
Umbelopsis wiegerinckiae

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Umbelopsis wiegerinckiae Sandoval-Denis, *sp. nov.*

Etymology. Named for Frederique Madeleine Wiegerinck, who collected this sample. This species was discovered during a Citizen Science project in the Netherlands, 'Wereldfaam, een schimmel met je eigen naam', describing novel fungal species isolated from Dutch soils.

Classification — *Umbelopsidaceae*, *Umbelopsidales*, *Incertae sedis*, *Mucoromycotina*, *Zygomycota*.

Sporangiophores mainly umbellately branched, arising from a swollen portion of the subtended stalk 6.5–10 µm diam, (9.5–)28.5–193.5(–294.5) × (3–)4–5 µm, rarely unbranched, tapering slightly toward the apex, hyaline, smooth- and thick-walled, 0–1-septate, often with one septum 10–20 µm below the columella level. *Sporangia* globose to subglobose, (10–)13–18.5(–20.5) µm diam, pink, coral to red coloured, multi-spored; walls thin and deliquescent, leaving a small pale red coloured collarette. *Columellae* subglobose, globose to sphaeropedunculate, (3.5–)4 × 6(–7) µm diam. *Sporangiospores* ovoid, short ellipsoidal, oblong with rounded apices to ossiform, (3–)3.5–4.5(–5) × 2–2.5(–3.5) µm, pale red in mass, smooth- and thin-walled. *Chlamydospores* subglobose, globose to obovoid, (5–)6 × 10 µm diam, subhyaline to pale golden brown, formed singly and abundantly on the substrate mycelium, intercalary or on short stalks, smooth- and thick-walled.

Culture characteristics — Colonies on SNA reaching 20–23 mm diam in 7 d at 25 °C. Colony surface buff to rosy buff, flat, feathery, short wholly to floccose; margins highly irregular, rhizoid with abundant submerged mycelium. Reverse buff to rosy buff, without diffusible pigments. On MEA reaching 52–57 mm diam in 7 d at 25 °C. Colony surface rosy buff, brick to fawn coloured, flat to raised, forming concentric rings, velvety to felty; margins regular. Reverse cinnamon to brick coloured, without diffusible pigments. On PDA reaching 41–50 mm diam in 7 d at 25 °C. Colony surface pale luteous, with rust to brick centre, flat, velvety to felty forming inconspicuous concentric rings; aerial mycelium abundant; colony margins regular. Reverse pale luteous to straw, without diffusible pigments. On OA reaching 30–36 mm diam in 7 d. Colony colour peach to coral, salmon at the centre and white at the periphery, flat to raised, velvety to felty, dusty at the centre; aerial mycelium abundant, short and dense; margins regular. Reverse pale luteous, without diffusible pigments.

Typus. The Netherlands, Amersfoort, from garden soil, Feb. 2017, *F.M. Wiegerinck* (holotype CBS H-23227, culture ex-type CBS 143184; ITS, LSU and *actA* sequences GenBank LT904721, LT904722 and LT904705, MycoBank MB822627).

Notes — Using ITS, LSU and *actA* sequences *Umbelopsis wiegerinckiae* nests within a group of *Umbelopsis* spp. characterised by having pink to red multi-spored sporangia forming mostly irregularly shaped sporangiospores such as *U. angularis* (angular spores), *U. gibberispora* (hump-shaped spores) and *U. swartii*/*U. westeae* (appendaged spores) (Meyer & Gams 2003). Three exceptions are known to occur in this group, forming oval to ellipsoidal spores (*U. fusiformis*, *U. ramanniana* and the new species *U. wiegerinckiae* described here). However, *U. wiegerinckiae* can be easily distinguished from *U. fusiformis* by having subglobose to globose sporangia with a conspicuous columella, whereas the latter species is characterized by fusiform sporangia lacking a columella (Sugiyama et al. 2003); and is distinguished from *U. ramanniana* by its ovoid to oblong and rounded spores (vs ellipsoid in the later species). However, the current concept of *U. ramanniana* remains unresolved, and it is thought to correspond to a complex of cryptic species (Meyer & Gams 2003, Sugiyama et al. 2003). Another species morphologically close to *U. wiegerinckiae* is *U. vinacea*, especially when cultural characteristics and chlamydospores are compared. Nevertheless, the former species produces angular spores and lacks columellae (Meyer & Gams 2003).

Colour illustrations. Background, collection site (Wiegerinck family's garden); umbellately branched sporangiophores emerging from the agar surface; collapsed sporangium showing the columella shape and membrane remnants of the sporangium membrane (collarette); sporangiophores; chlamydospores; sporangiospores. Scale bars = 10 µm.

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