***Bombardioidea stercoris* (DC.) N. Lundq. – PDD 126764 (= AEB 1418) A good match**

Collected: 20 March 2024

Substrate: hare (*Lepus europaeus*) dung; Incubated in moist chamber 25 March 2024

Collection site: NZTM grid ref. E1689530 N5650853, between the pyramids NW side of Mt. Taranaki, altitude 1237m among tussock (alpine scrub zone on old lava flows)

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

Voucher materials: one dried hare pellet accompanied by 1 Shear's mounting fluid (SMF) semi-permanent microscope slide; Olympus BX51 microscopic slide photos of the asci and ascospores using a DP28 camera; Reference consulted & their description.

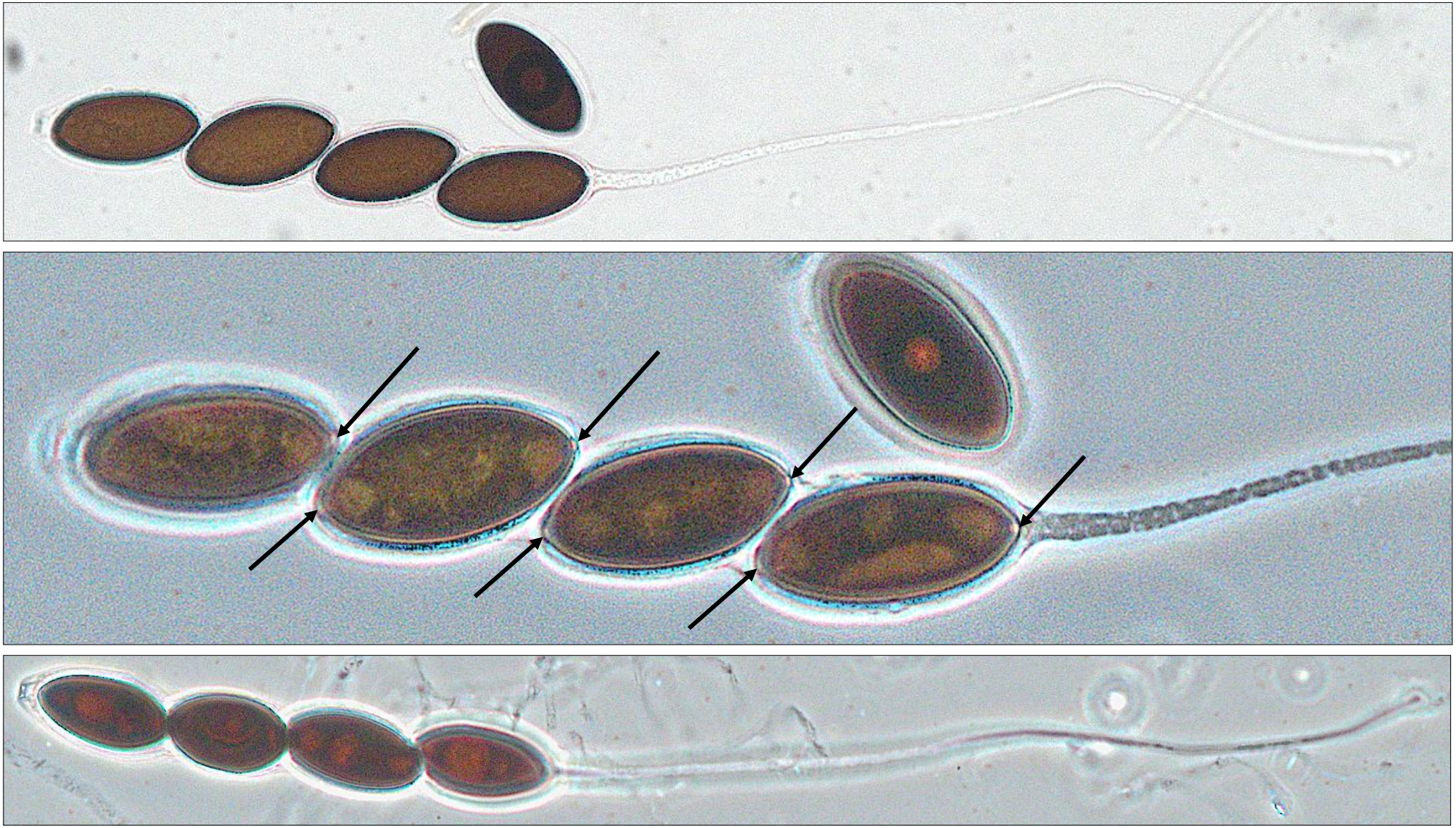
Reference consulted and their description: Krug J.C. and Scott J.A. 1994. The genus *Bombardioidea.* Can. J. Bot. 72: 1302–1310. See their description of *Bombardioides stercoris* (p. 1309) below.

"**Perithecia** aggregated in small clusters, confluent at the base or occasionally solitary, superficial or rarely erumpent, slightly roughened, bare, ovoid to oblong, 700–1200 × 500–625 µm, red-brown to black, with an indistinct, black ostiolar region with a small, prominent ostiole at the apex; **peridium** dark yellow-brown by reflected light, thickened, coriaceous, appearing in surface view of indistinct cellular structure, 100–125 µm thick, **consisting of three layers, an outer layer** 1–2 cells thick, of oblong, somewhat thick-walled, brownish cells measuring 6–10 × 2–3 µm, **a middle layer** 80–100 µm thick, of noncellular gelatinous matrix sparsely interspersed with branching, thin-walled, hyaline hyphae measuring 1–1.5 µm in diameter, **and an inner layer** 5–6 cells thick, of oblong, thin-walled, brownish cells measuring 8–12 × 1.5–2 µm. **Asci** 4-spored, cylindrical, 265–310 × 21–28 µm, broadly rounded at the apices, tapering into a very long stipe measuring 100–225 µm; **apical ring** small, indistinct. **Paraphyses** abundant, filiform, septate, hyaline, longer than and mixed with the asci. **Ascospores** one-celled, obliquely uniseriate, surrounded by a hyaline gelatinous sheath reaching a width of about 5 µm, ellipsoidal or rarely slightly flattened on one side, narrowed towards the ends, 35–43 × 16–22 µm, ranging from hyaline when young to yellowish brown and opaque at maturity, **containing at each opposing end of the spore a germ pore** measuring 2–5 µm in diameter."

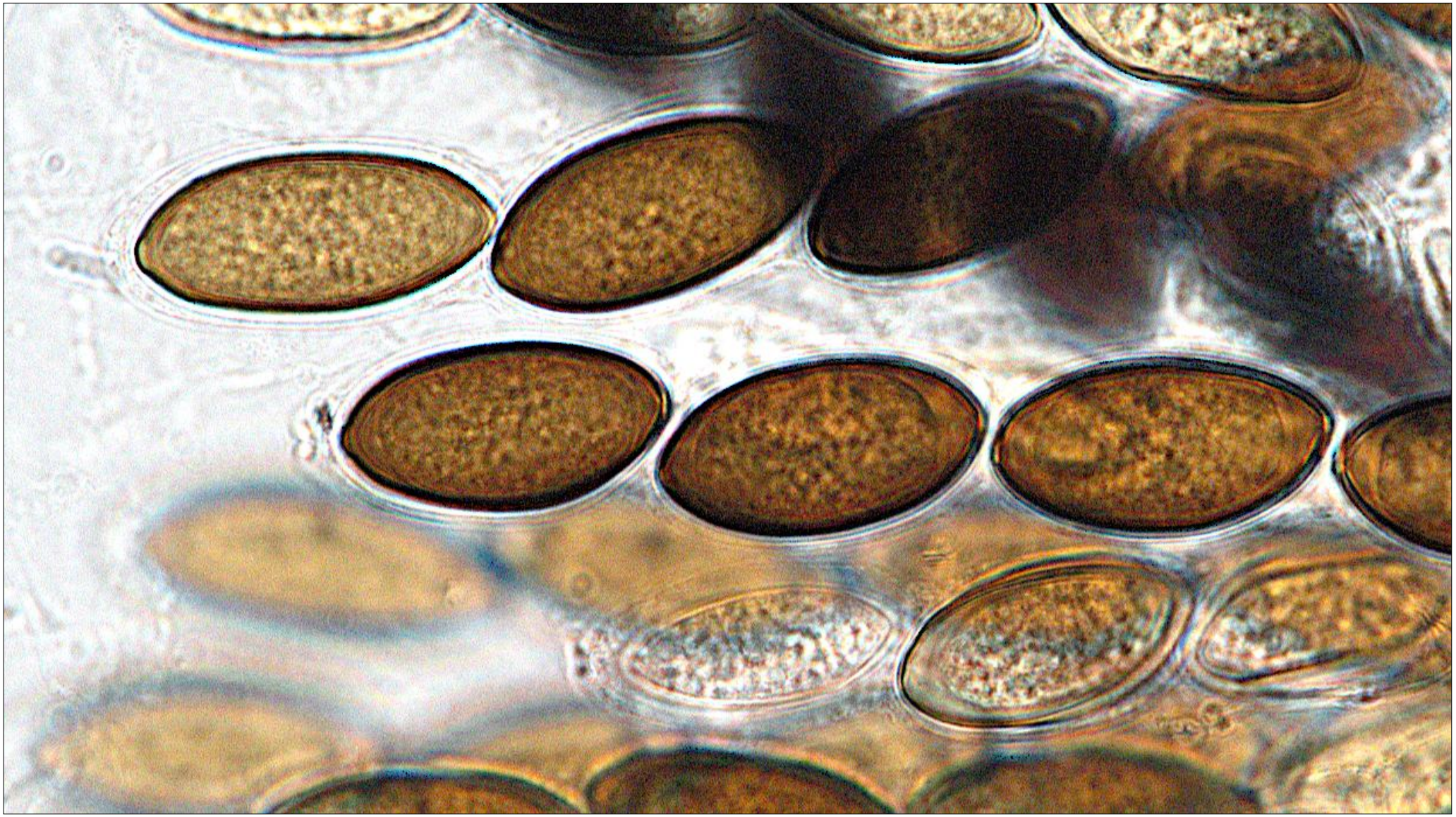
HABITAT: On hare and rabbit dung.

AEB 1418. Asci and ascospores shown using a SMF slide prepared from fresh material using the X10 objective and brightfield microscopy.

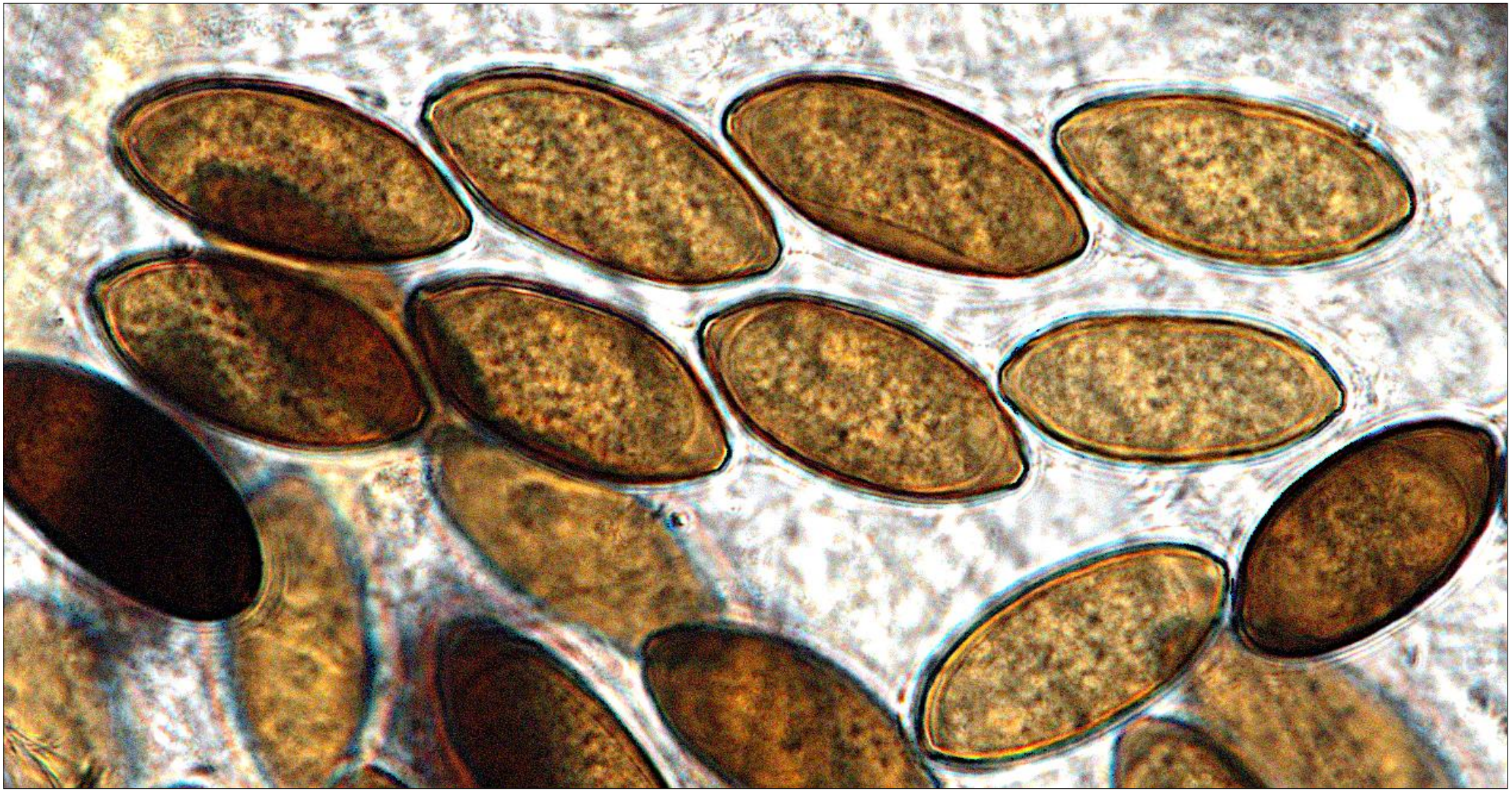
AEB 1418. Asci and ascospores shown using a SMF slide prepared from fresh material using the X20 objective and brightfield microscopy.



AEB 1418 single asci from the same slide shown on the previous pages. Top photo: using the X40 objective and brightfield microscopy – p.sp. 120 × 25 µm, stipe 217.5 × 5 µm. Middle photo: same ascus as shown above, X40 obj. much enlarged and using phase microscopy – apical germ pores arrowed. Bottom photo: another ascus seen under phase using the X40 obj. sl. enlarged – p.sp. 120 × 22.5 µm, stipe 240 × 5 µm.



AEB 1418 ascospores from the same slide shown on the previous pages. Shown using the X100 obj. and brightfield microscopy. Note the apical germ pores. These and other numerous measurements showed ascospores 38–43 × 17–23 µm.



AEB 1418 more ascospores from the same slide shown on the previous pages. Shown using the X100 obj. and brightfield microscopy. Note the apical germ pores. These and other numerous measurements showed ascospores 38–43 × 17–23 µm.