**Fungal Planet 846 – 13 December 2018**

**Henningsia resupinata** A.M.S. Soares & Ryvarden, sp. nov.

**Etymology.** (L.) resupinata, bent, referring to the shape of the basidiomata.

**Classification —** Meripilaceae, Polyporales, Agaricomycetes.

**Basidiomata annual, resupinate, 2–4 cm wide and long and 1 mm thick, adnate, fleshy and white when fresh (2B) becoming distinct rusty red when bruised after collecting, hard and fragile and black when dry (black 37) (Watling 1969), pores irregular, about 1–2 mm in the sloping substrate, in other parts of the holotype more regular and 4–5 pores per mm, tubes concolorous with the pore surface. Context almost absent, dense and black when dry (37). Hyphal system monomitic; generative hyphae with simple septa, hyaline to pale yellow, thin-walled, 3–6 µm wide. Gloeoplerous hyphae and cystidia absent. Basidia not seen. Basidiospores 4–5 µm diam, globose to subglobose, smooth, thin-walled, IKI-.

**Notes —** The black basidiomata when dry, the simple septate hyphae and the globose to subglobose basidiospores clearly place this species in *Henningsia* where all species share the same colour and simple septate generative hyphae. *Henningsia resupinata* can be separated from the other species of the genus by the resupinate basidiomata. *Henningsia macrospora* is another species also found in Brazil and also has a black basidioma when dry, but it is separated by the pileate basidiomata with numerous gloeoplerous hyphae in the context and the larger, subglobose to ellipsoid basidiospores (6–7 × 4.5–5 µm) (Gilbertoni & Ryvarden 2014). In the phylogenetic tree, *H. resupinata* clustered with low support with *Physisporinus* sp. (47 %/0.68) collected in Indonesia and it is distantly related to *P. sanguinolentus* (KHL_11913) collected in Norway. *Physisporinus sanguinolentus* is similar by the white basidiomata when fresh and becoming bright rusty red when bruised or greyish to blackish on drying. However, the pores in *P. sanguinolentus* are smaller (8–10 per mm) and the basidiospores are larger and ovoid to subglobose (6–7 × 5–6 µm). Besides, *P. sanguinolentus* has fusoid cystidioles (15–27 × 5–6 µm) which are lacking in the new species (Ryvarden & Gilbertson 1994). There is no molecular data regarding *Henningsia*, and, for the time being, the new species will be kept in this genus due its morphological characters. Moreover, *Henningsia* is a Neotropical genus and the type species is from Brazil, while *Physisporinus* occurs mostly in Europe.

Maximum likelihood phylogenetic tree inferred from ITS+LSU sequences performed with RAxML v. 7.0.4 (Stamatakis 2006). Bayesian analysis (BY) was performed with MrBayes v. 3.2.1 software (Ronquist et al. 2012) for 5 M generations with four Markov chains, and trees sampled every 1000 generations, similar topology was obtained (not shown). Bootstrap support values (1000 replicates) and posterior probabilities (PP) from Bayesian analysis to each node are shown from left to right. The new species described in this study is in **bold** face. *Sebipora aquosa* represents the outgroup. The alignment is deposited in TreeBASE (ID 22819).

**Colour illustrations.** Environment where the type specimen was collected in Porto Grande, Serra da Capivara, Amapá, Brazil; *Henningsia resupinata* fresh basidiomata (top), dried basidioma, generative hyphae and basidiospores (bottom). Scale bars = 2 cm (basidiomata), 20 µm (generative hyphae), 10 µm (basidiospores).