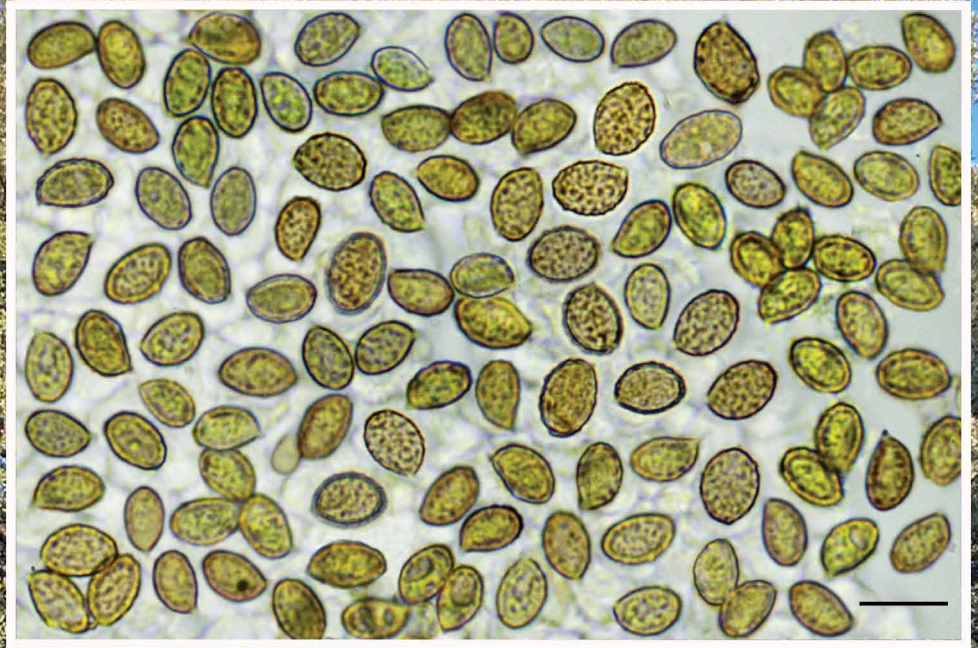


*Cortinarius bonachei*



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## *Cortinarius bonachei* J.D. Reyes, *sp. nov.*

*Etymology.* Named after J.M. Bonache, a dear friend, and after a lagoon of the same name, where this species was collected.

*Classification* — *Cortinariaceae*, *Cortinariales*, *Agaricomycetes*.

*Pileus* 25–45(–50) mm diam, brown dark (Séguy 1936; 696, 701) becoming brown (694, 695), at first conical campanulate, later convex with a persistent obtuse and low umbo. *Margin* first incurved, straight, later extended. *Surface* dry, hygrophanous, matt and finely innate-fibrillose, sometimes with white veil remnants. *Lamellae* 4–5 mm diam, medium spaced, adnate to sinuate, brown when young (694, 695), paler at the edge (705), with lamellulae. *Stipe* 35–50 × 4–6 mm, cylindrical, subbulbous towards the base (8 mm diam). *Surface* fibrillose, with whitish fibrils on a pink background. *Context* reddish brown on the pileus, and lighter reddish brown towards the base of the stipe. *Odour* and *taste* indistinct. *Basidiospores* (6.3–)6.6–7.7(–8.7) × (4.2–)4.5–5.4(–6) μm; Q = (1.3–)1.34–1.6(–1.7); n = 60 spores; Mv = 7.2 × 5 μm; Qv = 1.5; Ve = 93; obovoid-subamygdaliform, strongly verrucose, isolated, most prominent at the apex. *Basidia* tetrasporic, 30–40 × 6–9 μm. *Lamellar edge* fertile or without true cystidia, with scattered basidioliform banal cells, 7–8 μm. *Pileipellis* composed of hyphae narrow, 6–8 μm. *Clamp connections* present in all tissues.

*Macrochemical reactions* — KOH slightly brownish. Guaiac negative.

*Habitat* — *Quercus ilex* in calcareous soils.

*Typus.* SPAIN, Jaén, Siles, Laguna de Bonache, 1200 m a.s.l., with *Quercus ilex* in calcareous soils, 16 Nov. 2006, J.D. Reyes (holotype JA-9576, isotype JDRG16110607, ITS sequence GenBank MW752900, MycoBank MB 839008).

*Notes* — Different public nucleotide databases were consulted using the blastn algorithm: GenBank, UNITE and BOLD, comparing the generated holotype sequence with the closest species of *Cortinarius* subg. *Telamonia*, differing with *C. roseocastaneus* (GenBank NR131866) in seven nucleotides and eight indels. *Cortinarius roseobasilis* (GenBank NR153059) in eight nucleotides and 11 indels and *C. fulvopaludosus* (GenBank NR154868) in six nucleotides and 17 indels, 95.59–96.95 % similarity.

Morphological characters distinguish *C. bonachei* from related species: *C. roseocastaneus* has a very dark brown to blackish brown pileus, dark brown lamellae, and less verrucose basidiospores. Ecological characters distinguish *C. bonachei* from *C. fulvopaludosus*, a species associate with conifers (*Abies*, *Picea* and *Pinus* spp.) and deciduous hosts such as *Betula*, *Alnus* and *Salix* spp., in forests of Northern Europe. *Cortinarius roseobasilis*, an American species, is linked to *Quercus garryana*.

*Colour illustrations.* Spain, Jaén, Siles, Sierra Segura, Cazorla y las Villas Natural Park, forest of *Q. ilex* subsp. *ballota*, where the holotype of *Cortinarius bonachei* was collected (JA-9576). Basidiomata correspond with the holotype; basidiospores. Scale bar = 10 μm.