

***Hydropisphaera suffulta* (Berk. & M.A. Curtis) Rossman & Samuels – AEB 1018 (= PDD 93155)**

Collection site: Payne's Ford Scenic Reserve, Takaka, NZ South Isl.

Collection date: 24 April 2007

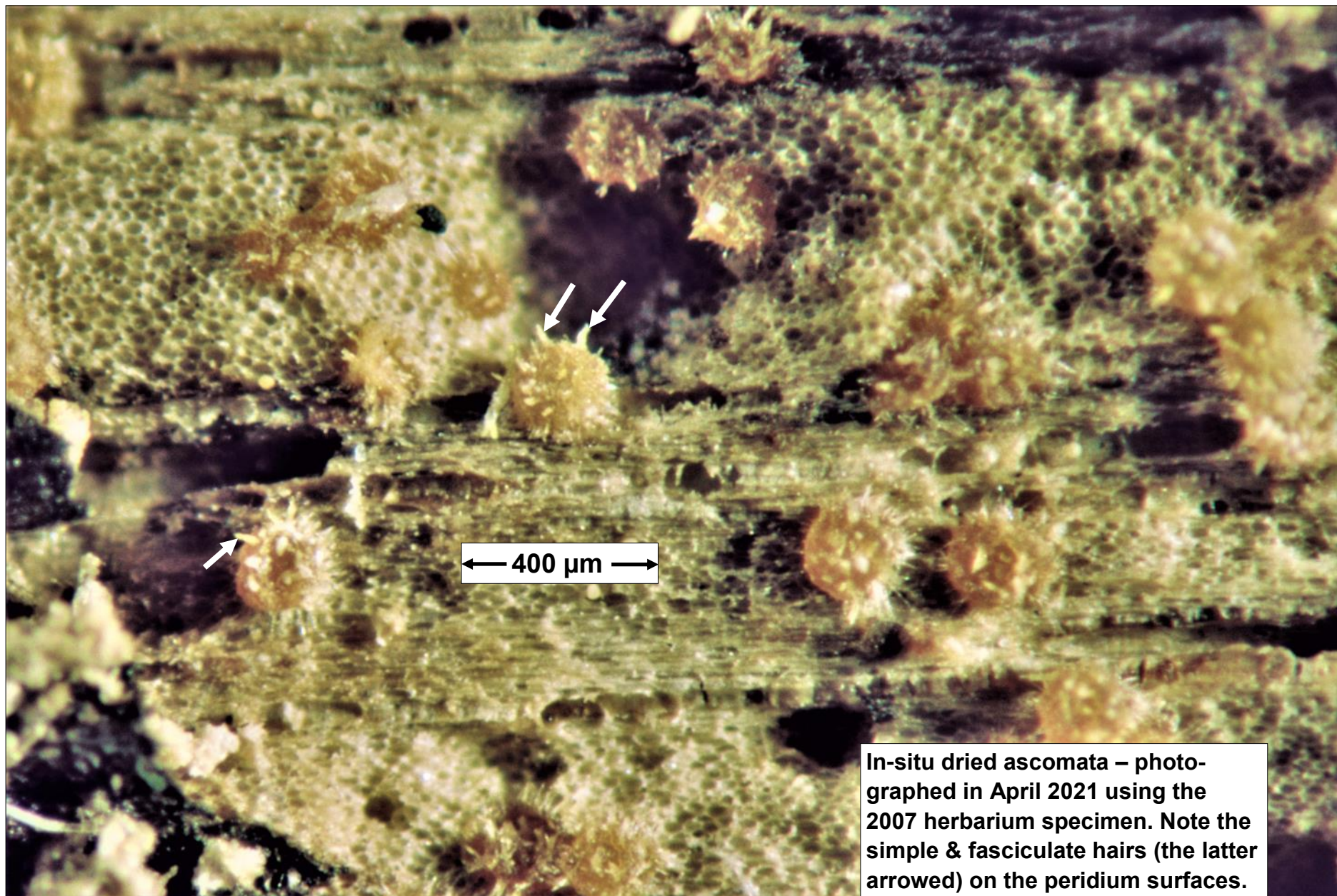
Collector & identifier: Ann Bell

Substrate: dead wood

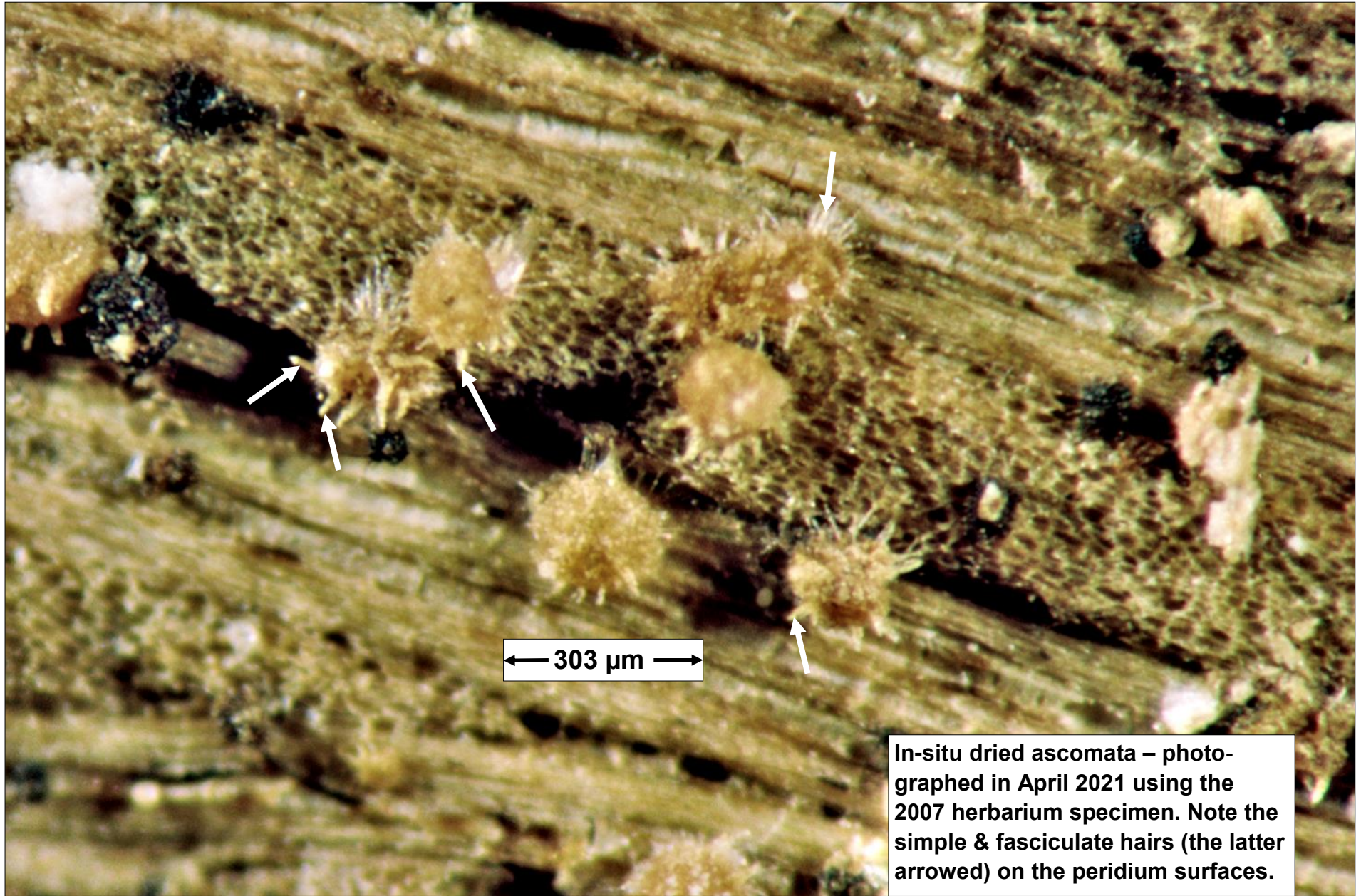
Voucher materials: dried herbarium specimen AEB 1018 (= PDD 93155) originally accompanied by a single Shear's mounting fluid (SMF) microscope slide but now also including an aniline blue lactic acid (ABLA)/SMF slide from Dan Mahoney's re-examination of the original dried herbarium material in February 2017; Dan's in-situ dissecting scope photos of dried ascomata (in April 2021) from the original herbarium specimen and his compound scope digital photos of asci and ascospores (from the original 2007 SMF slide, in March 2021); Dan's brief description and comments.

Brief description of AEB 1018: **Perithecia** clustered to scattered, dull yellowish, globose with the uppermost portion somewhat flattened, ostiole small, **peridium** a textura angularis with a clothing of short simple and fasciculate hairs (the latter often seen ringing the flattened apex); perithecia with blackish portions or those appearing cupulate not seen in this collection; herbarium specimen perithecia re-examined in March 2021 exhibited fertile mature asci and ascospores. **Fertile asci** mostly clavate with 8 ascospores usually biseriate apically and uniseriately overlapping basally. Measurements difficult with the basal portion indistinct when broken free or among other asci in the hymenium. Apical ring not clearly seen. **Ascospores** equally 2-celled and usually without any indentation at the median transverse septum, hyaline to faintly yellowish, ellipsoidal (elongate with slightly tapering rounded apices), longitudinally striate, 11–13.5 × 4.5–7 µm (n=10).

Comments: See the pdf for the AEB 1016 collection which was also collected in a limestone area near Takaka. The pdf for *Hydropisphaera suffulta* AEB1294 (= PDD 117254) provides the most complete view of what appears to be *H. suffulta* in New Zealand. As such, other AEB collections are compared to it. This species is common in more tropical climates worldwide but recent publications by Lechat & Fournier [see the PDD datastore pdf for AEB1294 (= PDD 117254)] may indicate that the NZ collections represent a related 'new variant' or 'new species'.



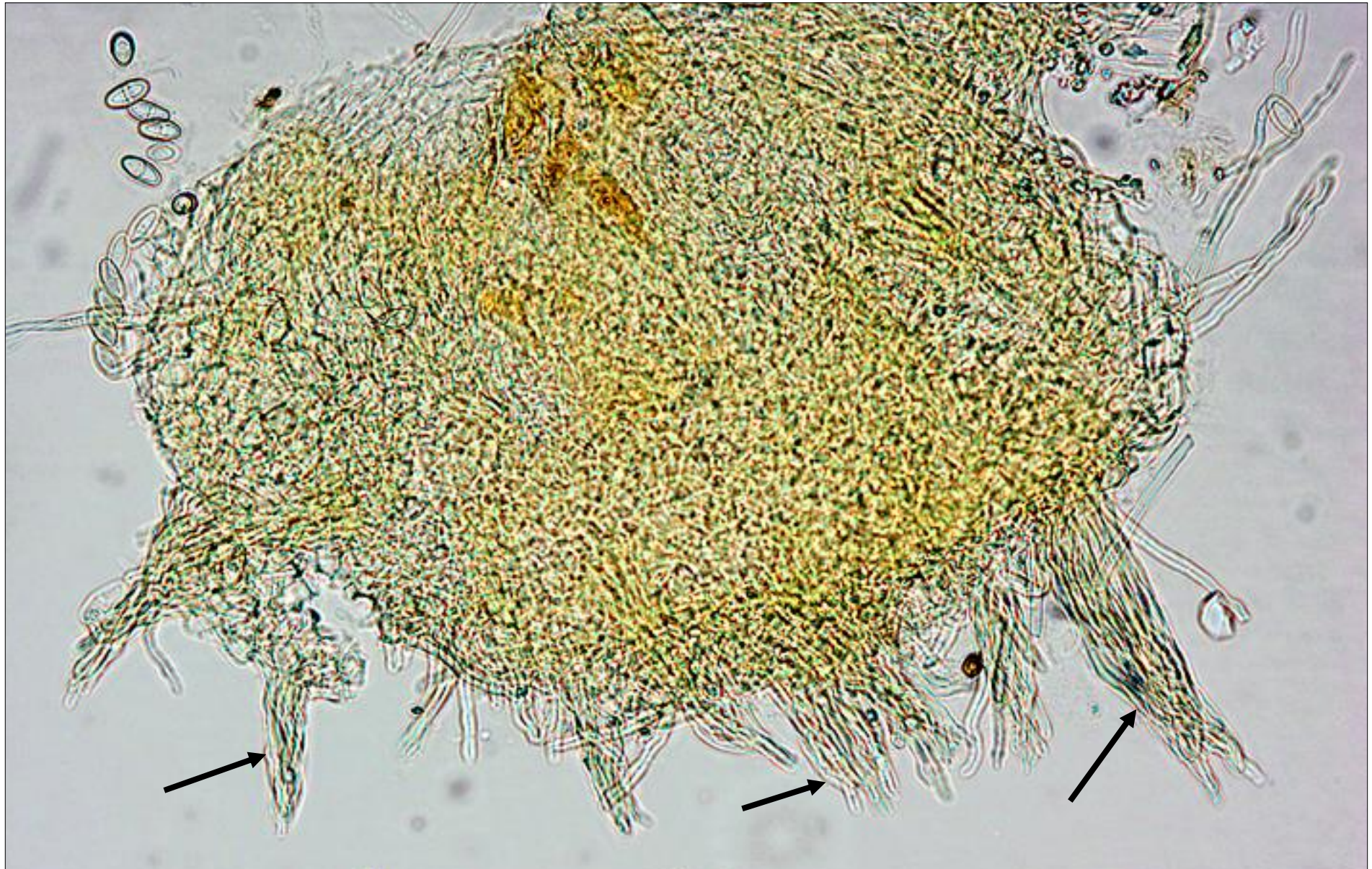
In-situ dried ascomata – photographed in April 2021 using the 2007 herbarium specimen. Note the simple & fasciculate hairs (the latter arrowed) on the peridium surfaces.



In-situ dried ascomata – photographed in April 2021 using the 2007 herbarium specimen. Note the simple & fasciculate hairs (the latter arrowed) on the peridium surfaces.



In-situ dried ascomata – photographed in April 2021 using the 2007 herbarium specimen. Note the fasciculate hairs (arrowed) that border the somewhat flattened ascomata ostiolar apices.

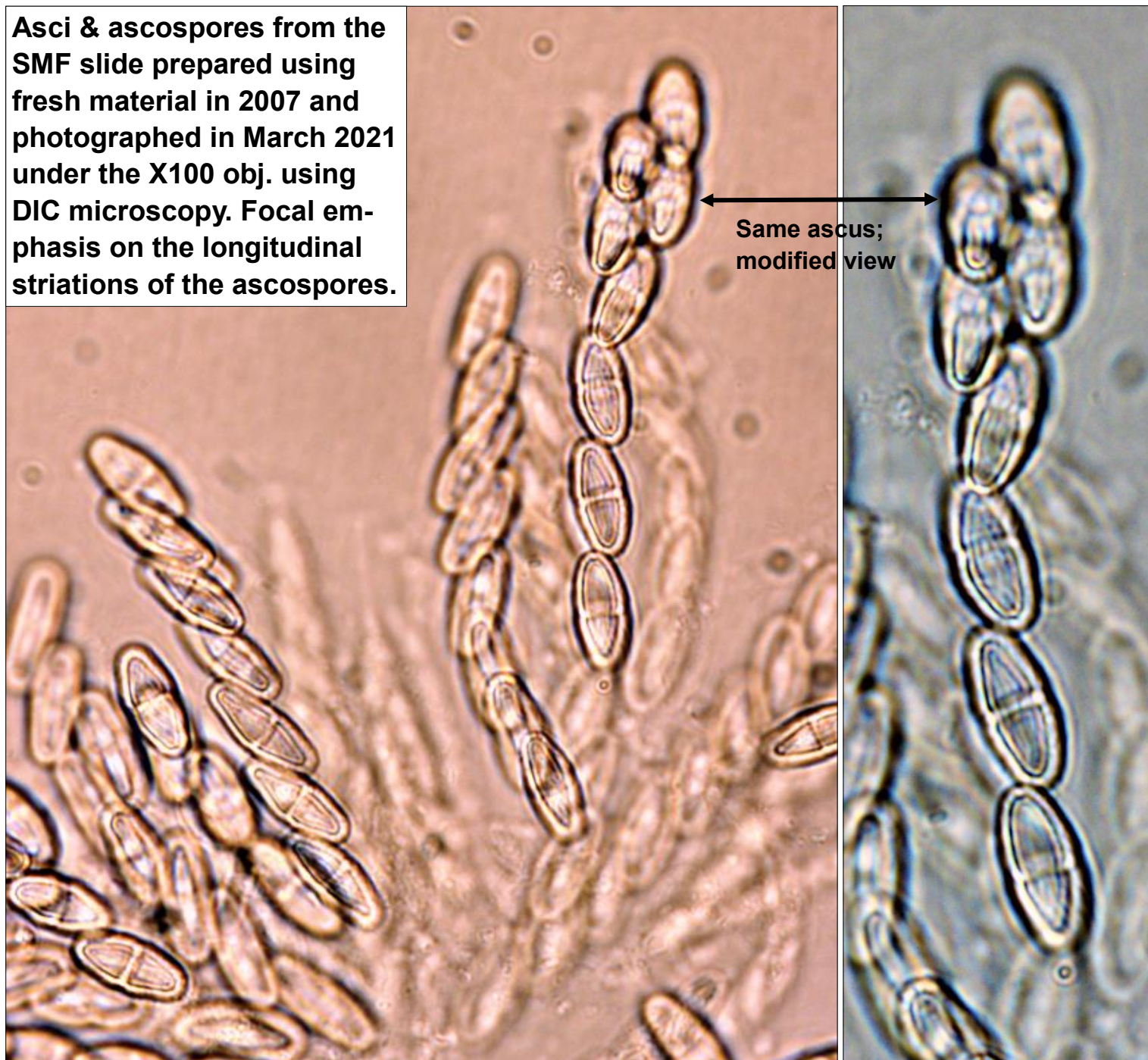


Squashed portion of an ascoma from the SMF slide prepared using fresh material in 2007 and photographed in March 2021. Note the textura angularis tissue of the peridium and the fasciculate hairs (the latter arrowed). Brightfield microscopy under the X40 objective. The color is reasonably natural.



Asci & ascospores from the SMF slide prepared using fresh material in 2007 and photographed in March 2021 under the X40 obj. using DIC microscopy. Note the ascospore shapes, faint longitudinal striation and arrangement in the asci.

Asci & ascospores from the SMF slide prepared using fresh material in 2007 and photographed in March 2021 under the X100 obj. using DIC microscopy. Focal emphasis on the longitudinal striations of the ascospores.





Another cluster of asci & ascospores from the SMF slide prepared using fresh material in 2007 and photographed in March 2021 under the X100 obj. using DIC microscopy. Focal emphasis on the longitudinal striations of the ascospores.