

***Collaria arcyronema* (Rostaf.) Nann.-Bremek. ex Lado – AEB SM7 (= PDD 110387)**

Collected: 6 April 1999

Substrate: dead wood

Collection site: Along the Catchpool Valley Track in Remutaka Forest Park

Collectors: Dan Mahoney, Ann Bell and Toni Atkinson; **Identifier:** Dan Mahoney

Voucher materials: Dried herbarium specimen [AEB SM7 (= PDD 110387)]; in-situ photographic views of fresh fruiting bodies on the wood and microscopic views of sporotheca details; Dan's brief comments.

Brief comments: Fewer than 15 fruiting bodies were observed and these were on the same dead wood with a more abundant fruiting of *Stemonitopsis typhina* – AEB SM8 (= PDD 110384). The globose sporothecae (ca. 600 µm diam) had thin shiny iridescent peridia with brownish spore masses on a black stalk (ca. 700 µm long). A prominent diagnostic feature was the columella which entered the sporotheca and then branched a number of times from a point <half way up. The broader branches in turn gave way to an extensive system of anastomosing capillitial threads that decreased in diameter and ended freely at the sporotheca periphery. The stalk was stout, black and broadest at its rusty black base. There was a faint purplish or dark violaceous cast to the dark blackish capillitium and a brownish spore mass. The spores were finely roughened and 7–8+ µm in diameter. Measurements accompany the in-situ fruiting body photos.

References consulted:

Lister, G. 1925. A Monograph of the Mycetozoa. A Descriptive Catalogue of the Species in the Herbarium of the British Museum. Edn 3. 296 pp., 222 tab. London.

Martin, G.W. & Alexopoulos, C.J. 1969. The Myxomycetes. The University of Iowa Press, Iowa City. 1–561.

Kowalski, D.T. 1970. The Species of *Lamproderma*. Mycologia 62(4): 621–672.

Stephenson, S.L. 2003. The Fungi of New Zealand Volume 3: Myxomycetes of New Zealand. Fungal Diversity Research Series 11: 1–238. **Stephenson's description and comments from p. 103 are reproduced on the next page of this pdf.**

Stephenson, S.L. 2003. The Fungi of New Zealand Volume 3: Myxomycetes of New Zealand. Fungal Diversity Research Series 11: 1–238. Portions of his *Collaria arcyriionema* coverage on p. 103 are reproduced below.

Description: Fruiting body a stalked sporangium, scattered or gregarious, 1.0–1.5 mm tall. Sporotheca globose, erect, 0.4–0.6 mm in diameter. Stalk slender, rigid, black, two-thirds to three-quarters the total height. Hypothallus ranging from inconspicuous to contiguous for a group of sporangia, membranous, colourless to brown. Peridium persistent, membranous, silvery grey or iridescent bronze, persisting at the base of the sporotheca as a collar after the upper portion has broken away, dehiscence irregular. Columella cylindrical, slender, attaining one-third to one-half the height of the sporotheca and there dividing into two or more thick branches that by further division give rise to capillitium. Capillitium dense, with curled branches, these anastomosing and often leaving few free ends. Spores black in mass, violaceous grey by transmitted light, minutely punctate, sometimes with darker clusters, 7–9 μm in diameter. Plasmodium watery white.

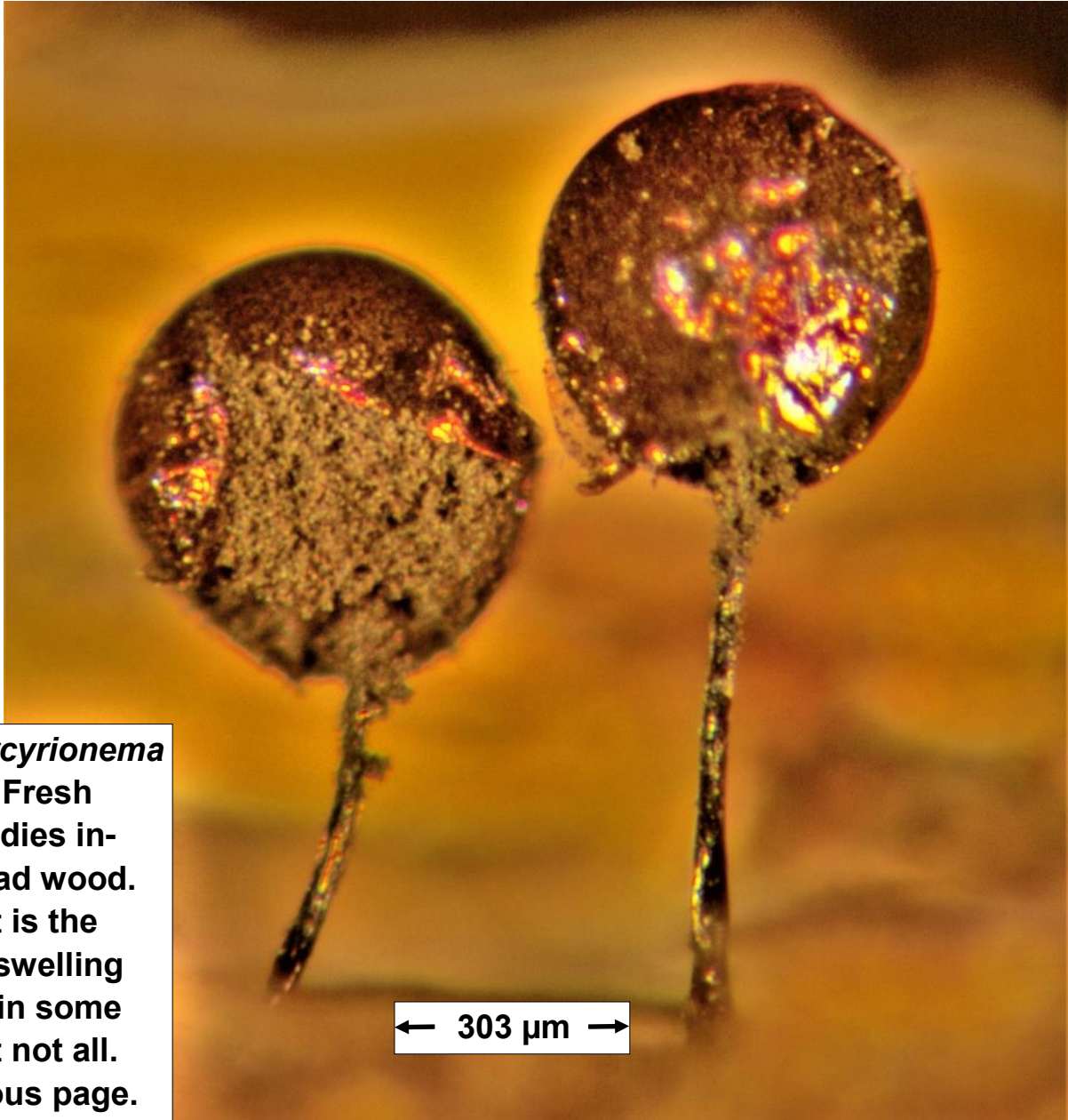
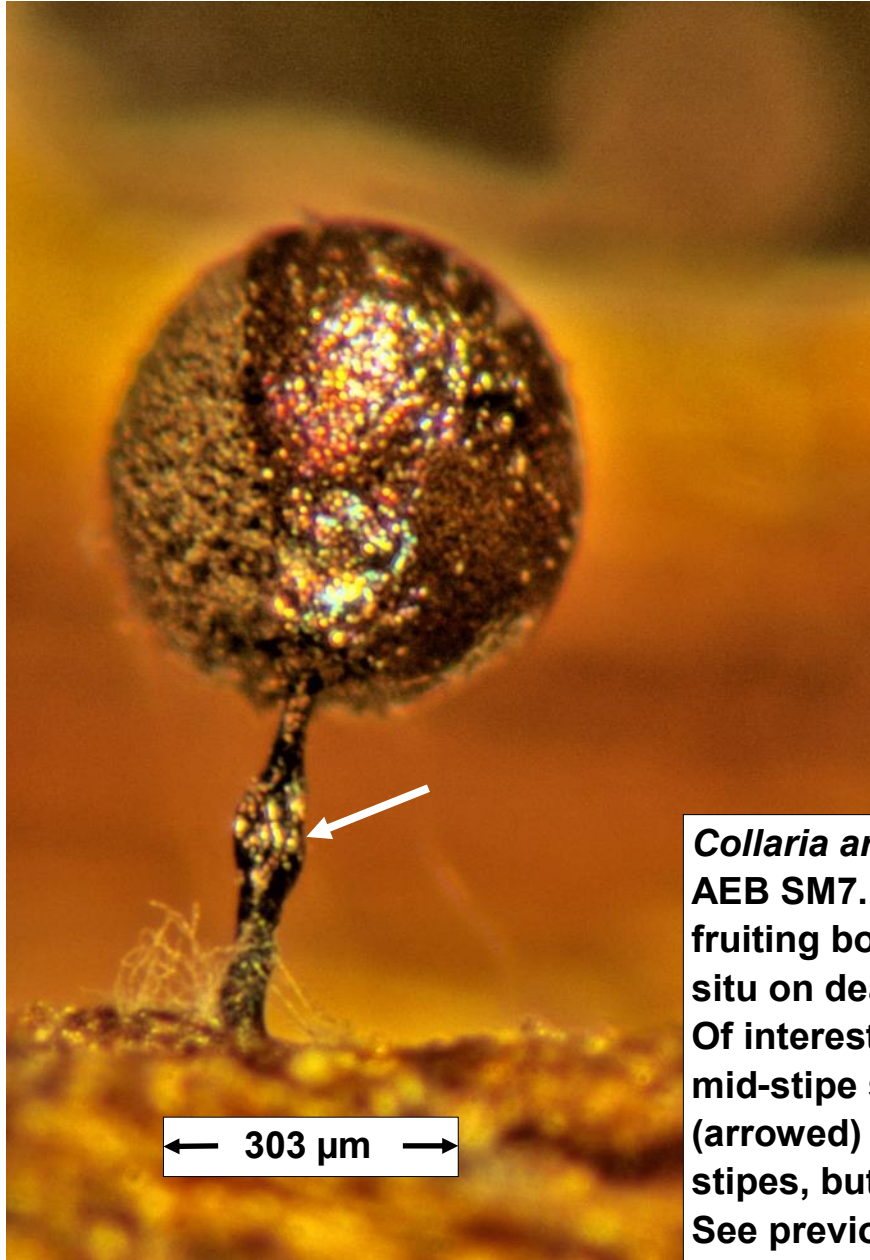
Habitat: Decaying wood; less commonly occurring on leaf litter and other types of plant debris.

Distribution: Reported as cosmopolitan by Martin & Alexopoulos (1969) but apparently absent at high latitudes (Stephenson et al. 2000). Not reported in print as occurring in New Zealand but recorded from Wellington.

Notes: *Collaria arcyriionema* can be recognised by the combination of a silvery peridium and an intricate, coiled capillitium. This species is listed as *Lamproderma arcyriionema* in all but the most recent treatments of the myxomycetes.



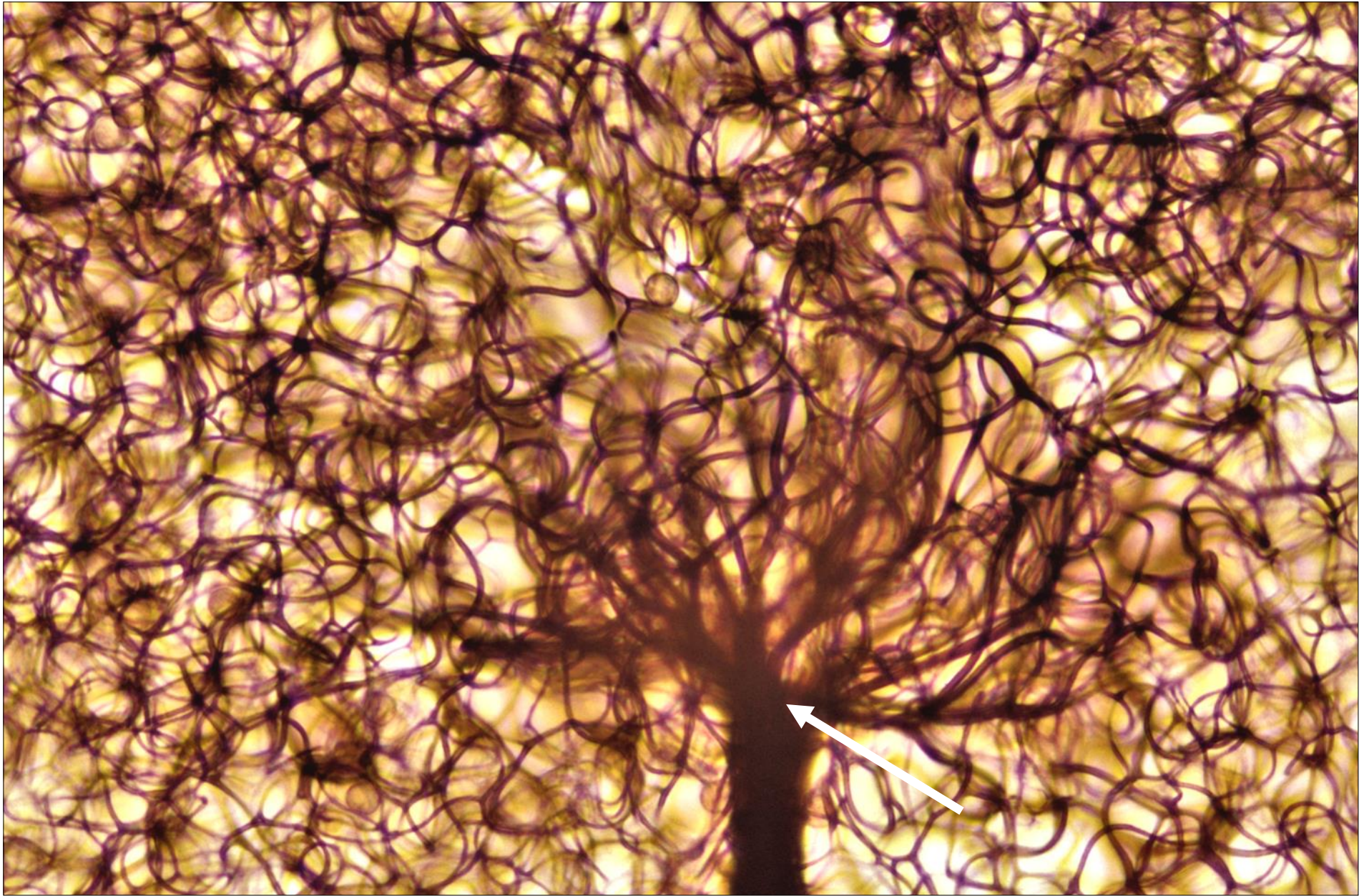
Collaria arcyronema AEB SM7. Fresh fruiting bodies in-situ on dead wood. Note, left to right, the iridescent peridium dehiscence – revealing the brown spore mass beneath.



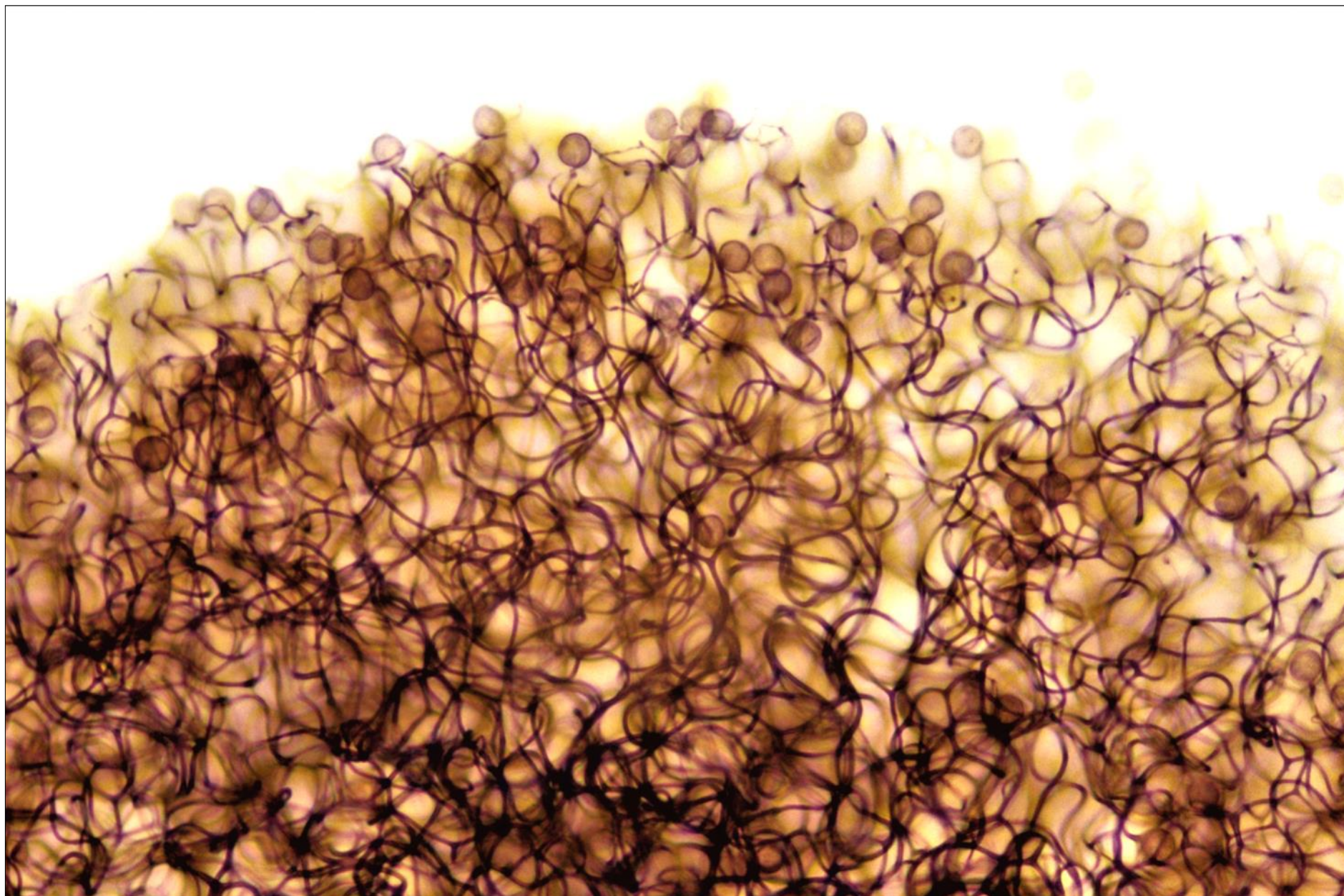
Collaria arcyronema
AEB SM7. Fresh
fruiting bodies in-
situ on dead wood.
Of interest is the
mid-stipe swelling
(arrowed) in some
stipes, but not all.
See previous page.



Collaria arcyronema AEB SM7. Photos here and on the following pages represent the same fruiting body mounted in Shear's mounting fluid (SMF) using brightfield microscopy, increasing magnifications and different points of emphasis. Of special note on this page is the 'collar' (arrowed) that represents a remnant of the peridium at the base of the sporotheca.



***Collaria arcyronema* AEB SM7. A higher magnification of the photos on the previous page with emphasis on the tip of the columella within the sporotheca (arrowed) – from which the capillitium originates.**



***Collaria arcyronema* AEB SM7.** The same magnification as the photo on the previous page with emphasis on the capillitial threads and spores in the uppermost portion of the sporotheca.