Rhizopogon granuloflavus
**Rhizopogon granuloflavus** M.P. Martín, M. Dueñas & Telleria, *sp. nov.*

*Etymology.* From Latin *granulum* and *flavus,* referring to the numerous yellowish deposits on the surface of the peridium hyphae.

*Classification — Rhizopogonaceae, Boletales, Agaricomycetes.*

Macroscopic characteristics — *Basidiomes* globose to subglobose, 0.9–1.4 × 1.0–1.9 cm. *Peridium* surface smooth, yellow (colour 250, Séguy 1936). Rubbing the *peridium* causes no change of colour. *Gleba* soft and gelatinous when fresh, becoming firm, but easy to section on drying, orange (colour 208), with small and labyrinthiform locules. Smell indistinct.

*Brachybasidioles* clavate, thin-walled, 0.7–<50 × 2.5–3.0 µm. In general, spores are uni- or biguttulate; however, many spores are collapsed and appear without refringent content. Although spores under OM are smooth, under SEM spores without perisporium appear reticulated.

Spores without perisporium appear reticulated. Bayesian phylogram (MrBayes v. 3.1) of ITS sequence analysis showing the clade of Rhizopogon subg. *Roseoli.* Six Rhizopogon species of subg. *Villosuli* are included as outgroup. Posterior probabilities obtained in the Bayesian analysis, as well as the percentage of bootstrap values from the maximum parsimony analysis are indicated on the branches. Numbers in the triangles indicate the number of sequences from each species. For four published sequences, the name at the EMBL/GenBank is provided between parentheses, since they belong to misidentifications, and could belong to undescribed species. The *R. granuloflavus* clade is marked with a grey square (H: Holotype, P: Paratypes).


Notes — Although the *peridium* and *gleba* show negative reactions with KOH, phylogenetic analyses (parsimony and Bayesian), based on four species of *R. granuloflavus,* and previously published data (Martín & García 2009), clearly grouped the new sequences with species of subg. *Roseoli.* Specimens from Cape Verde cluster together as a group of their own. The four species have a simple *peridium* with hyphae covered by numerous yellowish deposits, not observed in the other species of subg. *Roseoli.* In general, *R. granuloflavus* is close to *R. pseudoroseolus,* a species from North America; however, in *R. pseudoroseolus* the incrusting pigments in the *peridium* surface change to a dark vinaceous colour with KOH and the spores are bigger (7.5–9.5 × 3–4 µm).

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