

*Stachybotrys oleronensis*



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***Stachybotrys oleronensis*** Lechat, Hairaud & Lesage-Meessen, *sp. nov.*

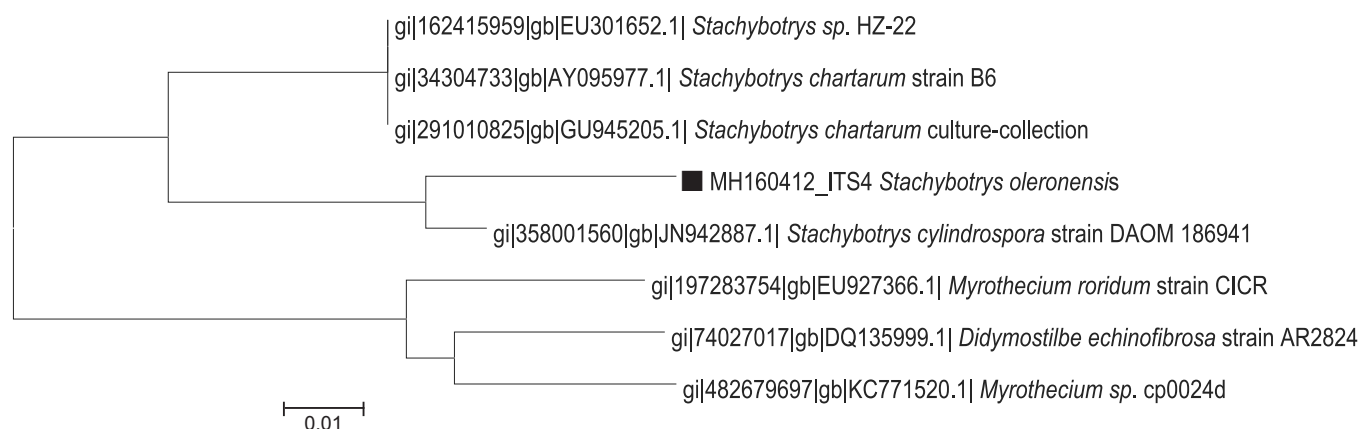
*Etymology.* The epithet is derived from Île d'Oléron, France, where this species was collected.

*Ascomata* scattered, subglobose to obpyriform, 275–290 µm high, 230–250 µm diam, non-stromatic, totally immersed in host tissues, with only rounded apex of papilla with erect hairs protruding at surface of periderm, orange, not changing colour in 3% KOH or lactic acid, completely covered by thick-walled, intertwined hyphae, except in ostiolar region, 2.5–3.5 µm diam with wall 2 µm thick, hyaline. *Hairs* erect, hyaline, cylindrical, thick-walled (2–2.5 µm), 1–2-septate, rounded at tip, often broken, 50–80 µm long, 4.5–5 µm wide apically, 7–9.5 µm wide at base. *Apex* of papilla rounded, of thick-walled (2–3 µm), clavate cells 10–17 × 4–6 µm. *Ascomatal wall* covered with intertwined hyphae, 22–30 µm thick, of a single region composed of globose to ellipsoidal cells, 3–8 × 2–2.8, hyaline to pale yellowish, wall 1–1.5 µm thick, with abundant orange oily droplets, cells becoming narrower toward centre. *Asci* clavate, (65–)70–85(–90) × 10–12(–14) µm (av. = 80 × 11 µm, n = 20), containing 8 irregularly biseriolate ascospores, completely filling each ascus, apex rounded to nearly truncate with a refractive apical ring. *Ascospores* ellipsoidal to fusiform with rounded ends, (14.5–)16–18.5(–19.5) × 4.5–5 µm (av. = 17.5 × 4.5 µm, n = 30), 1-septate, not constricted at septum, with 1–2 guttules in each cell, orange *en masse*, spinulose. Paraphyses branched containing numerous orange oily droplets.

*Culture characteristics* — Colony grown at 25 °C, on Difco potato dextrose agar with 5 mg/L streptomycin, yellowish white, reaching 4–5 cm diam after 2 wk, becoming pale yellow in centre, floccose aerial mycelium white to pale pink in median area, pinkish white at margin, producing a pale brown colouration. No conidia produced in culture after 3 wk, but the molecular data indicate that this species belongs in *Stachybotrys*.

*Typus.* FRANCE, Charente Maritime, Île d'Oléron, Saint Trojan, on leaf of *Iris pseudacorus*, 16 Apr. 2012, M. Hairaud (holotype deposited at LIP, France MH160412, culture ex-type CIRM BRFM MH160412, ITS sequence GenBank KF777192, MycoBank MB803657).

*Notes* — In springtime a search of dead leaves of *Iris pseudacorus* in a usually wet zone of the Ile d'Oléron revealed an interesting collection of a hypocrealean fungus appearing nectriella-like in having immersed ascomata. No species corresponding to our specimen was found in Rossman et al. (1999) or other literature. The ascospores were cultured. Surprisingly a sequence of this isolate placed this species in the genus *Stachybotrys*. At present no sexual states have been discovered for any species of *Stachybotrys* although *Peethambara* is closely related based on Castlebury et al. (2004). No species of *Nectriella* have been sequenced but *S. oleronensis* resembles *N. funicola* because of the intertwined hyphal wall and differs from it by smaller ascomata and smaller ascospores (14.5–)16–18(–19) × 4.5–5 µm vs (14–)16–26 × 4–8 µm. *Stachybotrys oleronensis* also resembles *N. paludosa* but differs from it by longer hairs 50–80 µm vs 8 × 2 µm and shorter ascospores (14.5–)16–18.5(–19.5) × 4.5–5 µm vs (12–)14–23 × 4–5 µm.

ITS tree placing *Stachybotrys oleronensis* in *Stachybotrys*.

*Colour illustrations.* Wet zone with *Iris pseudacorus*; ascoma on host substratum; ascus with ascospores. Scale bars = 100 and 10 µm.

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