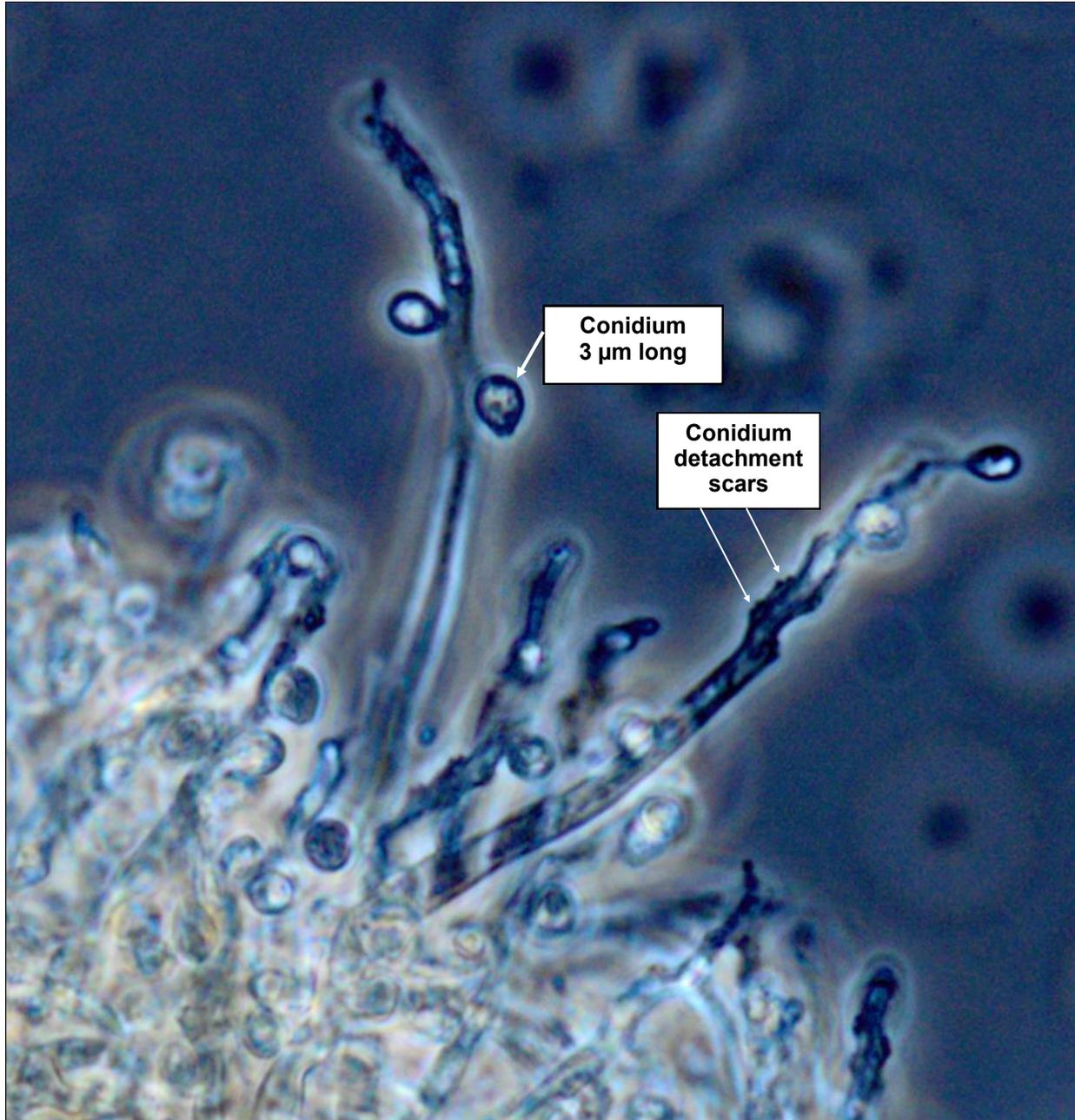
A-E. Asci & ascospores. All water mounts and X100 objective. A,E bright-field, others phase. D,E. Seem to have a 'confused' germ tube (arrowed), or perhaps an appendage? The germ slits stretch the entire spore length. Note the variety of spore shapes.



A,B. Asci with positive staining apical rings in Melzer's reagent, X40 objective, bright-field & phase respectively. Both photos are the same field of view, A enlarged & B showing paraphyses more clearly. Arrows indicate apical rings, distinctly blue in A.



A–C. Asci with positive staining apical rings in Melzer’s reagent, X100 objective, A & C brightfield, B phase. All photos are the same field of view. Arrows indicate apical rings, distinctly blue in A. C represents an overexposure of the mature ascus in A & B, emphasizing the single large deBary bubble in each ascospore.



Geniculosporium stage from grey fuzzy areas on and near the stomata. Note the basal fringe on arrowed conidium.