***Coprotus baeosporus* Jeng & Krug – PDD 126092 (= AEB 1407) Good match to original description.**

Substrate: red deer (*Cervus elaphus*) dung

Collection date: 9 June 2025; **Moist chamber incubation date:** 17 June 2025

Collection site: Pureora Forest, Mangatutu, E1817980 N5756515; forest vegetation: tawa

Collectors: Ian Flux & Merryl Park; **Identifier:** Dan Mahoney

Voucher materials: No dried herbarium specimen but 2 Shear's mounting fluid (SMF) semi-permanent microscope slides; Zeiss SV 11 Stereo-zoom dissecting microscope in-situ photos of a fruiting body using a MC80 camera and Olympus BX51 and microscopic slide photos of asci, ascospores and paraphyses using a DP28 camera; references consulted.

References consulted:

Jeng, R.S. and J.C. Krug. 1977. New records and new species of coprophilous Pezizales from Argentina and Venezuela. Can. J. Bot. 55: 2987–3000. See description and illustrations of *Coprotus baeosporus* on the next page.

Bell A. 2005. An Illustrated Guide to the Coprophilous Ascomycetes of Australia. CBS Biodiversity Series No. 3, Centraalbureau voor Schimmelcultures, Utrecht, the Netherlands, 172 pages. Pages 24 & 93 provide keys to 6 coprophilous *Coprotus* species and illustrations of *Coprotus baeosporus*. Ann's illustrations are reproduced on the page after next.

Kušan I., Matočec N., Jadan M., Tkalčec Z. & Mešić A. 2017. An overview of the genus *Coprotus* with notes on the type species and description of *C. epithecioides* sp. nov. MycoKeys 29: 15–47. This more recent reference is invaluable. It provides a historical summary, a worldwide key to accepted putative species of *Coprotus*, tables comparing their various morphological features and a phylogram with those species sequenced.

See also PDD 126082 & 126083 and their external links to the datastore.

Jeng, R.S. and J.C. Krug. 1977. New records and new species of coprophilous Pezizales from Argentina and Venezuela. Can. J. Bot. 55: 2987–3000. Portions of pp. 2992, 2994 & 2995 are reproduced below.

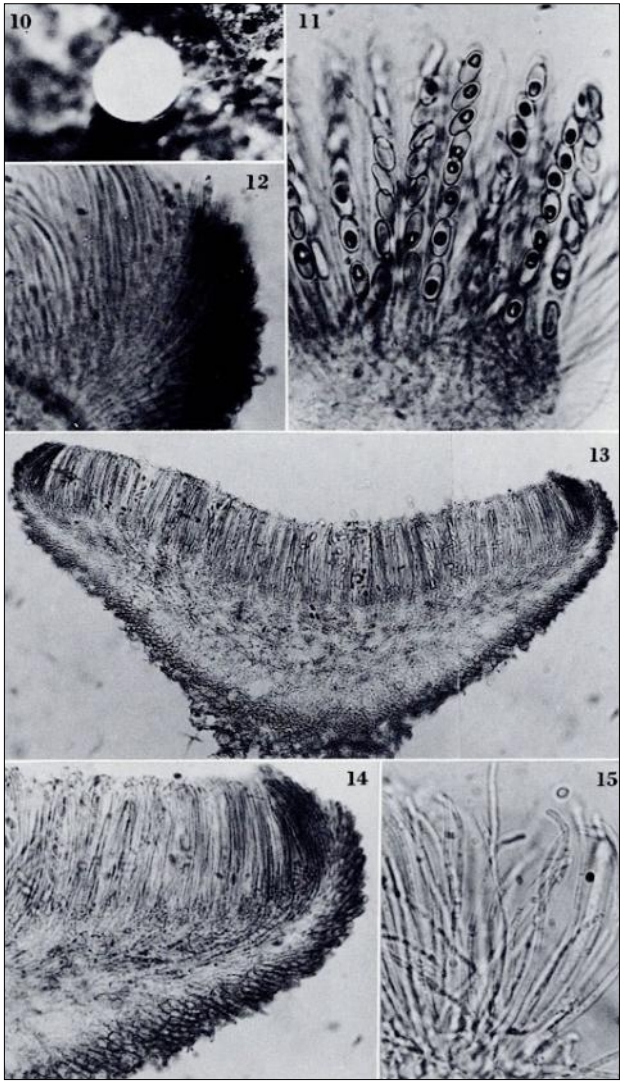
Coprotus baeosporus Jeng & Krug, sp. nov.
Figs. 10–15

ETYMOLOGY: Greek, *baios* (βαιος) = small, and *spora* (σπορα) = seed, referring to the size of the ascospores.

Apothecia scattered, superficial, white to pale yellowish, discoid to saucer-shaped, sessile to short stipitate, 200–650 µm diameter, smooth. Excipulum two-layered, consisting of an ectal excipulum of textura angularis, with relatively thick-walled, hyaline cells measuring 3–12 × 3–9 µm, which toward the exterior become more elongated and parallel, distinctly dextrinoid; and a medullary excipulum of textura intricata, with thin-walled, hyaline cells measuring 1–2 µm diameter. *Asci* operculate, non-amyloid, staining uniformly in Congo red, eight-spored, cylindrical, 60–90 × 6–9 µm, rounded above, contracted below into a short stipe. *Paraphyses* filiform, septate, simple or branched, slightly uncinate but not inflated at the apices, filled with numerous small pale yellowish guttules. *Ascospores* uniseriate, rarely biseriate, one-celled, ellipsoidal, 7–8.5 × 3.5–4.5 µm, hyaline, smooth, with each containing a single de Bary bubble. *Conidia* unknown.

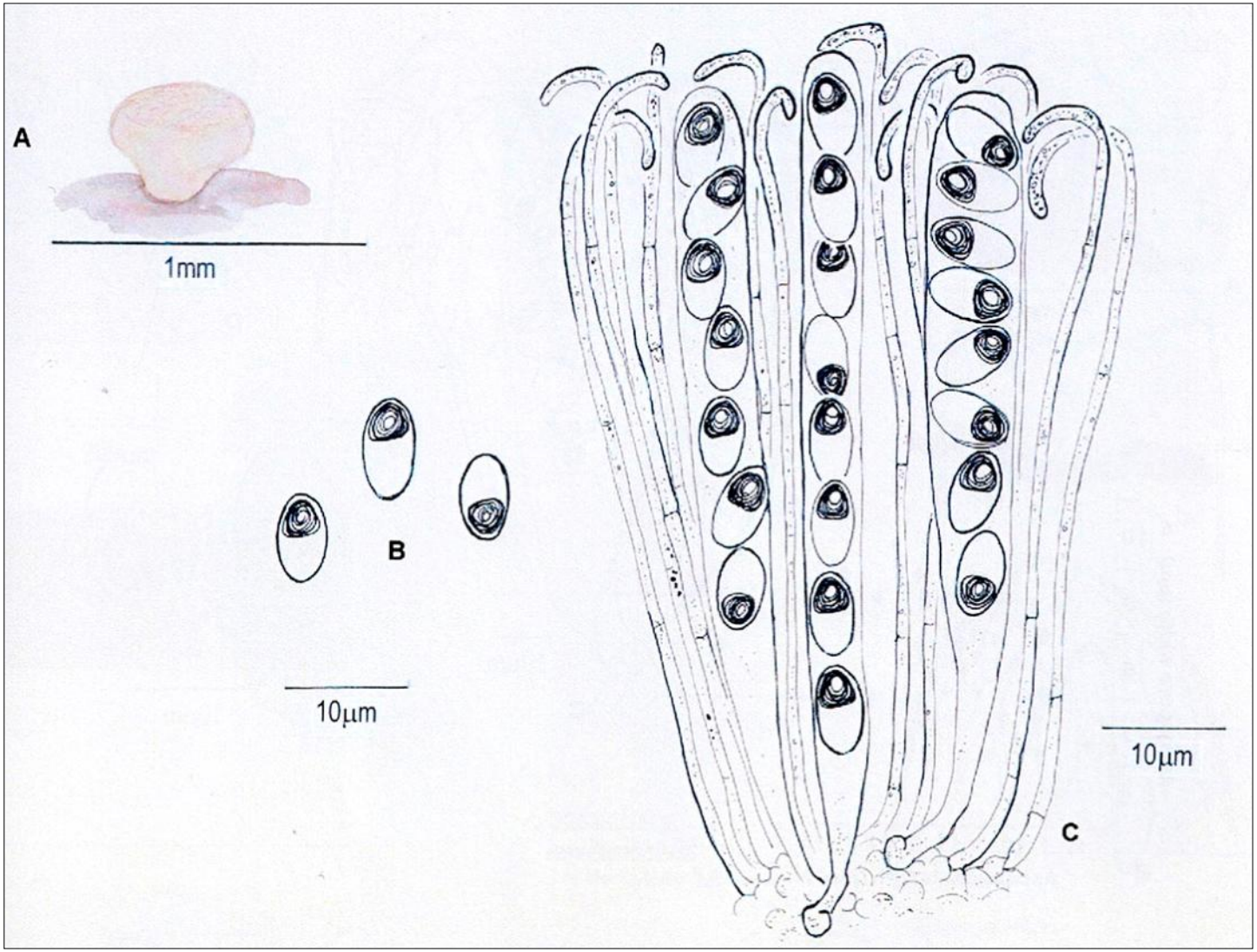
HABITAT: On deer dung.

SPECIMEN EXAMINED: VENEZUELA: Edo. Bolivar: on road between El Dorado and Sta. Elena, about 118 km S of El Dorado, from old military camp 'Ciento Veinticinco', trail up N facing slope of Uei-Tepui, deer dung, 5 Aug. 1972, *Dumont*, *Cain*, *Samuels* and *Blanco* VE-6986e, TYPE (TRTC).

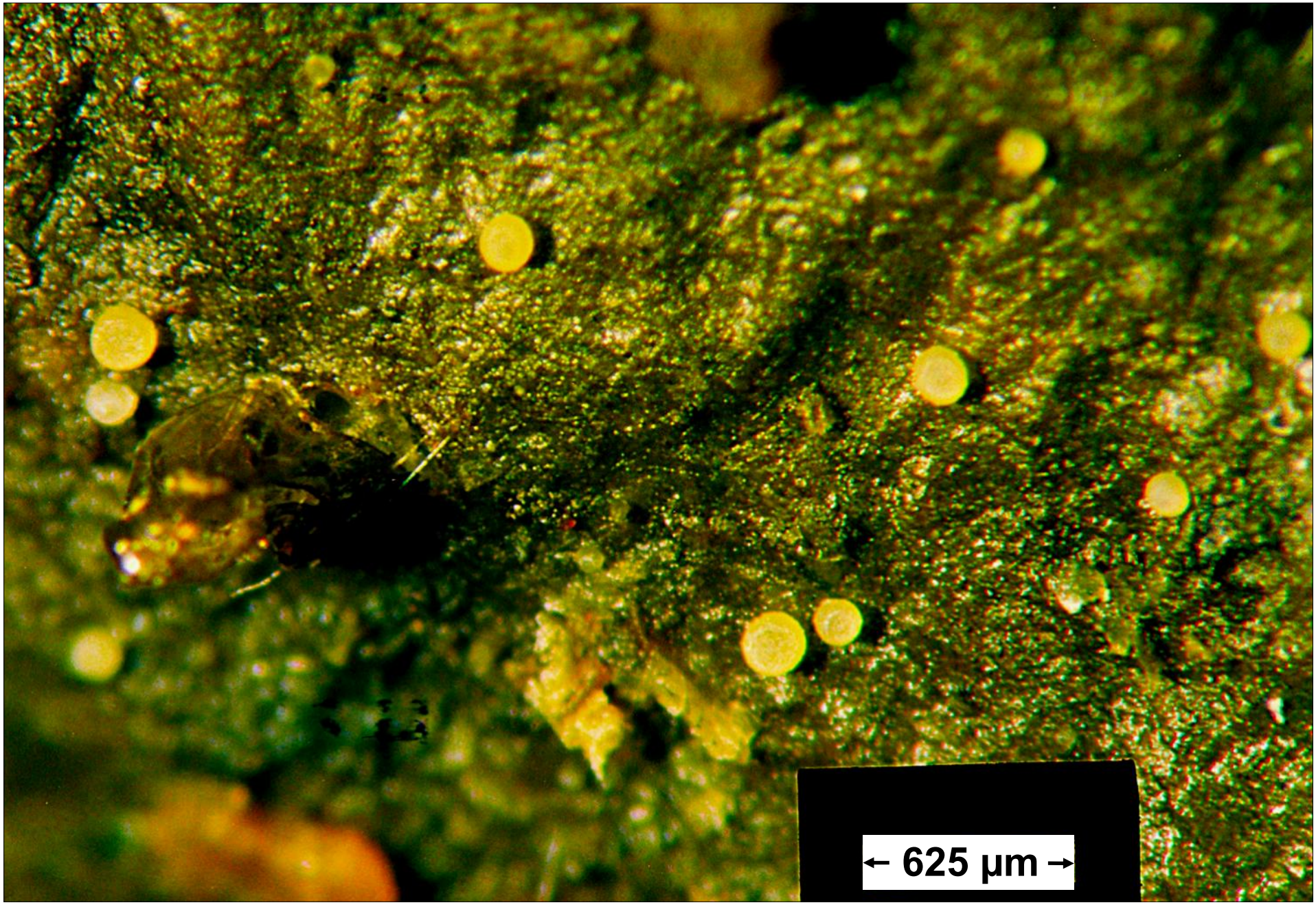


FIGS. 10–15. *Coprotus baeosporus*. Fig. 10. Habit view of an apothecium. × 40. Fig. 11. Portion of a squashed apothecium showing the asci, ascospores, and paraphyses. × 780. Fig. 12. Portion of a squashed apothecium showing the marginal cells of the excipulum. × 780. Fig. 13. Longitudinal section through an apothecium. × 185. Fig. 14. Section of an apothecium showing the ectal and medullary excipulum and hymenial layer. × 370. Fig. 15. Filiform, uncinate paraphyses. × 780.

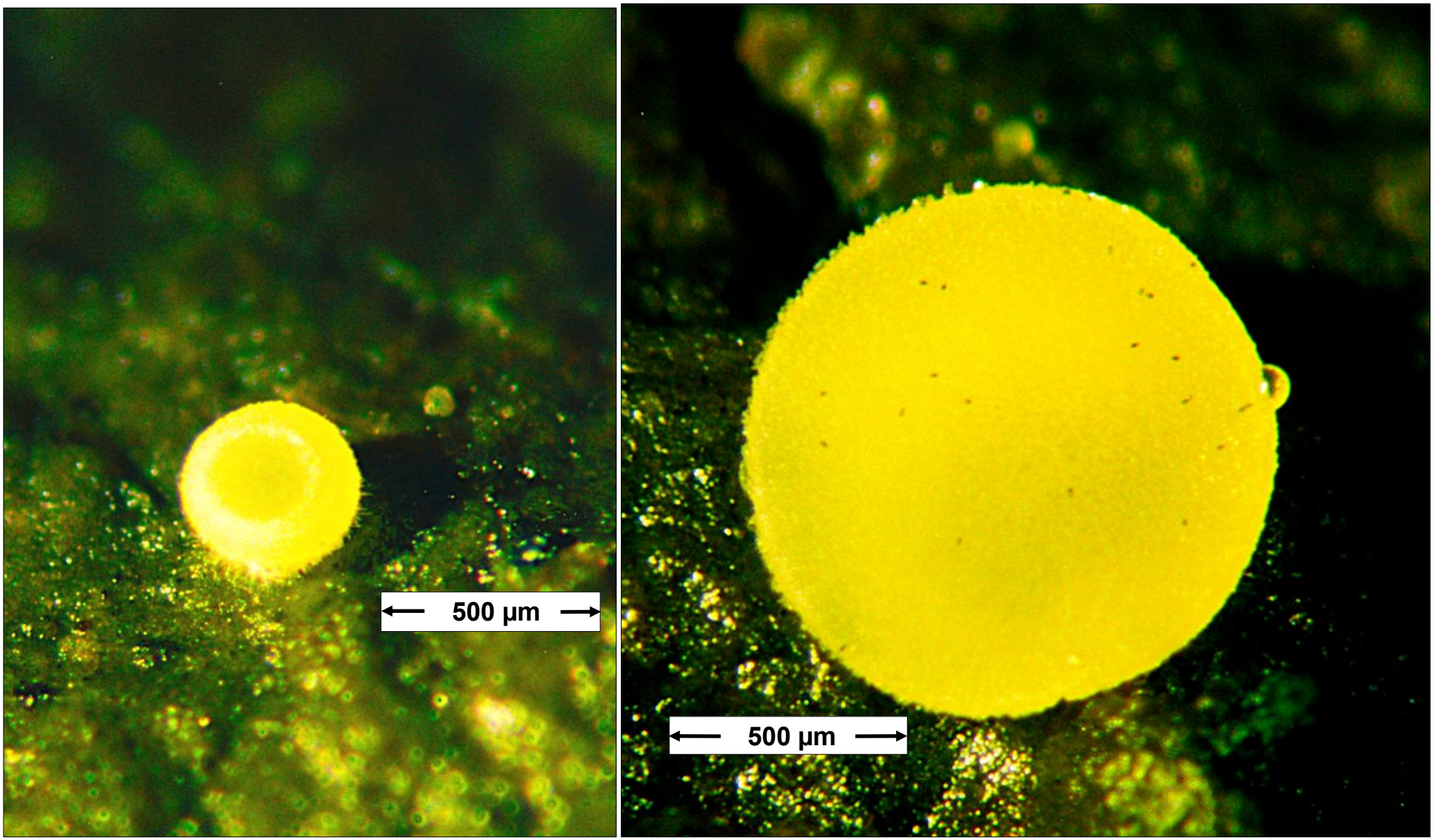
Bell A. 2005. An Illustrated Guide to the Coprophilous Ascomycetes of Australia. CBS Biodiversity Series No. 3, Centraalbureau voor Schimmelcultures, Utrecht, the Netherlands, 172 pages.



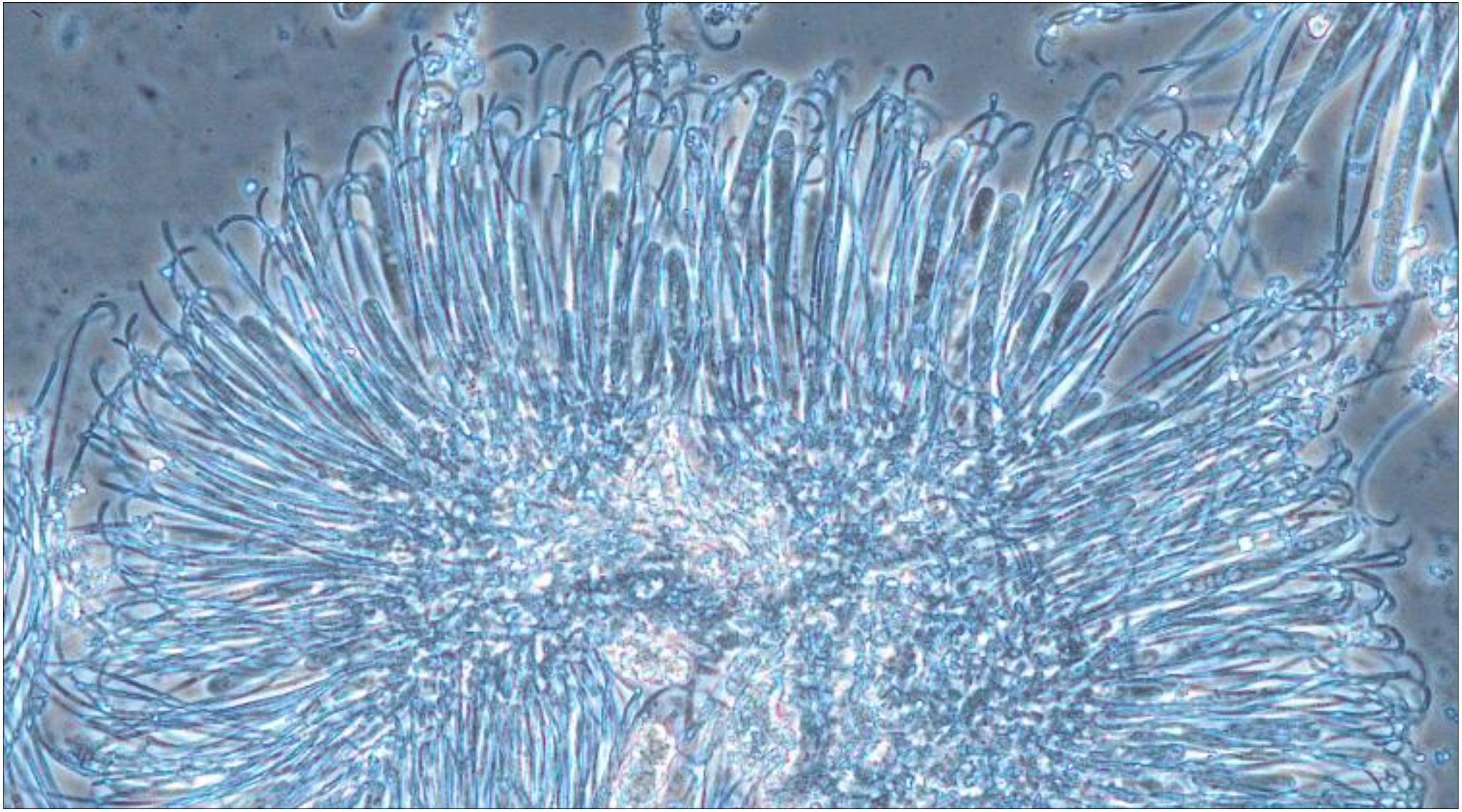
Page 93, Fig. 39. *Coprotus baeosporus*. A–C. A. Mature apothecium. B. Ascospores showing de Bary bubbles. C. Group of mature asci, ascospores & paraphyses. Ann's unpublished data records and SMF slides on which these drawings were based are treated in PDD 126083 (= AEB 1398) and the PDD 126083 external link to the datastore.



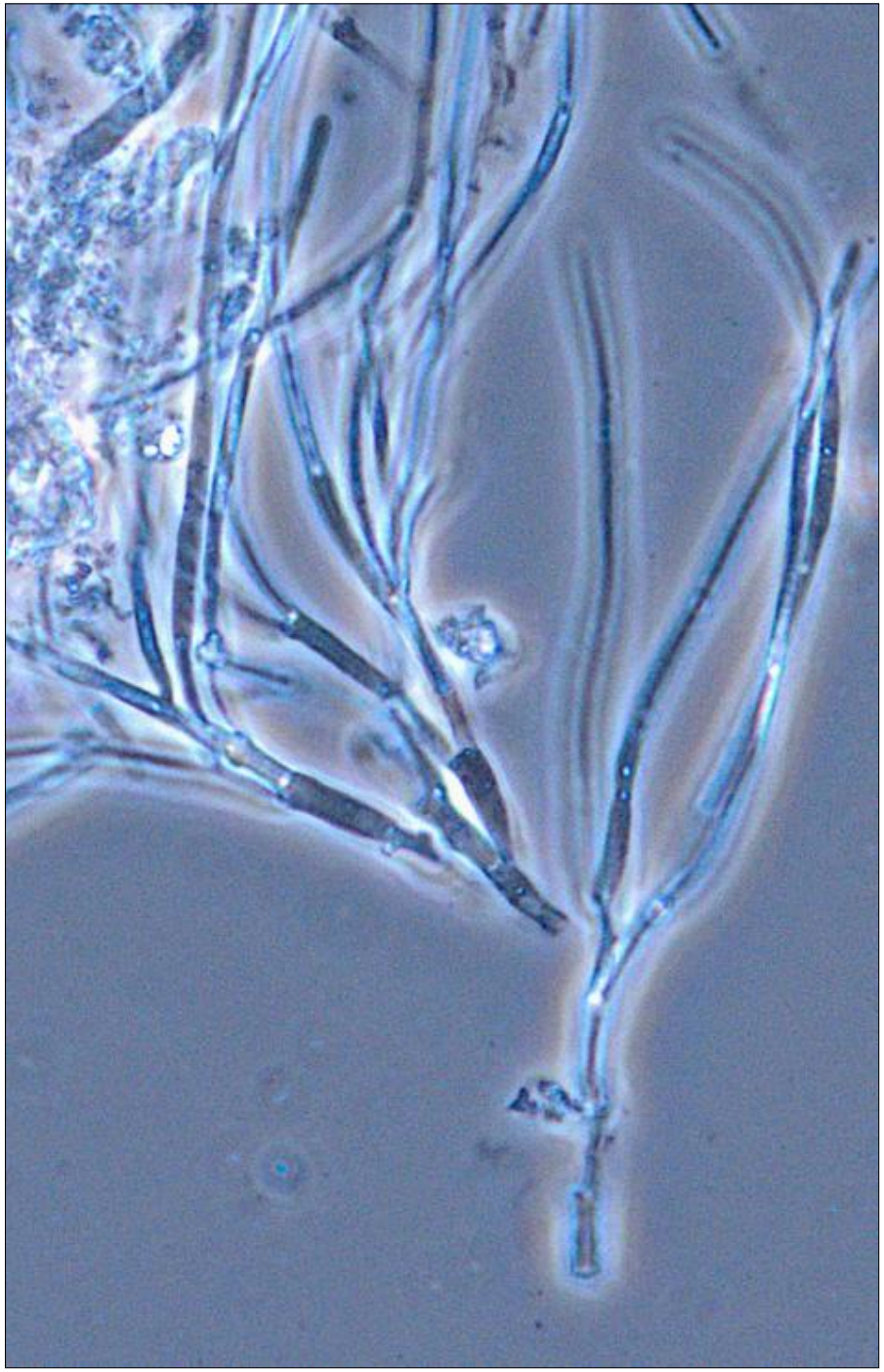
AEB 1407. In-situ small apothecia as seen on fresh incubating red deer dung. Photo taken 12 July 2025.



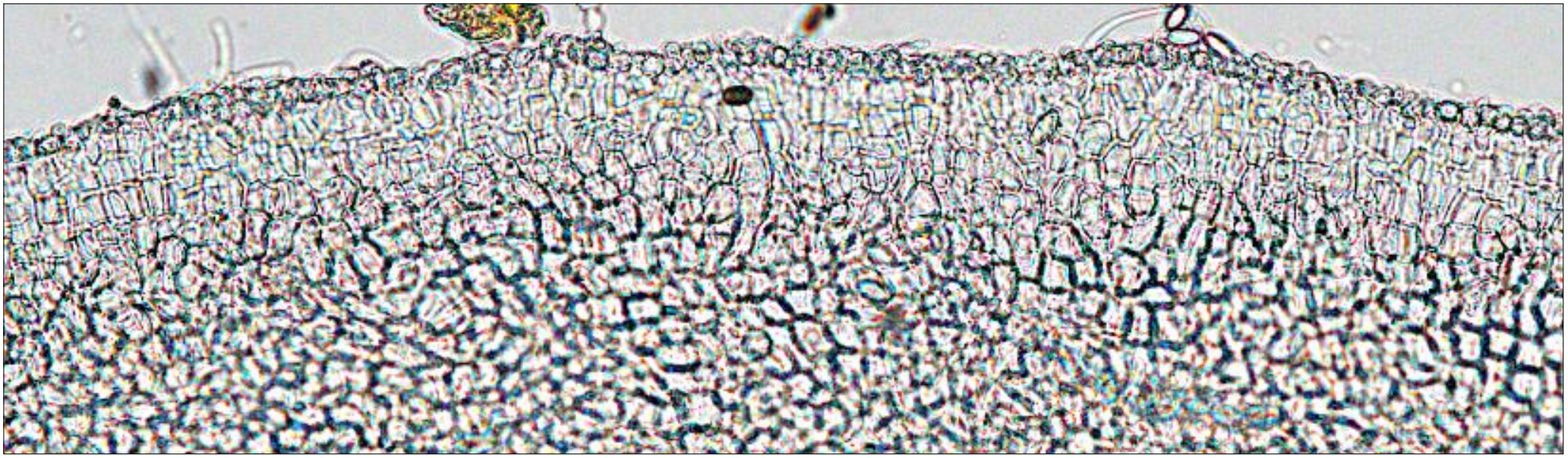
AEB 1407. In-situ apothecia as seen on fresh incubating red deer dung. Left photo: apothecium younger, smaller, less mature, photo taken 2 July 2025. A water squash mount was prepared from this apothecium and its photo is shown on the next page to emphasize its fresh uncinate paraphyses. Right photo: another apothecium larger and fully mature, photo taken 12 July.

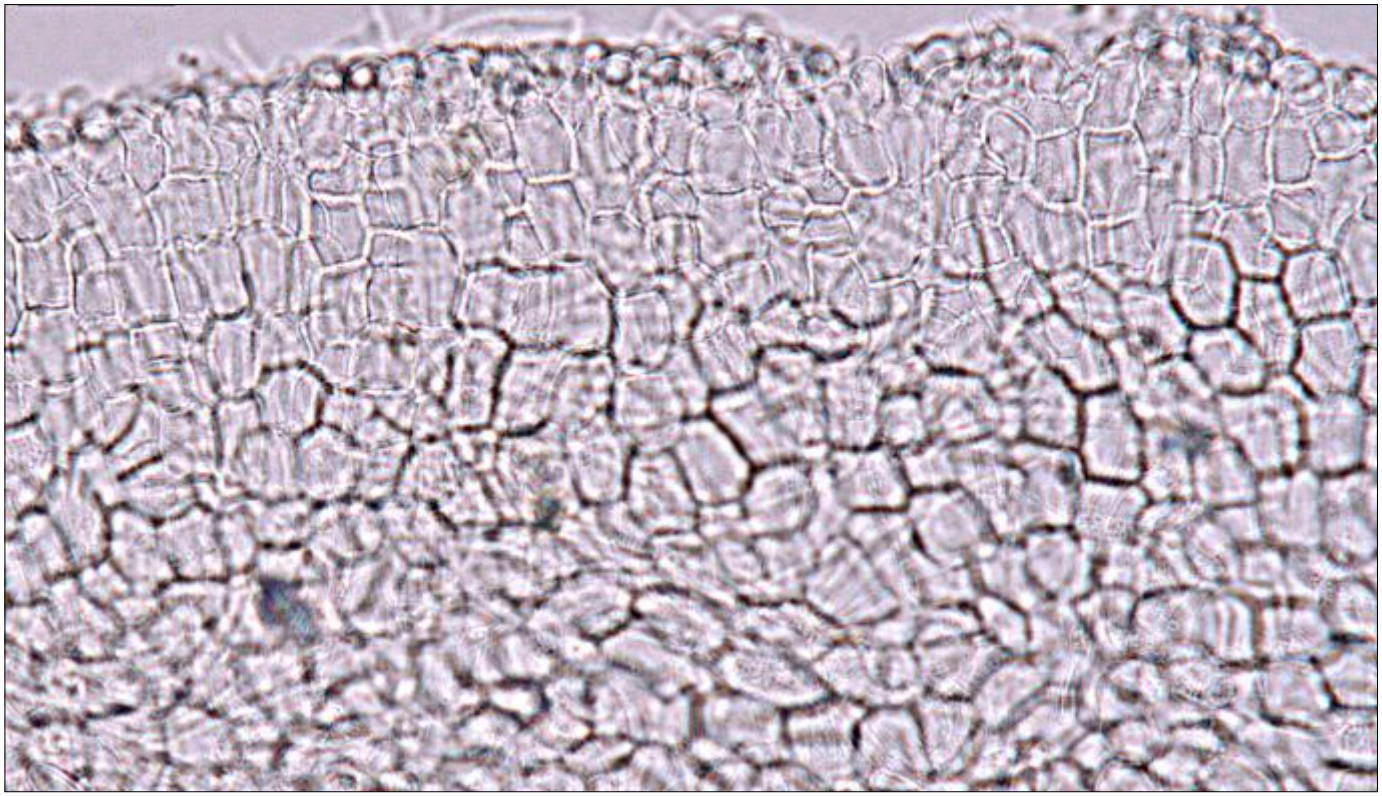


AEB 1407. A water squash mount prepared from the left photo, in-situ apothecium on the previous page. Emphasized here are the numerous fresh uncinate paraphyses that extend above the, as yet, immature asci.



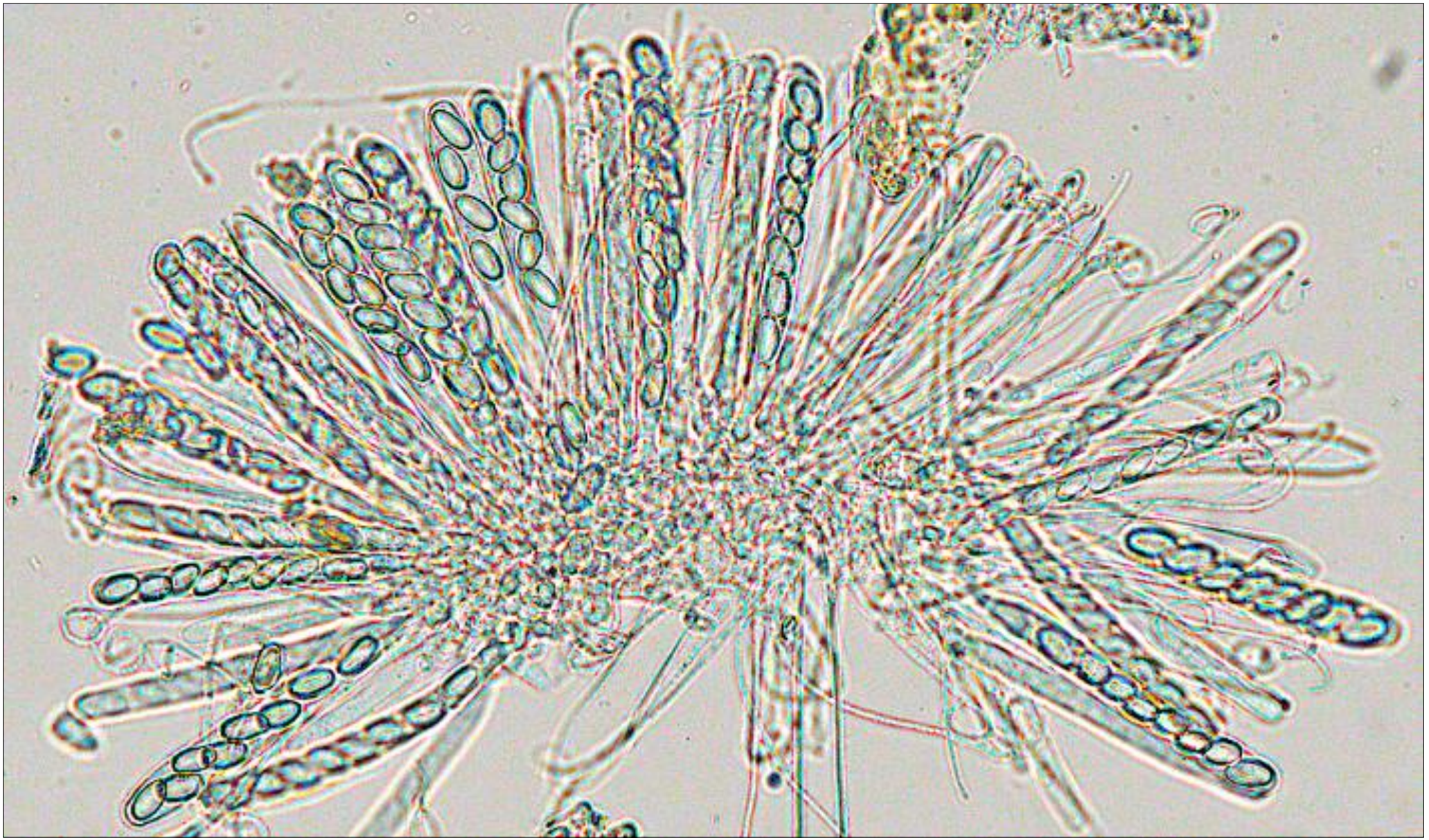
AEB 1407. A water squash mount of a young apothecium showing paraphyses branching near their bases. Photo taken 7 July 2025 using the X100 objective and phase microscopy.





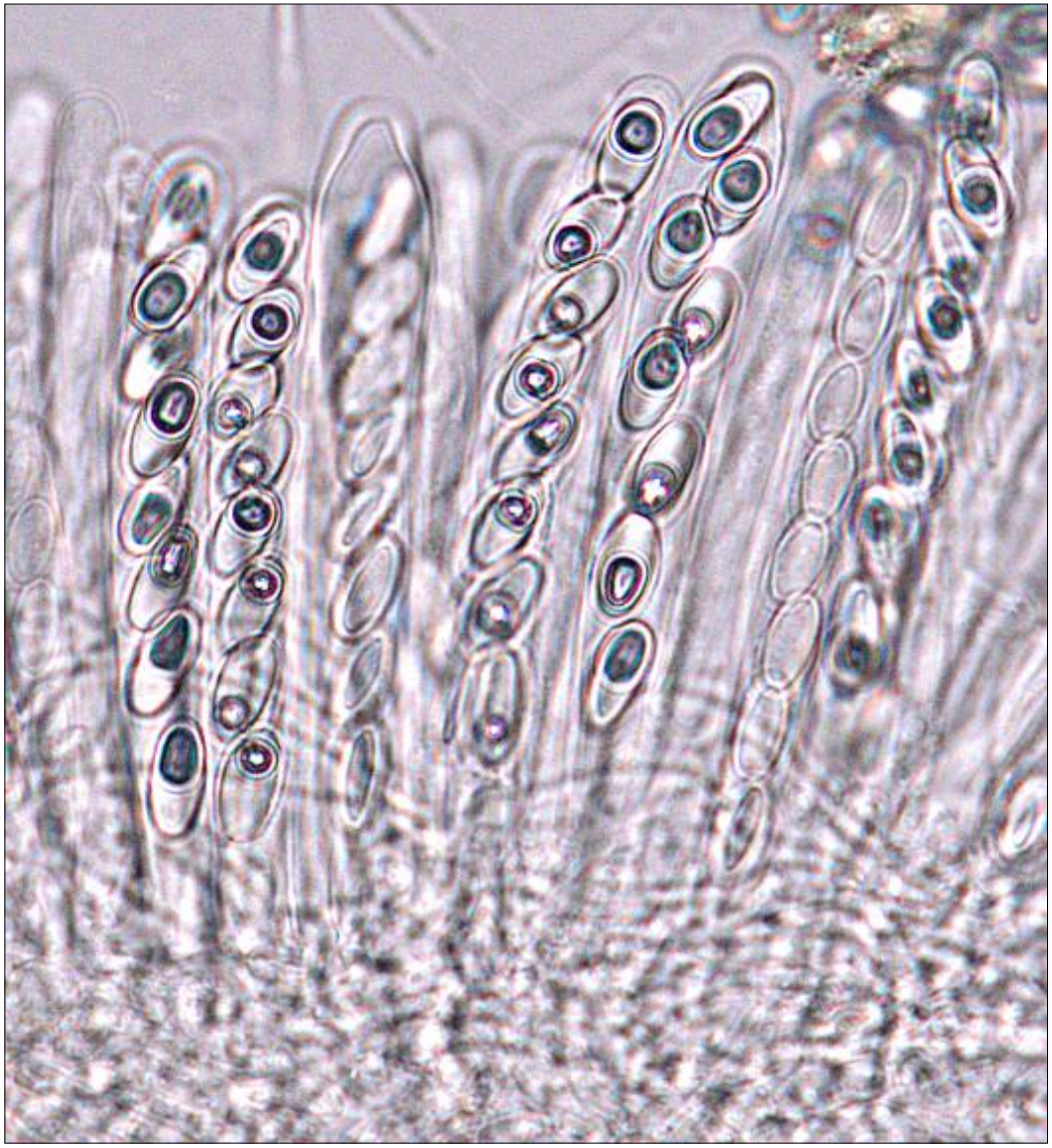
AEB 1407. Razor-sectioned views of textura angularis tissue in the apothecium ectal excipulum. Top photo from a water mount using the X40 objective. Bottom photo from the same slide after irrigating it with SMF and using the X100 objective.

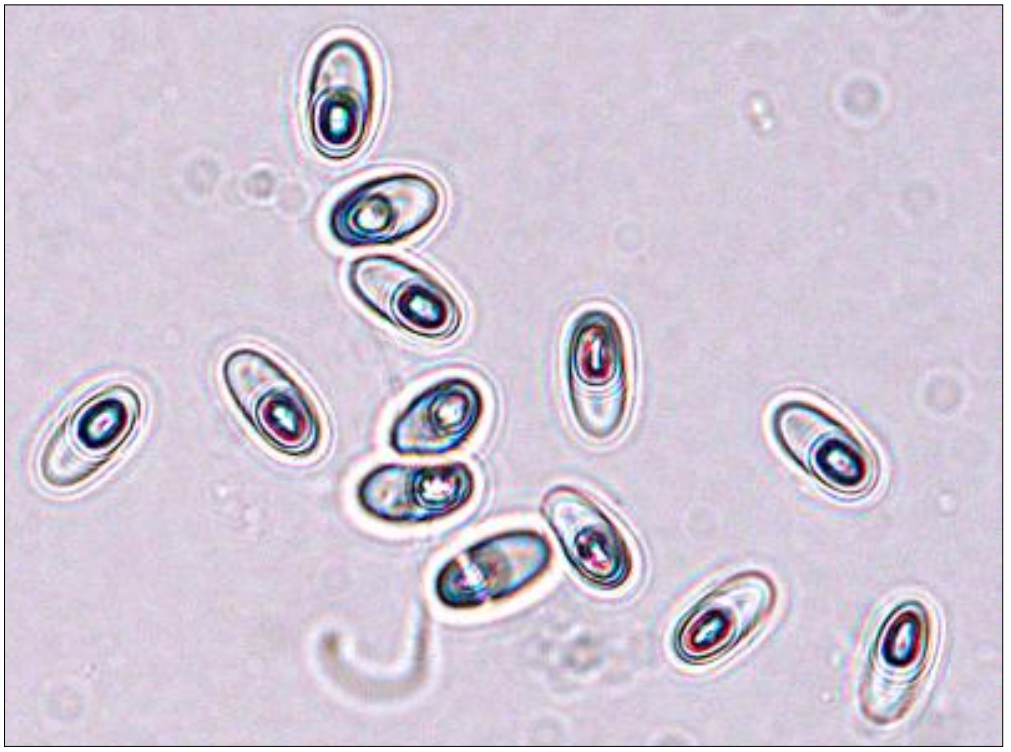
AEB 1407. A water squash mount of an asci-paraphyses cluster from a mature apothecium using the X40 objective.



AEB 1407. Another view of a cluster of asci with paraphyses in a water squash mount using the X40 objective.

AEB 1407. Typical asci less than 90 µm long × ≈ 8–9 µm wide. Viewed in a water mount using the X40 (sl. enlarged) objective.





AEB 1407. Asci and ascospores mounted in SMF and viewed using the X100 objective. This medium provides a view of the single large DeBary bubble in the ascospores. Ascospores were mostly 8–9 × 4–5 µm.