Xylophallus clavatus
Xylophallus clavatus T.S. Cabral, M.P. Martín, C.R. Clement, K. Hosaka & Baseia, sp. nov.

Etymology. In reference to its basidiome shape.

Classification — Phallaceae, Phallales, Agaricomycetes.

Immature basidiome globose to subglobose, with protuberances on the surface, up to 8 × 6 mm, pale brown (N40A99M20; Küppers 1979) on base to brown (N90A99M99) to the apex, rhizomorphs on the base. Mature basidiome up to 38 × 7 mm in its thickest portion when fresh, clavate shape. Receptacle campanulate, smooth, with an umbilicated depression, minutely perforated at apex, adnate to pseudostipe, up to 6 × 7 mm. Pseudostipe up to 21 × 7 mm, cylindrical, hollow, not attached to the volva, reticulated surface with reticulations deeper when closer to receptacle, white (N00A00M00), composed of ooid to pyriform pseudoparenchymatous hyphae 20–35 × 20–27 μm, hyaline in 5 % KOH (same hyphae of receptacle). Volva pale brown (N40A99M20) to brown (N90A99M99), with irregular delhiscence, rhizomorphs at base forming a net spreading through substrate, interconnecting basidiomes; external layer composed of filamentous hyphae, 2.5–3.5 μm wide, hyaline in 5 % KOH, sinuous, septate and with clamp connections; internal gelatinous layer composed of pseudoparenchymatous hyphae, 19–34 × 19–27 μm, hyaline in 5 % KOH. Rhizomorphs composed of filamentous hyphae, 1.5–3.5 μm wide, thick-walled, septate, hyaline in 5 % KOH. Gleba olive-brown (N99A50M10), mucilaginous. Basidium clavate, bearing 6–8 spores. Basidiospores bacillar, smooth, (4–)4.5–5(–5.5) × 1.5–2(–2.5) μm, greenish to hyaline in 5 % KOH.


Additional material examined. Brazil, Amazonas, São Gabriel da Cachoeira, Itacutirana-Mirim Community, S00°7′43.4″W66°58′24.4″, 2014, T.S. Cabral, paratype INPA 264927, ITS, rpb2 and tef-1α sequences GenBank KU871800, KU871716 and KU871497; Barcelos, 2015, T.S. Cabral, paratype INPA 271665, ITS, rpb2 and tef-1α sequences GenBank KU871814, KU871742 and KU871515; Parintins, Apai Community, -2.64790000, -56.54833333, 2015, T.S. Cabral, paratype INPA 271639, ITS, rpb2 and tef-1α sequences GenBank KU871803, KU871719 and KU871506. — Costa Rica, Heredia, Sarapiquí, La Selva, 1986, C. Oviedo, USJ 28095, ITS, rpb2 and tef-1α sequences GenBank KU871815, KU871715 and KU871514.

Phylogenetic tree obtained with MrBayes v. 3.1.2 (Ronquist & Huelsenbeck 2003) using ITS nrDNA, tef-1α and rpb2 concatenated genes, under GTR+G, TRN+G and SYM+G models, for 3 M generations. Both type and paratype of the new species are marked with a coloured rectangle. Posterior probabilities values are indicated on the branches. TreeBASE submission ID 22365.