

***Didymium squamulosum* (Alb. & Schwein.) Fr. SM13 (= PDD 110393) – keying nicely in Stephenson, S.L. 2003. Myxomycetes of New Zealand. Fungi of New Zealand. Volume 3. Fungal Diversity Research Series 11: 1–238.**

**Substrate:** pea straw (used as a mulch among the vegetables)

**Collection site:** vegetable garden in Lower Hutt

**Collection date:** 29 January 2005

**Collector:** Ann Bell

**Identifier:** Dan Mahoney

**Voucher materials:** dried pea-straw herbarium material [SM13 (= PDD 110393)] accompanied by 2 Shear's mounting fluid (SMF) microscope slides; in situ colored projection slides of the sporangia on dried pea straw; colored projection slides of stellate calcareous crystals on the peridium, spores and capillitial threads in 70% EtOH to which water was then added; Dan's brief description and comments.

**Brief description:** **Sporangia** numerous, separate to clustered, nearly sessile to distinctly stalked, white due to an even covering of stellate calcareous crystals (but slightly iridescent violet to purple where the crystals had rubbed away and the purplish spore mass was seen under the shiny thin hyaline membranaceous peridium), 0.5 – 0.75 mm across, globose to subglobose, usually depressed (then < 0.5 mm deep) and umbilicate below; the **stalk** stout, white (calcareous), less than half the height of the overall sporangium-plus-stalk and vertically ribbed (the stalk extending into a white discoid hypothallus which was also white and ribbed). **Columella** white and slightly bulbous above the umbilicus (not as well seen in this collection as is shown in Stephenson's colored Plate 3D where the sporangia are older, broken open and weathered).

**Capillitium** abundant, of smooth, branching, narrow, hyaline to weakly brownish threads (ca 1 µm across), the nodes sometimes wide but thin and not calcareous. **Spores** globose, moderately thick-walled (ca 1 µm), evenly & finely spinulose, dull purple, 10–12(–14) µm including the spinulose ornamentation (n=10).

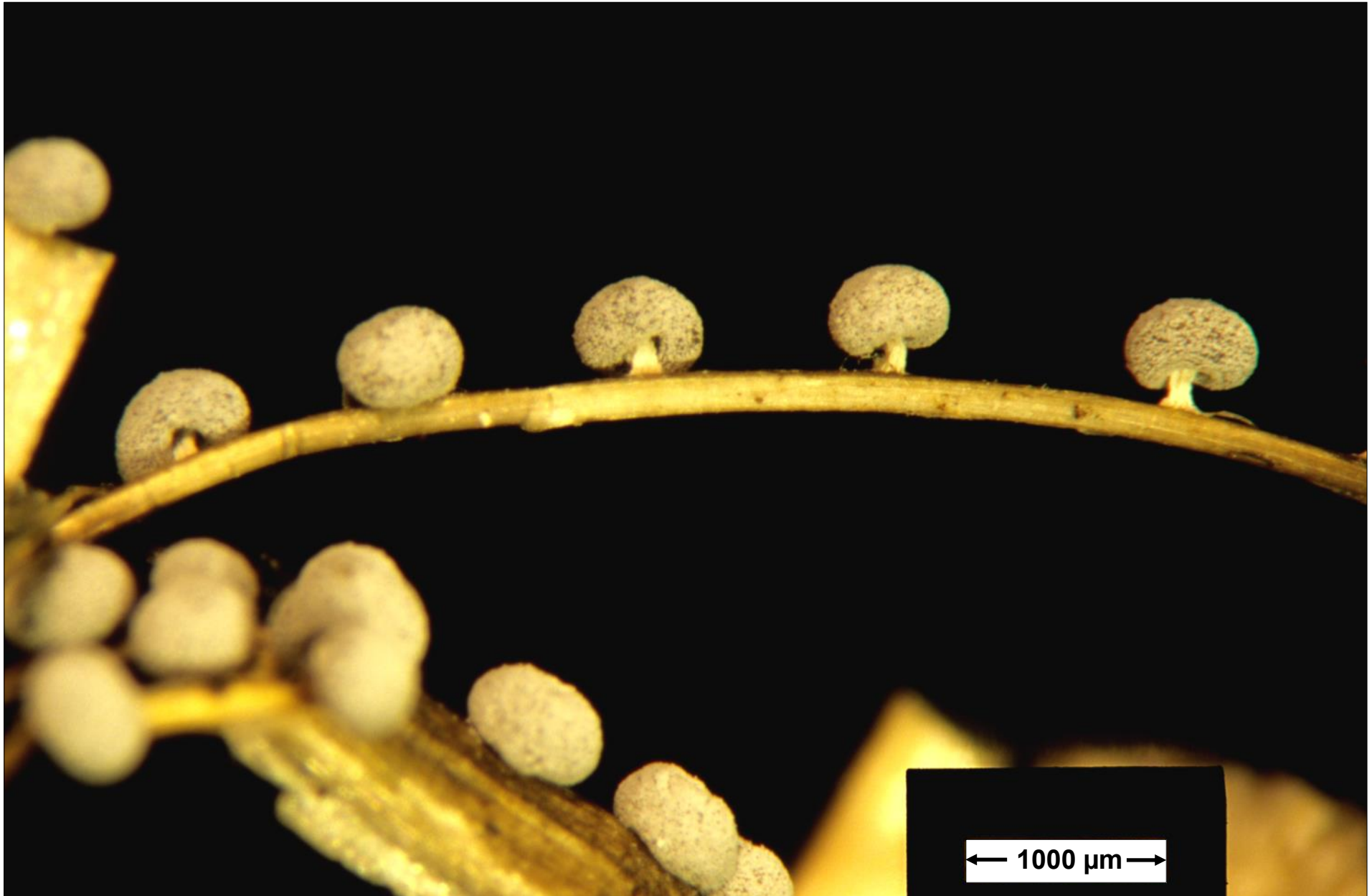
**Comments:** This collection exhibited some slightly larger spores than reported by Stephenson (p. 164, 8–11 µm) and its sporangia were shorter-stalked than those illustrated in Fig. 34, p. 164.



**Fruiting bodies in situ on dead pea-straw garden mulch. Note nearly sessile to short-stalked sporangia and white stalks.**



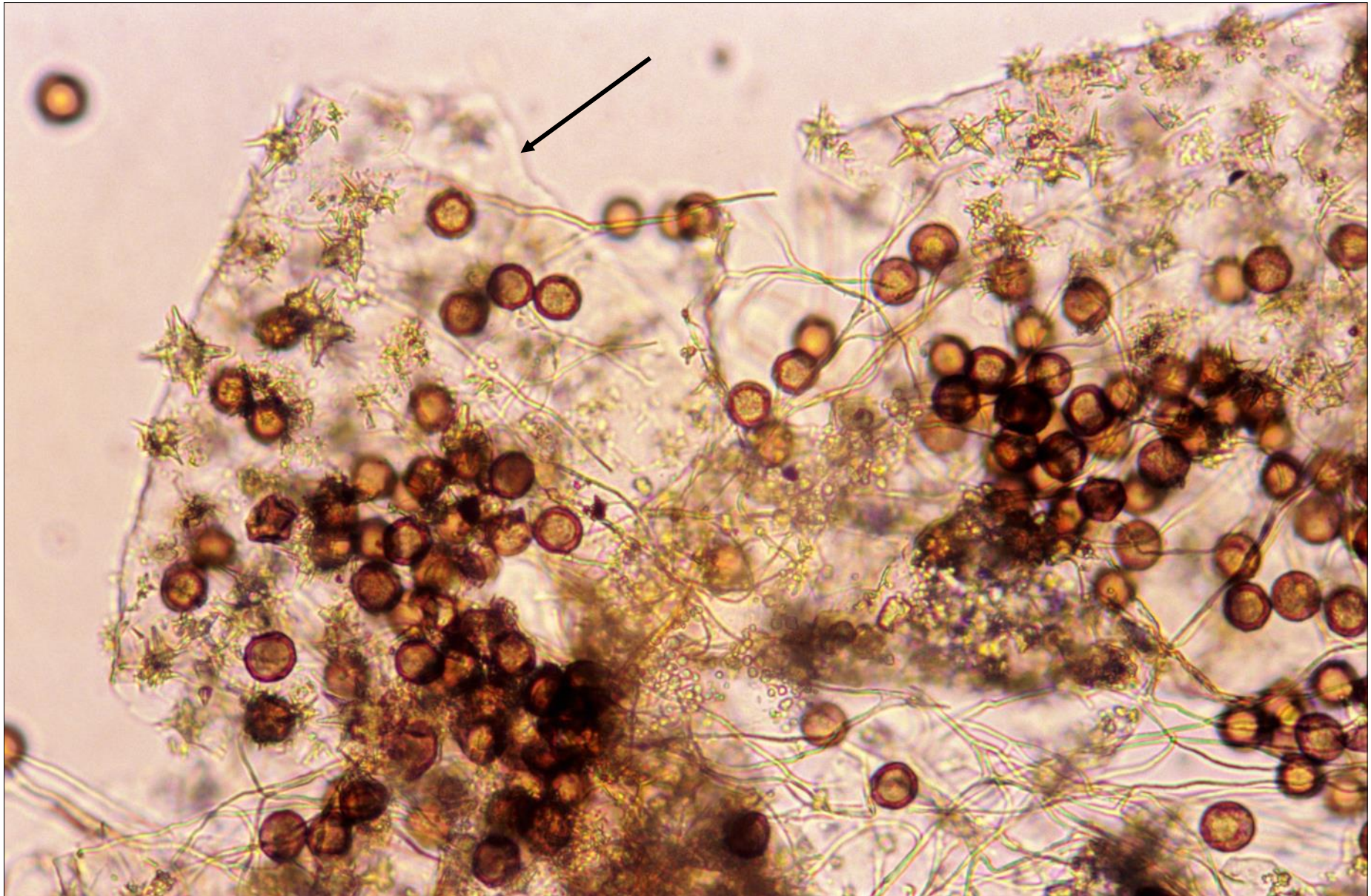
Fruiting bodies in situ on dead pea-straw garden mulch. Note nearly sessile to short-stalked sporangia and white stalks.



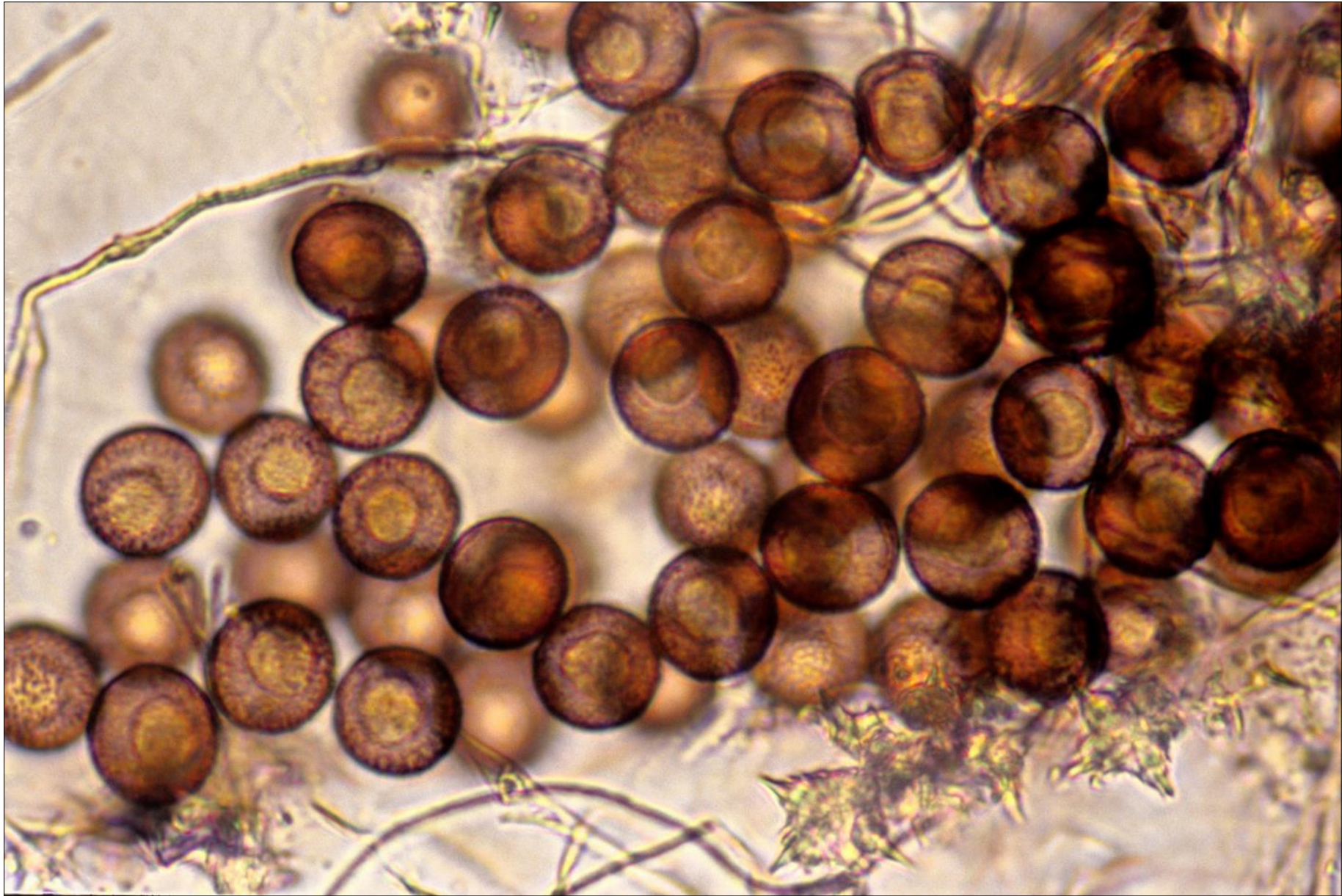
Fruiting bodies in situ on dead pea-straw garden mulch. Note nearly sessile to short-stalked sporangia and white stalks.



Closeup of the upper right fruiting body from the previous page. Note the closely associated white crystalline lime bodies on the sporangium peridium and the copious lime on the short white stalk. The sporangium umbilicus is arrowed.



**Sporangial squash showing spores, thin transparent peridium (arrowed), stellate calcareous crystals (yellowish rather than whitish color?) and thin capillitial threads (yellowish color?). 70% EtOH mount, 40X objective, brightfield microscopy.**



**Sporangial squash showing spores, stellate calcareous crystals (yellowish rather than whitish color?) and thin capillitial threads (yellowish color?). 70% EtOH mount, 100X objective, brightfield microscopy.**