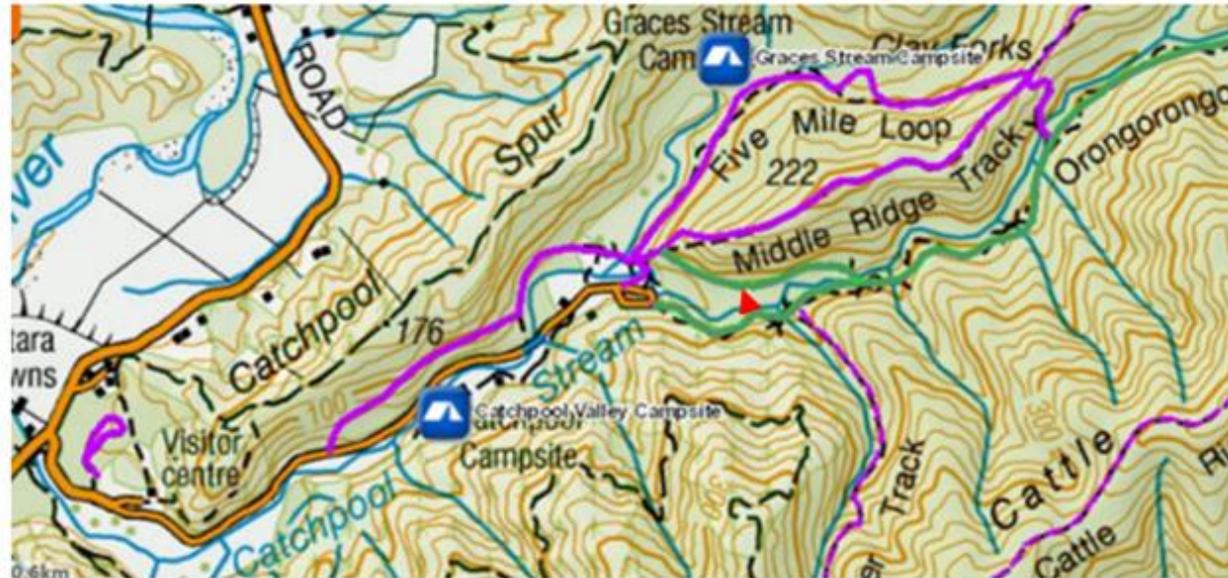
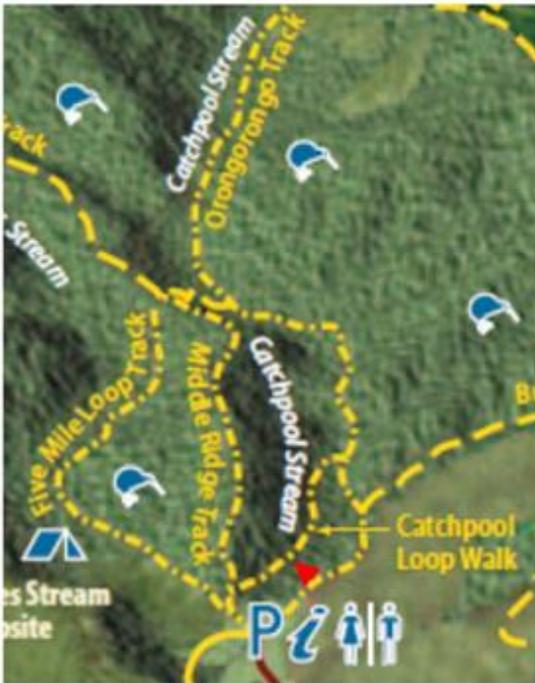


***Rosellinia mammoidea* (Cooke) Sacc. – AEB 1290 (= PDD 120011). *Calcarisporium arbuscula* Preuss – AEB 1347 (= PDD 120012), fungicolous on the *R. mammoidea* AEB 1290 (= PDD 120011) ascomata, is reported separately. However, the dried herbarium material and slides of both are part of the AEB 1290 (= PDD 120011) collection.**

Collection date: 22 November 2016

Collection site: Rimutaka Forest Park – Catchpool Loop Track (note red arrow head)



Substrate: moist dead firm wood

Collector: Ann Bell; **Identifier:** Dan Mahoney

Voucher material: dried herbarium specimen and semi-permanent slide mounts. Although treated separately on the PDD website, the herbarium packet contains both the *R. mammoidea* AEB 1290 (= PDD 120011) and the fungicolous *C. arbuscula* AEB 1347 (= PDD 120012) materials; Dan's in-situ dissecting scope photos (scanned and digitized) and his compound scope digital photos of microscopic detail; Dan's brief description.

Brief description: See next page.

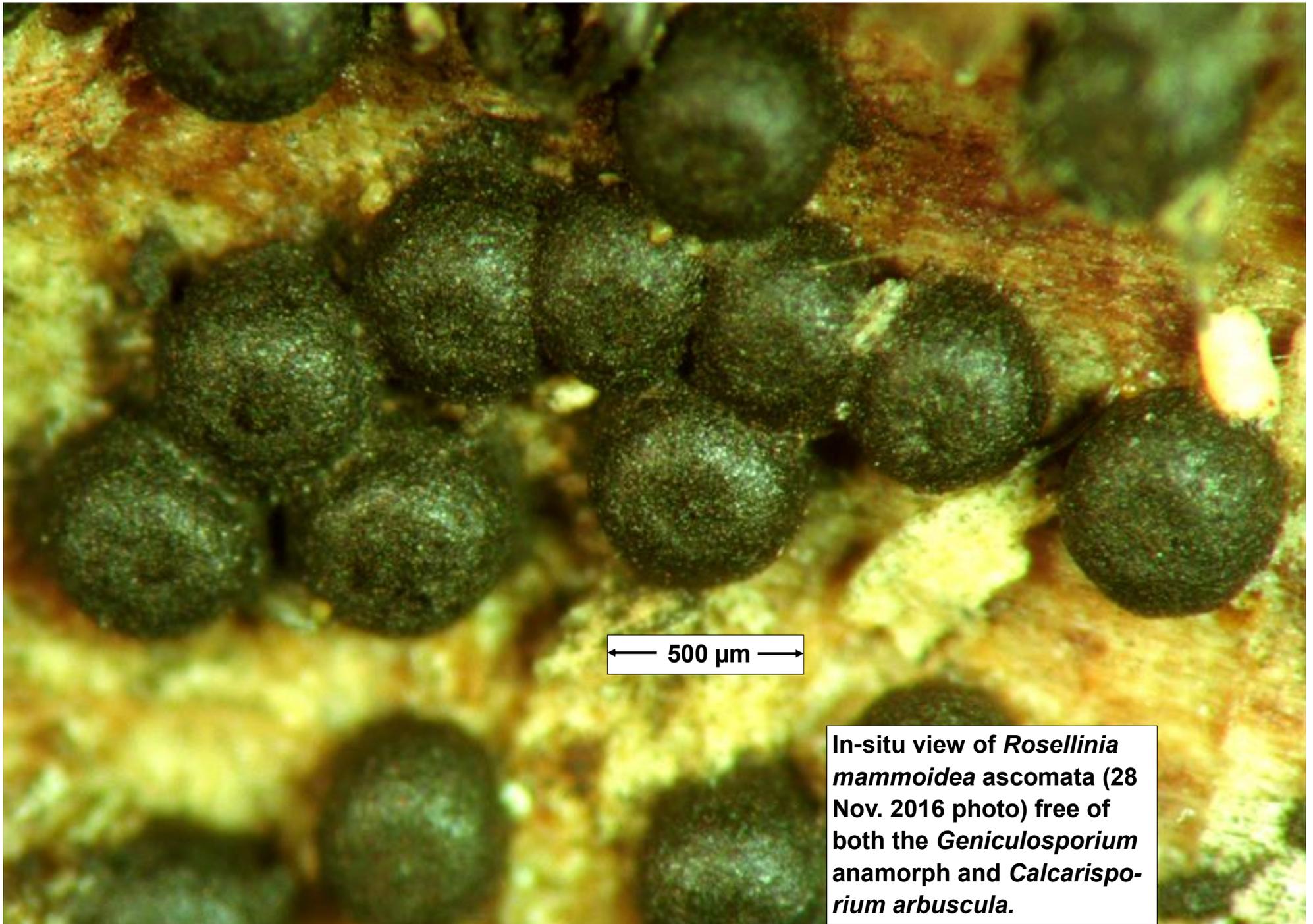
Continued from page 1:

Rosellinia mammoidea: See the illustrations and description of *Rosellinia mammoidea* (pp. 108–110, 112 in Petrini, L.E. 2003. *Rosellinia* and related genera in New Zealand. *New Zealand Journal of Botany* 41: 71–138.)

Brief description of AEB 1290:

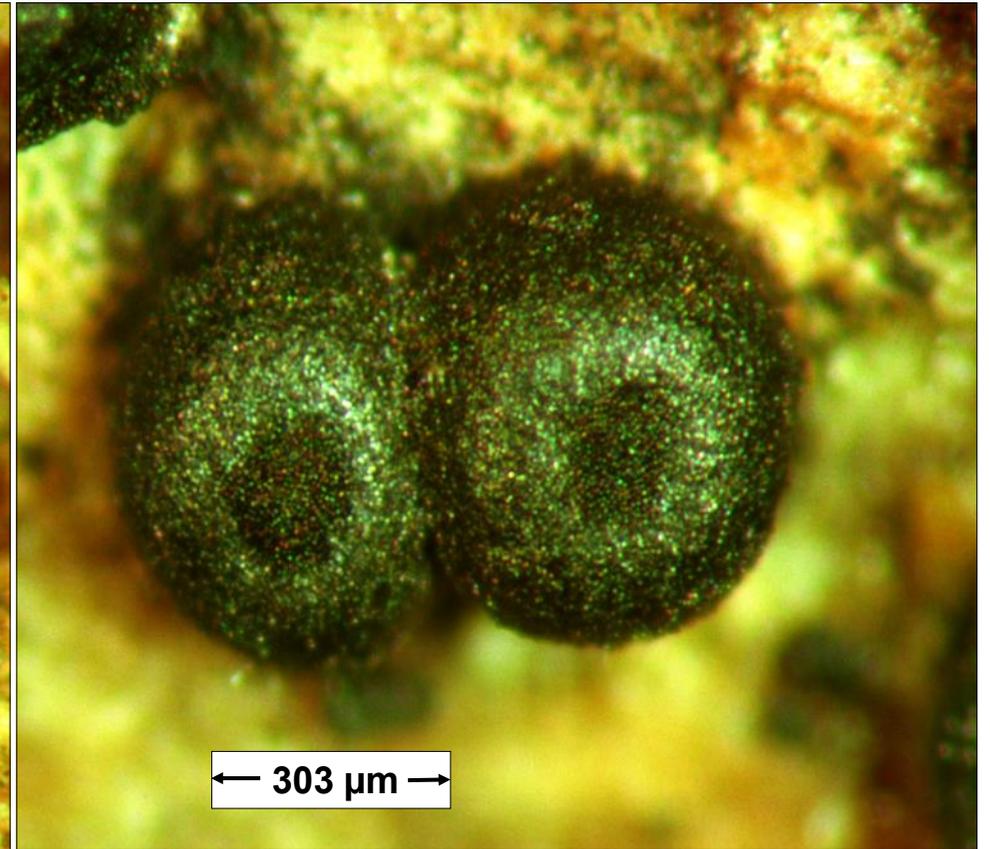
Ascomata black, shiny, smooth to finely warted, rounded with a small apiculate ostiole, mostly 500–700 µm wide, subiculum not seen, some belatedly with a prominent *Geniculosporium* anamorph, others unadorned, but most with the fungicolous *Calcarisporium arbuscula* on the uppermost portions. **Stromatic portion** (of the uniperithecial ascomata) a dark black outer layer that was readily apparent in an ascoma squash. The **peridium portion** of the inner perithecium separating as a lighter yellow brown prosenchymatous (textura intricata like) layer. **Asci** mostly too young and often only free ascospores were seen. The intact asci were 78–95 × 8–10 µm (only a few measured in a water mount), cylindrical with 8 uniseriately overlapping ascospores, short stipes and bluish Melzer's positive apical rings. **Ascospores** were ellipsoidal, brown, one-celled, smooth with a symmetrically situated straight germ slit that occupied the middle portion of the spore length and stretched roughly two-thirds to three-quarters the spore length. Spores (water mount) measured 11–13 × 6–7.5 µm. The anamorph is clearly a *Geniculosporium* with 3–4 × 2.5–3 µm, hyaline, truncate, obovoid conidia.

The most closely related species in Petrini's 2003 treatment appears to be *Rosellinia johnstonii*. This species has more narrowly ellipsoidal ascospores with an asymmetrical germ slit (typically extending the entire length of the spore but often closer to one end than the other) and larger ascomata with flattened discoid-like tops. In Petrini's discussion of *R. mammoidea* (p. 110) she mentions a collection from the Wellington region (like ours) about which she says "The Travers collection is cited by Cooke and is labelled as the type. The ascospore size in this specimen ranges from 11 to 14 X 6.5 to 8 µm, clearly much smaller than the dimensions given in the literature." Perhaps, however, our collection could validate Cooke's record and modify Petrini's measurements for *R. mammoidea*?



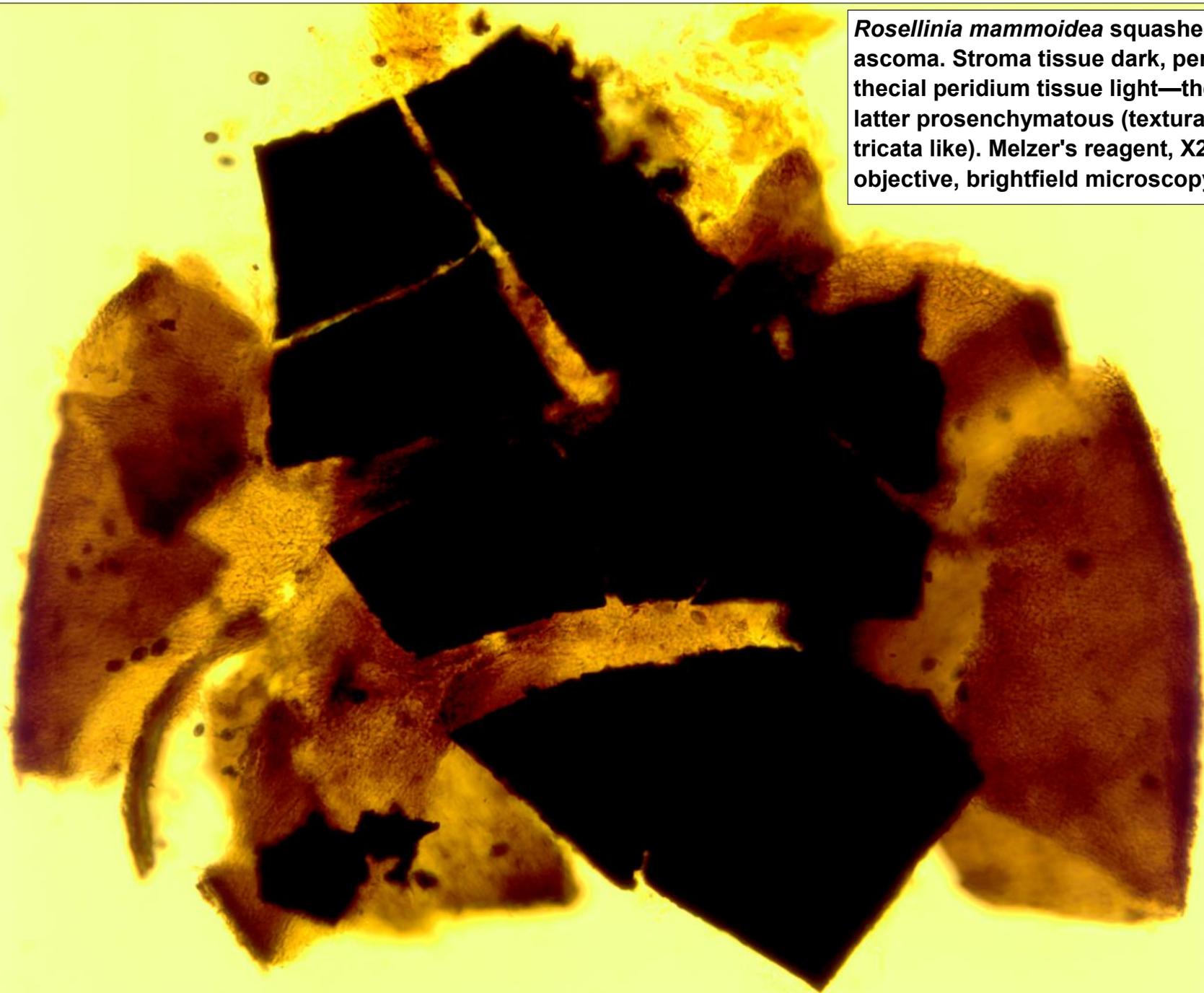
← 500 μm →

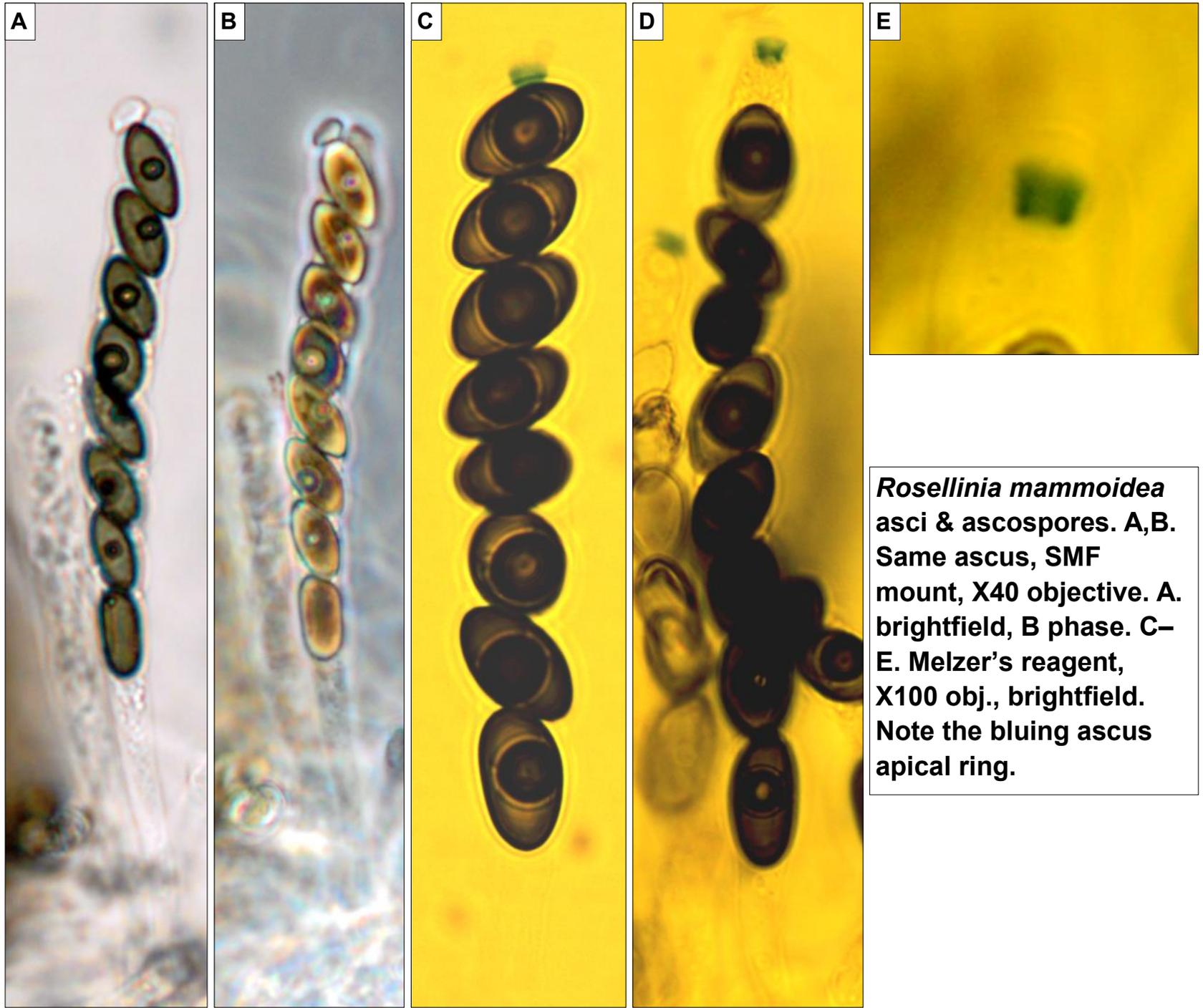
In-situ view of *Rosellinia mammoidea* ascomata (28 Nov. 2016 photo) free of both the *Geniculosporium* anamorph and *Calcarisporium arbuscula*.



In-situ view of *Rosellinia mammoidea* ascomata (28 Nov. 2016 photo) free of both the *Geniculosporium* anamorph and *Calcarisporium arbuscula*. Note ascospore discharge from ascomata in the right-hand photo.

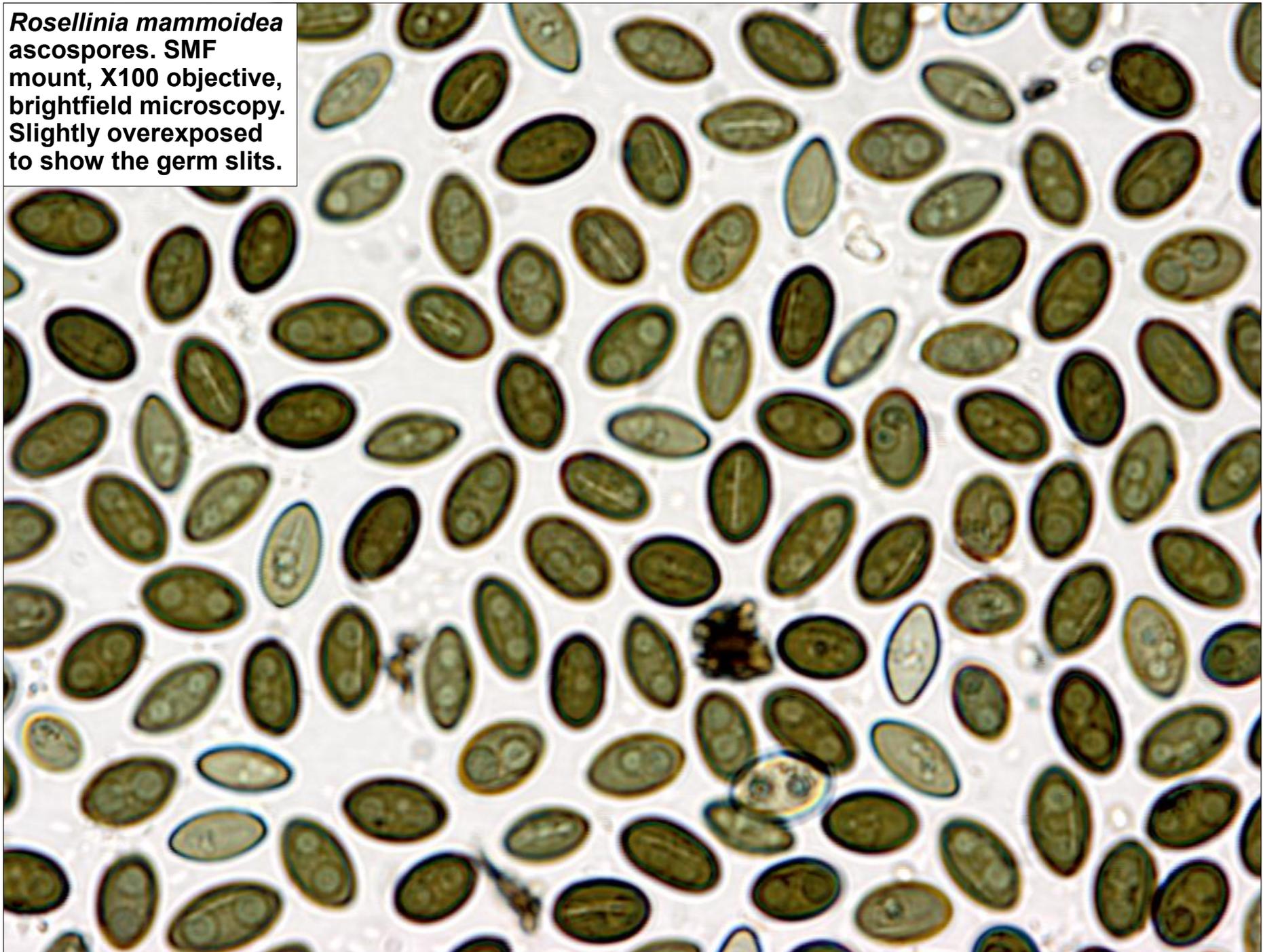
Rosellinia mammoidea squashed ascoma. Stroma tissue dark, perithecial peridium tissue light—the latter prosenchymatous (textura intricata like). Melzer's reagent, X20 objective, brightfield microscopy.

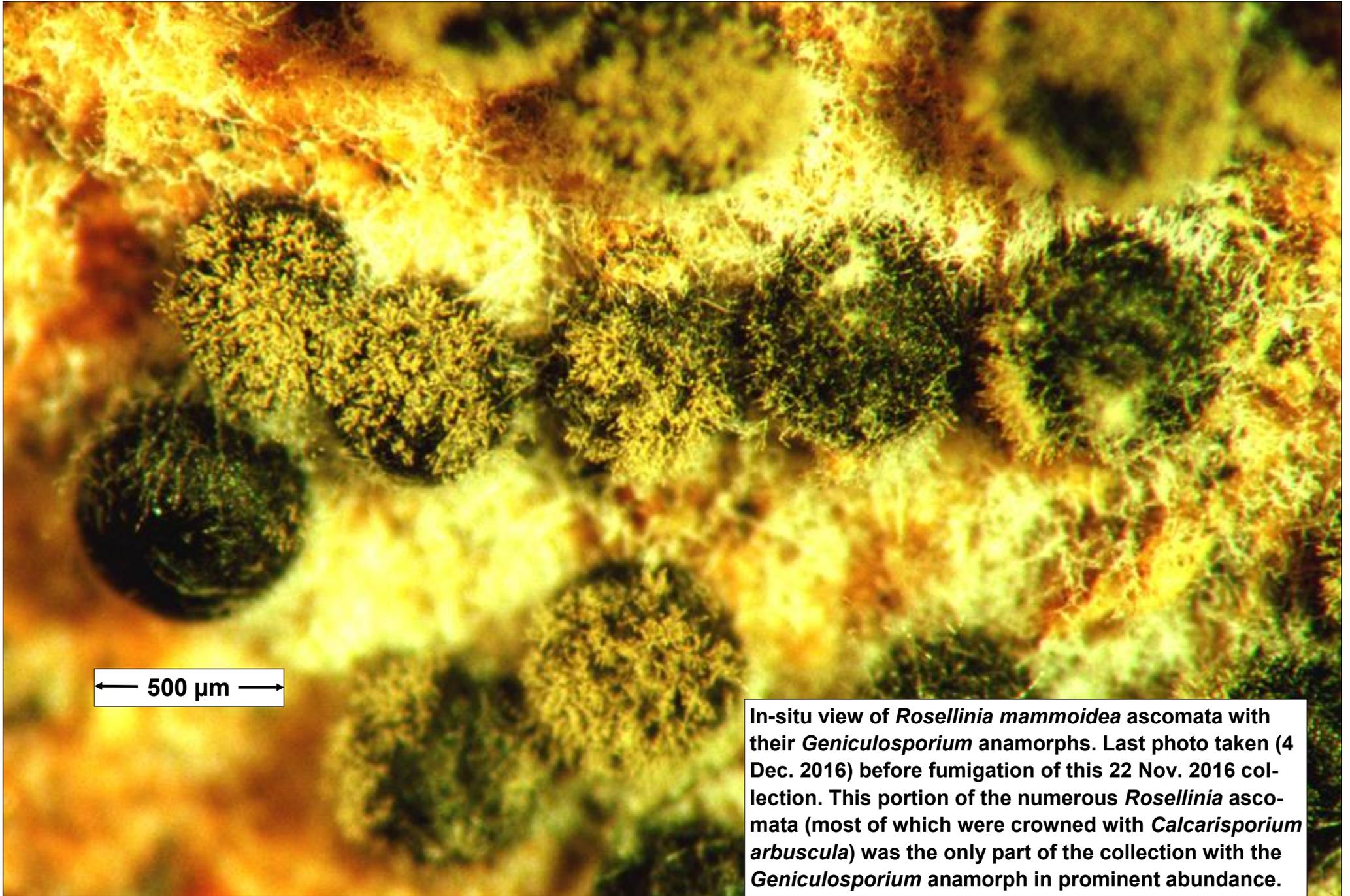




Rosellinia mammoidea
asci & ascospores. A,B.
Same ascus, SMF
mount, X40 objective. A.
brightfield, B phase. C–
E. Melzer's reagent,
X100 obj., brightfield.
Note the bluing ascus
apical ring.

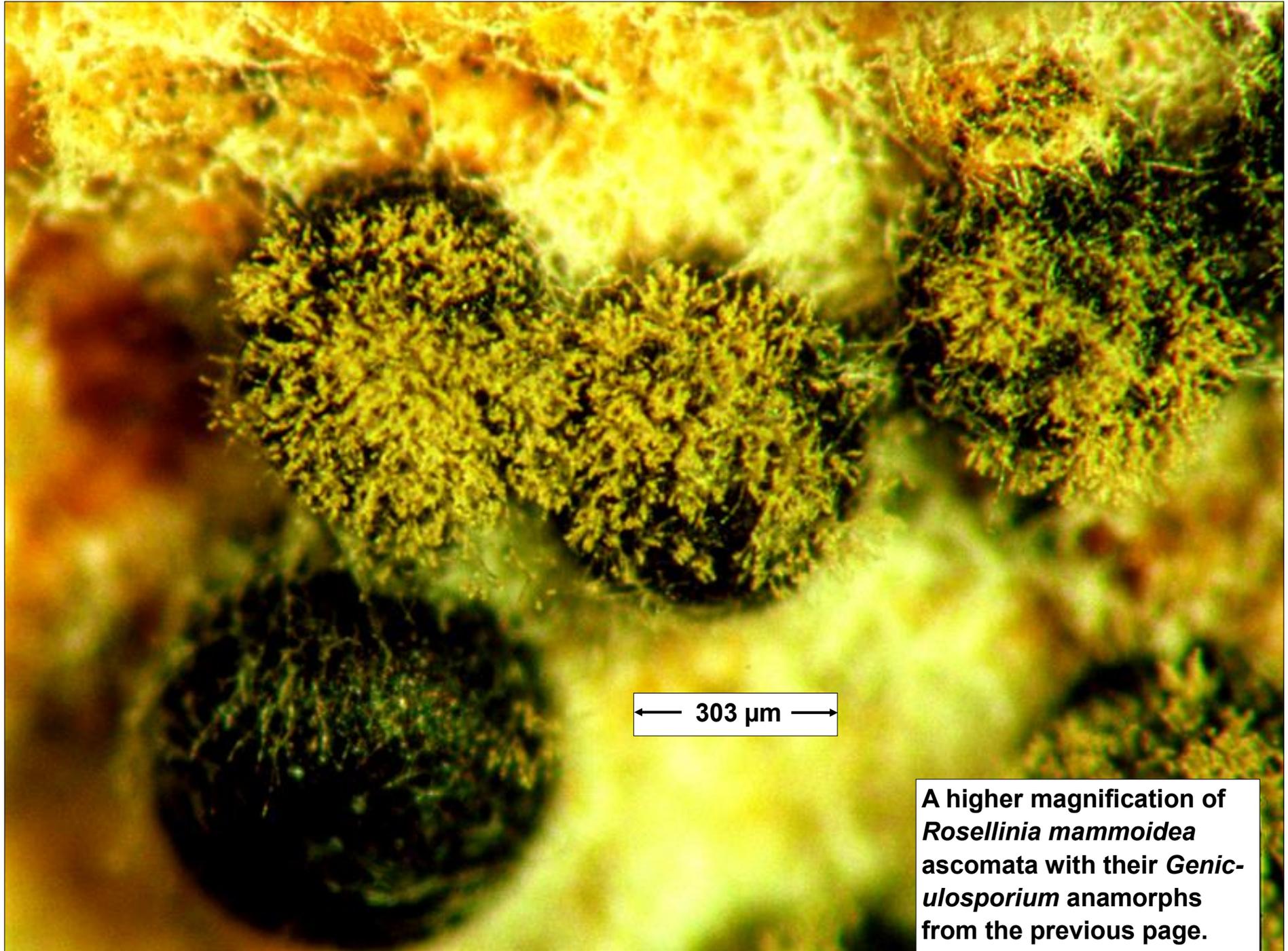
Rosellinia mammoidea
ascospores. SMF
mount, X100 objective,
brightfield microscopy.
Slightly overexposed
to show the germ slits.





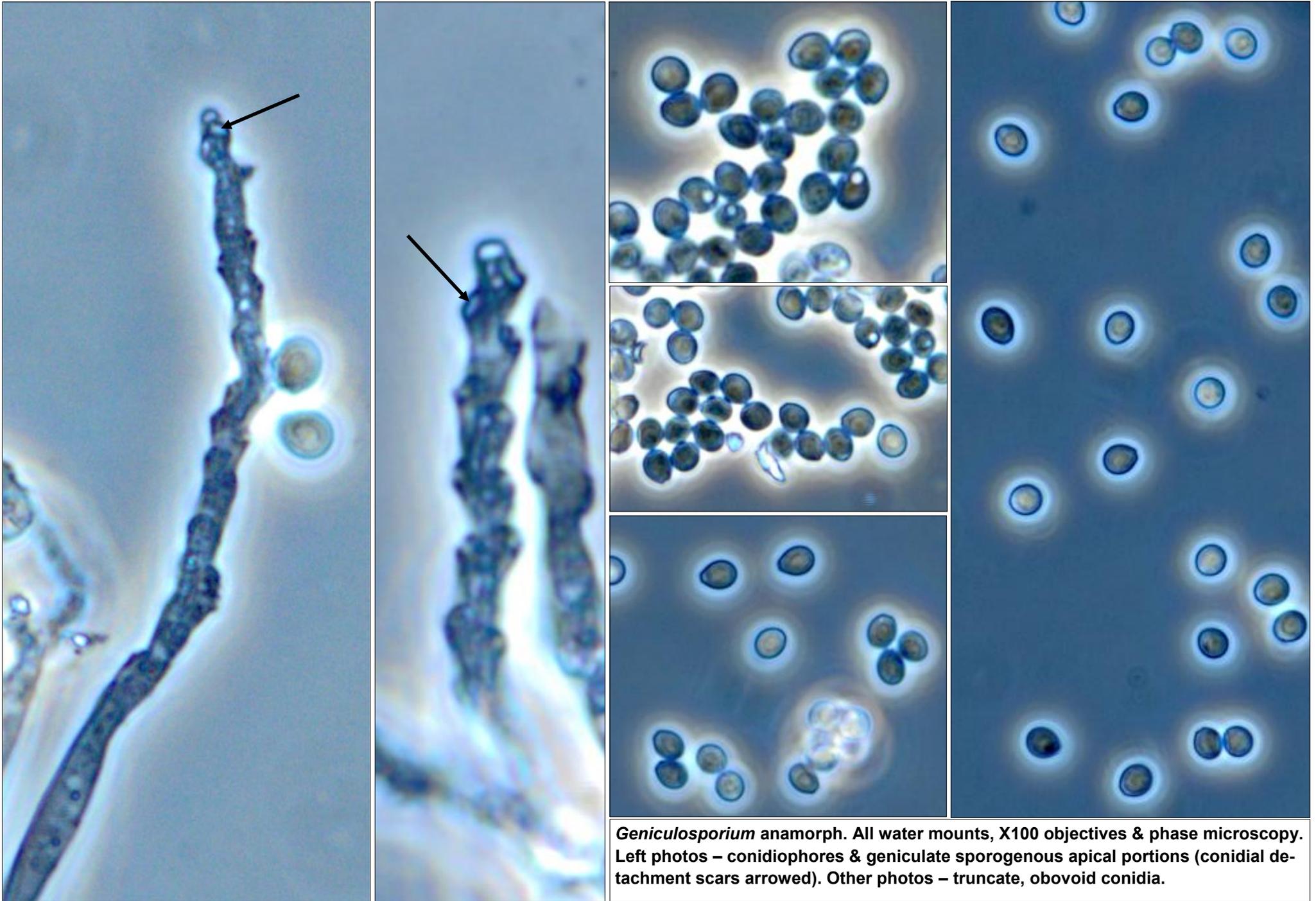
← 500 μ m →

In-situ view of *Rosellinia mammoidea* ascomata with their *Geniculosporium* anamorphs. Last photo taken (4 Dec. 2016) before fumigation of this 22 Nov. 2016 collection. This portion of the numerous *Rosellinia* ascomata (most of which were crowned with *Calcarisporium arbuscula*) was the only part of the collection with the *Geniculosporium* anamorph in prominent abundance.



← 303 μm →

A higher magnification of *Rosellinia mammoidea* ascomata with their *Geniculosporium* anamorphs from the previous page.



Geniculosporium anamorph. All water mounts, X100 objectives & phase microscopy. Left photos – conidiophores & geniculate sporogenous apical portions (conidial detachment scars arrowed). Other photos – truncate, obovoid conidia.