

## *Auriscalpium vulgare*: the first report of the genus *Auriscalpium* in Iran

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Specimens of tooth fungi were collected from pine tree cones (*Pinus* sp.) in the Northern forests of Iran and transported to the laboratory for identification. The macroscopic characteristics of the samples were examined visually and microscopically using an Olympus BH2 microscope (Olympus, Japan).

The macroscopic features of the specimens were as follows: Fruit body hydnum-stipitate, pileus semicircular or kidney shape, broadly convex or flat, 1-3 cm across, covered with fine brown hairs. Hairs flexible when young, becoming tough and turning dark brown with age, growing singly or gregariously.

The underside of the pileus is covered with a crowded array of tiny tooth or needle-shaped spore-bearing structures or hymenium, up to 3 mm long, 0.5 mm diameter, initially whitish to cream, turning brown with age.

Stipe eccentric or lateral (attached to one edge of the pileus), 1.5 to 2 mm in diameter and up to 5 cm in length, tough, and covered with short fine hairs of the same color as the pileus.

Basidiospores broadly ellipsoid or globose, 4.5–5.5 × 4–5 μm, hyaline, smooth, or becoming finely spiny when mature, turning blue in Melzer's reagent (amyloid). Spore print white.

The basidia four-spored with basal clamp connection, 15–24 × 3–4 μm. The hyphal system dimitic, comprising both generative and skeletal hyphae.

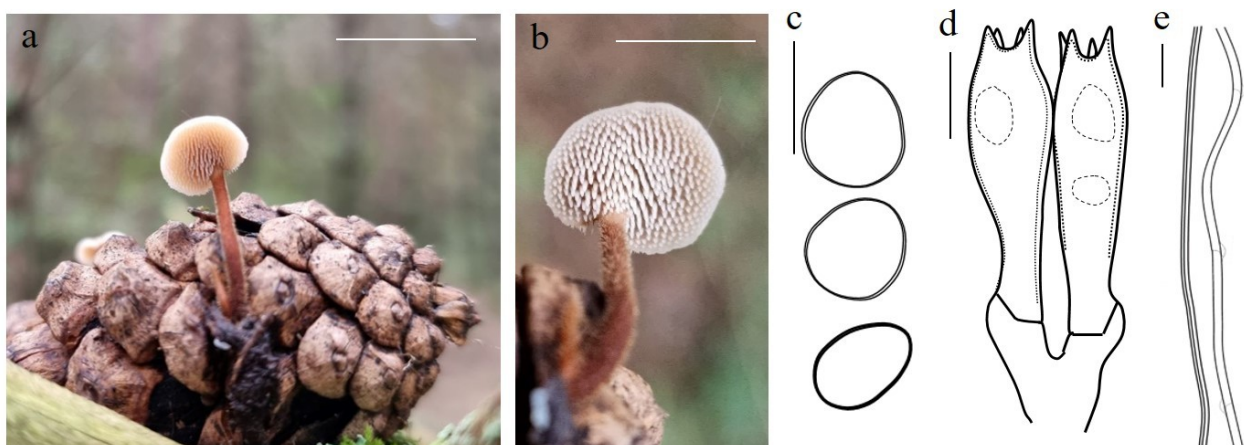
Specimens were identified as *Auriscalpium vulgare* Gray (*Russulales*, *Auriscalpiaceae*,) based on Koski-Kotiranta & Niemelä (1987) and Larsson & Larsson (2003). This is the first report of a species from the genus *Auriscalpium* Gray in Iran.

*Auriscalpium vulgare*, the type species of the genus, is a saprophytic fungus that grows on the cones of conifers, especially pines.

The species was first described by Carl Linnaeus under *Hydnum auriscalpium* in Species Plantarum. In 1821, Samuel Frederick Gray moved *H. auriscalpium* to a new genus, *Auriscalpium*, and its name changed to *Auriscalpium vulgare*. The family *Auriscalpiaceae* includes morphologically different agarics, gathered together by molecular phylogenetic analyses (Larsson & Larsson, 2003, Miller et al. 2006)

The species is widely distributed in Europe, Central and North America, and temperate Asia (Petersen, & Cifuentes 1994, Işıloğlu & Gücin 1995).

Specimens examined: Iran, Mazandaran Province, Sangdeh, on the cone of pine (*Pinus* sp.), 19 June 2022, Asef, M.R. (IRAN 18362 F); Iran, Mazandaran Province, Pole Sefid, Anarom, on the cone of pine (*Pinus* sp.), 15 September 2023, Jamshidi, A. (IRAN 18363 F).



**Fig 1.** *Auriscalpium vulgare*. a. Fungus in natural habitat on the cone of a conifer (Bar= 5 cm); b. Pileus and hydroid hymenium (Bar= 2.5 cm); c. Spores (Bar= 4 μm); d. Basidia (Bar= 5 μm); e. Generative and skeletal hyphae (Bar= 0.5 μm).

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