

***Pseudombrophila cervaria* (W. Phillips) Brumm. – PDD 126095 (= AEB 1409) A good match**

Substrate: red deer (*Cervus elaphus*) dung

Collected: 9 June 2025; **Incubated in a moist chamber:** 17 June 2025

Collection site: Pureora Forest, Tunawaea, E1813236 N5748144 alt. 544m

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

Voucher materials: three dried red deer dung pellets and two Shear's mounting fluid (SMF) slide mounts; in-situ photos of apothecia on the moist chamber incubated red deer dung taken 18, 22 & 27 July using a Zeiss SV 11 Stereo-zoom dissecting microscope and a MC80 camera; microscopic detail photos taken 18, 25 & 27 July in water & Shear's mounting fluid (SMF) mounts using an Olympus BX51 compound scope and a DP28 camera; references and Dan's comments

References:

1. Brummelen J. van. 1995. A World-monograph of the Genus *Pseudombrophila* (Pezizales, Ascomycotina). Libri Botanici. 14. IHW-Verlag. 96 pp. **Includes a key to species. His description & illustrations of *P. cervaria* (pp. 27 & 30 resp.) are reproduced on the next page.**
2. *Pseudombrophila cervaria* online at asturnatura.com **Photos by Enrique Rubio Dominguez are reproduced on the page after next.**

Comments: Worth noting near the end of van Brummelen's description of *P. cervaria* (pp. 28,29) is the following:

"*Pseudombrophila cervaria* shows a clear affinity with *P. theioleuca* which grows in similar habitats and also shows a very wide distribution. *Pseudombrophila theioleuca* differs macroscopically in the whitish to transparent pale yellowish colour of the disc, resulting from the absence of any purplish or reddish brown pigment from the hymenium; while the pigment in the cortex of the receptacle is not reddish brown or purplish, as in *P. cervaria*, but yellowish brown. Microscopically the average ascospore size is smaller in *P. theioleuca* (14.5 x 7.7 µm) than in *P. cervaria* (16.6 x 8.4 µm), although the extremes do somewhat overlap."

Both species are widely reported on Mycoportal with *P. cervaria* 88 records & *P. theioleuca* 84. PDD lists only 11 records of *Pseudombrophila* (as of 28 July 2025) with no records of *P. cervaria* and 4 of *P. theioleuca*. The latter are all identified by Ann Bell or by Ann and myself. The reader is referred to the datastore entry for PDD 12453 with its comments and photos.

With van Brummelin's comments in mind and the absence of comparative work on *Pseudombrophila* species since his monograph, it is possible that some previous identifications of *P. theioleuca* (with its sl. smaller ascospores) are actually *P. cervaria* – or vice-versa. Further work may also indicate that similarities between the 2 do not warrant separate recognition.

Brummelen J. van. 1995. A World-monograph of the Genus *Pseudombrophila* (Pezizales, Ascomycotina). Libri Botanici. 14. IHW-Verlag. 96 pp. His description & illustrations of *P. cervaria* (pp. 27 & 30 resp.) are reproduced below.

DESCRIPTION.

Apothecia gregarious, superficial, sessile, or stipitate, 1.5-3 mm diam., about 1 mm high. **Receptacle** at first subglobular, then more or less scutellate, often with a narrow or a short stalk-like base, chestnut-brown or purplish brown; the surface almost smooth, covered with more or less interwoven appressed brown hairs; the margin thin, with an upstanding rim, becoming crenulate or fimbriate. **Disc** at first concave, then almost flat, chestnut-brown or purplish-brown, smooth.

Hymenium about 150 μm thick. **Hypothecium** about 25 μm thick, of closely compacted isodiametric to elongated cells 4-10 x 3-7 μm . **Medullary excipulum** clearly differentiated, up to 900 μm thick, in the central part near the base, hyaline, of small closely compacted isodiametric cells 7-14 μm diam. and of large oblong cells 19-53 x 5-12 μm (textura globulosa). **Cortical excipulum** clearly differentiated, at the margin 25-40 μm thick, near the base reaching 75 μm , with intercellular amorphous purplish-brown pigment, especially in the outer few layers of cells and between the hairs covering the excipulum, consisting of fairly thick-walled subglobular, angular, or slightly elongated cells 8-40 μm wide (textura globulosa or angularis). **Hairs** sometimes rather scarce, hyphoid, of one type, arising from the outermost layer of the excipulum, subcylindrical, appressed, branched, septate, rather thin-walled, covered with amorphous purplish brown pigment, 2-4.5 μm wide, near the margin often forming a more or less fimbriate layer.

Asci cylindrical with a short stalk, rounded above, operculate, 150-175 x 10-12.5 μm , 8-spored; the wall not staining blue with iodine. **Ascospores** uniseriate, ellipsoid, or oblong-ellipsoid, (length/width ratio 1.8-2.3, average 2.0), at first colourless, at maturity with pale yellowish-brown contents, 14.4-18.7 x 7.0-9.3 μm (average 16.6 x 8.4 μm), without conspicuous oil drops or granules, smooth. **Paraphyses** septate, filiform, branched especially in the upper part, hyaline but near the free ends often with brownish walls, with abundant intercellular amorphous purplish brown pigment covering the tips, about 2.0 μm wide, not or only very slightly enlarged up to 3.0 μm at the tip.

HABITAT. On dung of various kinds (deer, sheep, guanaco, elk, cow, horse, reindeer, goat, and rabbit).

ETYMOLOGY. From Latin, cervarius, belonging to deer.

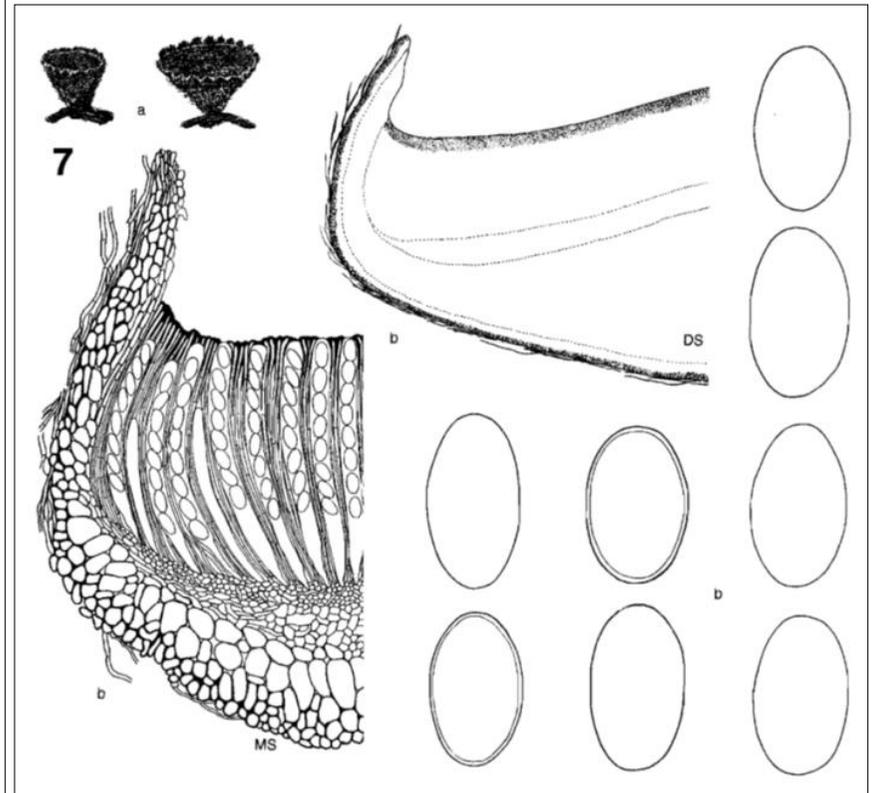


Fig. 7. — *Pseudombrophila cervaria*: habit of fruit bodies, x 10; diagrammatic section, x 140; section of margin of apothecium, x 280; ascospores, x 1600. a, from holotype of *P. cervaria*, K; b, from J. Gremmen 1712, L.

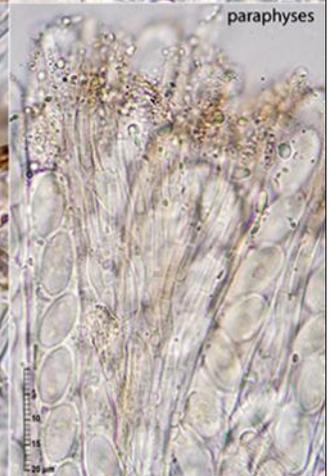
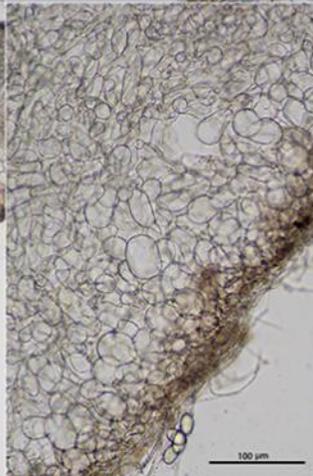
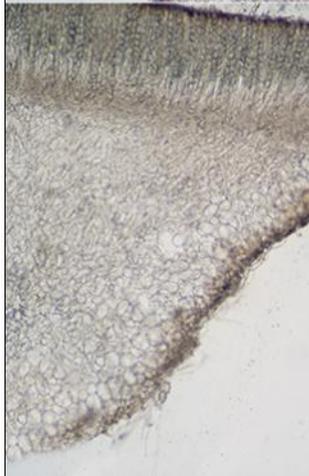
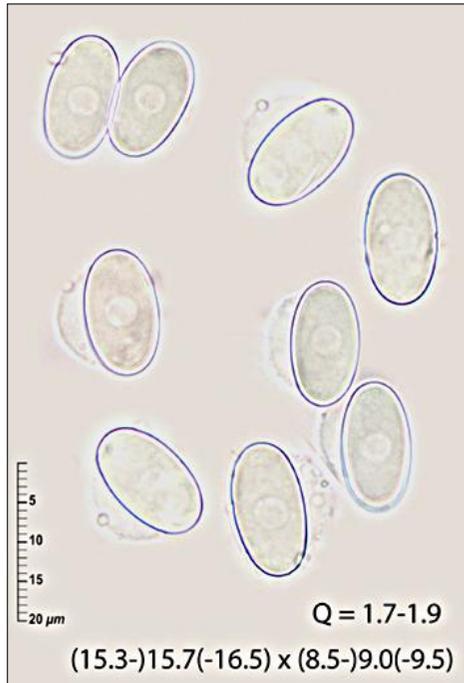
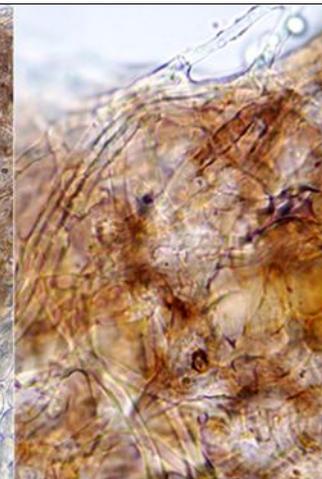
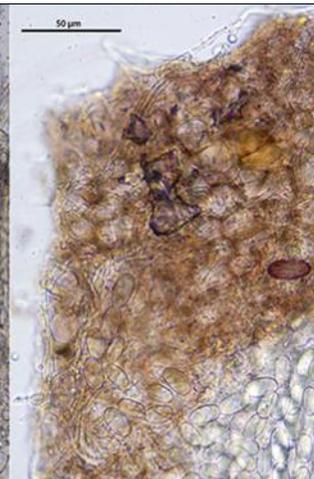
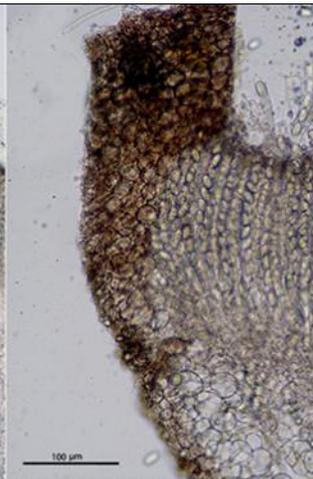
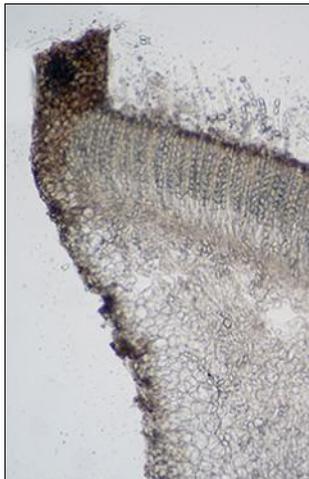


Becerreá (Lugo), 29-II-2020, in roe deer (*Capreolus capreolus*) excrement, leg . Antonio Couceiro, det . E. Rubio, ERD-8254.



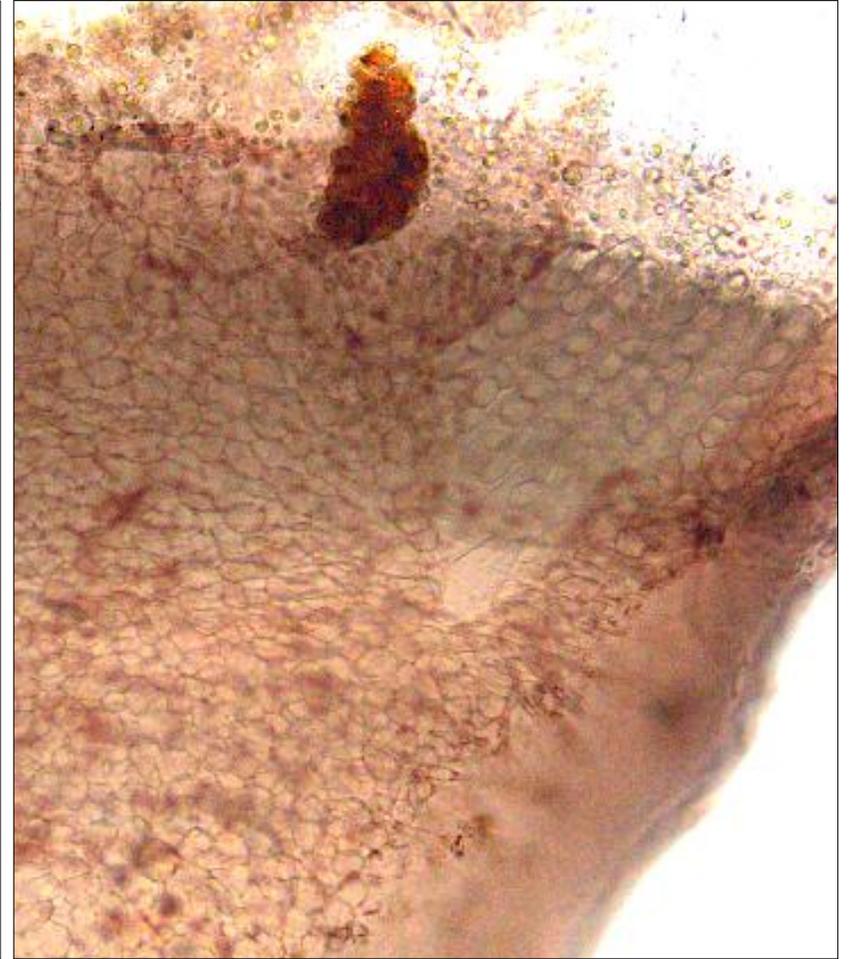
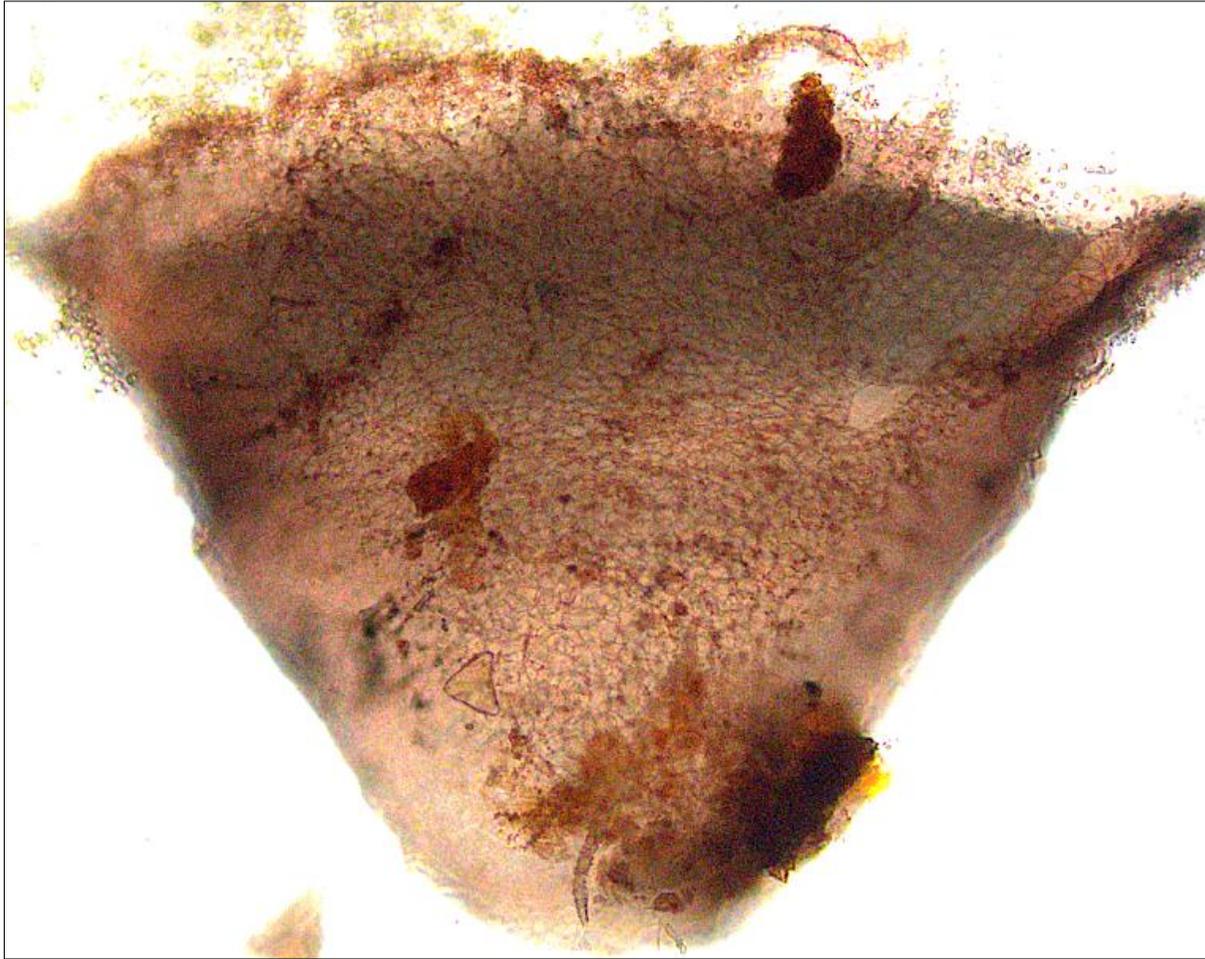
Photos 01Mar2020

by [Enrique Rubio Domínguez](#)

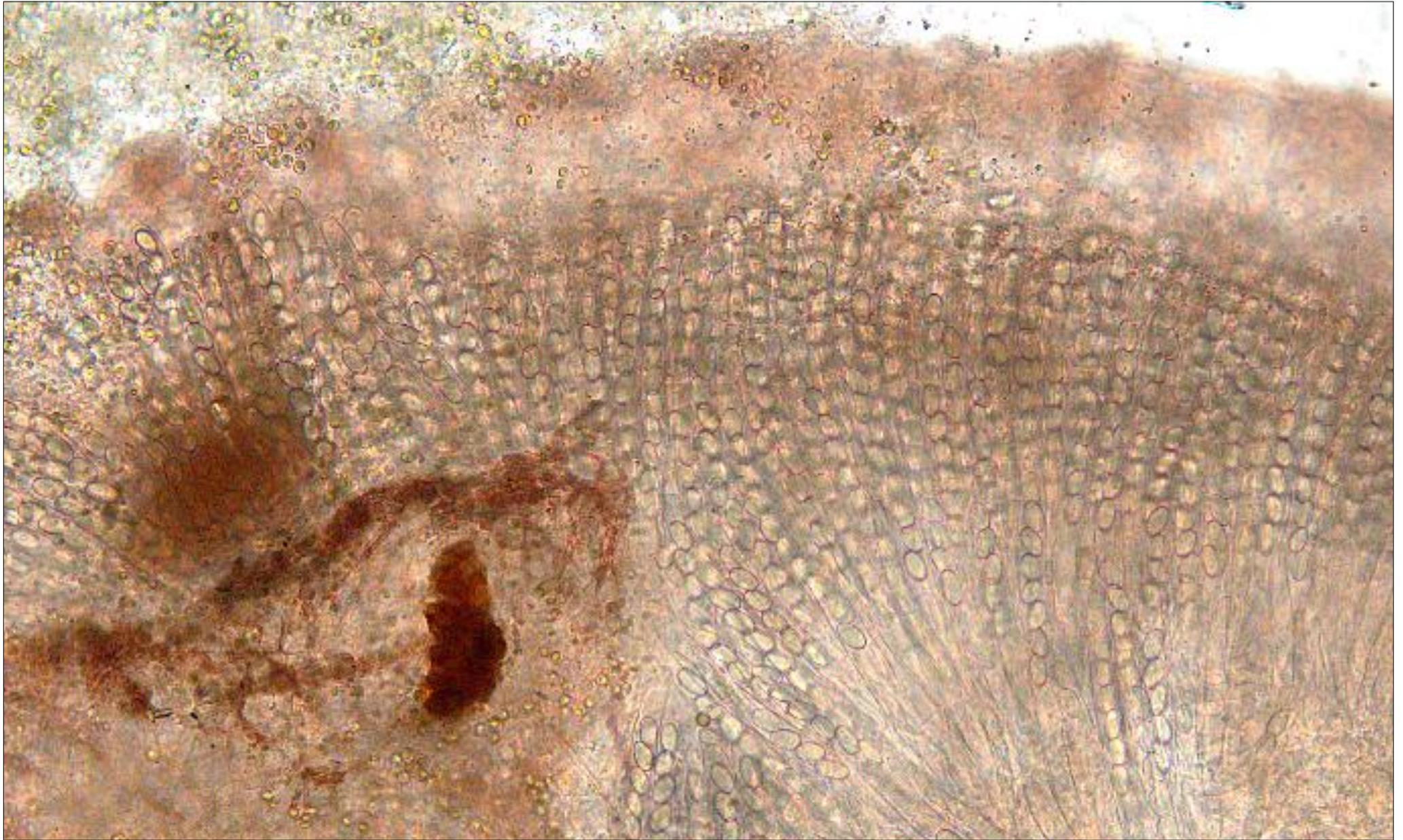




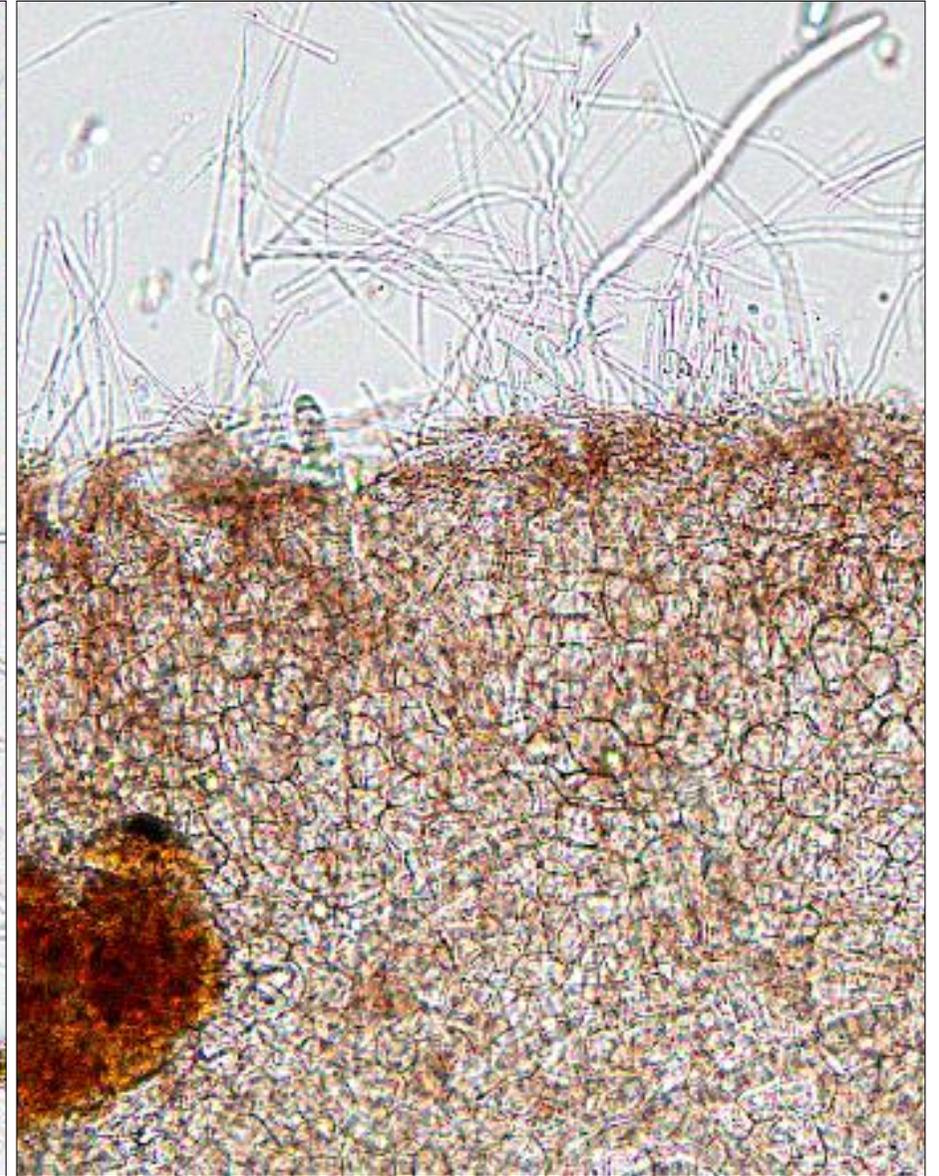
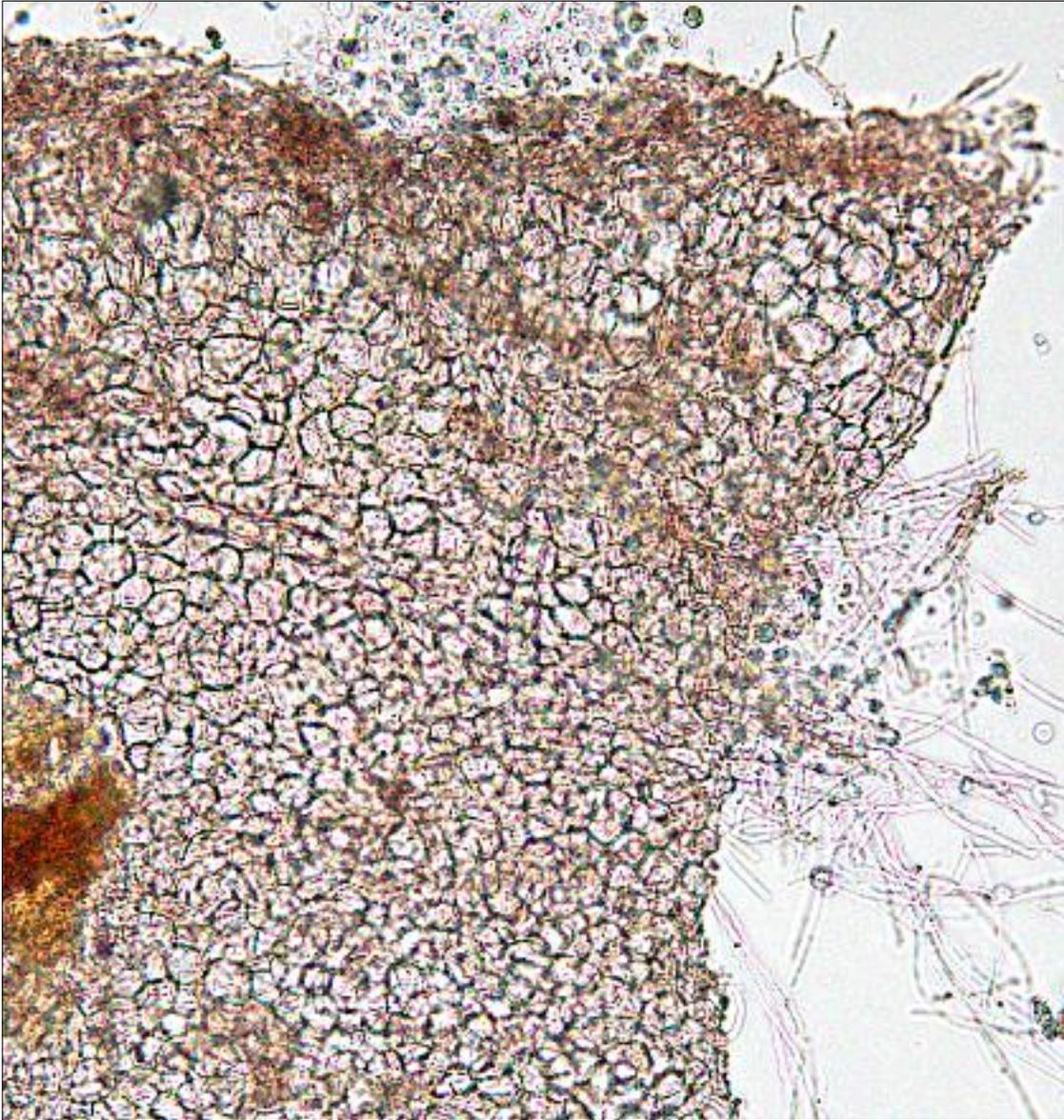
AEB 1409. An in-situ view of specimen #1 on red deer dung in a moist incubation chamber. This apothecium was sacrificed to see its microscopic details. The water mount was viewed and photographed on 18 July (see the next 5 pp.) as the whole apothecium was gradually squashed. The 6th page shows photos of free asci after the water mount was irrigated with SMF.



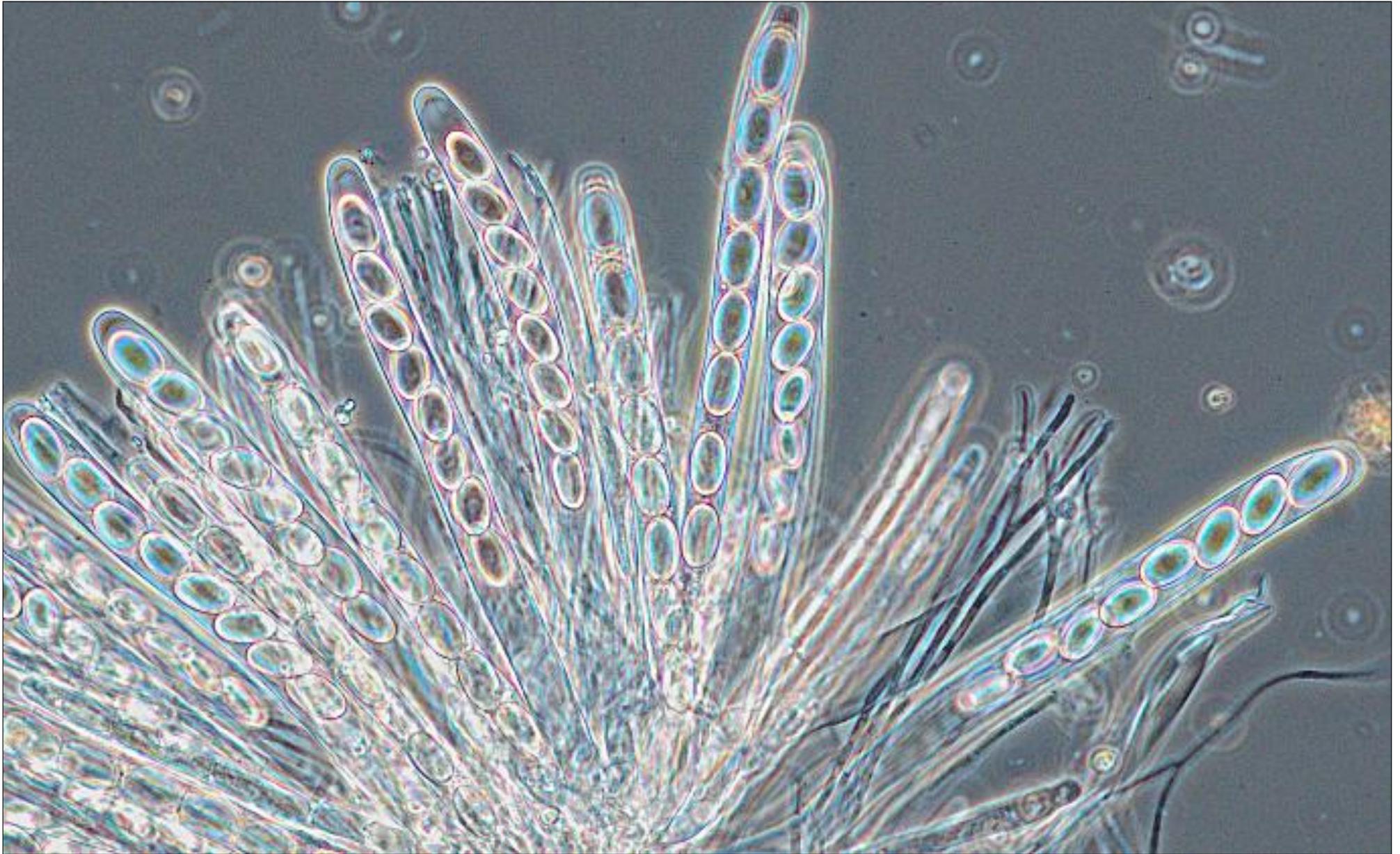
AEB 1409. Both photos apothecium specimen #1 in water mount X40 objective enlarged using brightfield microscopy. Left photo whole apothecium. Rim width 830 μm , depth 550 μm . Right photo a cropped, slightly enlarged and overexposed view emphasizing the cells of the excipulum & in upper right an excipulum split showing fertile asci.



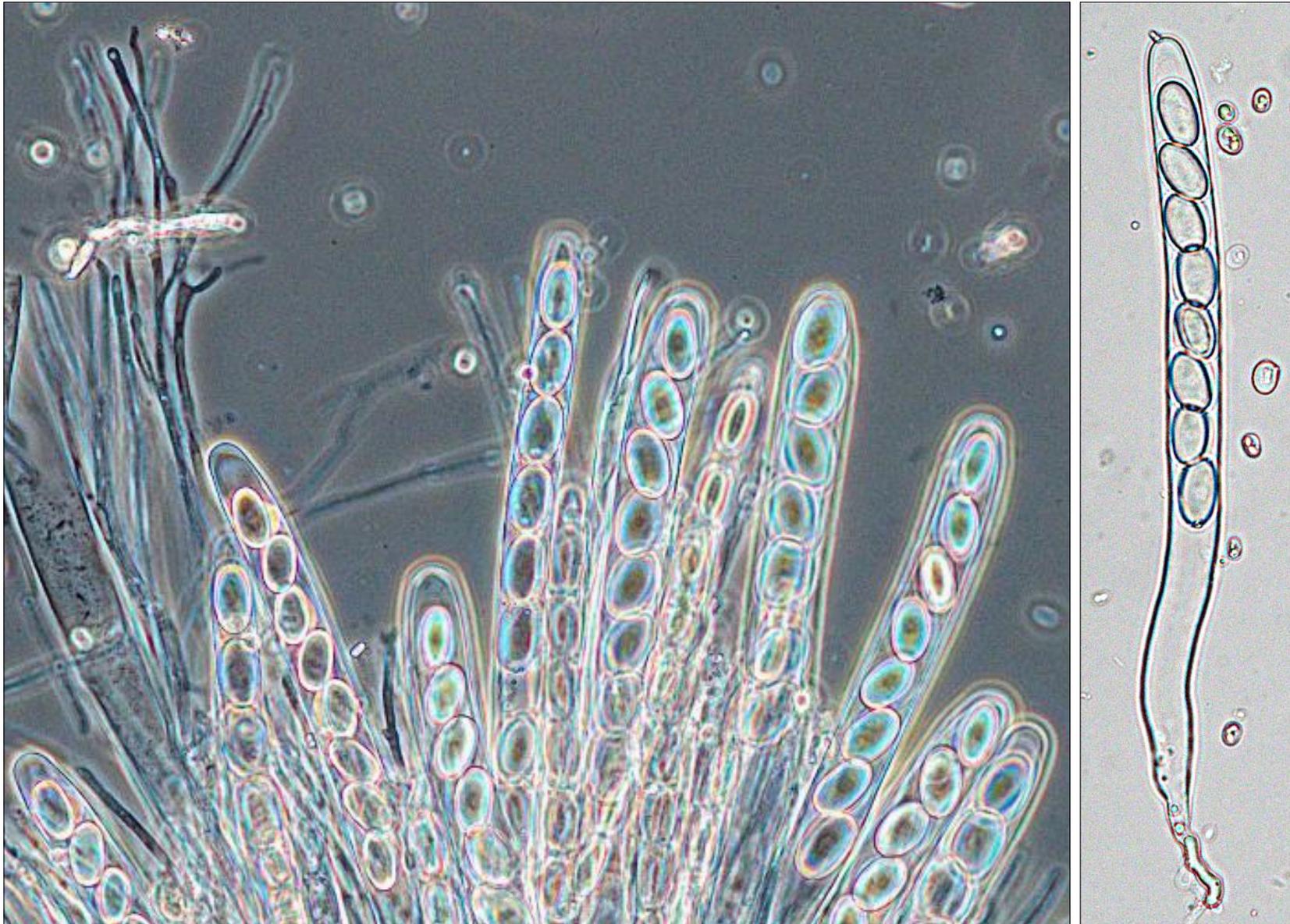
AEB 1409. Apothecium specimen #1 from the previous page. Here shown slightly more squashed in the same water mount X20 objective using brightfield microscopy. The excipulum split showing fertile asci in the right photo on the previous page is here better shown and emphasizes the fertility of this apothecium.



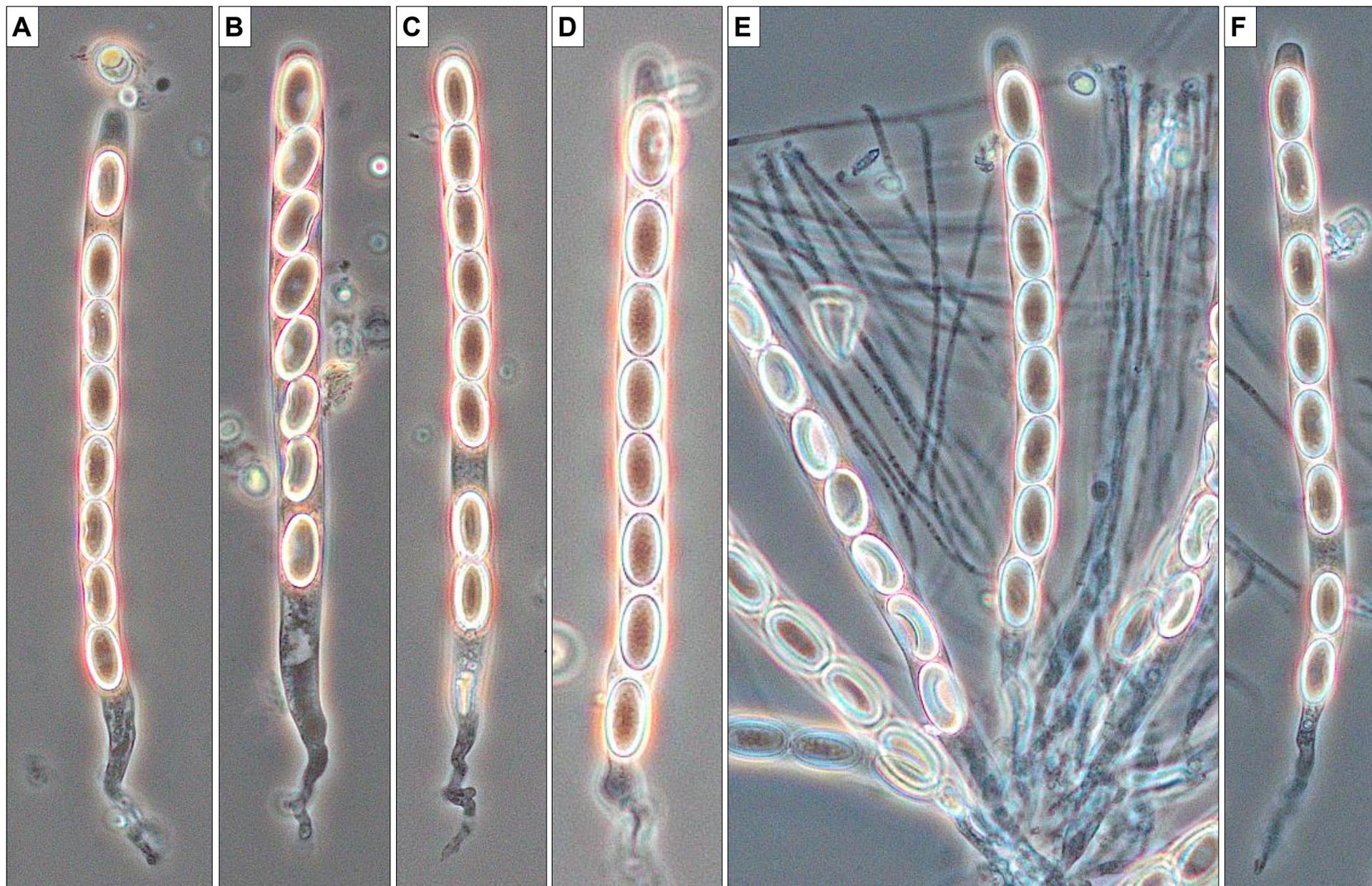
AEB 1409. Both photos apothecium specimen #1 in water mount X20 objective cropped and enlarged using bright-field microscopy. Both are excipulum fragments oriented with the rim uppermost. The left photo emphasizes cells of the excipular tissue from the rim downwards; the right photo the narrow septate hairs on the rim surface.



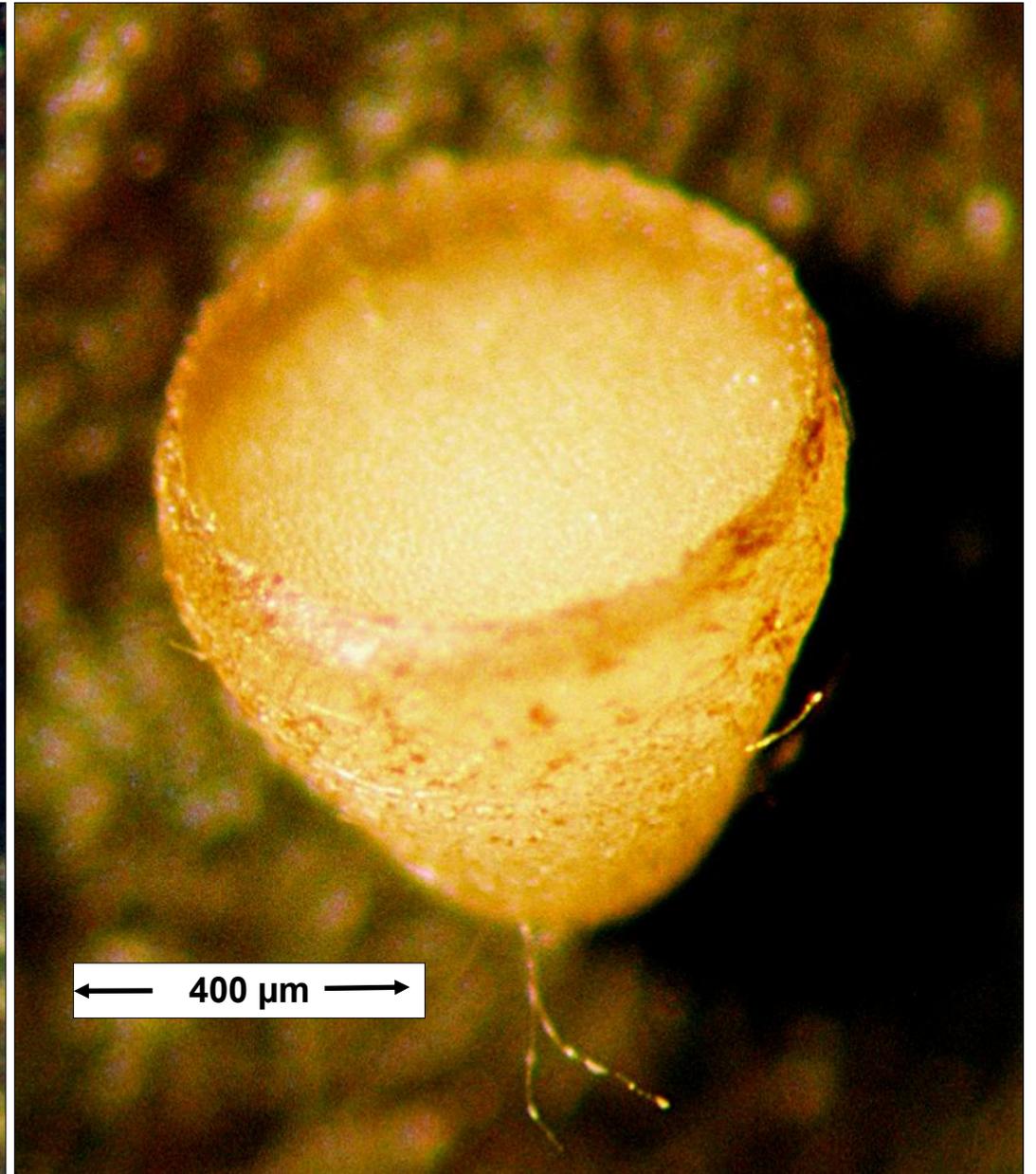
AEB 1409. Apothecium specimen #1 in water mount X40 objective using phase microscopy. Seen after maximum squashing in the water mt and before SMF was added. Note the cylindrical asci with 8 uniseriately arranged ellipsoidal ascospores and, at the right side of the photo, the narrow, septate, often apically dichotomous paraphyses.



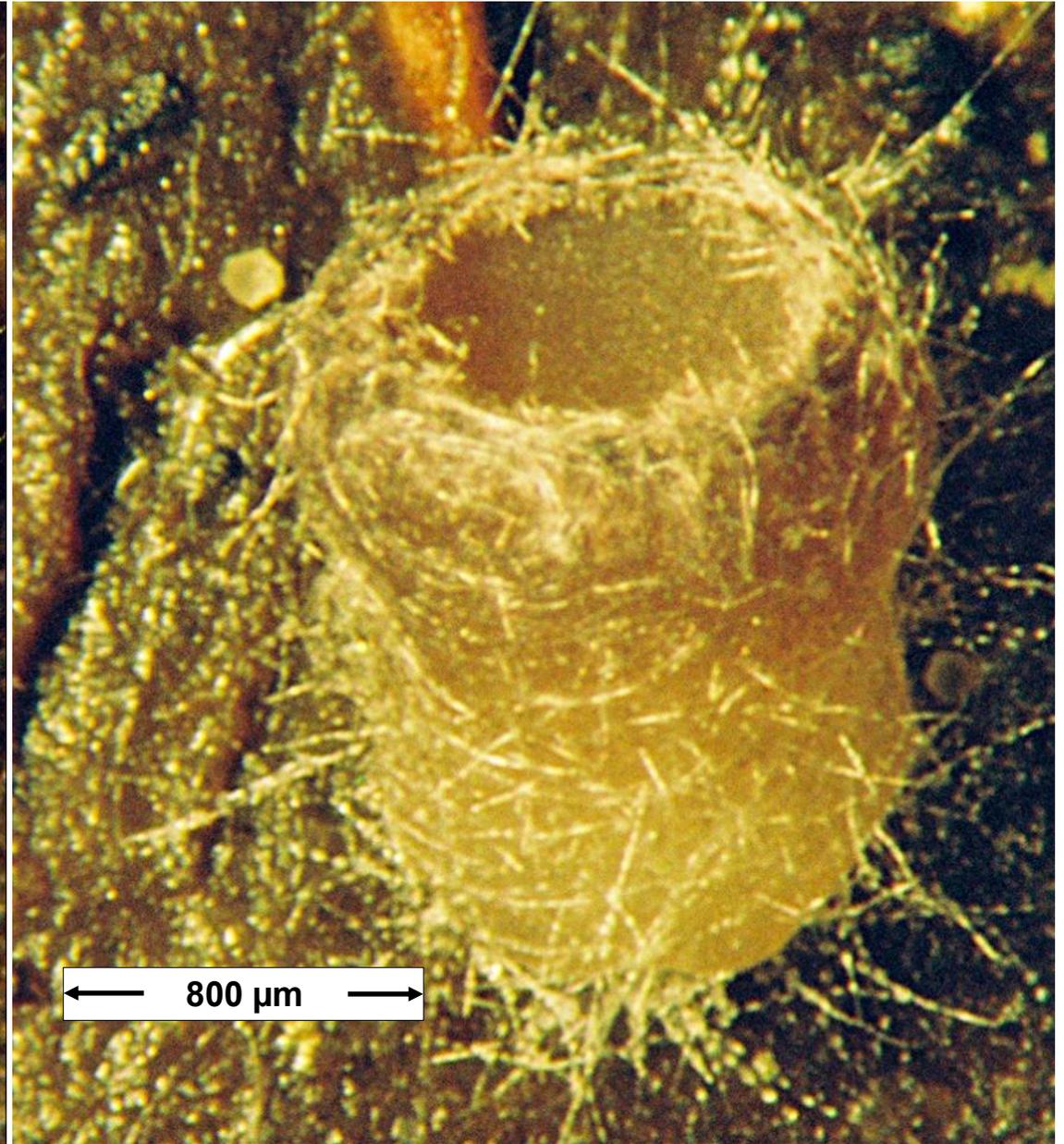
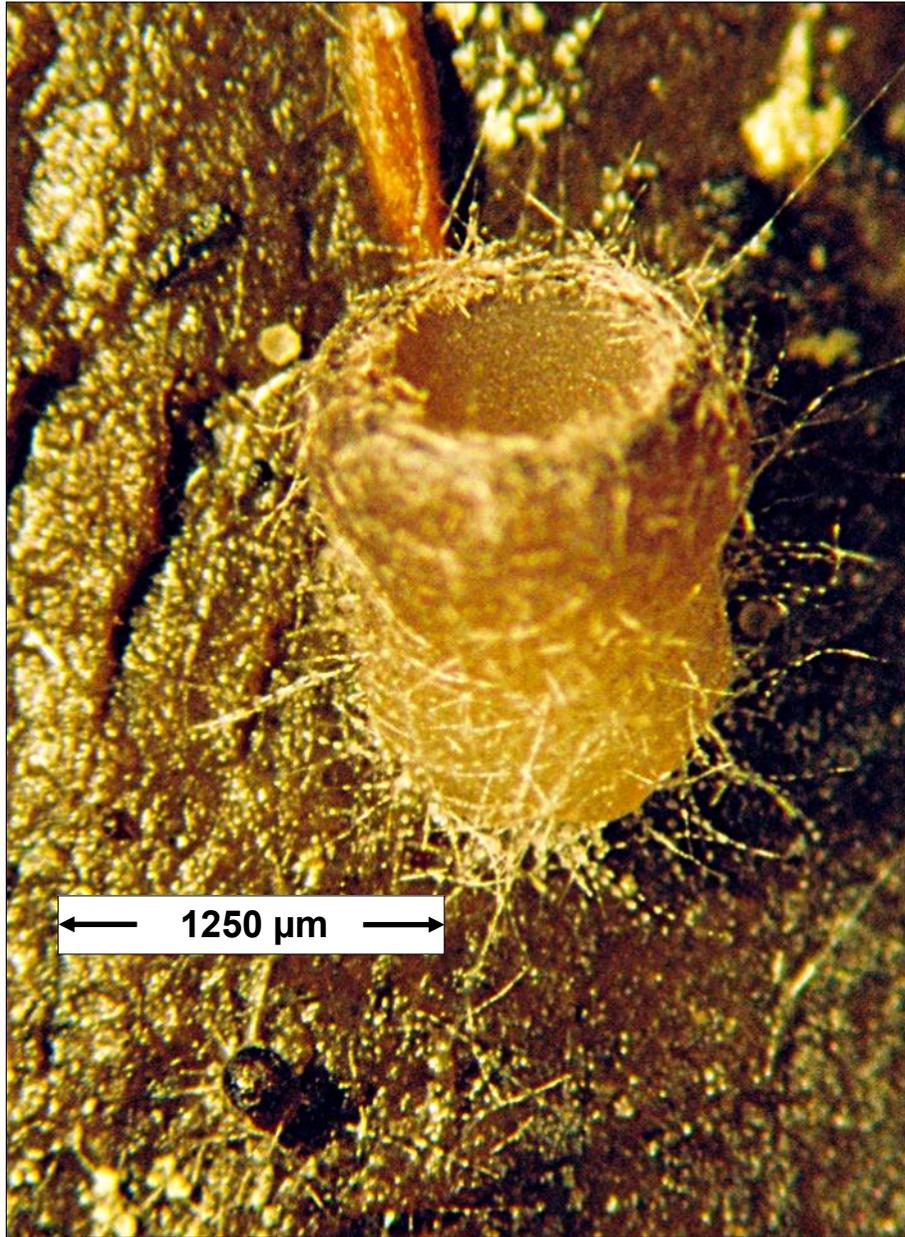
AEB 1409. Apothecium specimen #1 in water mount X40 objective using phase microscopy. Seen after maximum squashing in the water mt and before SMF was added. Note the asci and ascospores as described on the previous page with particular emphasis here on the branching paraphyses. Right photo: free ascus with ascospores here mostly $17.5 \times 10 \mu\text{m}$. Ascospores overall $15\text{--}17.5 \times 8\text{--}10 \mu\text{m}$.



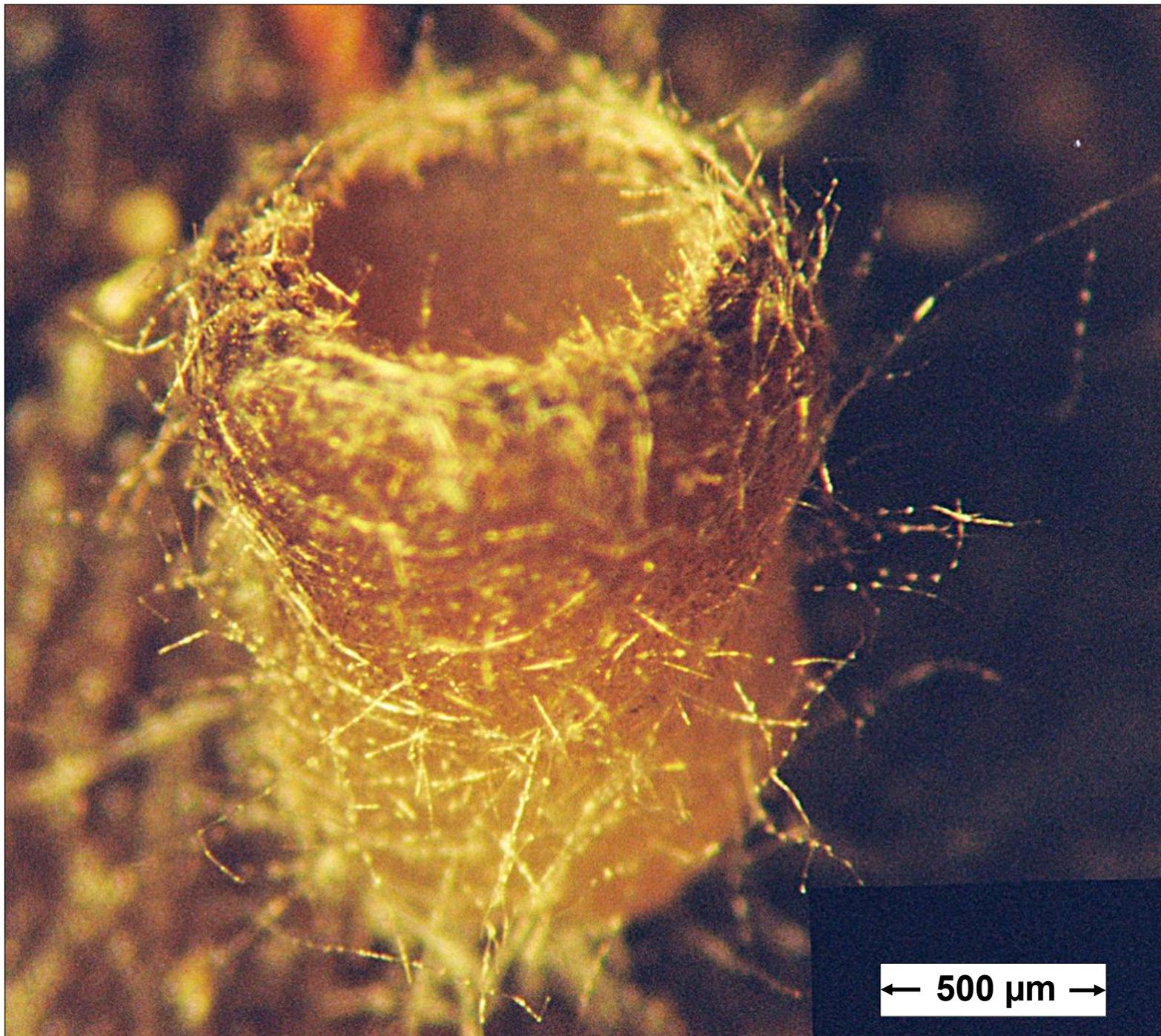
AEB 1409. A–F. Asci from specimen #1 in SMF mount X40 objective using phase microscopy. Ascus measurements: A. $170 \times 10 \mu\text{m}$, B. $172.5 \times 12.5 \mu\text{m}$, C. $172 \times 8 \mu\text{m}$, D. $147.5 \times 9 \mu\text{m}$, E. no measurements, note paraphyses, F. $157.5 \times 10 \mu\text{m}$. Ascospores overall: $15\text{--}17.5 \times 8\text{--}10 \mu\text{m}$.



AEB 1409. Both views the same apothecium shown in-situ of specimen #2 on red deer dung in a moist incubation chamber. Note the dark rim and the brown spots on the apothecium excipulum.



AEB 1409. Both views (22 July) the same apothecium shown in-situ of specimen #3 on red deer dung in a moist incubation chamber. Aside from the dark rim and the brown spots on the apothecium excipulum, this apothecium has an abundance of narrow, hyaline hairs covering the entire exterior.

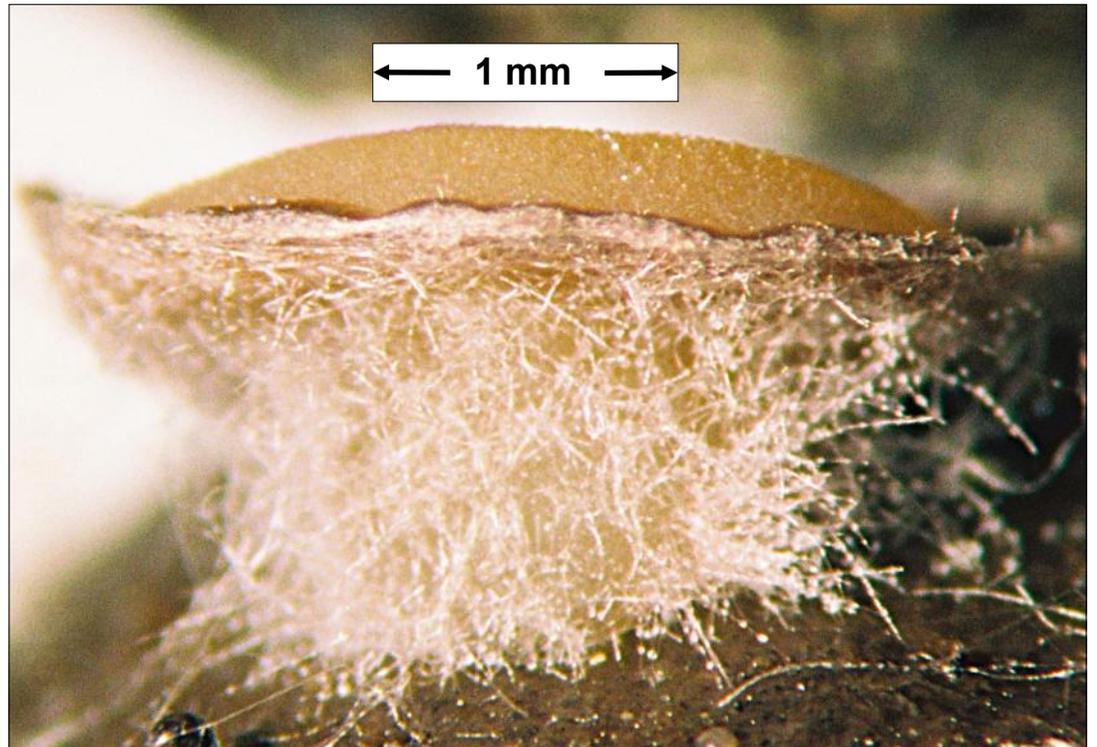


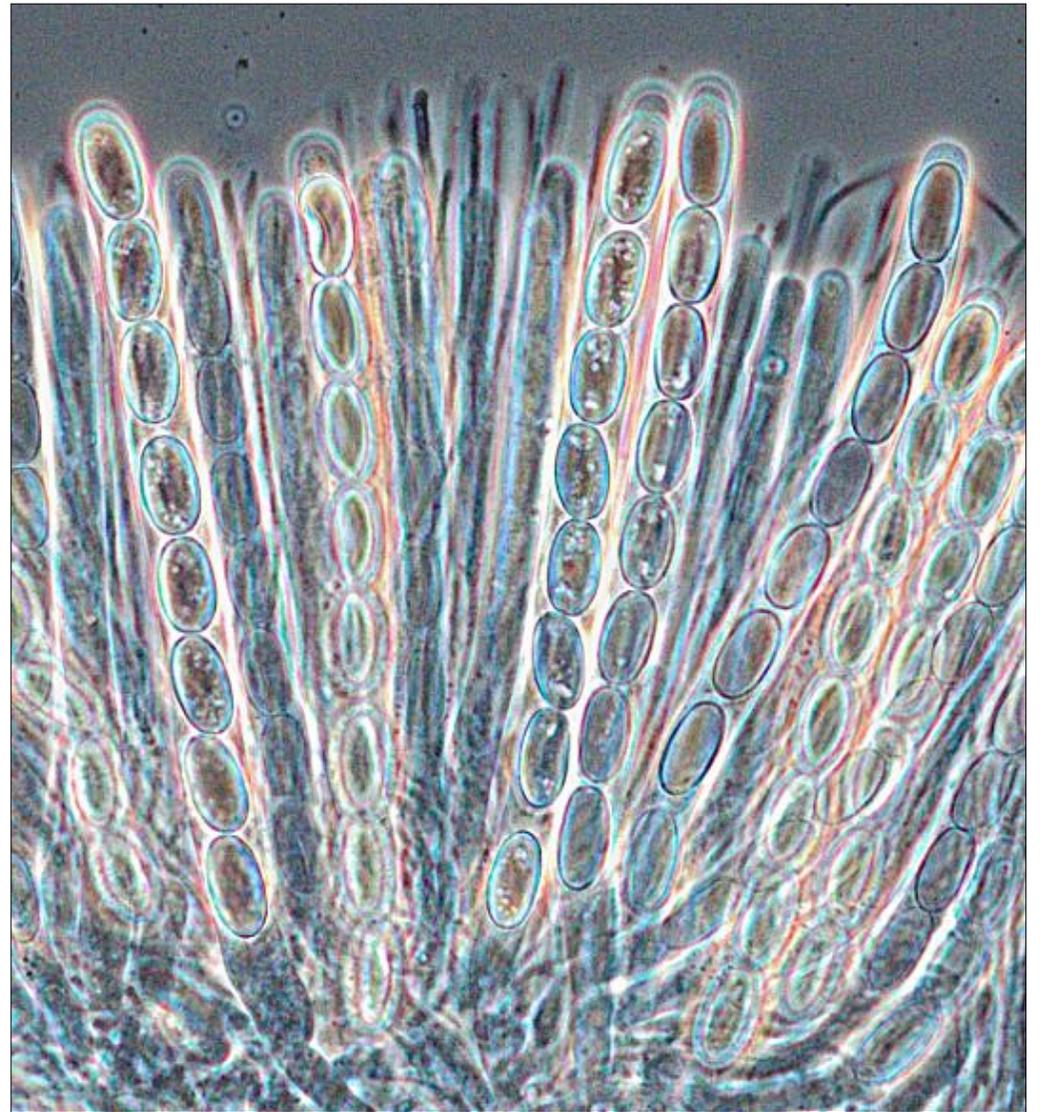
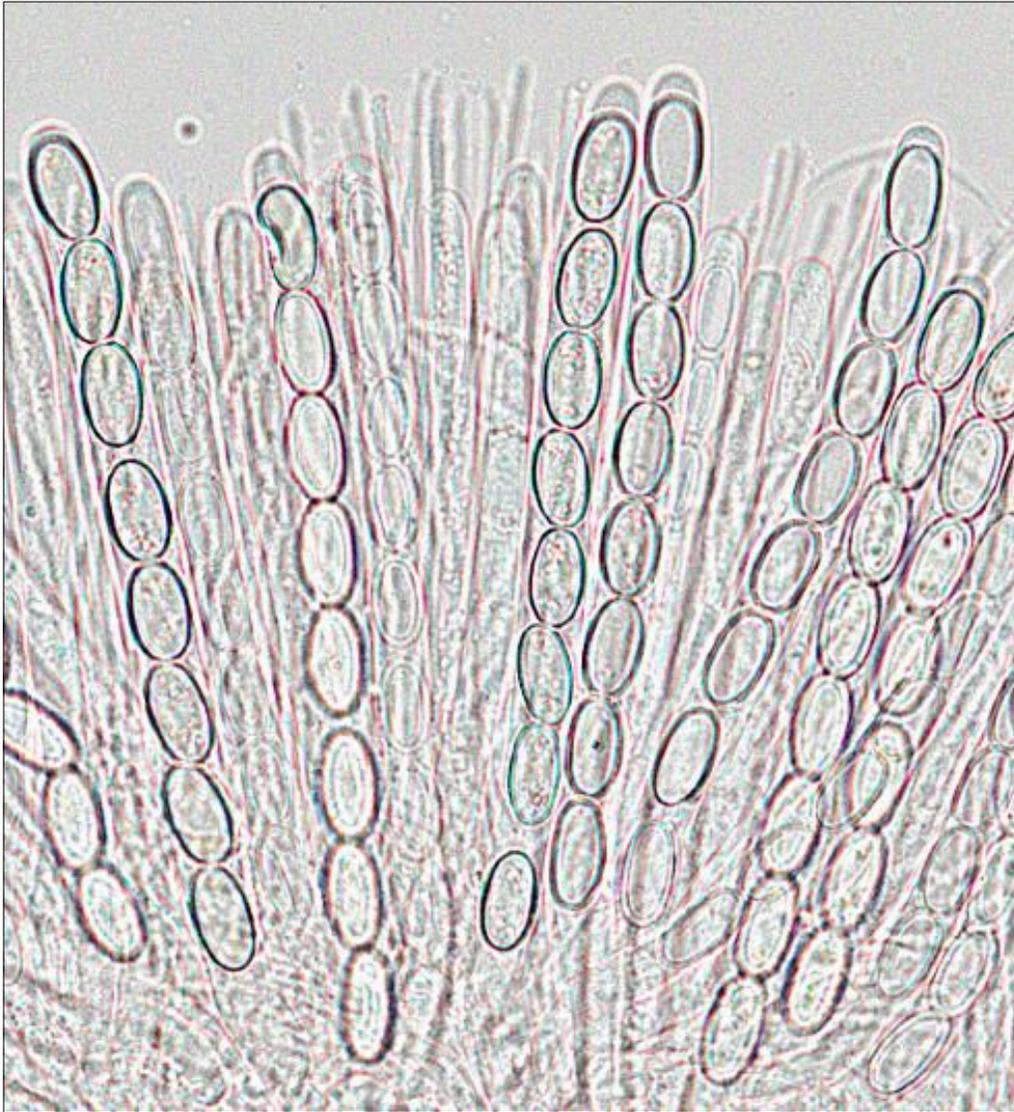
AEB 1409. A closeup of the same apothecium shown in-situ on the previous page. This allows a better view of the dark rim and dark spots on the excipulum. Surprisingly, this apothecium was photographed on 22 July but it continued to grow and > doubled its size by 27 July (see the next page).

← 500 μm →

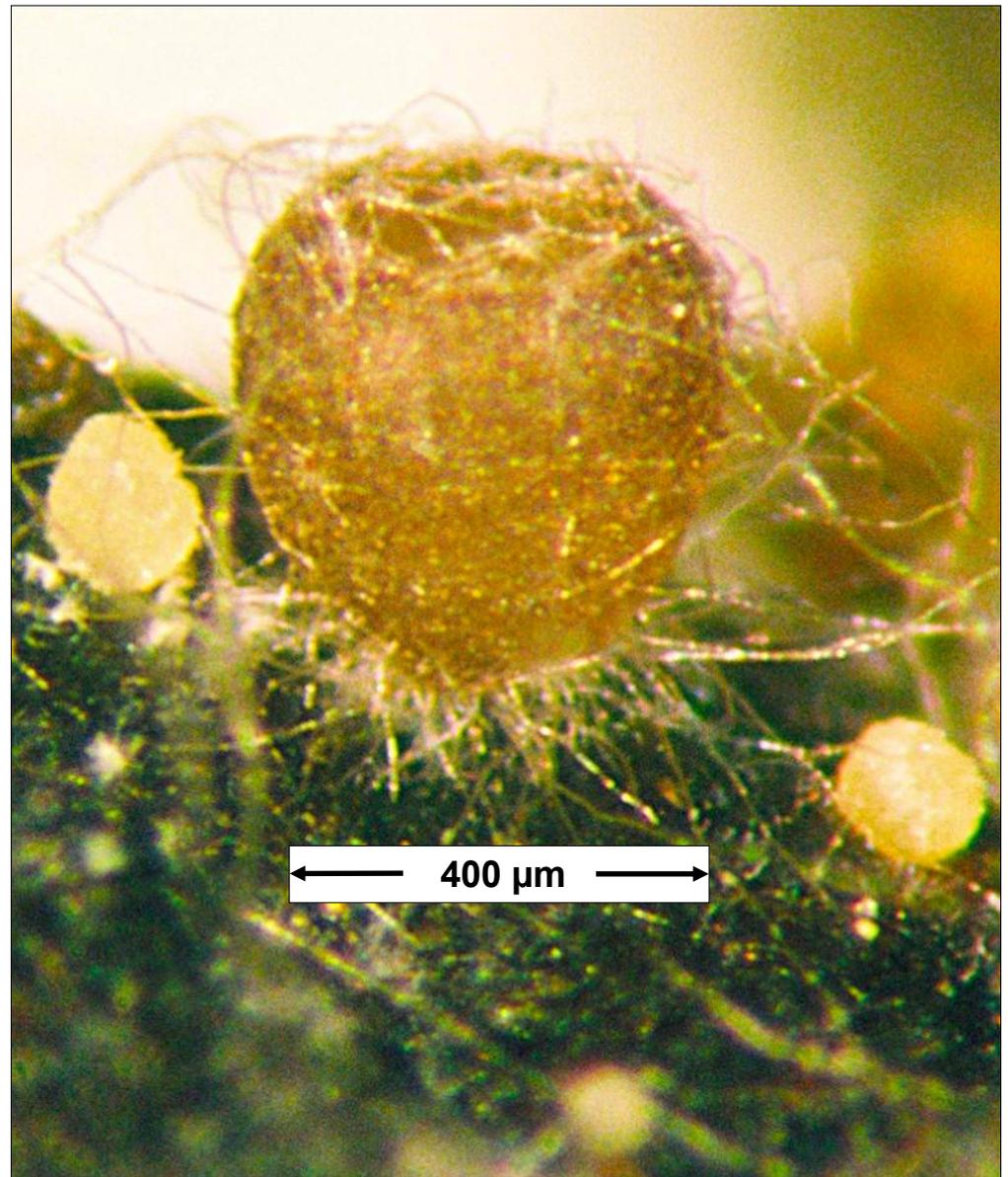
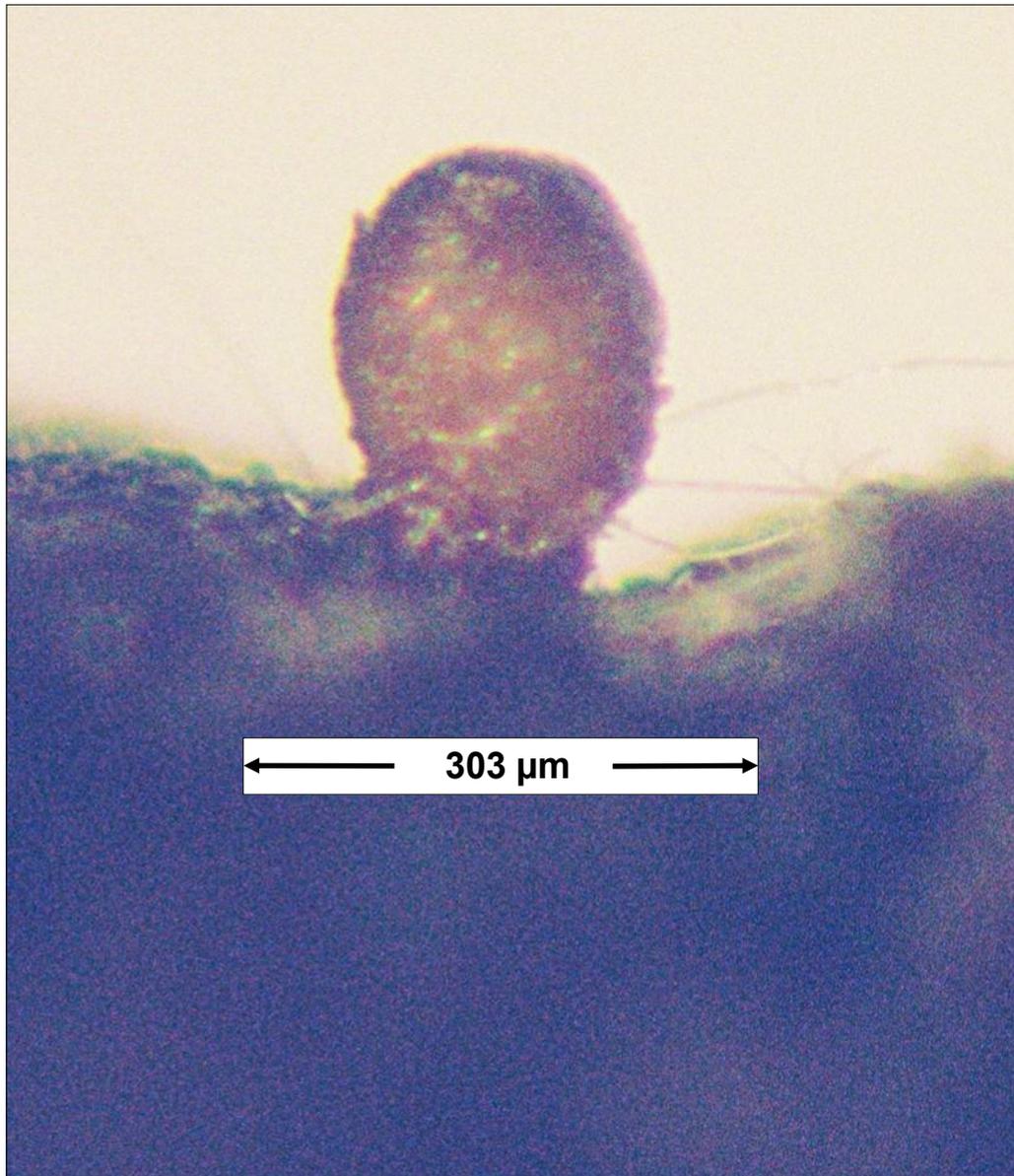


AEB 1409. In-situ overhead and side views of the same specimen #3 apothecium shown on the previous 2 pages – on red deer dung in a moist incubation chamber. Its increase in size between 22 and 27 July was so surprising that I had to double check both its exact position on the 2 dates and also its microscopic asci/ascospore details. The position (red-arrowed by the tiny disco) is the same as are the microscopic details. See the next page for the latter.





AEB 1409. On July 27th a small portion of the much enlarged specimen #3 was removed. A SMF slide was prepared & the same asci & paraphyses photographed using the X40 objective and brightfield/phase microscopy, resp. The asci & paraphyses match those illustrated & measured earlier from apothecial specimens 1–3.



AEB 1409. An in-situ view of specimen #4 on red deer dung in a moist incubation chamber. This tiny apothecium photographed at the left on 18 July has since grown and is shown at the right on 27 July. All 4 apothecial specimens were seen on separate red dung pellets.