

Xenomonodictys iranica



Fungal Planet 1179 – 19 December 2020

***Xenomondictys* Hern.-Restr., Karimi, Alizadeh & Tajick Ghanbary, gen. nov.**

Etymology. From the Greek 'Xenos' indicating strangeness and the related genus *Monodictys*, referring to a variant of the genus *Monodictys*.

Classification — *Sporormiaceae*, *Pleosporales*, *Dothideomycetes*.

Conidiophores micronematous, hyaline to subhyaline, mostly reduced to conidiogenous cells arising from the mycelium.

Conidiogenous cells hyaline to subhyaline, cylindrical. *Conidia* multicellular, composed by brown cells of different tones, usually with basal cell paler than the rest.

Type species. *Xenomondictys iranica* Hern.-Restr., Karimi, Alizadeh & Tajick Ghanbary.

Mycobank MB837750.

***Xenomondictys iranica* Hern.-Restr., Karimi, Alizadeh & Tajick Ghanbary, sp. nov.**

Etymology. Name refers to the country where this fungus was collected, Iran.

Mycelium composed of hyaline to brown, smooth, septate, 1–2 µm wide hyphae. *Conidiophores* micronematous, hyaline to subhyaline, mostly reduced to conidiogenous cells arising from the mycelium. *Conidiogenous cells* hyaline to subhyaline, cylindrical, 3–9 × 1–2 µm. *Conidia* 10–15 × 7–9 µm, base 1–2 µm, subglobose to ellipsoidal, multicellular, composed of up to 10, smooth, brown cells, each cell 3–5 µm diam, usually in two rows, with basal cell paler than the rest. Conidial secession rhexolythic.

Culture characteristics — Colonies in oatmeal agar (OA) at 25 °C reaching 40 mm after 3 wk, cottony to velvety, with moderate aerial mycelium, olivaceous grey to mouse grey, margin entire to fimbriate; reverse olivaceous grey. On potato dextrose agar (PDA) after 2 wk reaching 45 mm, greyish to black.

Typus. IRAN, Mazandaran, Pol sefid, (N36°3'27.99" E53°5'57.84"), on wood of *Fagus orientalis* (*Fagaceae*), 11 May 2015, O. Karimi A2FC200 (holotype CBS H-24521, culture ex-type CBS 147181, ITS and LSU sequences GenBank MW175368.1 and MW175406.1, MycoBank MB837751).

Notes — *Monodictys* is a large genus with 69 names presently registered in Index Fungorum. Morphologically it is characterised by multicellular, brown conidia borne on micronematous conidiophores. Based on DNA sequence data, species of *Monodictys* have in the past been allocated to several genera in *Dothideomycetes* and *Sordariomycetes*. *Monodictys putredinis*, the type species, is the asexual morph of *Ohleria brasiliensis* (*Melanommataceae*) which resides in *Pleosporales* together with *Paramonodictys* (*Parabambusicolaceae*), *Pleomonodictys* (*Pleomonodictydaceae*) and *Xenomondictys* (*Sporormiaceae*). Other species (as asexual morphs) have been connected with *Tubeufia* (*Tubeufiaceae*) and *Aquastroma* (*Parabambusicolaceae*) in *Dothideomycetes* (Day et al. 2006, Velmurugan et al. 2013, Tanaka et al. 2015, Hernández-Restrepo et al. 2017, Vu et al. 2019). In *Sordariomycetes*, however, monodictys-like species are placed in the genera *Dematiosporium*, *Ascotaiwania* (*Savoryellaceae*), *Neomonodictys* (*Pleurotheciaceae*), *Trichocladium* (*Chaetomiaceae*), and *Nereiospora* (*Microascales*) (Mouzouras & Jones 1985, Hernández-Restrepo et al. 2017, Réblová et al. 2020). Furthermore, in *Helotiales*, a monodictys-like species has been accommodated as the asexual morph of *Hyaloshypha monodictys* (Hosoya & Huhtinen 2002). *Xenomondictys* is therefore introduced as a new genus for a monodictys-like taxon phylogenetically related to *Preussia terricola*.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence had highest similarity to *Pleospora iqbalii* (GenBank NR_160118.1; Identities = 486/546 (89 %), 28 gaps (5 %)), and *Preussia fleischhakkii* (GenBank MH474379.1; Identities = 484/549 (88 %), 18 gaps (3 %)). Closest hits using the LSU sequence are *Preussia terricola* (GenBank GQ203725.1; Identities = 820/845 (97 %), one gap (0 %)), *Pleospora iqbalii* (GenBank MH871062.1; Identities = 819/847 (97 %), five gaps (0 %)), and *Neomassarina chromolaenae* (GenBank NG_068715.1; Identities = 817/845 (97 %), two gaps (0 %)).

Colour illustrations. Farim Forest near the city of Pol Sefid, Mazandaran Province, Iran. Conidiophores and conidia; conidia. Scale bars = 20 µm (conidiophores), 10 µm (all others).

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