

***Coprotus sexdecimsporus* (P. Crouan & H. Crouan) Kimbr. & Korf – AEB 1370a (= PDD 121660) See also AEB 1370b (= PDD 125953) on incubating cow dung from the same site & collection date, same collectors & identifiers.**

Collected: 3 November 2023; **Incubated in moist chamber:** 6 February 2024

Substrates: Toggenberg milking goat dung

Collection site: NZTM grid ref. E1770110 N5447412 , a residential property surrounded by native bush off Moonshine Hill Road, Upper Hutt

Collectors: Ian Flux & Meryll Park; **Identifiers:** Ann Bell & Dan Mahoney

Voucher materials: no dried herbarium specimen but 1 Shear's mounting fluid (SMF) semi-permanent microscope slide; photos of microscopic detail using an Olympus BX51 compound microscope; primary references consulted & Dan's comments.

Primary references consulted:

1. Kimbrough J.W., Luck-Allen E.R. & Cain R.F. 1972. North American species of *Coprotus* (Thelebolaceae: Pezizales). Can. J. Bot. 50: 957–971. **Includes species descriptions, illustrations & a key. .**
2. Bell A. 2005. An illustrated guide to the coprophilous Ascomycetes of Australia. CBS Biodiversity series no. 3. Centraal-bureau voor Schimmelcultures, 173 pp. **See Ann's illustrations on the next page.**
3. Kušan I. et al. 2017. An overview of the genus *Coprotus* with notes on the type species and description of *C. epithecioides* sp. nov. MycoKeys 29, 15–47. **See comments and their illustrations of *C. sexdecimsporus* on the page after Ann's illustrations.**

Comments: A good fit. Presently (as of 27 Oct. 2025) there are 3 records for *Coprotus sexdecimsporus* at PDD, all identified by Ann: PDD 73277 (= AEB 116), PDD 73305 (= AEB 144) & PDD 73448 (= AEB 284). Further records are presently being added – by Ann & Dan: PDD 121660 (= AEB 1370a) & PDD 125953 (1370b) and by Dan PDD 126094 (= AEB 1408). Mycoportal has over 100 worldwide records of this commonly seen *Coprotus* species.

Ann's Australian Biological Resources Study (ABRS) work include 9 collections of *C. sexdecimsporus* from a variety of dung including cattle, emu, kangaroo, wallaby and wombat (personal communication). These serve to support her discussion and drawings in "Bell A. 2005. An illustrated guide to the coprophilous Ascomycetes of Australia. CBS Biodiversity series no. 3. Centraalbureau voor schimmelcultures, 173 pp.

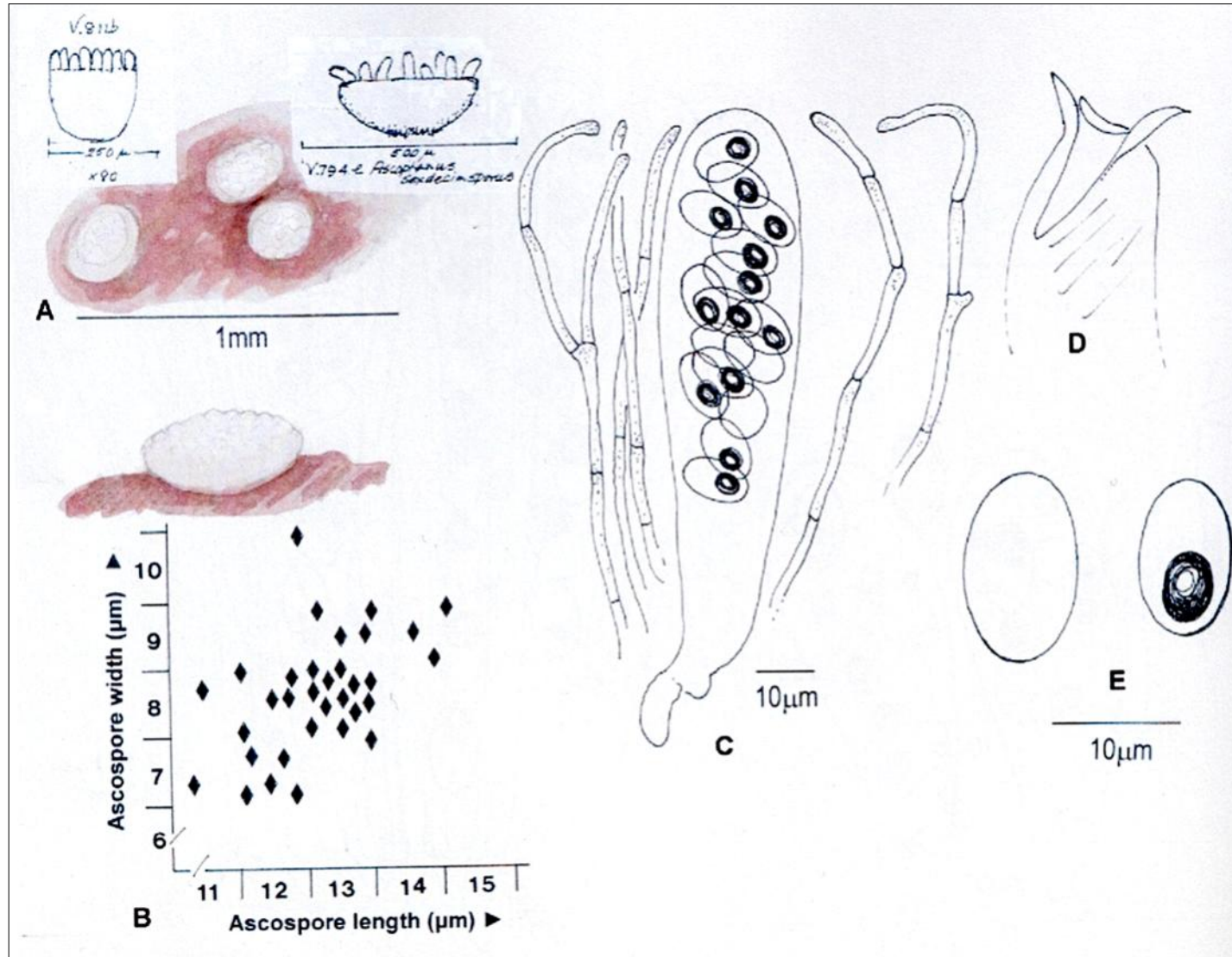


Fig. 40. *Coprotus sexdecimsporus*. A–E. A. Mature apothecia (inset drawings from Dade). B. Scatter diagram showing distribution of ascospore sizes. C. Mature ascus, ascospores & paraphyses. D. Operculum of discharged ascus. E. Two mature ascospores one with de Bary bubble.

Kušan I. et al. 2017. An overview of the genus *Coprotus* with notes on the type species and description of *C. epithecioides* sp. nov. MycoKeys 29, 15–47. The illustrations and legends below are from their Croatian material, p. 24 in the publication. The article includes a key to world species of *Coprotus* and a thorough description of *C. sexdecimsporus*. They also discuss *Coprobia* phylogenetics and the taxonomic relationships of *C. sexdecimsporus*, which they sequenced for the first time.

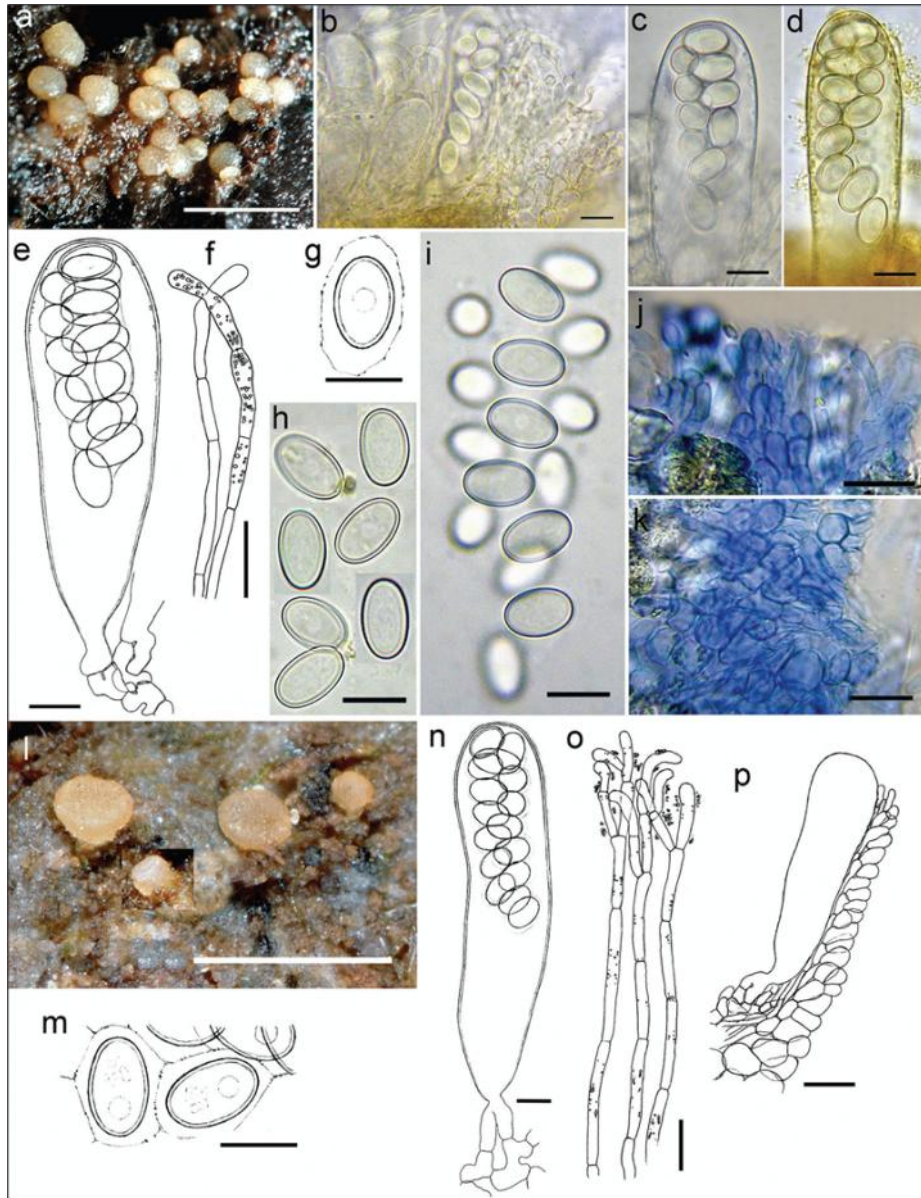
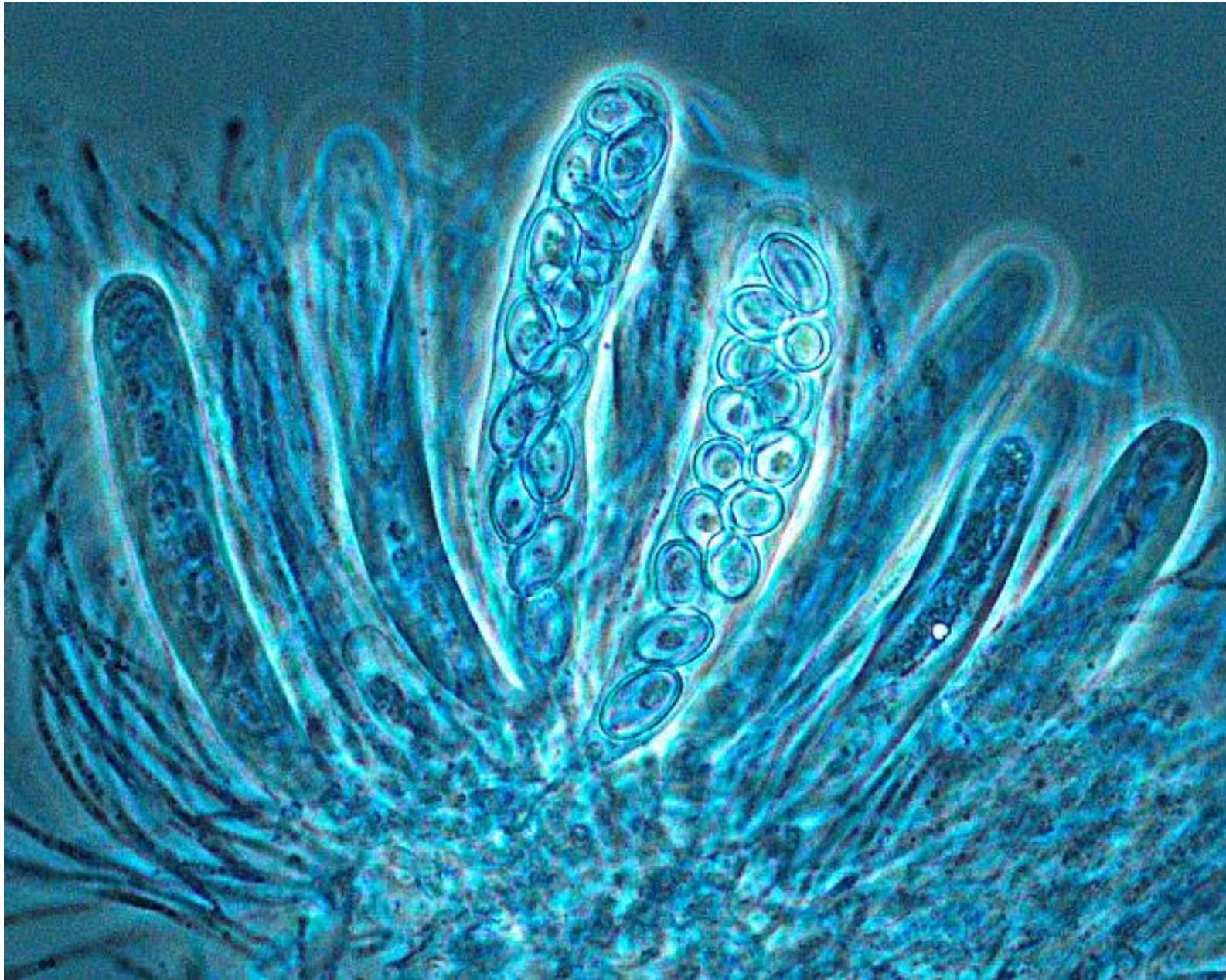
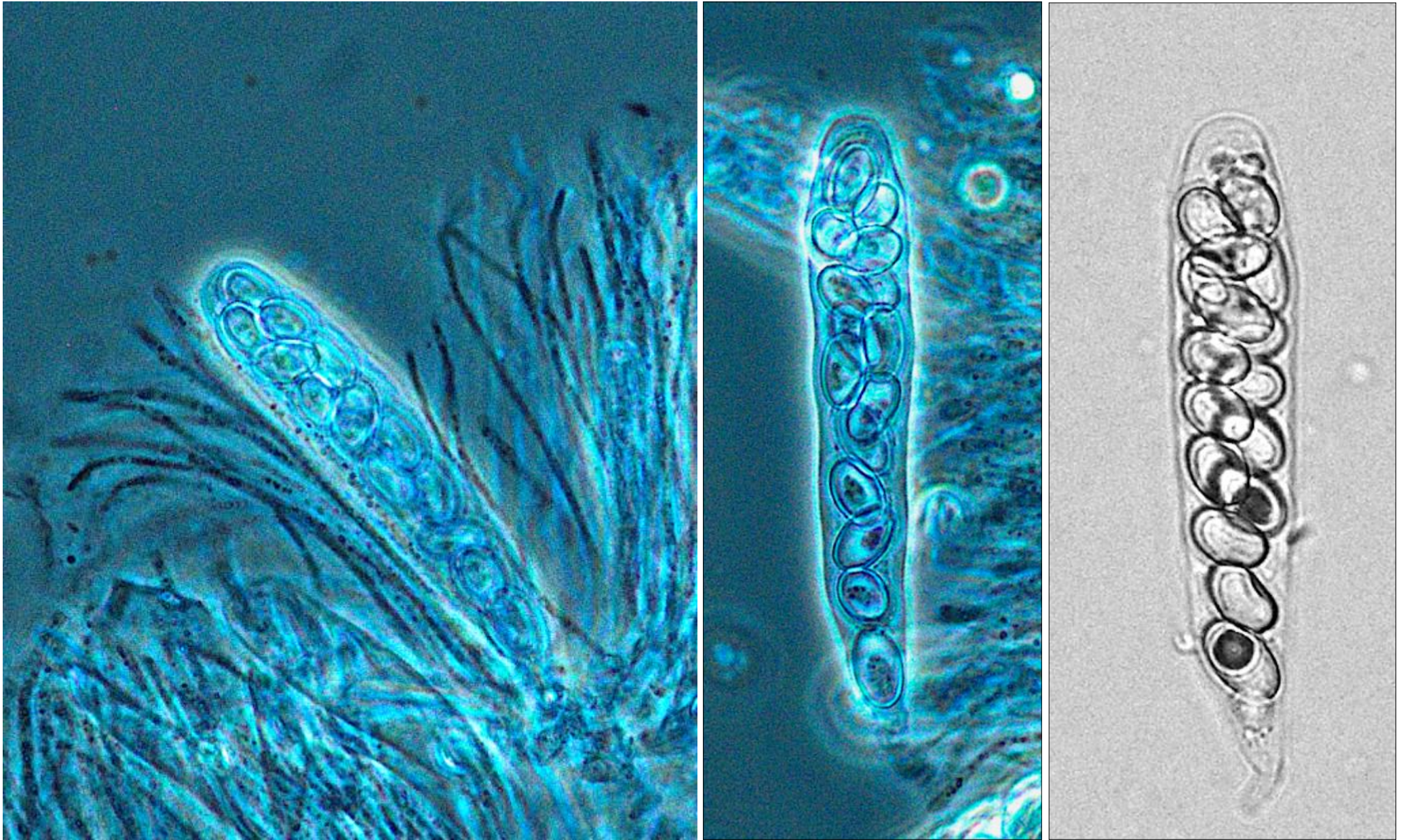


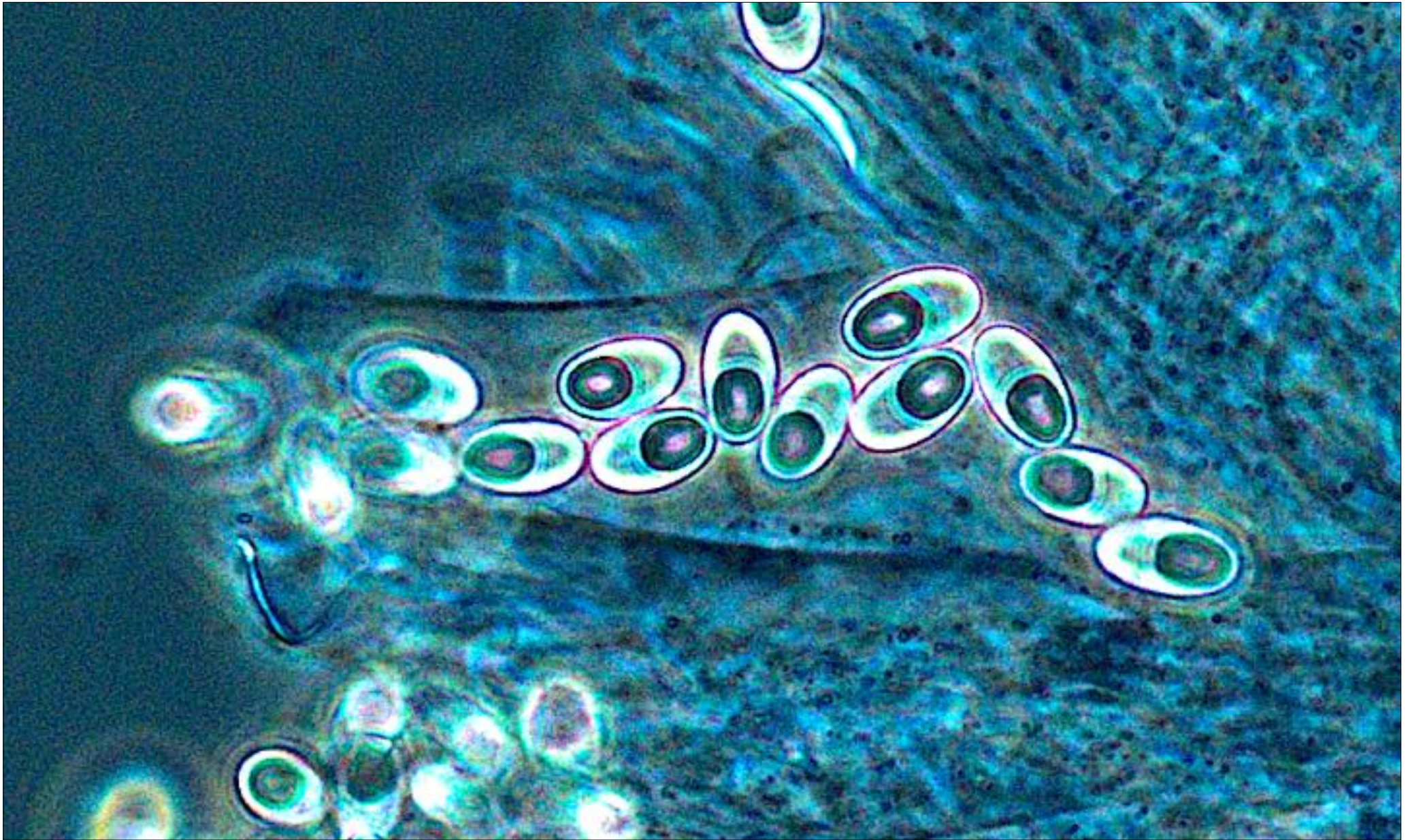
Figure 3. *Coprotus sexdecimsporus*. **a** Fresh apothecia on *Equus asinus* dung **b** Cross section with immature asci, paraphyses and marginal cells **c**, **d** Asci protruding above hymenium **e** Ascus with ascogenous cells **f** Paraphyses **g** Freshly ejected ascospore with a sheath **h** Mature ascospores **i** 16-spored freshly ejected packet of ascospores **j** Marginal cells from side view **k** Ectal excipulum cells in top view **l** Fresh apothecia on *Lepus europaeus* dung **m** Freshly ejected ascospores held together with a sheath **n** Ascus with ascogenous cells **o** Paraphyses with granular pigment and copious exudate **p** Excipular and marginal tissue. **b**, **c**, **e–g**, **i**, **m–p** *tap water **d**, **h** *IKI **j**, **k** †CB **a–i** from CNF 2/8394 **j–p** from CNF 2/8942. Scale bars: **a**, **l** 1 mm, **b–k**, **m–o** 10 μ m, **p** 20 μ m; del. N. Matočec, phot. N. Matočec & I. Kušan.



AEB 1370a. Goat dung. Apothecium squash in a SMF slide mount, emphasis 16-spored asci & ascospores. Photos taken using an Olympus BX51 compound microscope with a DP28 camera, phase and a X40 objective (enlarged).



AEB 1370a. Goat dung. All photos from SMF mounts using the X40 objective (enlarged). Left photo: 16-spored ascus & paraphyses, phase microscopy. Middle: ascus, phase. Right: 16-spored ascus ($82.5 \times 15 \mu\text{m}$), brightfield microscopy



AEB 1370a. Goat dung. Photo from a SMF slide mount using the X40 objective (enlarged) & phase microscopy. Emphasis on the ascospores ($11\text{--}12 \times 7.5 \mu\text{m}$), each with a single large debarry bubble.