

Suillellus comptus, new report for the Mycobiota of Iran

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Suillellus is a genus of Bolete fungi belonging to the *Boletaceae* family. First, Murrill (1909) introduced the genus with *Suillellus luridus* as the type species, however it was later considered as a synonym of *Boletus*. Phylogenetic overview of the bolete fungi, demonstrated that *Suillellus* species distinctly have a different lineage than *Boletus* (Nuhn et al. 2013, Vizzini et al. 2014) and the name eventually returned to the classification of bolete fungi (Klofac & Krisai-Greilhuber 2016). The genus *Suillellus* contains eleven species.

During surveys from 2014 to 2017, several macro-fungi specimens including the boletes, mycorrhizal

with oaks were collected from the region of Eslamabad-e Gharb in west of Iran. Fresh specimens were photographed before collection to save distinctive characters. The specimens examined based on macro and micro-morphological characteristics.

Based on morphological examination, three specimens of bolete fungi were identified as *Suillellus comptus* (Simonini) Vizzini, Simonini and Gelardi. The characteristic features of specimens which led to the identification were as follows.

Pileus, convex to flat-convex, smooth, and pale to greyish pink, with more or less developed pinkish tint with some reddish brown spots, Fig. 1(a,b). The stipe, cylindrical or club-shaped, pale yellow to bright yellow which gradually darkening upwards to yellowish orange, orange to orange red, in the uppermost part just below the tubes. The stipe base is strongly tapered and rooting. Stipe surface, poorly reticulate or even not reticulate at all, Fig. 1(a, b). Flesh, pale yellow to lemon yellow and is blueing when exposed to air. Pores red to orange red and as like as pileus and stipe is blueing when bruised Fig. 1(c). Spores, ellipsoid, $12\text{--}13.2 \times 5.9\text{--}6.4\ \mu\text{m}$, Fig. 1(d).

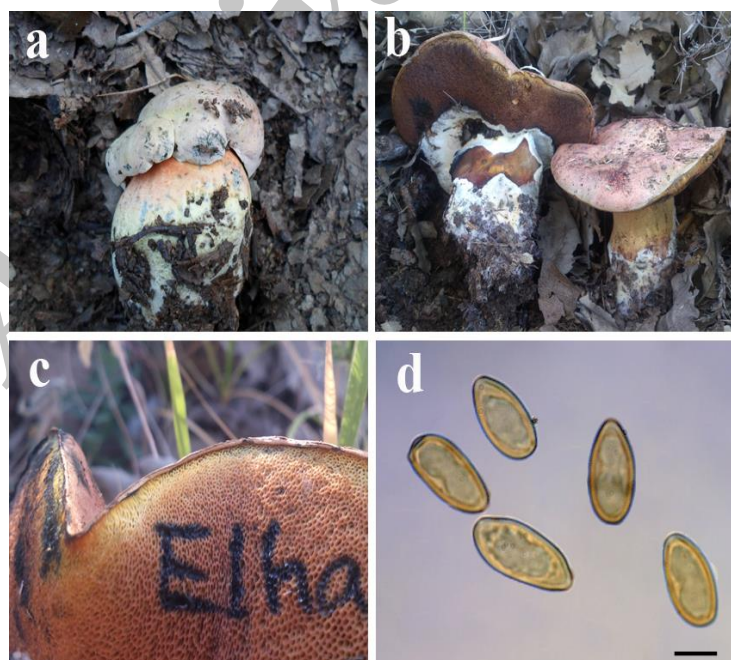


Fig. 1. *Suillellus comptus*. **a.** basidiocarp before expansion; **b.** expanded basidiocarp; **c.** blueing of pores immediately after touch; **d.** basidiospores. — Scale bar = 5 μm .

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Internal transcribed spacer regions (ITS) of two out of three specimens were amplified and sequenced. The sequences obtained and some from known species were used to construct a phylogenetic tree. Phylogenetic analyses were performed using Mega software ver. 5.0 and Neighbor Joining (NJ) approach with 1000 bootstrap replicates. As shown in Fig. 2, phylogenetic analyses confirmed the morphological identification. This is the first report of *S. comptus* for the mycobiota of Iran. Specimens were deposited in the Fungal Reference Collection of the Ministry of

Jihad-e Agriculture (IRAN) at the Iranian Research Institute of Plant Protection, Tehran, Iran.

Specimens examined. IRAN, Kermanshah province, Gilan-e Gharb, Darbadam, under Oak tree, 24 May 2016, *E. Seidmohammadi*, IRAN 16908F; Kermanshah province, Gilan-e Gharb, Ghalajeh, under Oak tree, 29 May 2015, *E. Seidmohammadi*, IRAN 16909F; Kermanshah province, Eslamabad-e Gharb, Anjirak, under Oak tree, 12 Apr. 2015, *E. Seidmohammadi*, IRAN 16910F.

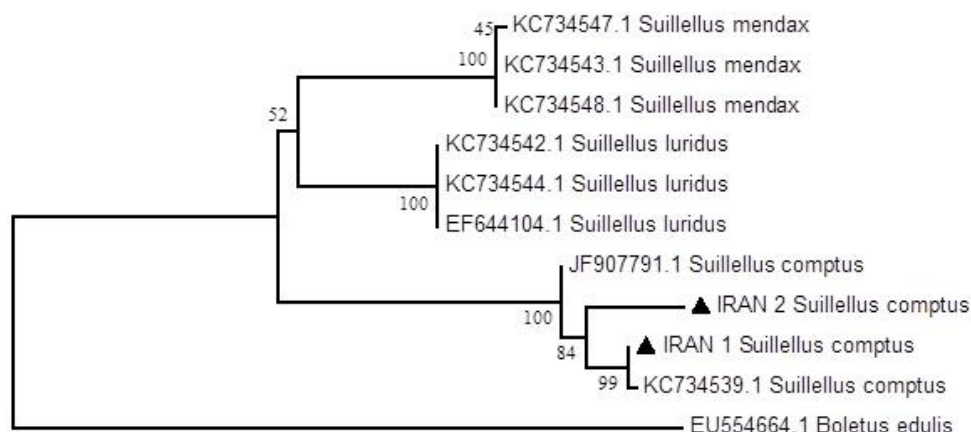


Fig 2. Phylogenetic tree constructed from the ITS sequence alignment of *Suillellus* spp. Mega software ver. 5.0 and Neighbor Joining (NJ) approach with 1000 bootstrap replicates. The Iranian specimens are shown with bold triangle lables.

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