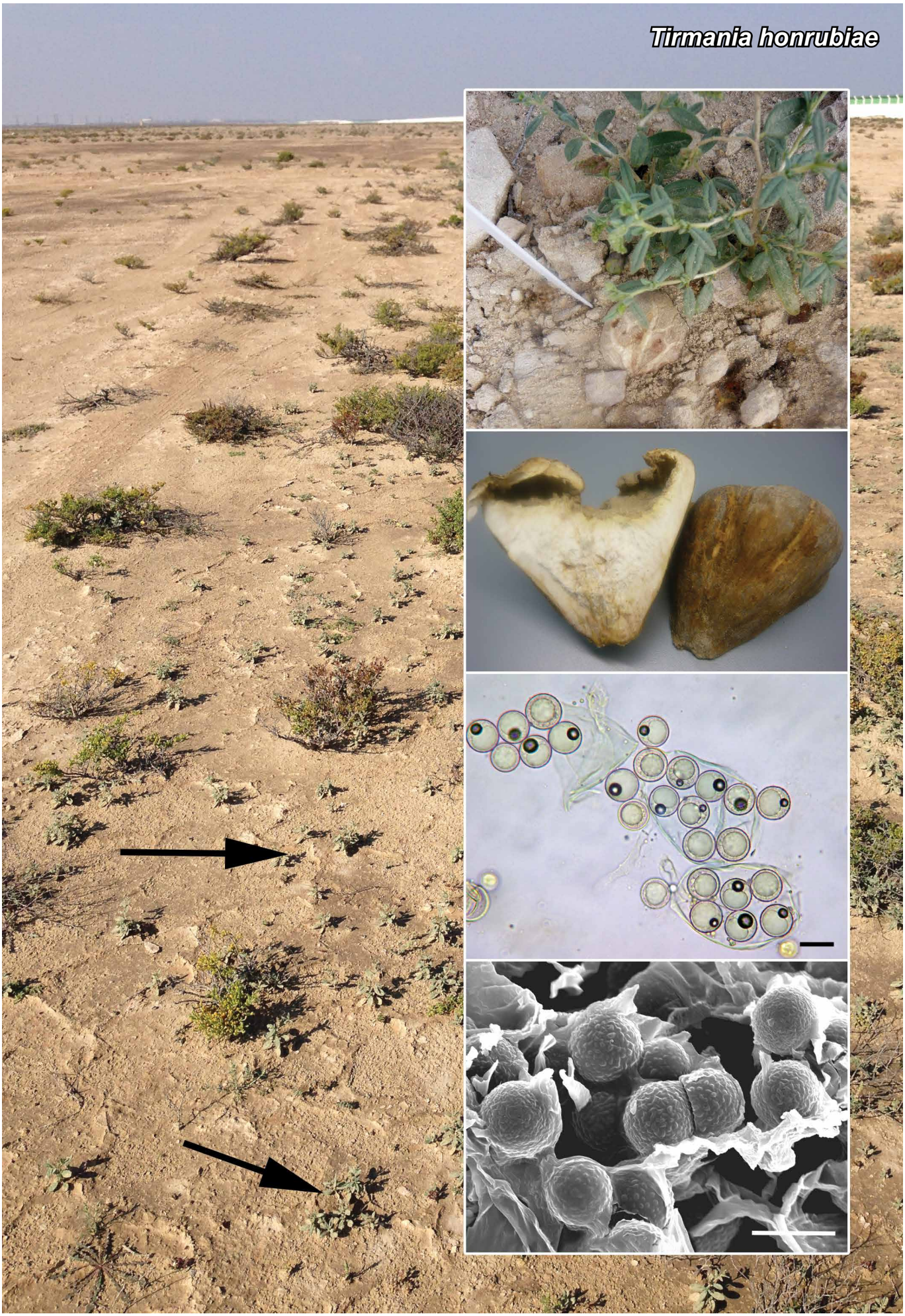

Tirmania honrubiae

Fungal Planet 753 – 13 July 2018

Tirmania honrubiae Morte, Bordallo & Ant. Rodr., *sp. nov.*

Etymology. Named after Prof. Mario Honrubia, from Universidad de Murcia (Murcia, Spain), for his valuable contributions in the fields of mycology and mycorrhizal research.

Classification — *Pezizaceae, Pezizales, Pezizomycetes.*

Ascomata hypogeous to partially emergent at maturity, 5–10 × 4–9 cm, subglobose to turbinate, with basal mycelial attachment, whitish to pale brown, yellowish brown, becoming dark brown with age, smooth. *Peridium* 1 mm thick, thinner or discontinuous in places, 2-layered: the outermost being 100 µm thick, composed of appressed interwoven hyphae, more or less parallel with surface of ascocarp, 5–12 µm diam, thick-walled, yellowish; the inner layer not differentiable from the gleba, composed of subglobose cells, inflated up to 40 µm diam, hyaline and thin-walled. *Gleba* solid, fleshy, with thin, whitish to yellowish sterile veins enclosing cream to pale pink pockets of fertile tissue. *Odour* pleasant. *Taste* not recorded. *Asci* faintly amyloid, ellipsoid to pyriform, short-stipitate, 70–110 × 40–60 µm, walls 1–1.5 µm thick, with 6–8 irregularly disposed spores, randomly arranged in fertile pockets. *Ascospores* globose, 15–19 µm diam, hyaline to pale yellow, with a single guttule, 2-layered: outer layer smooth; inner layer roughened, with low rounded warts (up to 1 µm high) and ridges, protruding into the outer wall layer with age or not fully hydrated, sometimes forming a pseudoreticulum.

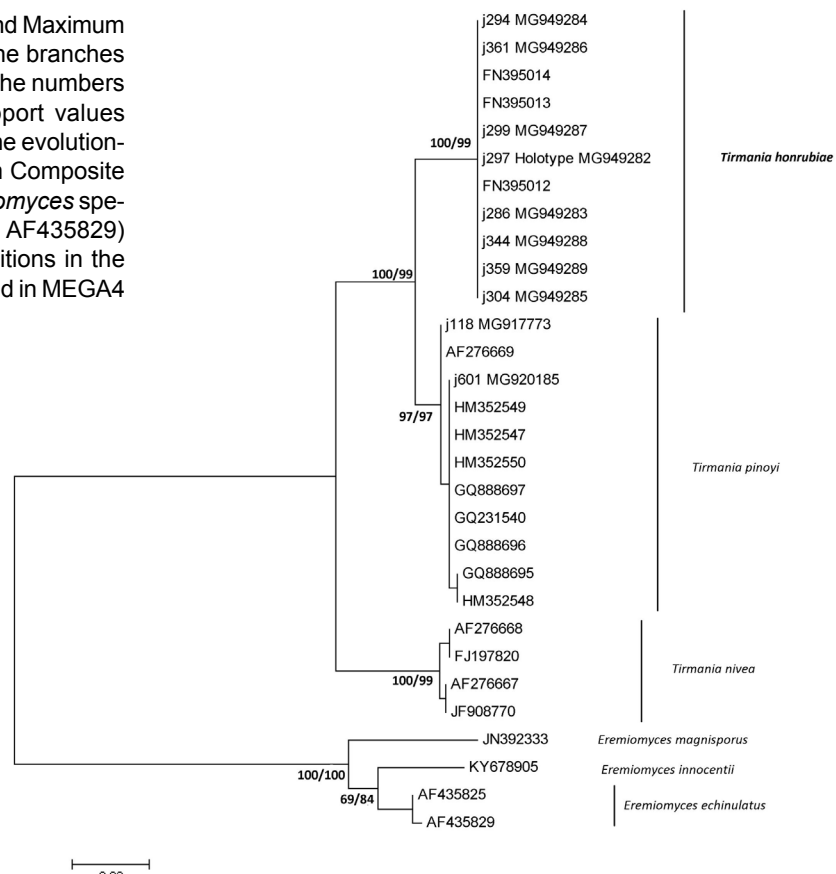
Phylogeny inferred using Neighbour-Joining (NJ) and Maximum Parsimony (MP) methods. The first numbers on the branches are the NJ bootstrap support values (≥ 50 %) and the numbers after the slash represent the MP bootstrap support values (≥ 50 %) based on 500 bootstrapping replicates. The evolutionary distances were computed using the Maximum Composite Likelihood analysis of ITS rDNA sequences. *Eremiomyces* species (GenBank JN392333, KY678905, AF435825, AF435829) were the outgroup. There was a total of 491 positions in the final dataset. Phylogenetic analyses were conducted in MEGA4 (Tamura et al. 2007).

Ecology & Distribution — *Tirmania honrubiae* grows in sandy, calcareous and alkaline soils of arid areas, associated with *Helianthemum lippii*. Sporocarps are observed from January to the beginning of April.

Typus. United Arab Emirates, Abu Dhabi, Ghantoot, 2013, leg. *A. Morte* (holotype MUB Fung-j297, ITS sequence GenBank MG949282, MycoBank MB824243).

Additional material examined. United Arab Emirates, Abu Dhabi, Ghantoot, 2013, leg. *A. Morte*, MUB Fung-j286, ITS sequence GenBank MG949283, MUB Fung-j294, ITS sequence GenBank MG948294, MUB Fung-j299, ITS sequence GenBank MG949287, MUB Fung-j304, ITS sequence GenBank MG949285; Ghantoot, 2014, leg. *A. Morte*, MUB Fung-j359, ITS sequence GenBank MG949289, MUB Fung-j361, ITS sequence GenBank MG949286; Seih Sadira, 2014, leg. *A. Morte*, MUB Fung-j344, ITS sequence GenBank MG949288, MUB Fung-j348.

Notes — The genus *Tirmania* has only two accepted species, *T. nivea* and *T. pinoyi*, which are mainly distributed in arid areas with alkaline soils, from the north of Africa and west of Asia (Malençon 1973, Kagan-Zur et al. 2014). *Tirmania honrubiae* differs from *T. nivea* and *T. pinoyi* based on its ITS sequence data and the spore ornamentation. *Tirmania nivea* has spores that are smooth or minutely roughened and broadly ellipsoid in shape. *Tirmania pinoyi* has spores that are more conspicuously ornamented, but are clearly shorter than those of *T. honrubiae* when they are observed under a scanning electron microscope.



Colour illustrations. Arid zones of Seih Sadira (Abu Dhabi, UAE), calcareous sandy soils, with *Helianthemum lippii* plants (arrows); ascocarp under *H. lippii*; gleba; amyloid asca with ascospores and scanning electron micrograph of mature ascospores. Scale bars = 20 µm.

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