

***Hemitrichia calyculata* (Speg.) M.L. Farr SM84 – a good fit. See also SM53 (= PDD 110426).**

Substrate: dead wood

Collection site: Rimutaka Forest Park, Orongorongo Track. Nearest town, Wainuiomata.

Collection date: 15 November 2017

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

Voucher materials: dried herbarium material, including one Shear's mounting fluid (SMF) semi-permanent slide mount; professional Portra color film, in-situ photos from a Zeiss dissecting scope (best scanned) and digital photos of microscopic detail from an Olympus BX51 microscope & Olympus DP25 digital camera; Dan's brief comments.

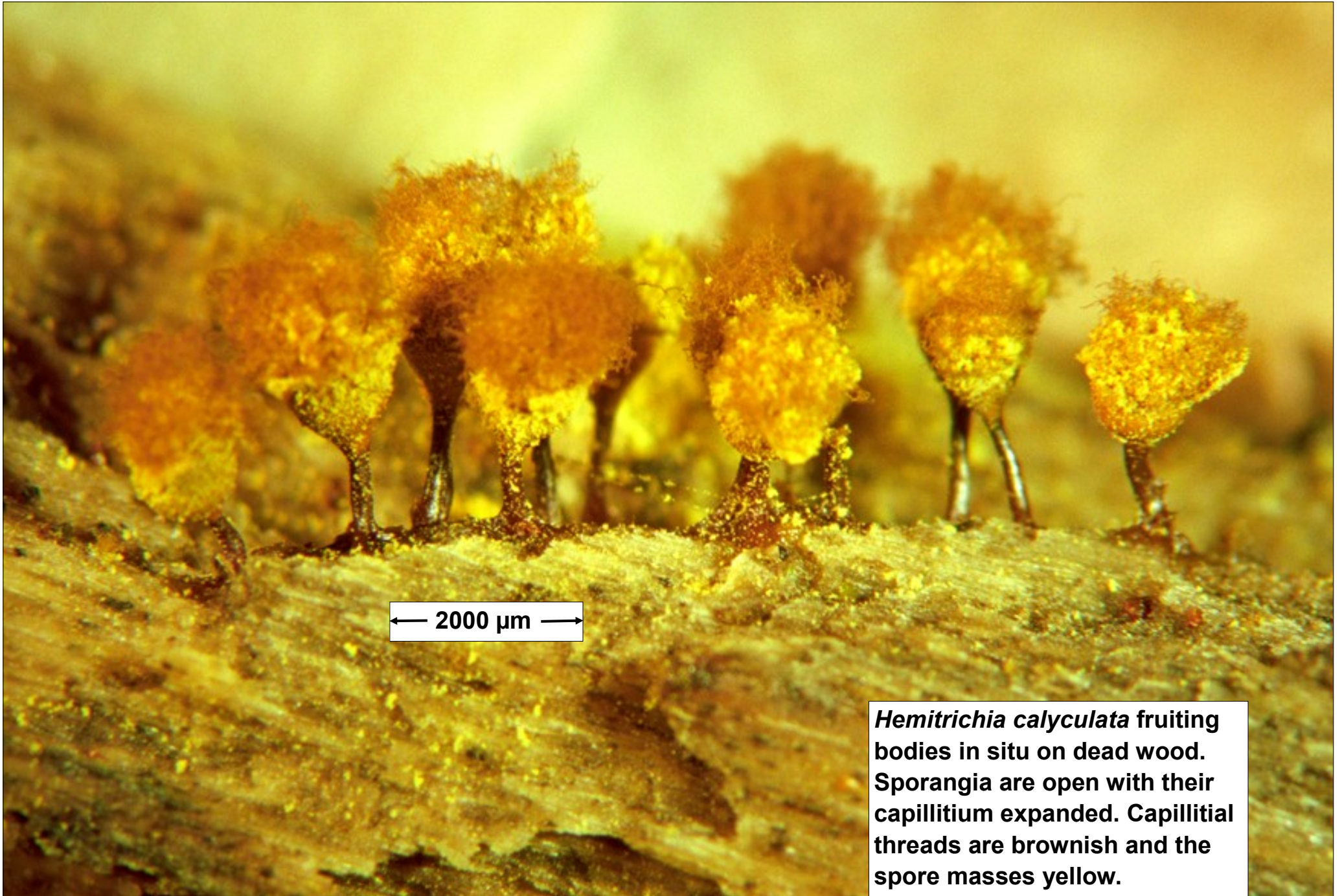
Dan's brief comments: Matching the description and comments in Stephenson (Stephenson, S.L. 2003. The Fungi of New Zealand Volume 3: Myxomycetes of New Zealand. Fungal Diversity Research Series 11: 1-238.). This small collection was similar to another small collection from Kaitoke Regional Park north of Upper Hutt in 2007 – SM53 (= PDD 110426).

As Stephenson (2003, p. 76) points out “*Hemitrichia calyculata* and *H. clavata* are very close morphologically.” “The major distinguishing feature is the stalk. In *H. clavata*, it is rather thick and widens gradually to form the deep trumpet-shaped base of the sporotheca. In contrast, *H. calyculata* has a narrow stalk that widens suddenly to form a shallow cup at the base of the sporotheca. However, intermediate forms are occasionally encountered, so this distinction is not always absolute.” On p. 77, under *H. clavata*, he goes on to say “Virtually all of the collections from New Zealand that have been assigned to *H. clavata* in the past actually represent *H. calyculata*.”



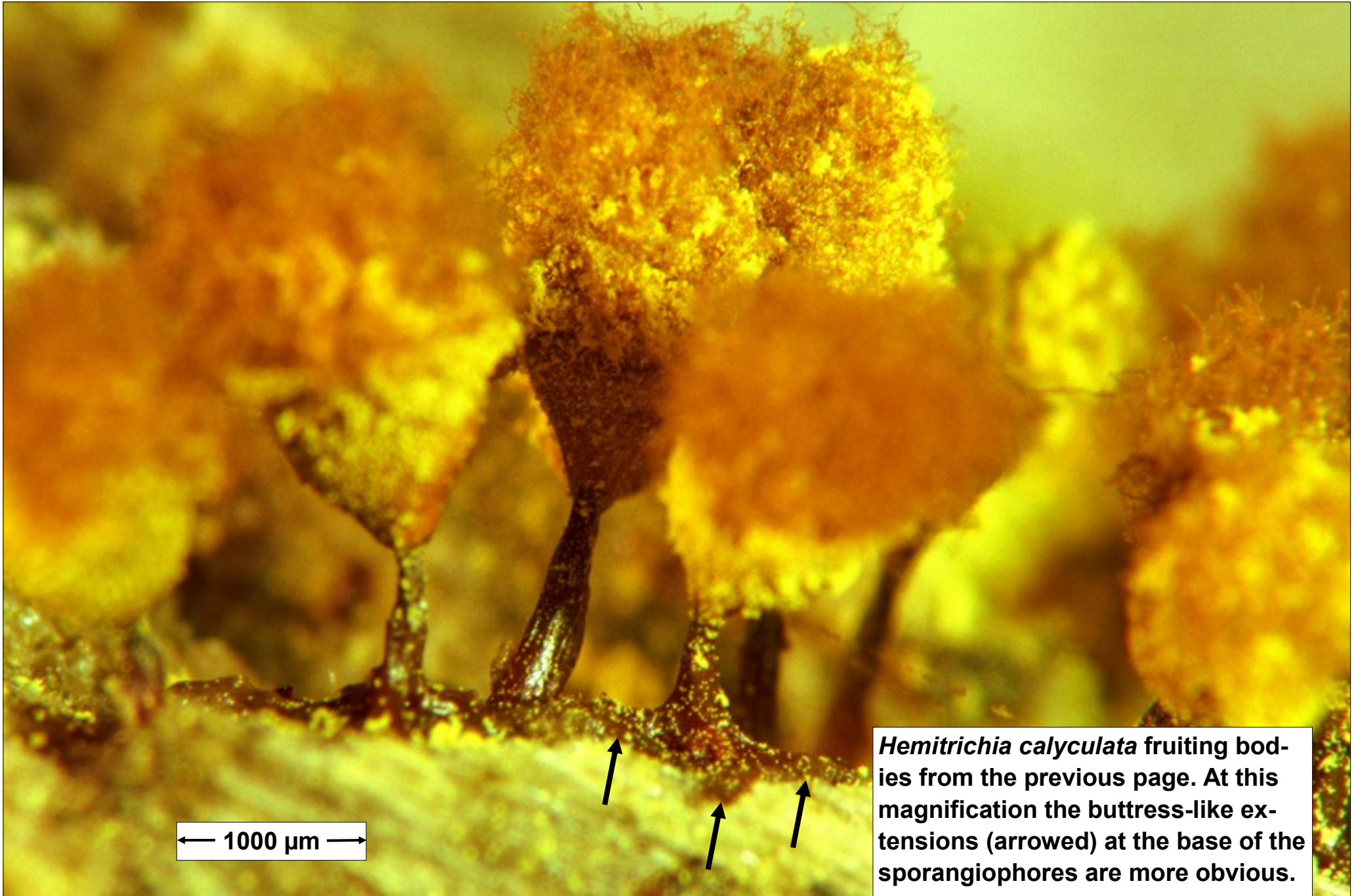
← 1000 μm →

Hemitrichia calyculata fruiting bodies in situ on dead wood. Most sporangia are still intact with expanding capillium & spores only evident in the sporangium at the far right.



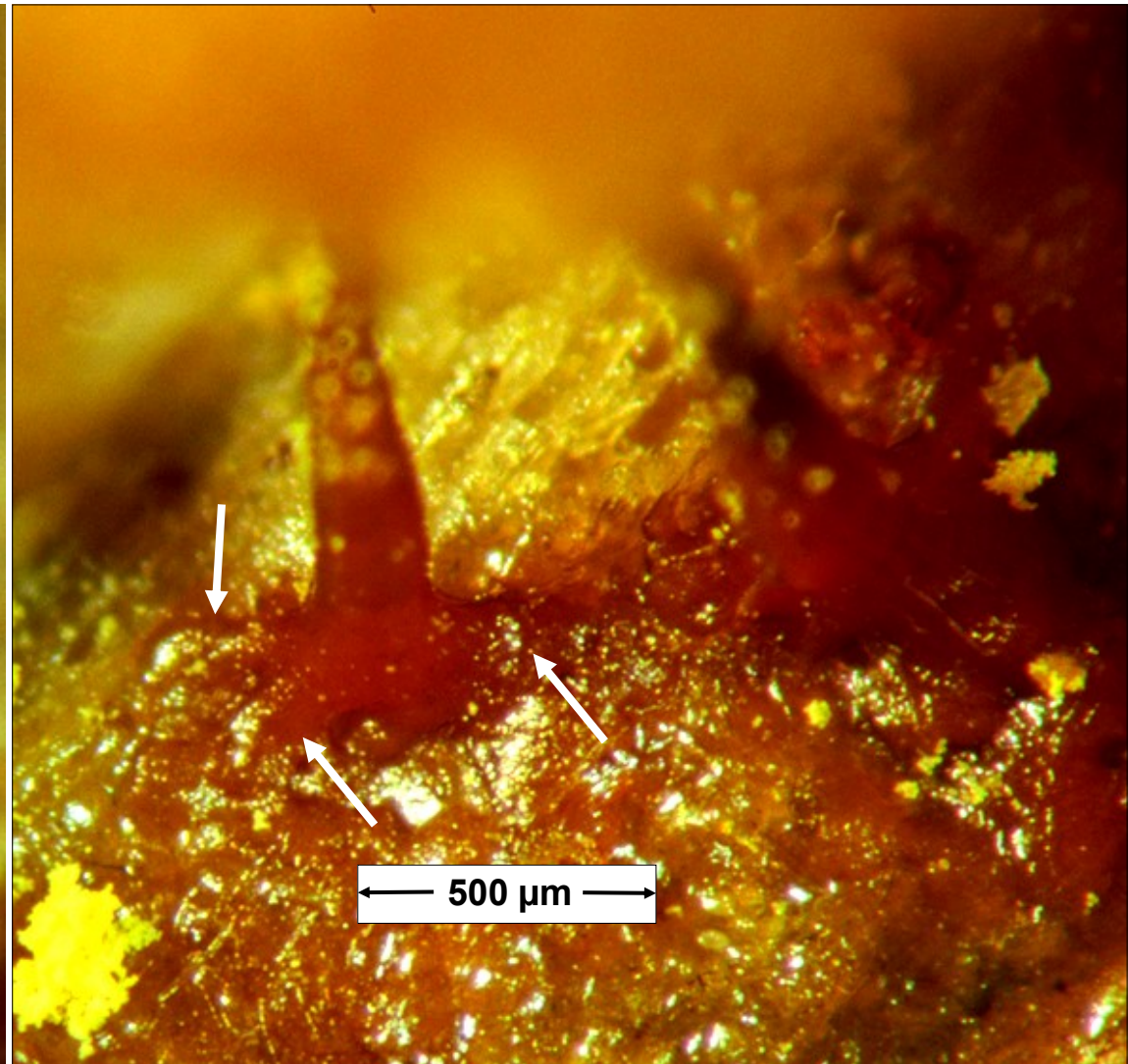
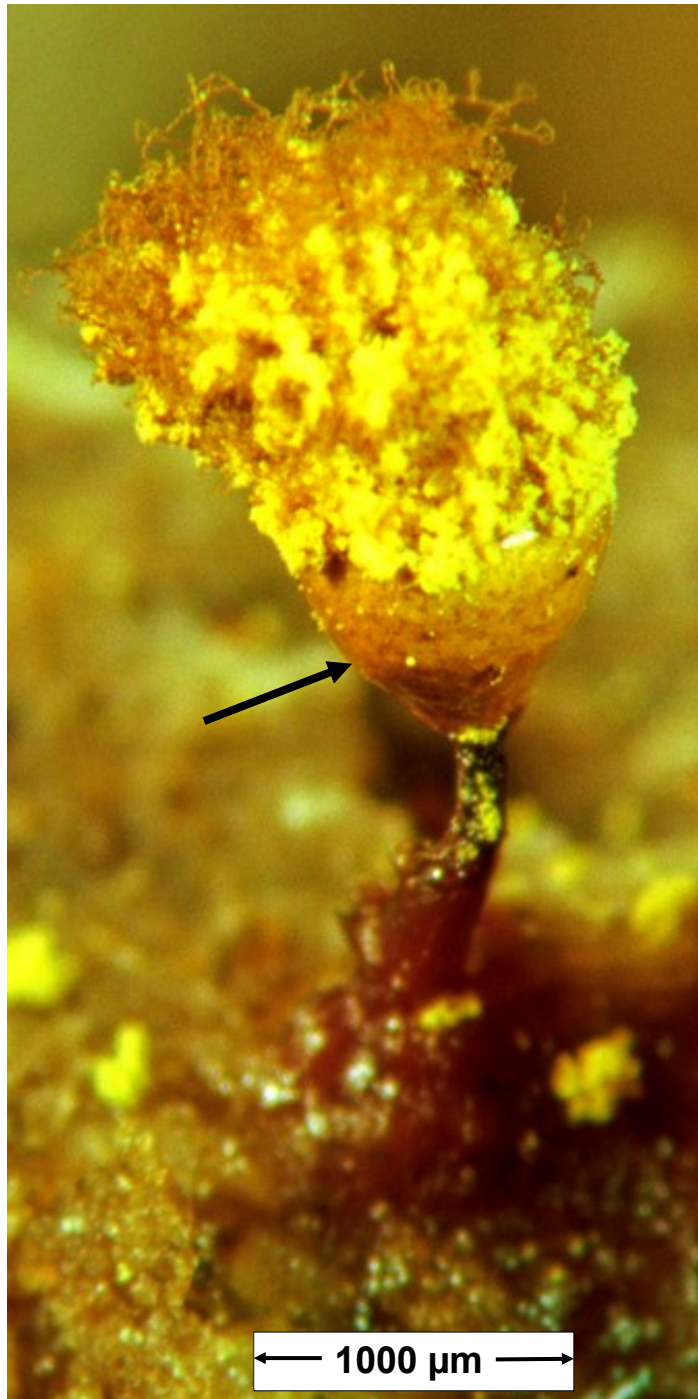
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Hemitrichia calyculata fruiting bodies in situ on dead wood. Sporangia are open with their capillitium expanded. Capillitial threads are brownish and the spore masses yellow.



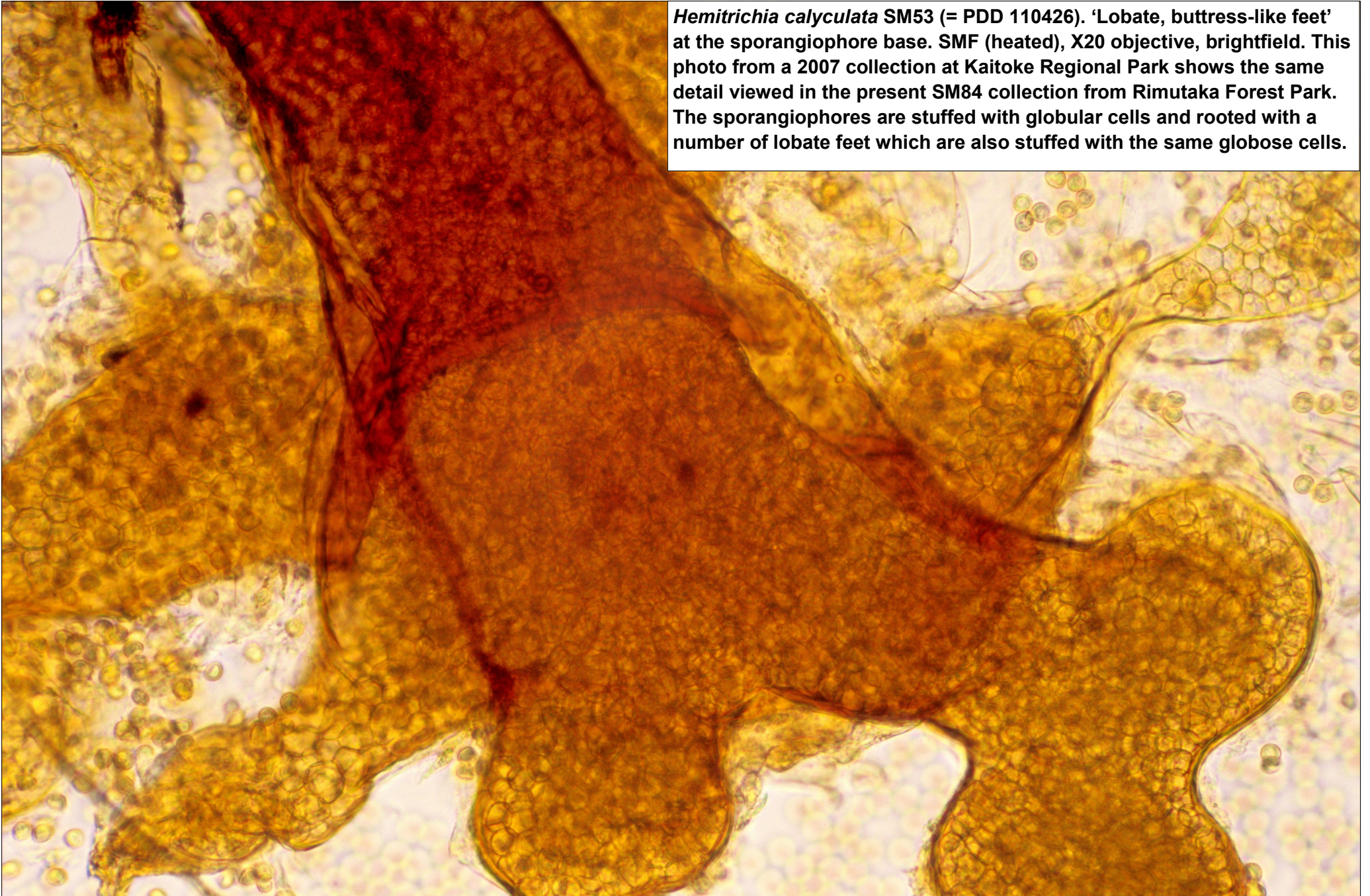
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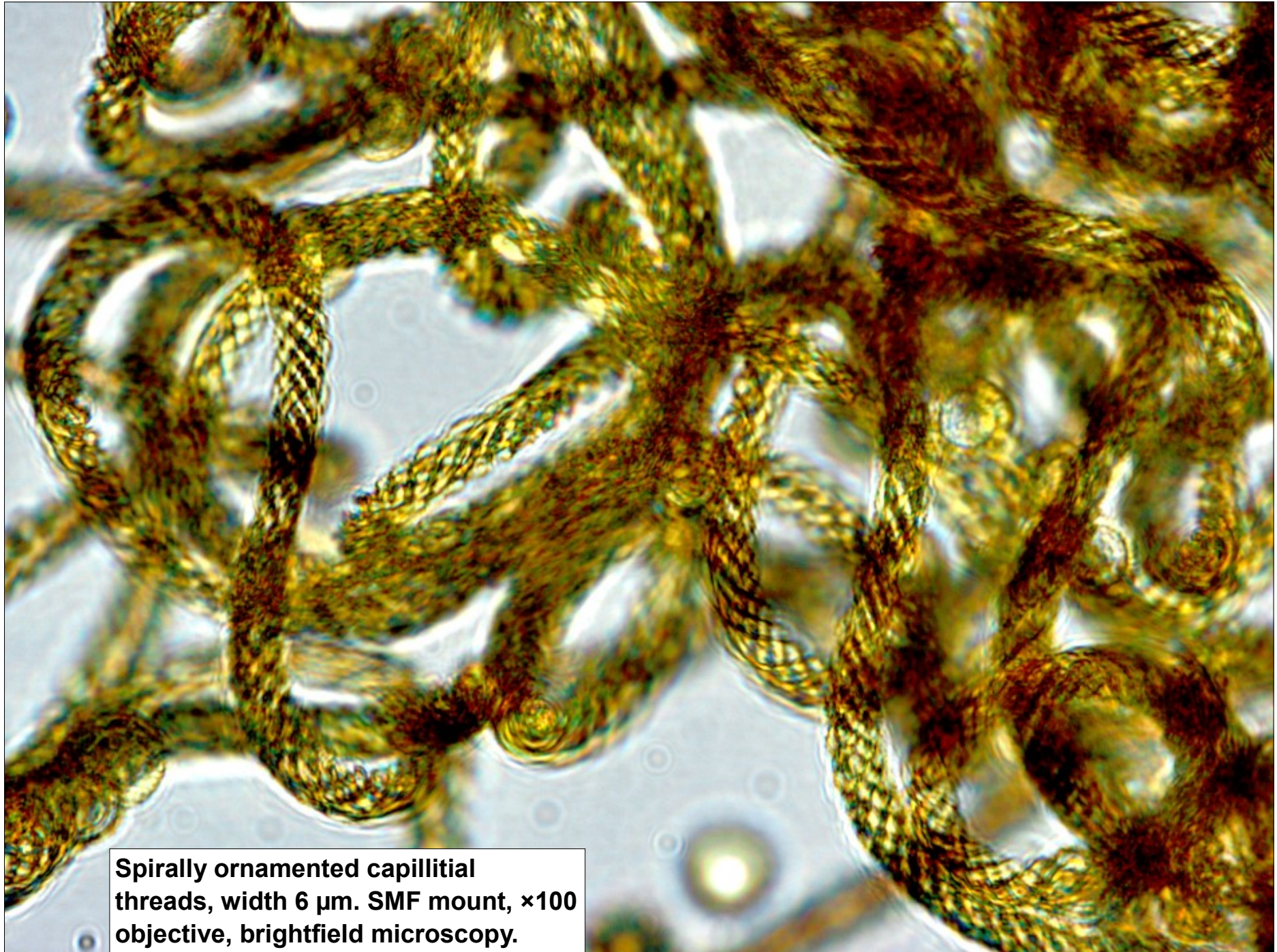
Hemitrichia calyculata fruiting bodies from the previous page. At this magnification the buttress-like extensions (arrowed) at the base of the sporangiophores are more obvious.



***Hemitrichia calyculata* fruiting bodies in situ on dead wood. Left photo: emphasis on the persistent calyculus (arrowed). Right photo: emphasis on the butters-like extensions (arrowed) at the base of the sporangiophores - these detailed on the next page.**

Hemitrichia calyculata SM53 (= PDD 110426). 'Lobate, buttress-like feet' at the sporangiophore base. SMF (heated), X20 objective, brightfield. This photo from a 2007 collection at Kaitoke Regional Park shows the same detail viewed in the present SM84 collection from Rimutaka Forest Park. The sporangiophores are stuffed with globular cells and rooted with a number of lobate feet which are also stuffed with the same globose cells.

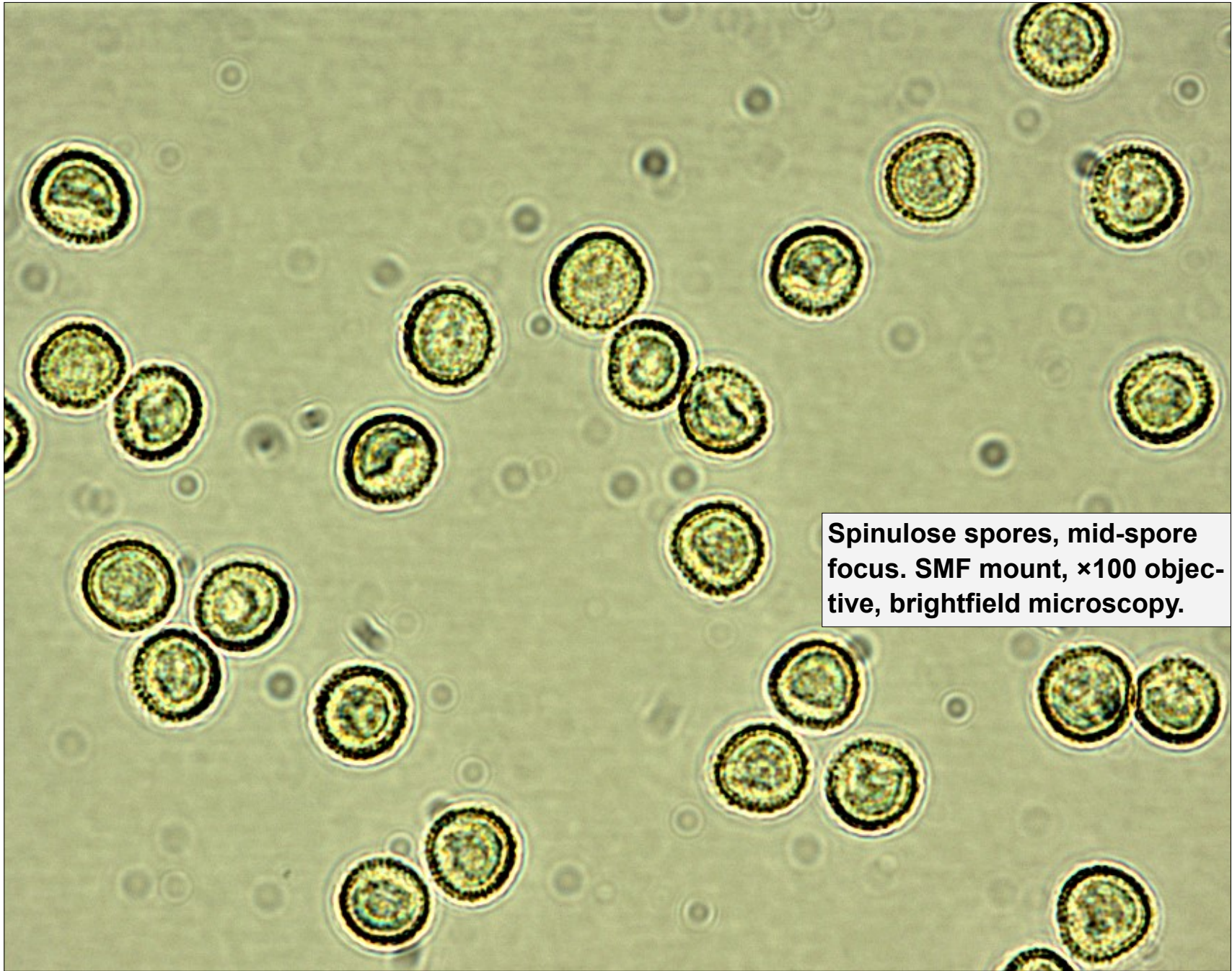




Spirally ornamented capillitial threads, width 6 μm . SMF mount, $\times 100$ objective, brightfield microscopy.

**Spinulose spores (8–)9–10 μm ,
mid-spore focus. SMF mount,
 $\times 100$ objective, phase microscopy.**





Spinulose spores, mid-spore focus. SMF mount, ×100 objective, brightfield microscopy.



Spinulose spores, spore-surface focus. SMF mount, ×100 objective, brightfield microscopy.