



Fungal Planet 204 – 26 November 2013

Paraconiothyrium polonense J. Pawłowska, Wilk, Śliwińska-Wyrzychowska, Mętrak & Wrzosek, *sp. nov.*

Etymology. Named after Poland, the country where the fungus was collected.

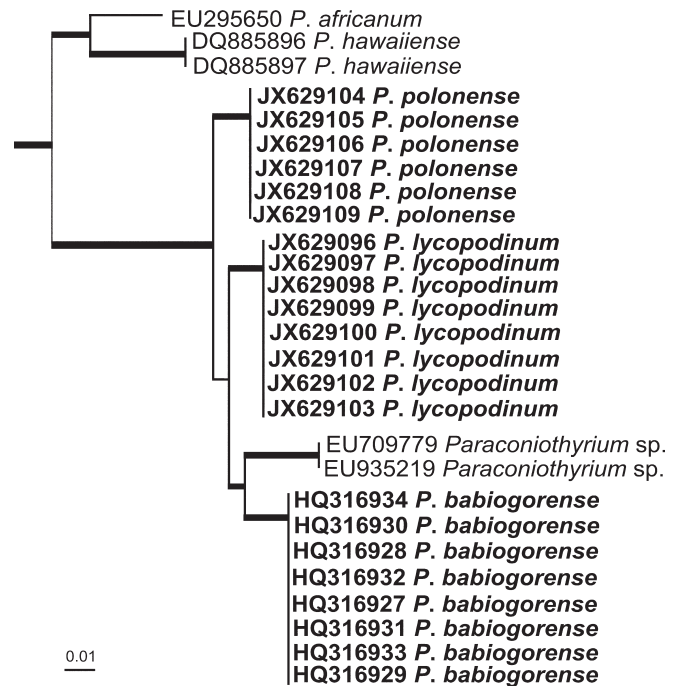
Conidiomata pycnidial, complex, mostly superficial, subglobose, black, uni-ostiolate, 0.1–0.2 mm diam. **Conidiophores** reduced to conidiogenous cells. **Conidiogenous cells** discrete, phialidic, ampulliform, hyaline to pale brown, 3–5 × 5–7 µm. **Conidia** hyaline to pale brown, cylindrical to short-cylindrical, rounded at both ends, aseptate, sometimes 1-septate, thin and smooth-walled, with 2–5 oil guttules, 1–2 × 8–9 µm.

Culture characteristics — Colonies on potato dextrose agar (PDA) reach 5 mm diam after 7 d and 25 mm diam after 28 d (~17 °C, in the dark). Colonies are colonial-buff to deep colonial-buff, and honey-yellow to isabella in reverse (Ridgway 1912).

Typus. POLAND, Hutki, Lesser Poland (50.33132N, 19.48460E) from healthy looking strobilus of *Lycopodium clavatum*, 17 July 2011, A. Śliwińska-Wyrzychowska (holotype WA0000019015, culture ex-type CBS 134153, ITS sequence GenBank JX629096, LSU sequence GenBank KF700360, MycoBank MB802724).

Notes — *Paraconiothyrium polonense* is the most similar to *P. babiogorensis* (Budziszewska et al. 2011). However, *P. polonense* has pycnidial conidiomata that are smaller than the eustromatic ones of *P. babiogorensis*. It was isolated from a different host and according to the ITS phylogeny, *P. polonense* is also different from *P. babiogorensis*.

PhyML tree obtained from ITS nrDNA sequences data (GTR model, 522 sites, ln(L) = -1146.2, bootstrap = 100) of selected representatives of the genus *Paraconiothyrium*. Branches in **bold** indicate bootstrap support values higher than 80 %.



Paraconiothyrium lycopodium (Sacc. & Paol.) J. Pawłowska, Wilk, Śliwińska-Wyrzychowska, Mętrak & Wrzosek, *comb. nov.*

Basionym. *Coniothyrium lycopodium* Sacc. & Paol., Bull. Soc. Roy. Bot. Belgique 28: 98. 1889.

= *Clisporium lycopodium* (Sacc. & Paol.) Kuntze, Revis. Gen. Pl. 3: 458. 1898.

Conidiomata pycnidial, complex, mostly superficial, globose to subglobose, dark brown to black, ostiolate, 0.5–1.5 mm diam. **Conidiophores** reduced to conidiogenous cells. **Conidiogenous cells** discrete, phialidic, ampulliform, hyaline to pale brown, 3–4 × 5–7 µm. **Conidia** hyaline when liberated, later pale brown, ellipsoidal, rounded at both ends, aseptate, sometimes 1-septate, one or two polar guttules, 1–2 × 2–4 µm.

Culture characteristics — Colonies on PDA reach 5 mm after 7 d and 25 mm after 28 d (~17 °C, in the dark). Colonies are colonial-buff to deep colonial-buff and honey-yellow to isabella in reverse (Ridgway 1912).

Colour illustrations. *Lycopodium clavatum* from Puszcza Augustowska forest (Poland) and *Paraconiothyrium polonense*, culture on PDA, pycnidia and conidia. Scale bar = 10 µm.

Typus. POLAND, Lemańsk, Silesia (50.99046N, 19.09053E) from healthy looking strobilus of *Lycopodium annotinum*, 10 Aug. 2011, A. Śliwińska-Wyrzychowska (neotype designated here WA0000019023 'MBT176142', culture ex-neotype CBS 134705, ITS sequence GenBank JX629104, LSU sequence GenBank KF700359, MycoBank MB802730).

Notes — *Coniothyrium lycopodium* was described in 1889 from leaves of *Lycopodium annotinum* from a mountain forest in Siberia (Saccardo 1889). Although its type material does not exist for comparison, our isolate compares well with the original diagnosis. However, Saccardo (1889) mentions 'perithecia' instead of 'pycnidia', yet it is clearly a question of terminology, as the same term is also used in his diagnosis for *Phoma veratrina* (Saccardo 1889: 96). Conidial dimensions given in the original description are also slightly different from those of our isolate (6 × 2 µm vs 2–4 × 1–2 µm), but this can be ascribed to the observations made directly on natural substrate vs isolates grown on synthetic media, as variability of conidial morphology on different media is a well-known phenomenon (Crous et al. 1992, Hambleton et al. 1998).

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