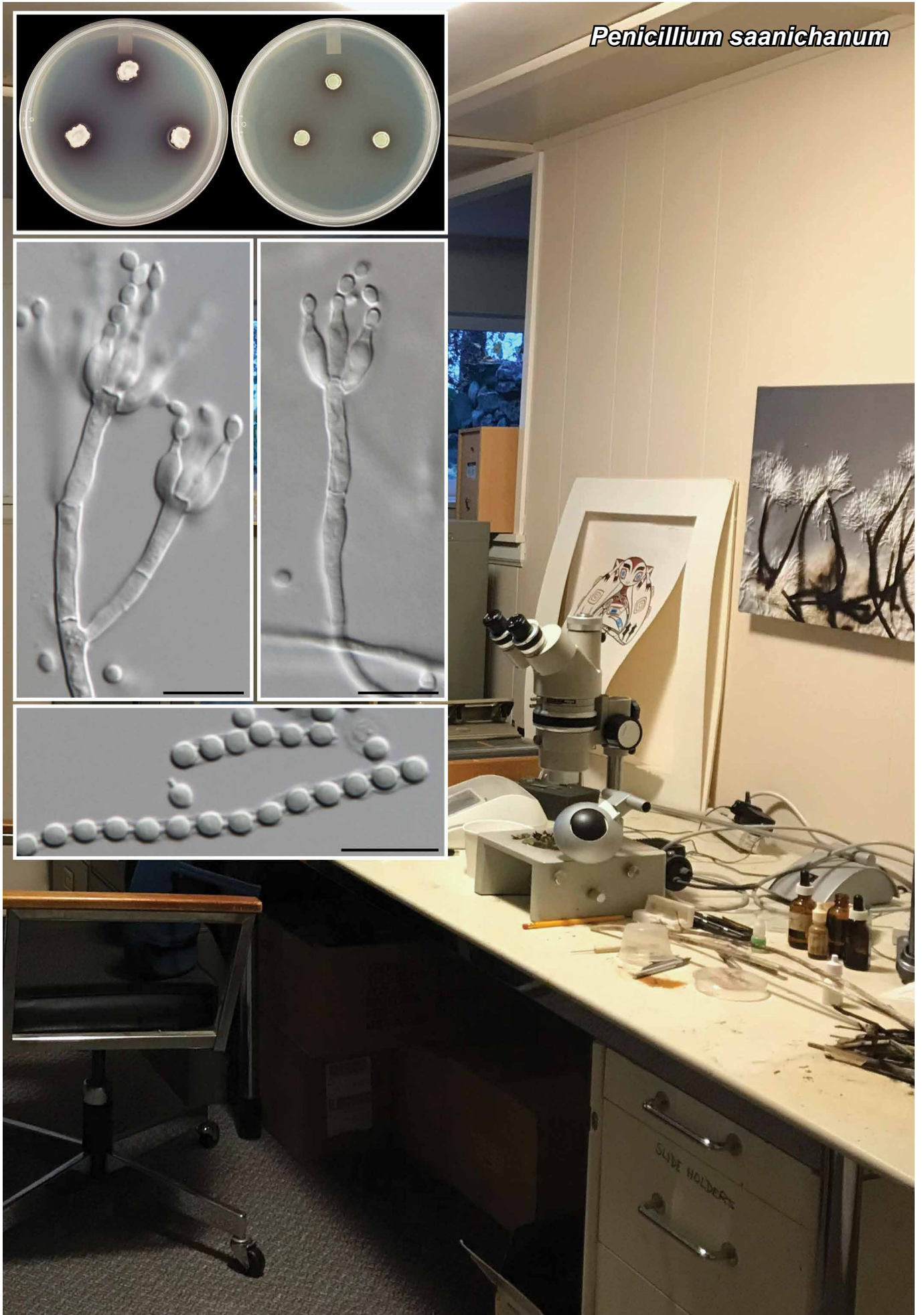
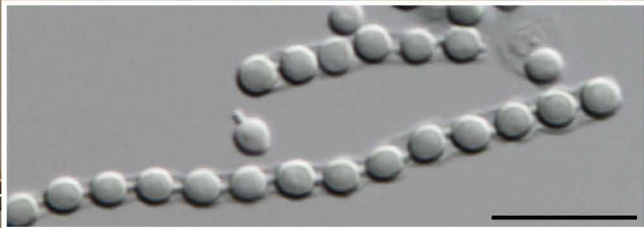
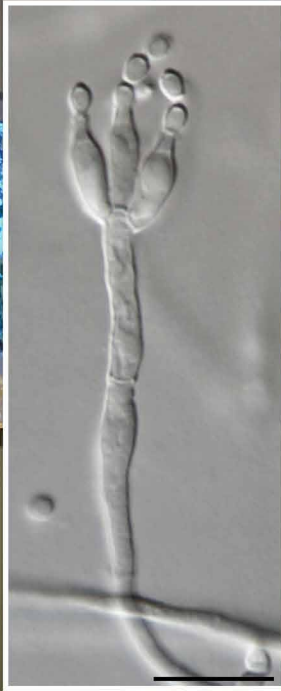


Penicillium saanichanum



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Penicillium saanichanum Visagie, Assabgui & Seifert, *sp. nov.*

Etymology. Latin, *saanichanum*, named after Saanich, the municipality where the noted Canadian mycologist Bryce Kendrick collected the house dust sample that this species was isolated from.

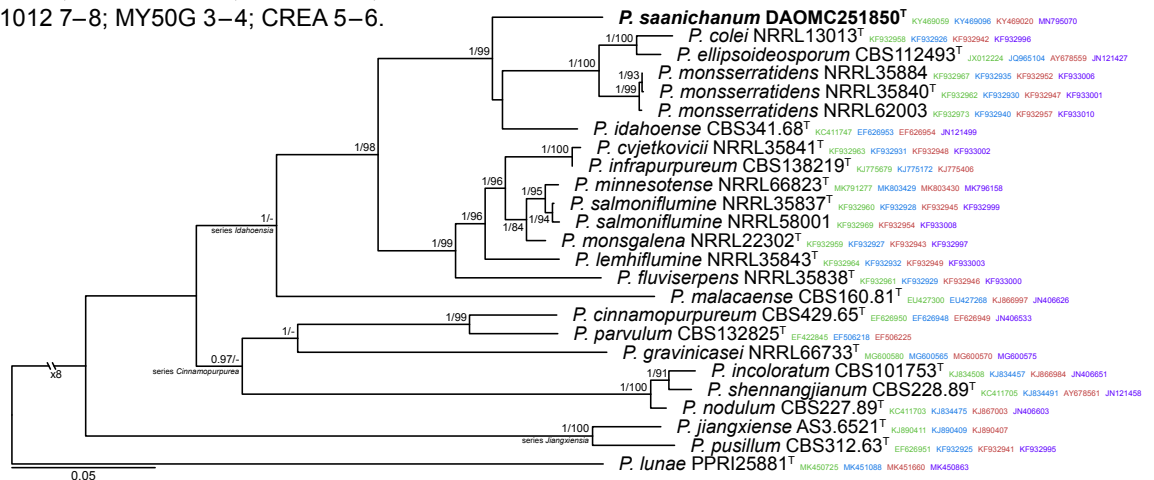
Classification — *Aspergillaceae*, *Eurotiales*, *Eurotiomycetes*.

Conidiophores monoverticillate and loosely divaricate; *stipes* smooth, 19–60 × 2–3 µm; *vesicles* 3–4.5 µm; *branches* 16–23 µm; *phialides* ampulliform, 5–12 per metula, 7.5–11 × 2.5–3.5 µm (8.6 ± 1.1 × 2.6 ± 0.2); *conidia* smooth, subglobose to globose, 2–3 × 2–3 µm (2.7 ± 0.2 × 2.5 ± 0.1), av. width/length = 0.92, n = 72.

Culture characteristics (25 °C, 7 d) — On Czapek yeast autolysate agar (CYA): Colonies moderately deep, sunken in centre, slightly sulcate; margins low, narrow, entire; mycelia white; texture velutinous; sporulation moderate, conidia *en masse* greenish grey to dull green (27C2–D3–4; colour codes based on Kornerup & Wanscher (1967)); soluble pigments red, inconspicuous; exudates absent; reverse dark ruby (12F8). On Blakeslee's malt extract agar (MEA): Colonies moderately deep, planar; margins low, narrow, entire; mycelia white; texture velutinous; sporulation moderately dense, conidia *en masse* dull green to greyish green (26D3–4–E5); soluble pigments red, inconspicuous; exudates absent; reverse violet brown to dark ruby (10E6–12F8). On 20 % sucrose CYA (CYA20S): Colonies with conidia *en masse* greyish green (26D5–E5), otherwise similar to CYA. On 20 % sucrose MEA (MEA20S): Colonies less dense than those on MEA, lacking soluble pigment and red reverse colour, otherwise similar to MEA. On dichloran 18 % glycerol agar (DG18): Colonies similar to those on MEA. On yeast extract sucrose agar (YES): Colonies similar to those on MEA. On creatine sucrose agar (CREA): Growth good, no acid produced. Colony diam (in mm): CYA 9–11; CYA37C no growth; CYA20S 10–12; MEA 7–8; MEA20S 9–10; DG18 9–12; YES 12–15; OA 4–5; MY1012 7–8; MY50G 3–4; CREA 5–6.

Typus. CANADA, North Saanich, from house dust, May 2017, coll. *B. Kendrick*, isol. *C.M. Visagie* (holotype DAOM 745787, cultures ex-type DAOMC 251850 = KAS 6184; LSU, ITS, *BenA*, *CaM* and *RPB2* sequences GenBank MN807447, KY469059, KY469096, KY469020, MN795070, MycoBank MB835962).

Notes — A BLAST search of our *BenA* sequence against a locally curated reference dataset placed the new species in section *Cinnamopurpurea* series *Idahoensis* (Visagie et al. 2014, Houbraken et al. 2020). *Penicillium saanichanum* is characterised by restricted growth and monoverticillate conidiophores, characters typical of species classified in section *Cinnamopurpurea*. Morphologically and phylogenetically it is most similar to *P. idahoense*. However, the new species is morphologically distinct from *P. idahoense* based on its generally more restricted growth on most agar media, its red soluble pigments produced on CYA, and the absence of sclerotia (Paden 1971, Pitt 1980).



Combined phylogeny of *Penicillium* section *Cinnamopurpurea* based on ITS, *BenA*, *CaM* and *RPB2*. Aligned data sets (MAFFT v. 7.450; Katoh & Standley 2013) were analysed using Maximum Likelihood (IQ-tree v. 1.6.12; Nguyen et al. 2015) and Bayesian Inference (MrBayes v. 3.2.7a; Ronquist et al. 2012). Bootstrap support values (≥ 80 %) and posterior probabilities (≥ 0.95) are given above branches. The new species is indicated by bold text, ^T = ex-type strain and GenBank accession numbers are shown in a smaller font next to the culture accession number (ITS = green, *BenA* = blue, *CaM* = red, *RPB2* = purple). The tree is rooted to *P. lunae*.

Colour illustrations. Bryce Kendrick's home laboratory. Colonies on CYA and MEA; conidiophores; conidia. Scale bars = 10 µm.

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