AEB 1142 (= PDD 101976)

***Rosellinia johnstonii* L.E. Petrini**

Collection site: Kaitoke Regional Park (Forty-five minutes north of Wellington City, Kaitoke Regional Park covers 2860 hectares in the foothills of the Tararua Ranges.)

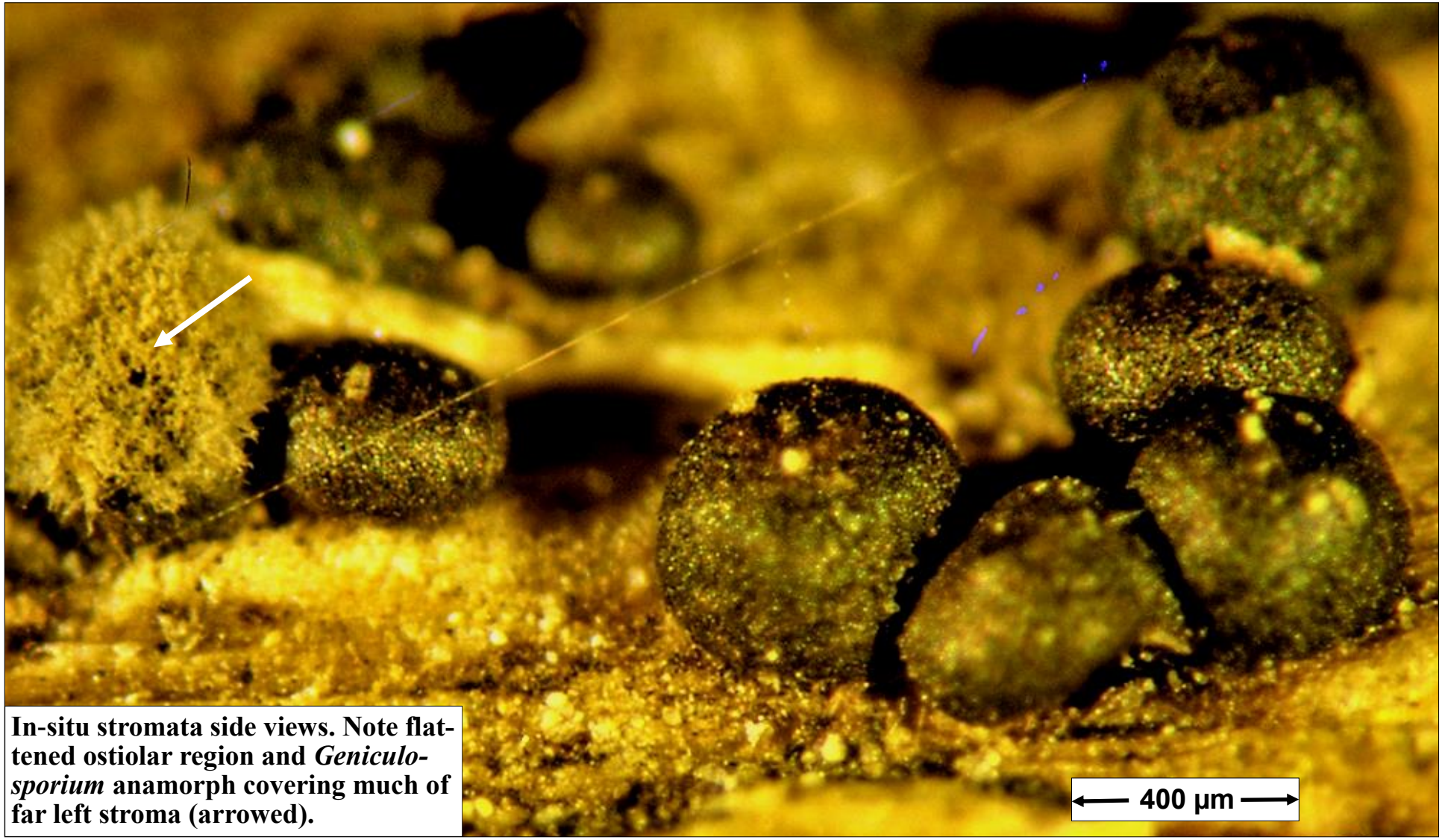
Collection date: 19 October 2010

Substrate: downed, dead, soft, much-decayed wood

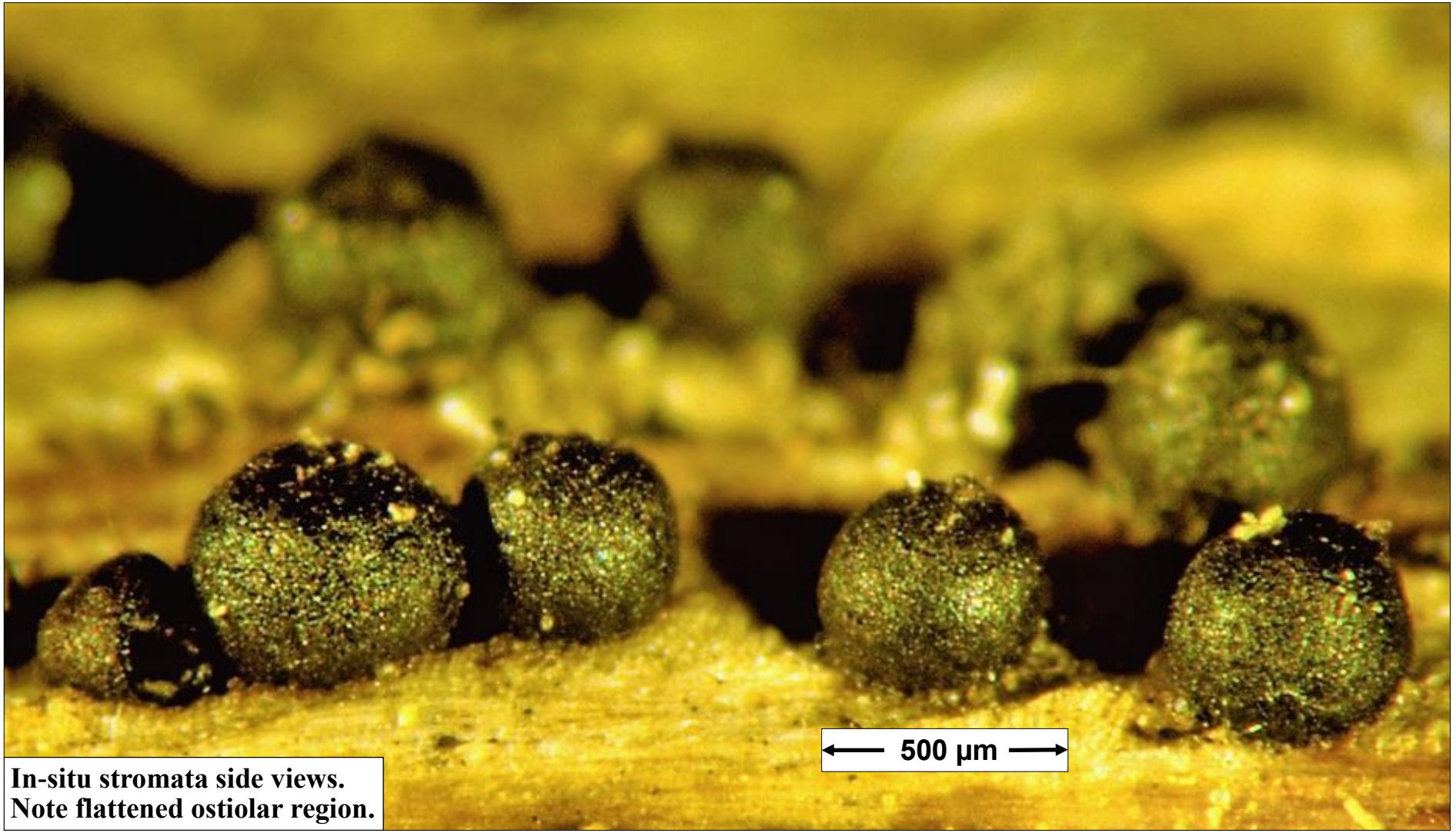
Collector & identifier: Dan Mahoney

Voucher materials: dried herbarium material AEB 1142 (= PDD 101976) & 4 semi-permanent Shear's mounting fluid (SMF) slides (2 of the teleomorph and 2 of the *Geniculosporium* anamorph); a number of dissecting scope in-situ projection slides of the teleomorph stromata (the best of these digitized) and a number of compound scope digital photos from water, SMF & Melzer's microscope slides; Dan's brief description below.

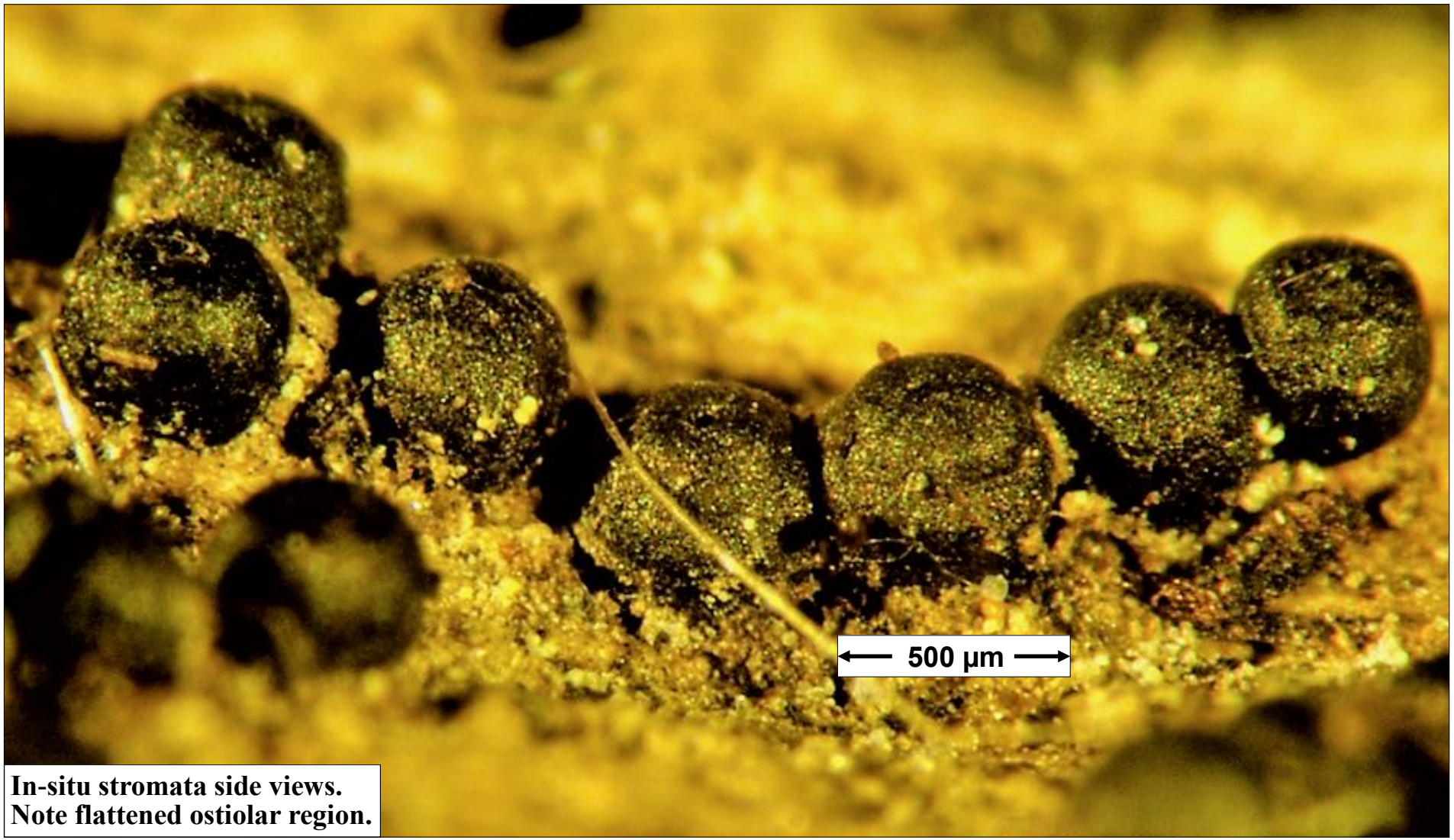
Brief description: **Stromata** subglobular, black, glabrous, superficial, mature (without any of the immature whitish subiculum), scattered to crowded and with the apical ostiolar region usually flattened somewhat; occasionally with a grayish tuft of the *Geniculosporium* anamorph growing over the stromata; stromata ≈ 500–600 µm in diameter (see measurement bar on in-situ projection photos for more accurate measurements). **Paraphyses** numerous, not characterized. **Asci** cylindrical with 8 ascospores arranged uniseriately to slightly overlapping, with a J+ light blue apical apparatus. **Ascospores** 1-celled, smooth, brown, with 2 large vacuoles in water mounts (this reduced to one large deBary bubble in heated SMF & in Melzer's mounts), inequilateral ellipsoid-fusoid, somewhat plano-convex in some views and more symmetrical in others, with a longitudinal germ slit stretching most, **but not all**, of the spore length and usually closer to one end than the other; ascospores (12–)13–15(–16) × (5–)6–7(–8) µm
Anamorph: *Geniculosporium*



In-situ stromata side views. Note flattened ostiolar region and *Geniculosporium* anamorph covering much of far left stroma (arrowed).

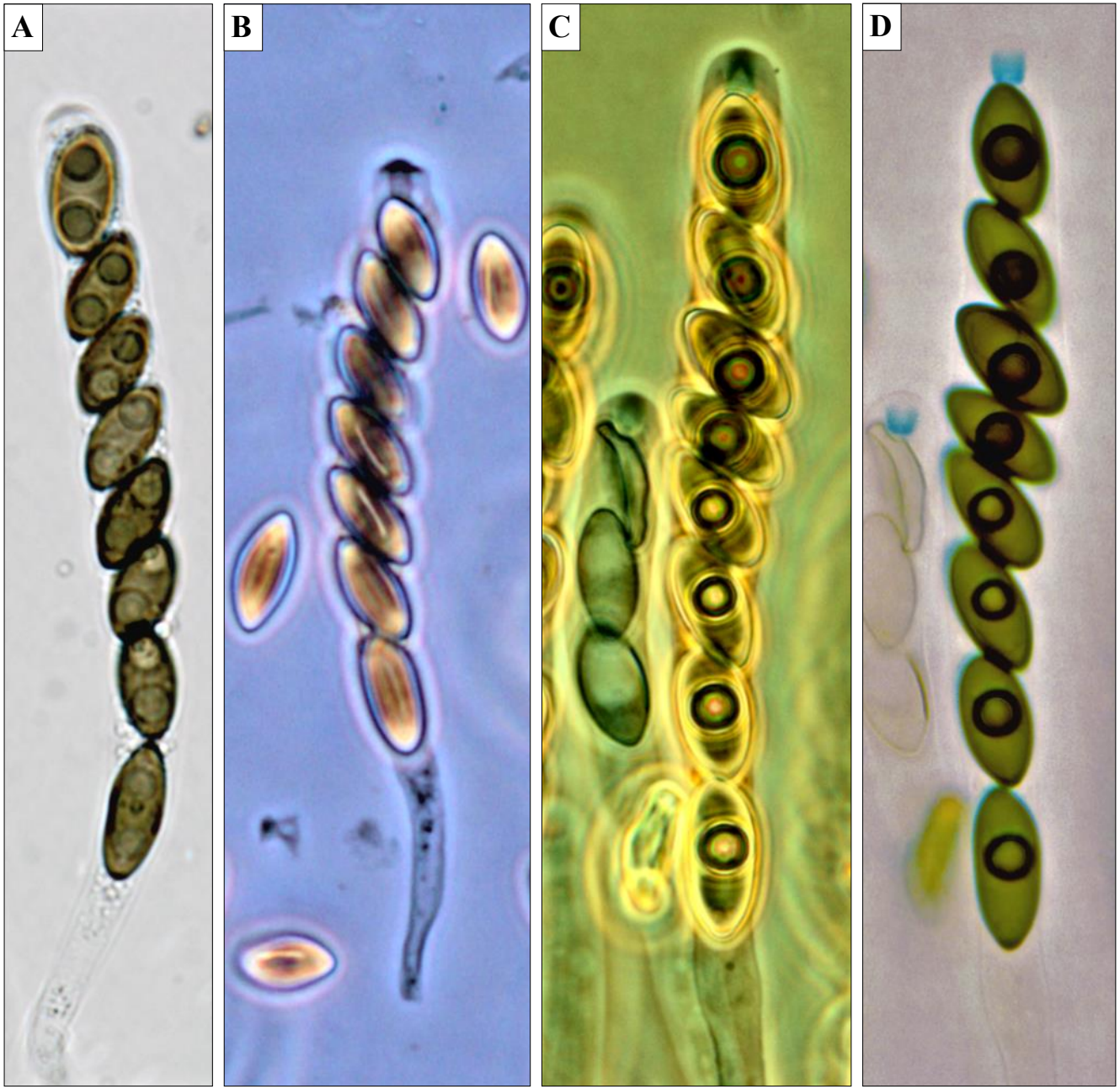


In-situ stromata side views.
Note flattened ostiolar region.



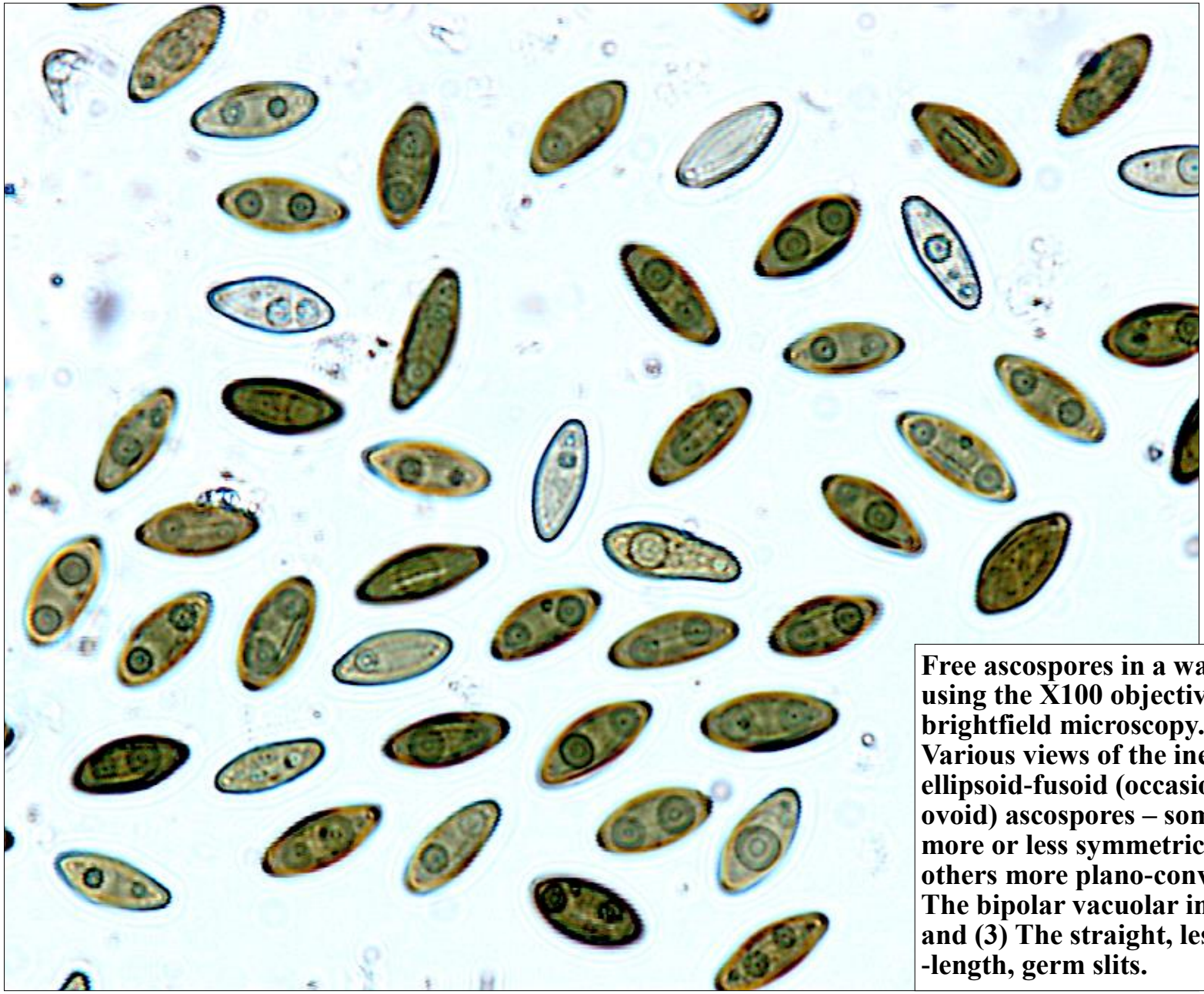
In-situ stromata side views.
Note flattened ostiolar region.

In-situ stromata bird's eye views.

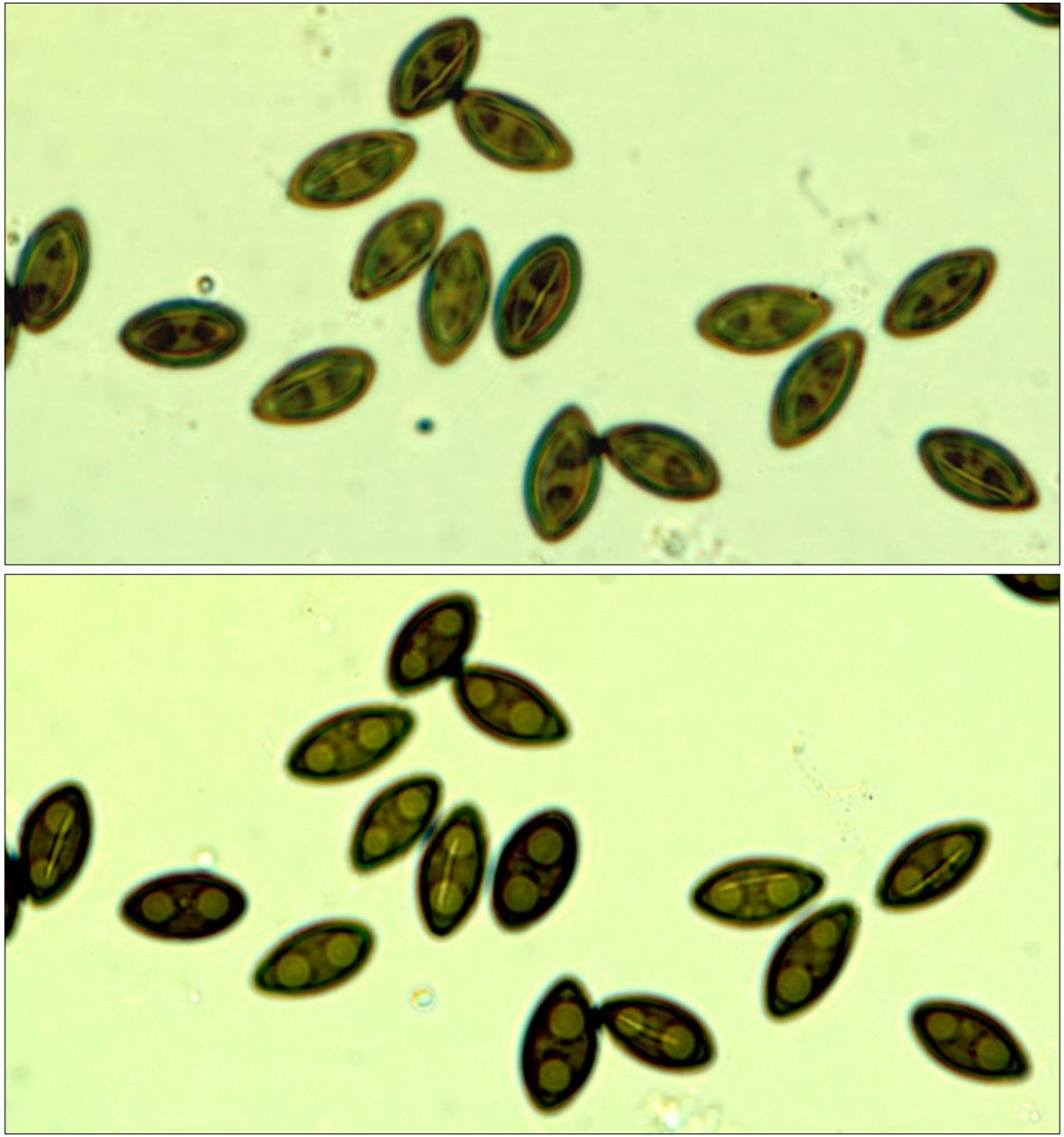


A–D. Asci & ascospores. A,C,D. Photos using X100 objective. B. Using X40 obj. A. Water, brightfield. B. SMF, phase. C,D. Melzer's, same field of view – C phase & D partial DIC.
A. Note the bipolar vacuolar inclusions in the ascospores.
B. Note the ascospore germ slits.
C,D. Note the large deBary bubbles in the ascospores & the pale bluing of the ascus apices (especially in D).

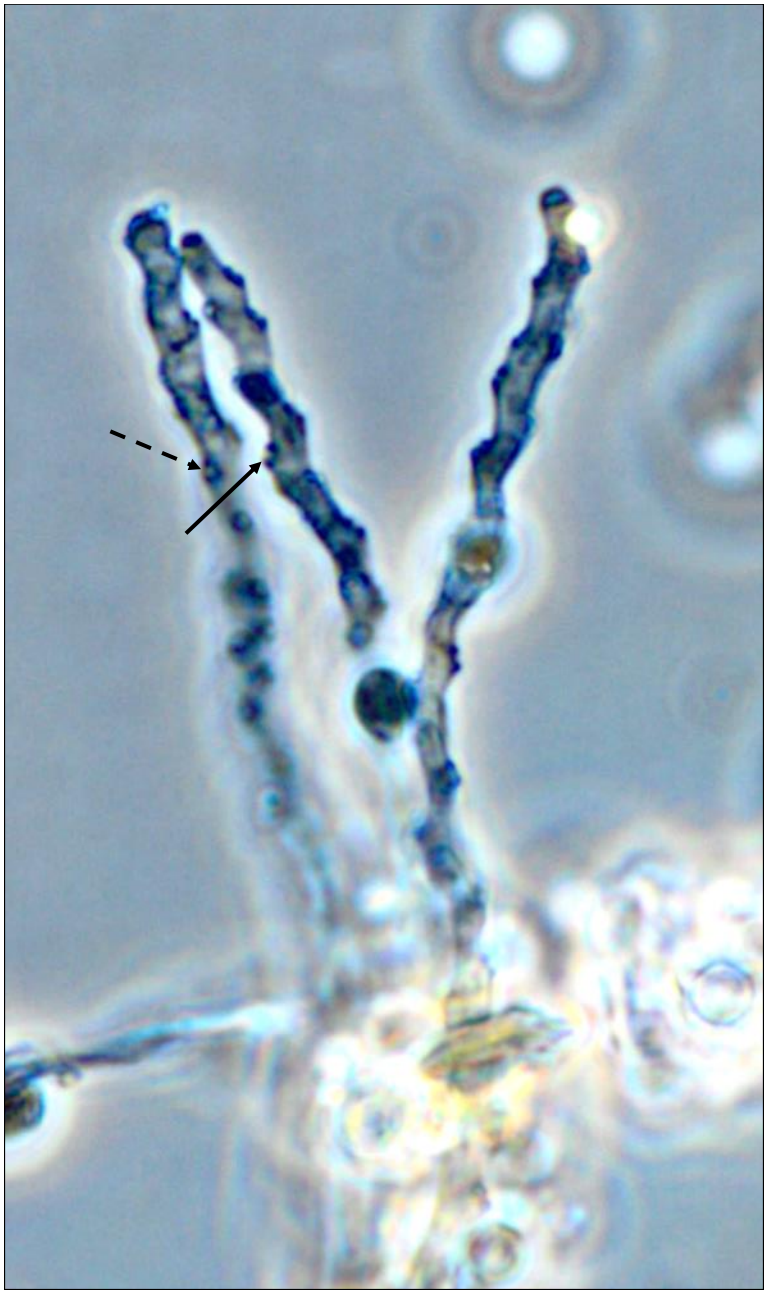
Free ascospores in a water mount using the X40 objective and brightfield microscopy. Note (1) Various views of the inequilateral ellipsoid-fusoid (occasionally ovoid) ascospores – some seen more or less symmetrical and others more plano-convex, (2) The bipolar vacuolar inclusions and (3) The straight, less than full-length, germ slits.



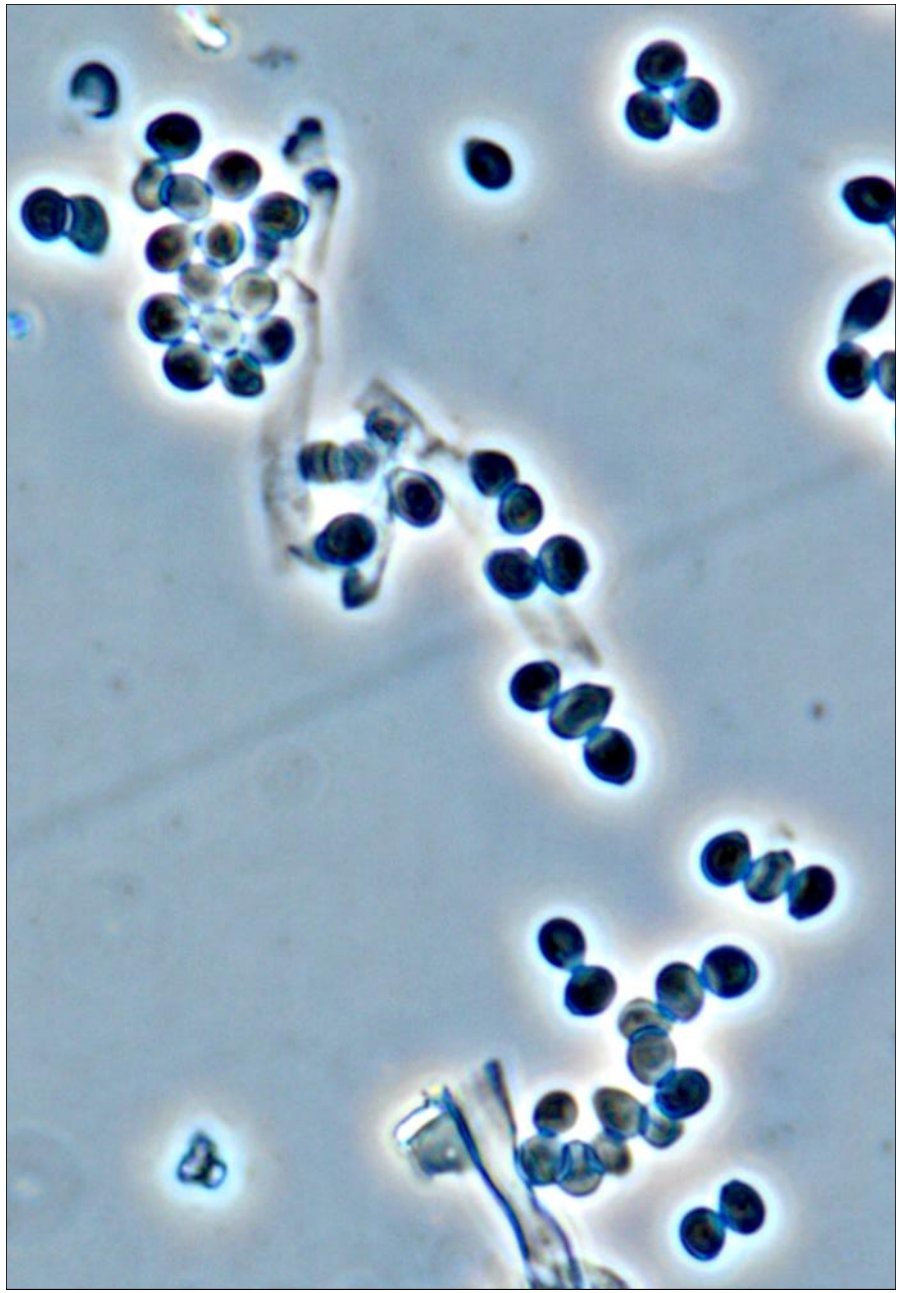
Free ascospores in a water mount using the X100 objective and brightfield microscopy. Note (1) Various views of the inequilateral ellipsoid-fusoid (occasionally ovoid) ascospores – some seen more or less symmetrical and others more plano-convex, (2) The bipolar vacuolar inclusions and (3) The straight, less than full -length, germ slits.

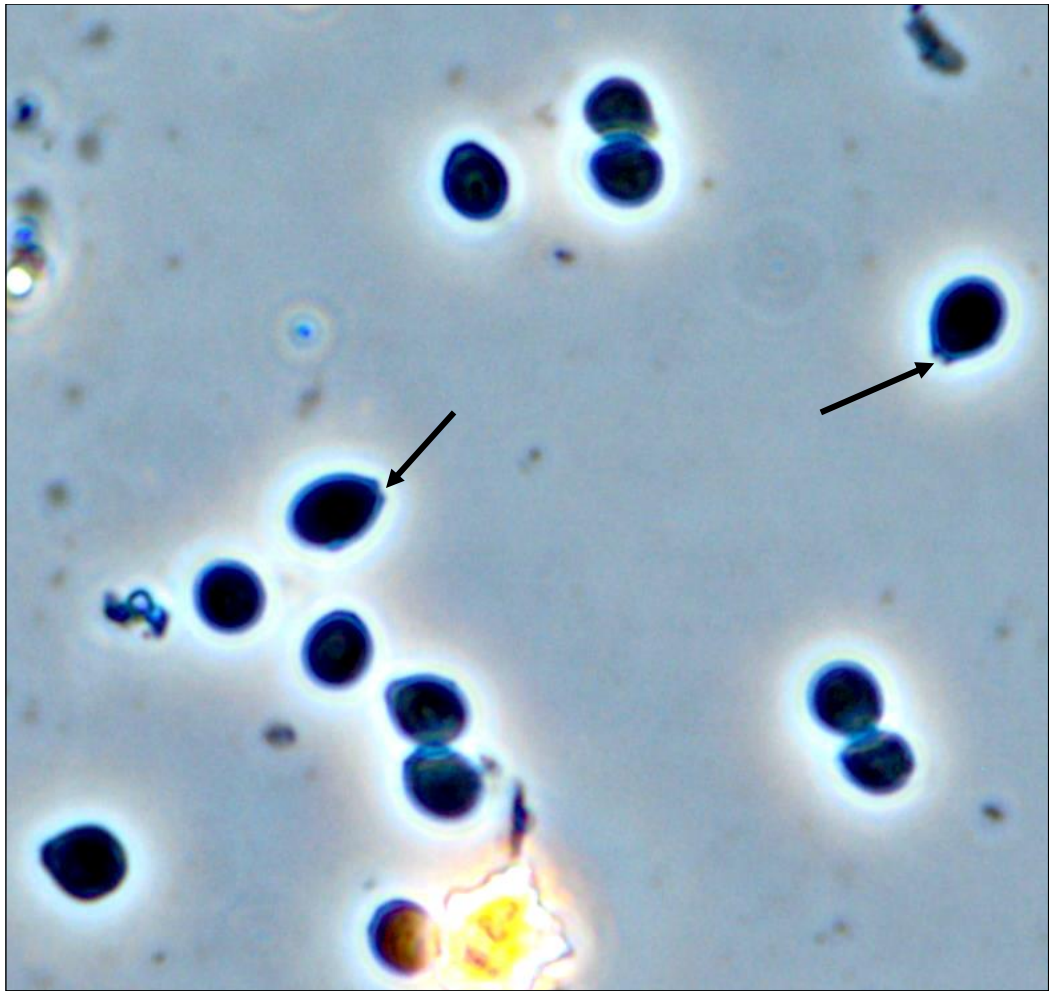


Ascospores – water, X100 objective, partial DIC. Same field of view but different foci in the 2 photos. Note 2 vacuolar inclusions per spore and the longitudinal germ slit stretching most, but not all, of the spore length and usually closer to one end than the other – more apparent in the top photo. Ascospores (12–)13–15(–16) × (5–)6–7(–8) µm.



***Geniculosporium* anamorph from grey tufts of growth on the mature *Rosellinia johnstonii* stromata. SMF, X100 objective, phase. Note occasional conidia and scars on the long geniculate sporogenous cells (arrowed – side view solid black, face view dashed).**





Conidia of the *Geniculosporium* anamorph. SMF, X100 objective, phase. Note the truncate base with its detachment scar (arrowed).