

***Valsaria insitiva* (Tode) Ces. & De Not. – AEB 1344 (= PDD 117261)**

**Substrate:** dead stem of *Tecomanthe speciosa*

**Collection site:** bordering bush area in residential property, Kelson, Lower Hutt, New Zealand

**Collection date:** 10 October 2021

**Collector and Identifier:** Ann Bell

**Voucher materials:** dried herbarium material AEB 1344 (= PDD 117261) accompanied by several Shear's mounting fluid (SMF) semipermanent slide mounts of fresh hymenial squashes; several digital photos of asci and paraphyses by Dan Mahoney. Brief comments.

**Comments:** The collection is a reasonable match to *Valsaria insitiva* – the type species of the genus *Valsaria*. For a treatment of the genus and a key to its species, see Jaklitsch WM, Fournier J, Dai DQ, Hyde KD & Voglmayr H. 2015. *Valsaria* and the *Valsariales*. Fungal Divers. 73(1): 159-202. doi: 10.1007/s13225-015-0330-0.

Their description & illustrations for *V. insitiva* are reproduced here and on the next page:

**Sexual morph:** Stromata pseudostromatic, immersed-erumpent, mostly gregarious to coalescing into clusters ranging from narrowly elongate and up to 13×2.5 mm to irregularly shaped and up to 15×8 mm; pustular, lenticular to broadly conical or subglobose with flattened base, (0.3–) 0.7–1.5(–1.8) mm high, 0.8–1.7 mm diam, enclosed on top and/or at the sides by a black, 20–50 µm thick pseudoparenchymatous crust, blackening the wood surface between adjacent stromata. **Ectostroma** forming 0.4–1.3 mm broad and 0.2–1 mm high sub- or inversely stellate structures of 3–5 grey, brown to black segments around the ostiolar openings; tissue beneath the black crust pseudoparenchymatous; basal pseudostromatic tissue prosenchymatous, grey, of hyaline, 2–4 µm wide hyphae, mixed with bark cells. **Ostiolar openings** inconspicuous, less commonly necks arising as conical, sulcate, 0.4–0.7 mm high, black papillae. **Ascomata** 0.25–0.45 mm high, 0.18–0.4 mm diam, monostichously arranged in valsoid configuration, 5–8(–12) per individual cluster, vertical to oblique, subglobose to flask-shaped, laterally collapsed when dry; peridium 14–25 µm thick, pseudoparenchymatous, brown. **Ostiolar necks** long, cylindrical, converging and often fusing, i.e. the ostiolar opening containing 1–3(–5) necks; interior periphysate. **Paraphyses** numerous, simple, unbranched, tapering upwards, apically free, 1.5–5 µm wide. **Asci** (96–)106–143(–158)×(10–)11–14(–18.5) µm (n=30), bitunicate but without obvious fissitunicate dehiscence, cylindrical, containing 6–8 uniseriate ascospores; stipe short, truncate; apex containing an ocular chamber and a pulvinate ring (3.8–)4.5–6.0(–6.3)×(2.0–)2.5–3.5(–3.8) µm (n=30), staining in Congo Red. **Ascospores** (12–)15–20(–22)×(6.5–)7.5–9.8(–11.7) µm, l/w=(1.6–)1.8–2.2(–2.4) (n=130), ellipsoid, dark brown, 2-celled, with a dark central, not or hardly constricted septum thicker than the wall; surface finely tuberculate.

**Fig. 5** *Valsaria insitiva*. **a** Ectostroma in face view. **b** Projecting ectostromatic structures. **c** Transverse section at the ostiolar level. **d, e** Transverse section at the ascomatal level (**d** immature). **f–i**. Vertical stroma sections (**f** compound stroma; **h** showing fused ostioles; **i** showing peridium and adjacent prosenchymatous stroma). **j–l** Asci. **m–p** Ascospores (**o, p**. showing surface ornamentation). **q** Apical rings and apically free paraphyses in *Congo red*.

Scale bars: **a, b, e, f**=0.5 mm. **c, g**=0.3 mm. **d**=0.7 mm. **h**=0.2 mm. **i**=30  $\mu$ m. **j–l**=15  $\mu$ m. **m, o–q**=7  $\mu$ m. **n**=10  $\mu$ m





***Valsaria insitiva* AEB 1344. Hymenial squash from freshly collected field material. Note the fertile asci and paraphyses. Shear's mounting fluid (SMF) mount, using the 40X objective and brightfield microscopy.**



***Valsaria insitiva* AEB 1344. Hymenial squash from freshly collected field material. Note the fertile asci and paraphyses. Shear's mounting fluid (SMF) mount, using the 40X objective and phase microscopy.**



***Valsaria insitiva* AEB 1344.  
A–D. Fertile asci from freshly  
collected field material. All  
from Shear's mounting fluid  
(SMF) mounts, using the  
100X objective. A,B. Same  
ascus: A) Brightfield, B)  
Phase. C,D. Same ascus: C)  
Brightfield, D) Phase.**