

Mollisia sp.

AEB 1333 (= PDD 117237)

Collection site: Wainuiomata Recreation Area, Gums Loop Track (See yellow line on map insert. Dark green areas are plantation eucalypts.) The collection was made near the beginning of the Track – note the red arrow.

Substrate: A large Eucalyptus log-cut which was lying like a tire with its tread on the ground. I pushed it over and removed 2 surface slices of the moist, soft, rotting wood that had been on the ground side of the upright log slice. An olivaceous green, sessile (or nearly so) *Mollisia* was abundant there.

Collection date: 28 December 2019

Collector: Dan Mahoney

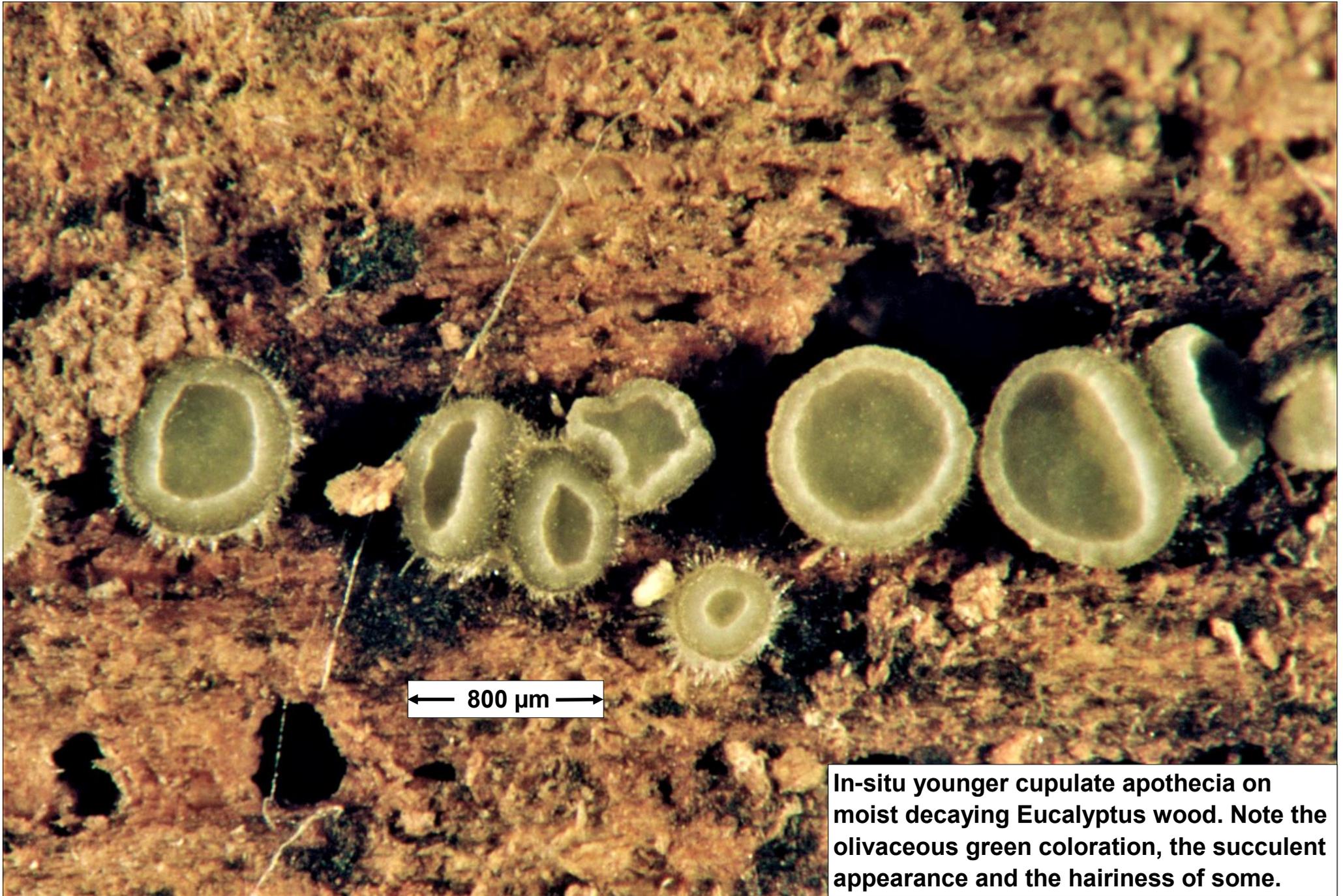
Identifiers: Dan Mahoney & Ann Bell

Voucher materials: Dried herbarium specimen [AEB 1333 (= PDD 117237)] accompanied by 1 Shear's mounting fluid (SMF) slide mount and 1 SMF/aniline blue lactic acid slide mount; Dan's in situ Zeiss dissecting scope photos [Kodak Professional Portra 160 color neg. film, (best ones digitally scanned)] and Olympus BX51 compound scope with DP25 camera for digital photos of microscopic detail; Dan's comments.

Dan's comments: My experience with the genus *Mollisia* is limited so I've chosen to photograph the fresh AEB 1333 collection and provide what details may help someone else identify it further. A majority of the 266 collections recorded in the PDD online website are also identified only as *Mollisia* sp. In examining those with images attached, I find that Jerry Cooper's *Mollisia* sp. PDD 106807 photos of apothecia looked most similar in shape & color to AEB 1333.

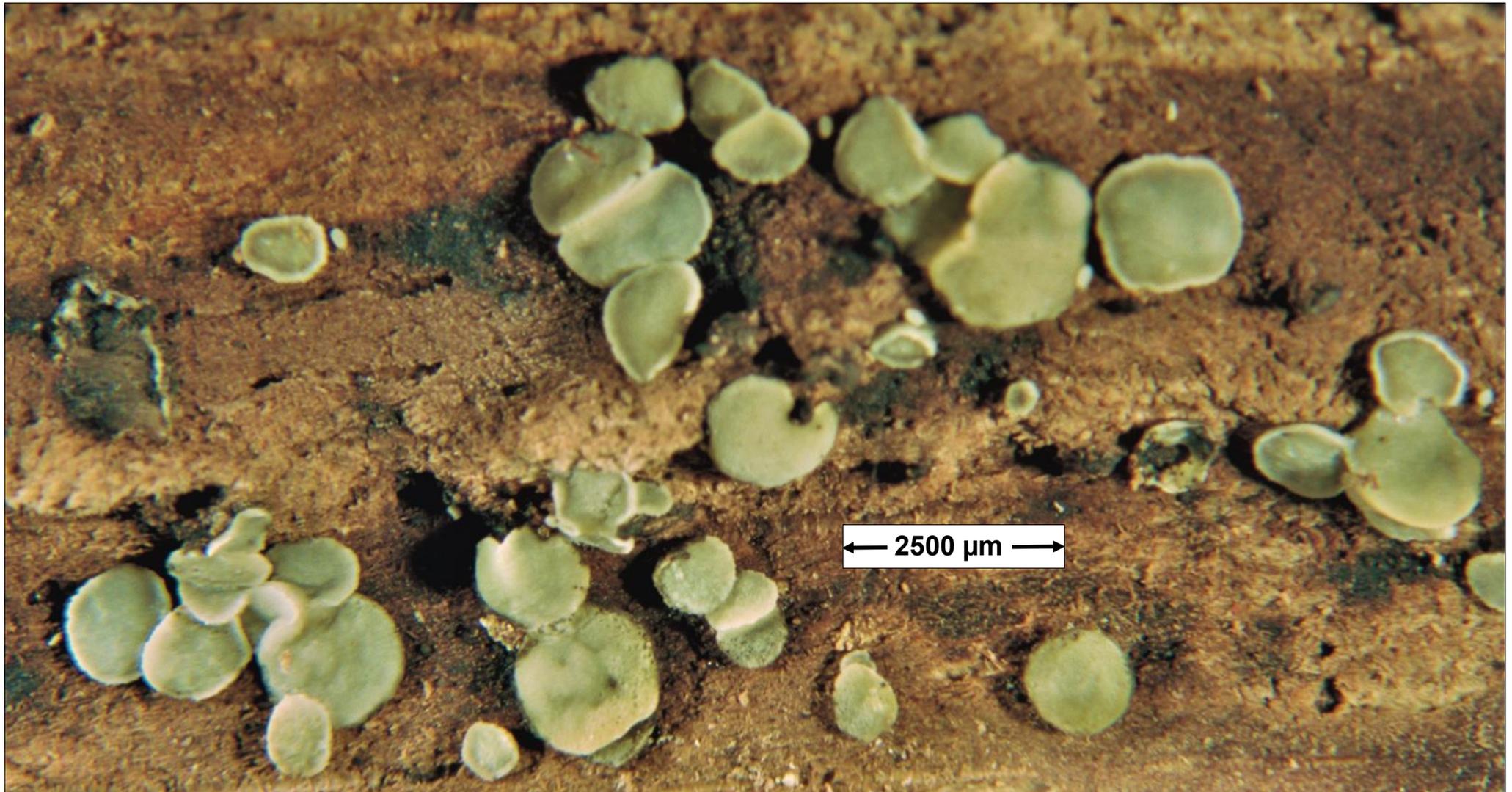
Measurements of in-situ apothecia are provided along with their photos in this pdf. Microscopic features under the compound scope were measured in water mounts irrigated with aniline blue lactic acid. Asci were roughly $65 \times 5 \mu\text{m}$ and ascospores $7-9.5 \times 2 \mu\text{m}$. Paraphyses were hyphoid, not abundant, longer than the asci, septate, smooth and hyaline.





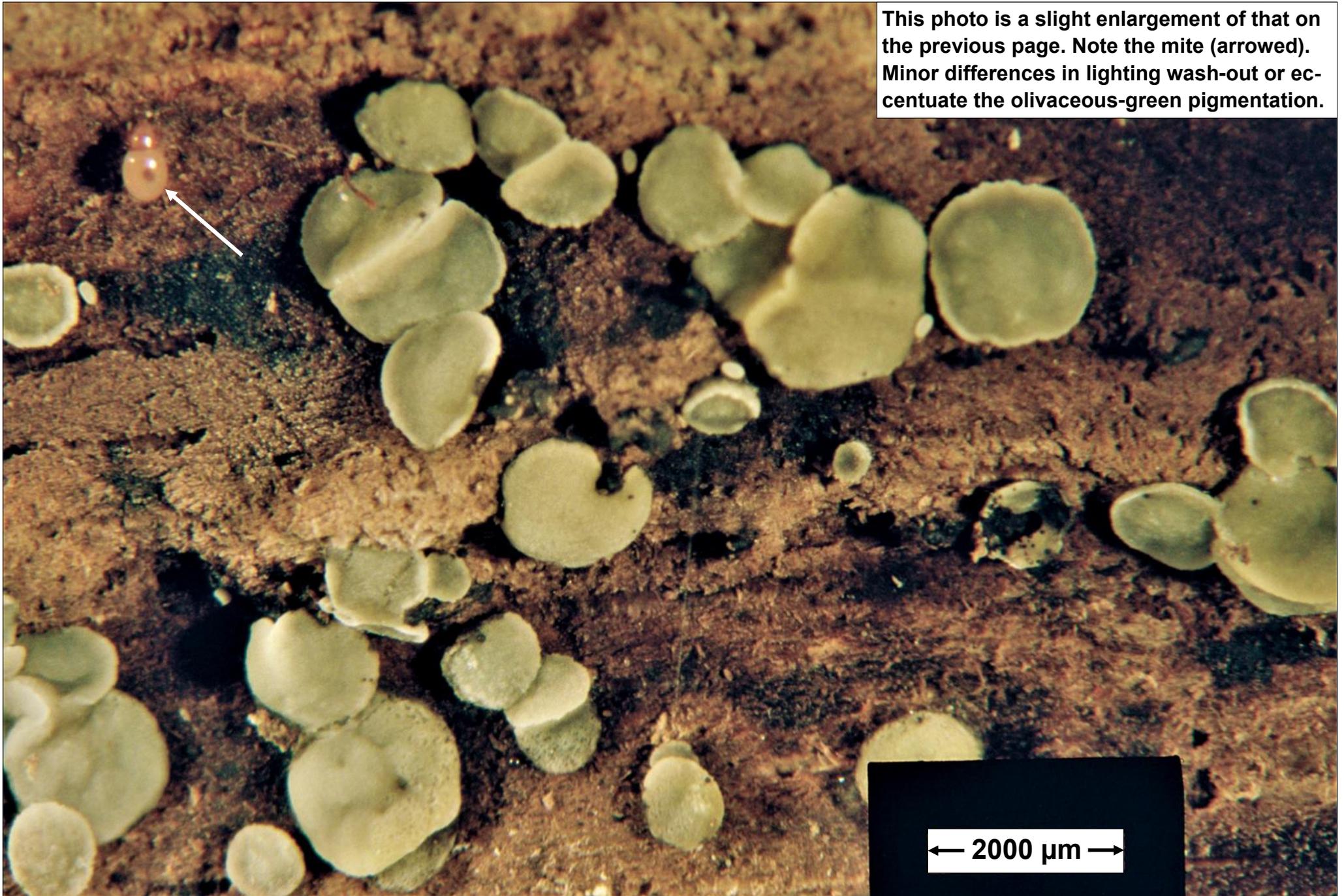
← 800 μm →

In-situ younger cupulate apothecia on moist decaying Eucalyptus wood. Note the olivaceous green coloration, the succulent appearance and the hairiness of some.



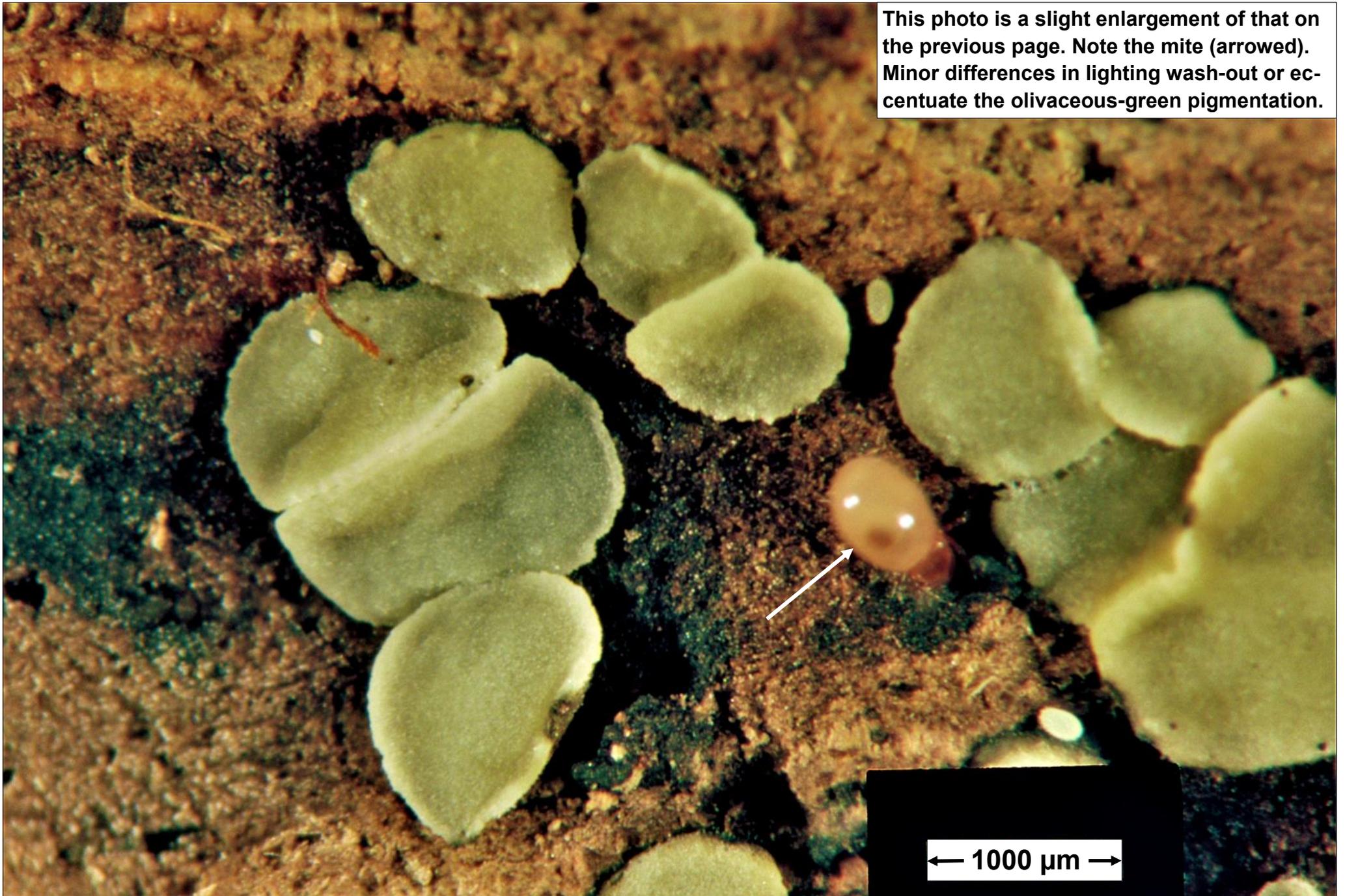
In-situ mature apothecia from another portion of the same moist decaying Eucalyptus wood seen on the previous page. Note that the cups have opened-out with the greenish hymenial layer appearing flattened to 'rolling' or slightly pulvinate. No hairiness is visible and apothecia are now broader. The same field of view is presented in somewhat higher magnifications on the next two pages.

This photo is a slight enlargement of that on the previous page. Note the mite (arrowed). Minor differences in lighting wash-out or accentuate the olivaceous-green pigmentation.

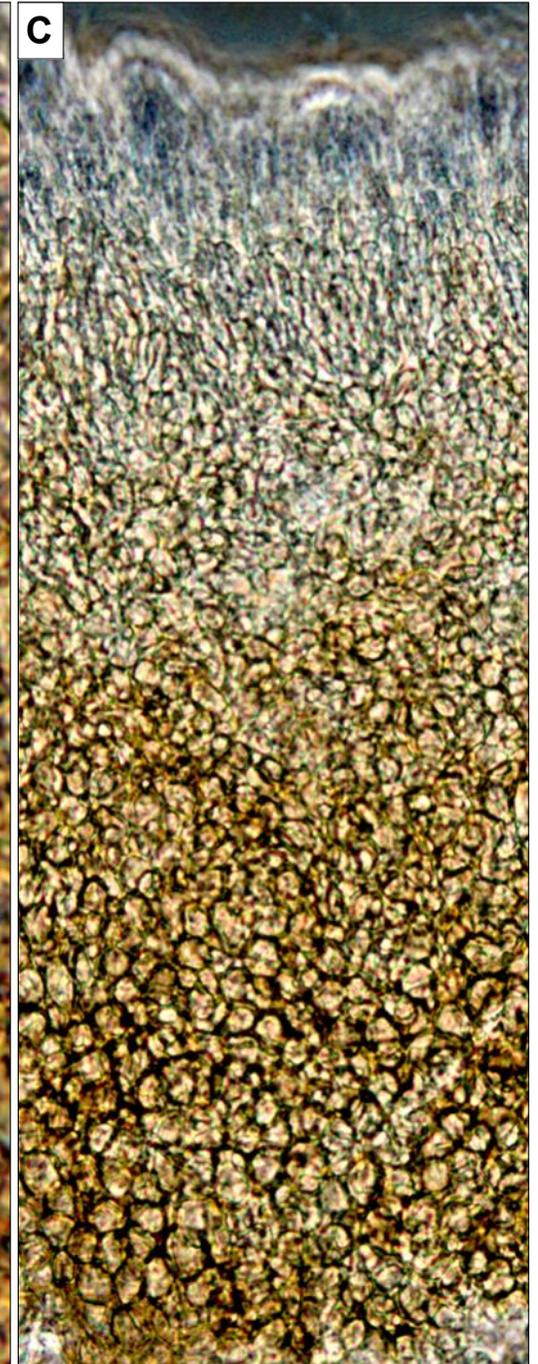
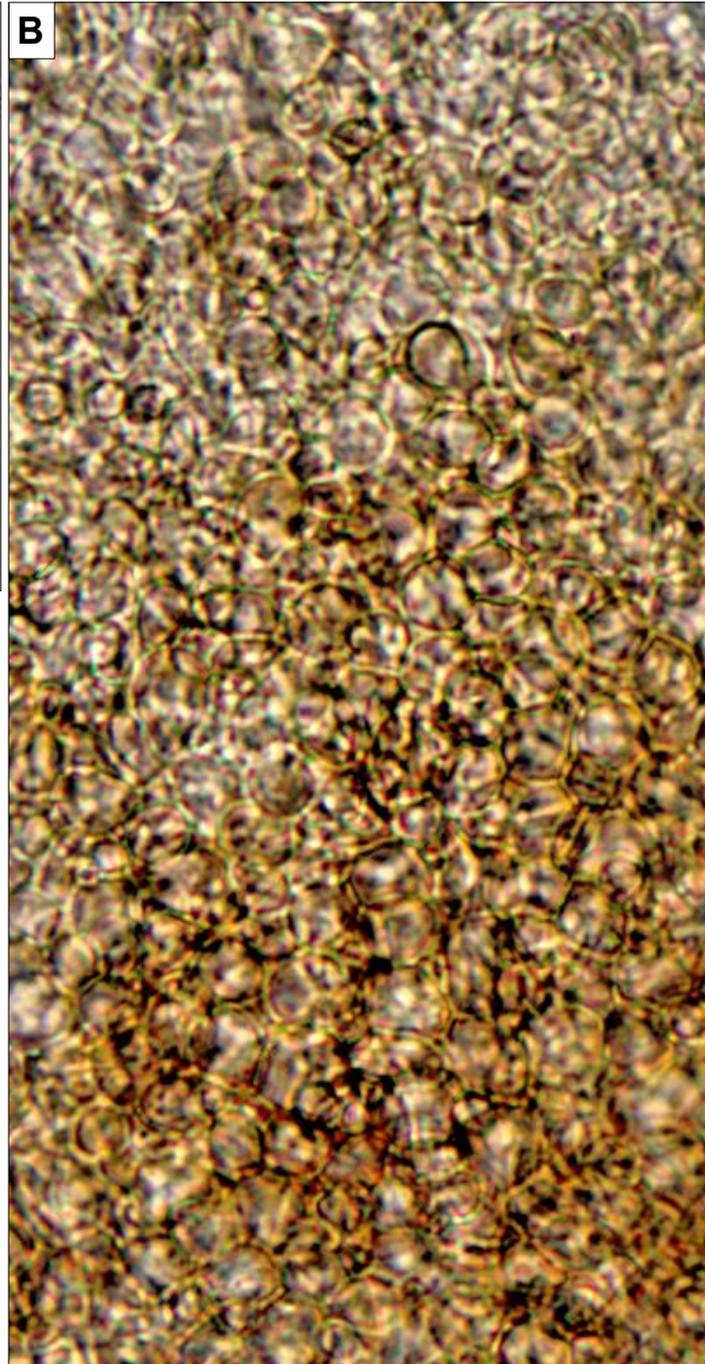
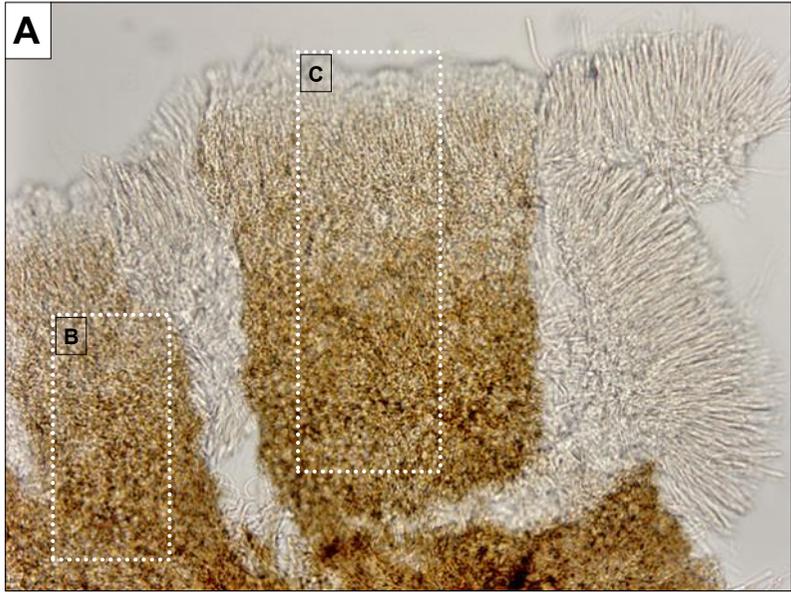


← 2000 μm →

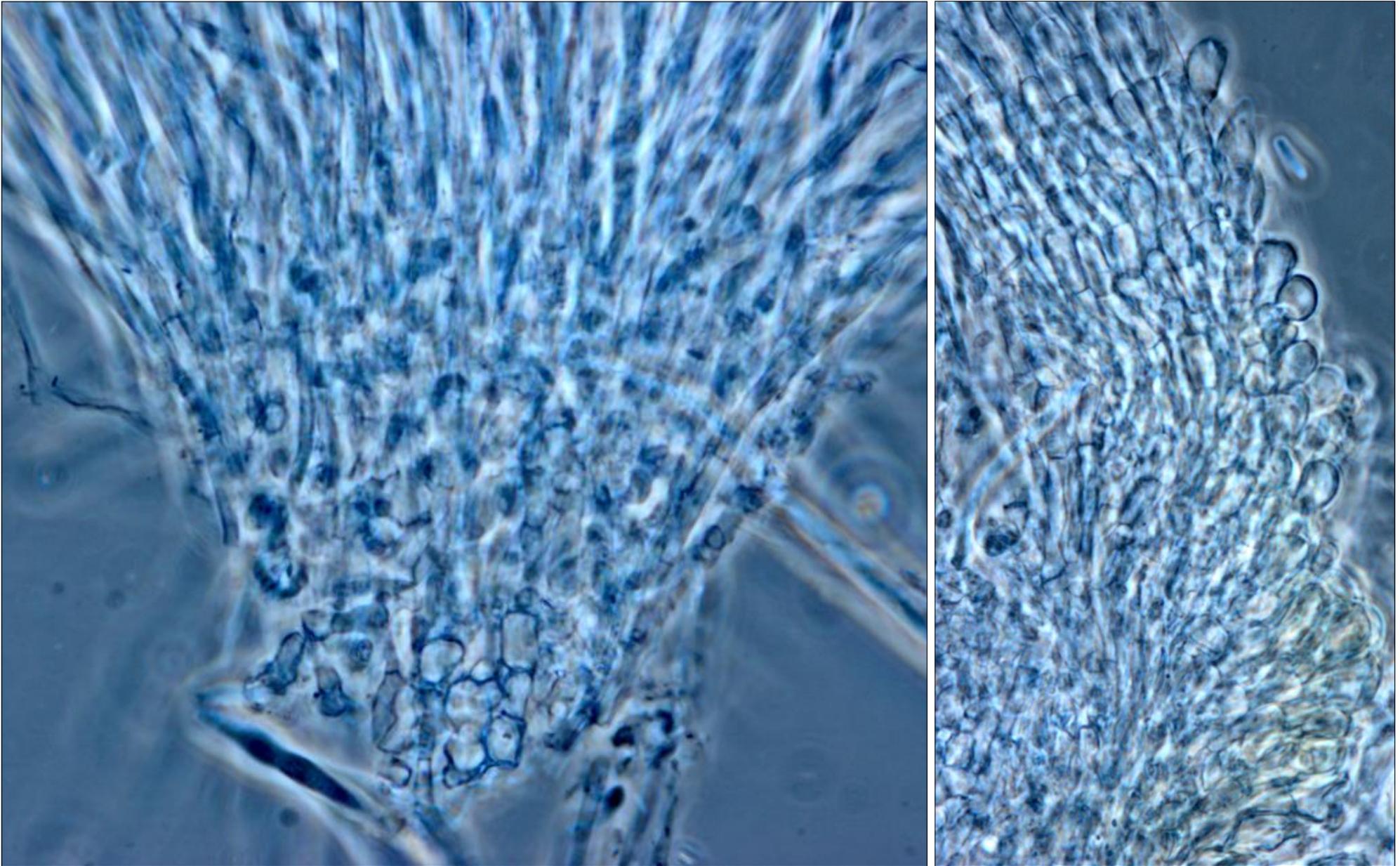
This photo is a slight enlargement of that on the previous page. Note the mite (arrowed). Minor differences in lighting wash-out or accentuate the olivaceous-green pigmentation.



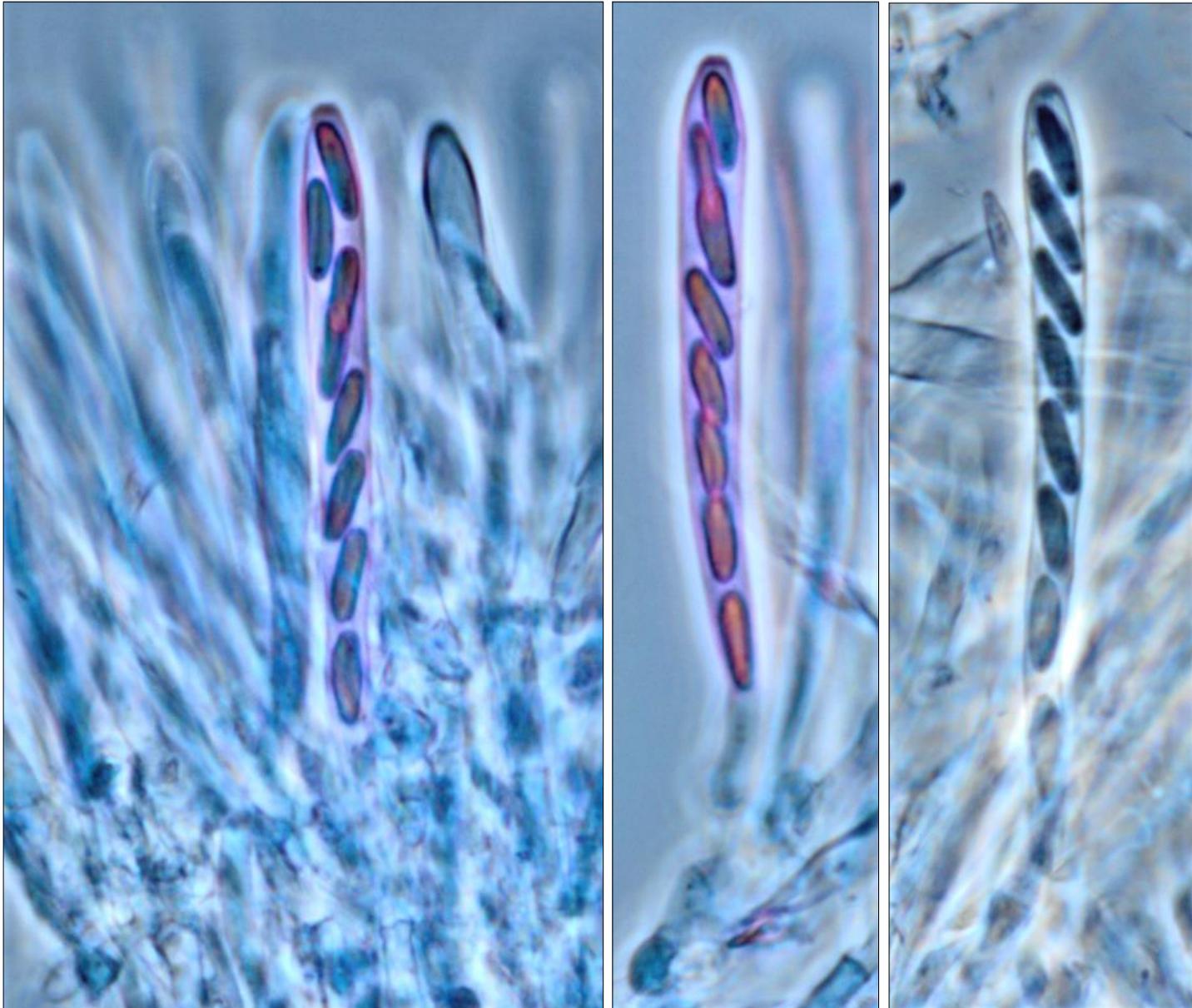
← 1000 μm →



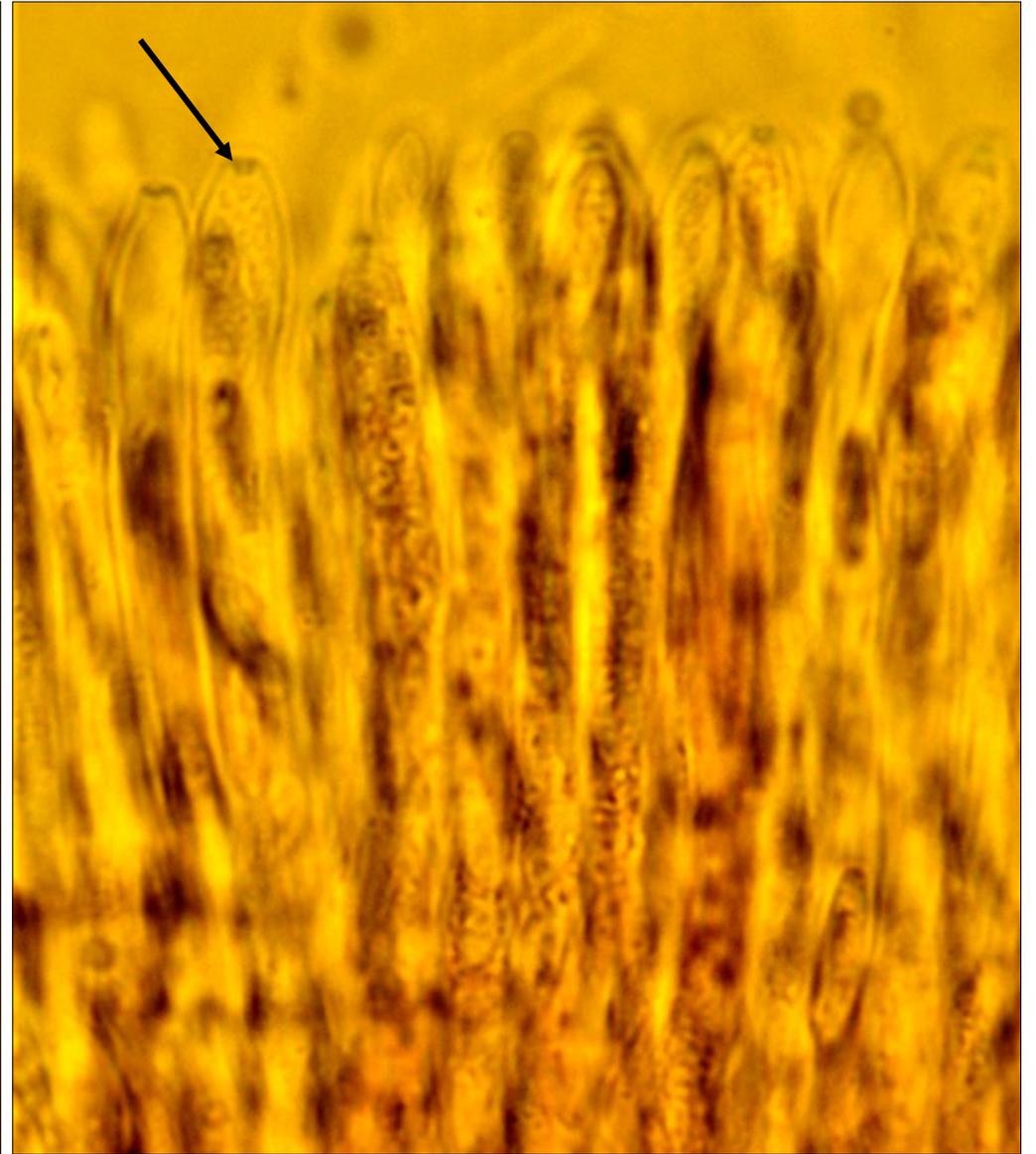
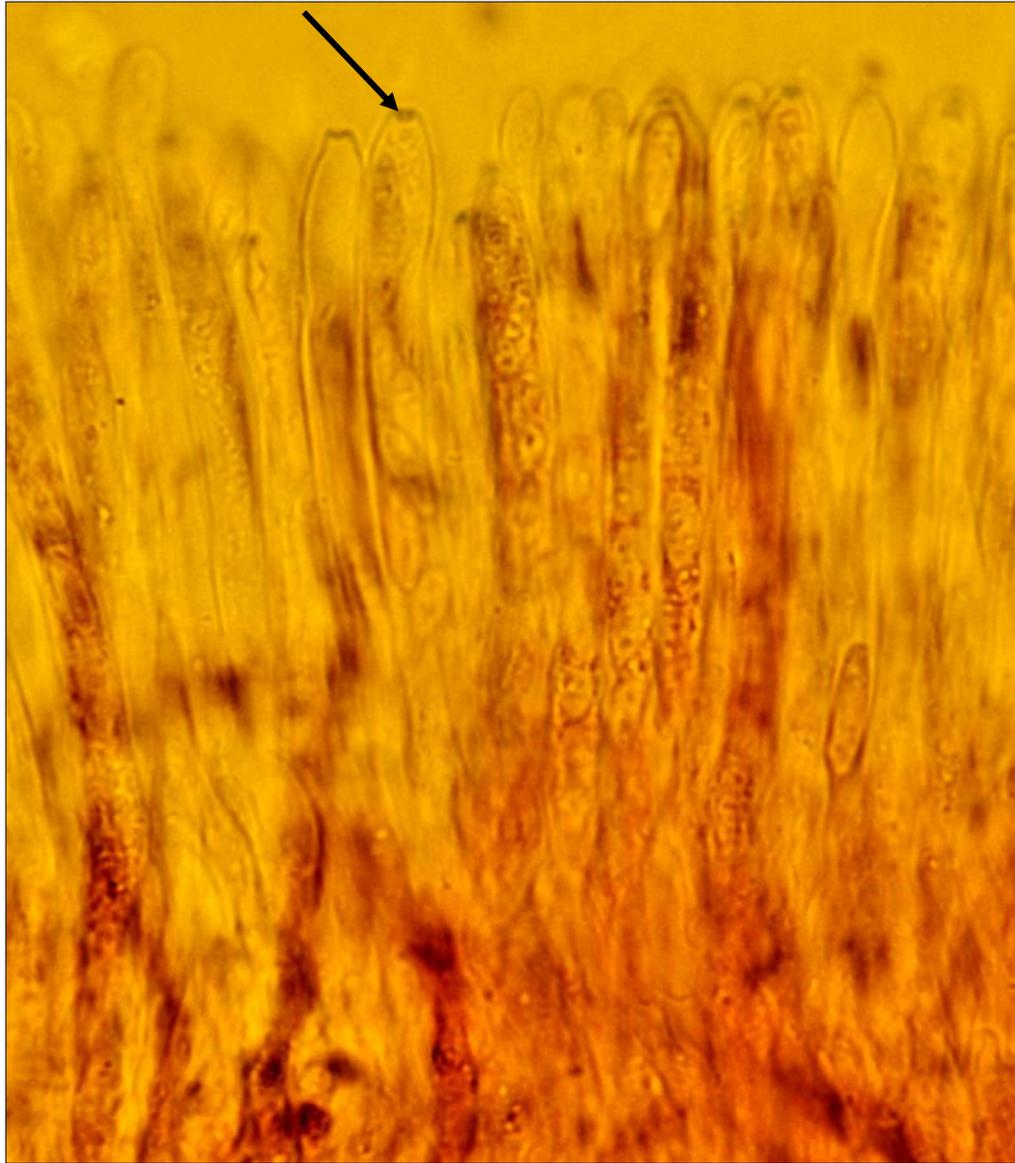
A–C. All from the same slide of a squashed upside-down mature sessile apothecium. A. X20 objective, Shear’s mounting fluid, brightfield microscopy. B. A cropped & enlarged portion of photo A (see the rectangular dotted portion in photo A). C. A cropped & enlarged portion of photo A (see the rectangular dotted portion in photo A). Photo C is a phase microscopy version of photo A. The colors in A & B are the natural colors of the bottom and sides of the mature ectal excipulum. Note the angular to subglobose pseudoparenchyma.



Left photo. Hymenial/subhymenial fragment. Right photo. Edge of the apothecium ectal excipulum. Note the globular cells. Both photos from mounts in water irrigated with aniline blue lactic acid, X100 objective, phase microscopy.



Photos showing cylindrical to basally-tapering asci with 8 uniseriately overlapping to occasionally biseriately, oblong hyaline aseptate ascospores. All photos from mounts in water irrigated with aniline blue lactic acid, X100 objective, phase microscopy.



Ascus tip bluing in Melzer's reagent (arrowed). Both photos represent the same field of view but with slightly different focuses and editing. The bluing is faint and often difficult to see because the apical ring is so small, but there is bluing. X100 objective & brightfield microscopy.