

NEW RECORD SPECIES OF FAMILY LINTINACEAE FROM PAKISTAN

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Abstract

The present paper describes 2 new records of the family Lintinaceae viz., *Lentinus lepideus* Fr. Epicr and *Lentinus tigrinus* (Bull) Fr.Epicr from Gilgit-Baltistan. All these species are reported for the first time from Pakistan.

Introduction

Phylum Basidiomycota is a common group of fungi that has worldwide distribution. It includes more than 22,244 species (Hawksworth *et al.*, 1995). This phylum is large and divers, comprising of forms commonly known as mushrooms, boletus, puffballs, earthstars, stinkhorns, birds nest fungi, jelly fungi, bracket or shelf fungi, rust and smut fungi (Alexopolus *et al.*, 1996). Members of Basidiomycota are characterized primarily by the production of sexual spores (basidiospores) that are produced on the surface of a basidium. Many members have septal structures called a clamp connection. No other group of fungi has these.

Several members of Basidiomycota are well known plant pathogens, whereas others are important for their food value or because of scents, tastes, colours, and toxic properties of a wide variety of secondary products (Gallois *et al.*, 1990). In contrast to more than 22,244 species reported from different parts of the world, only about 630 species have been reported from Pakistan (Ahmad *et al.*, 1997). Gilgit-Baltistan area appears to be generally ignored by pervious workers despite that the climate is suitable for growth of Basidiomycota. The present report describes 2 new records of the members of the family Lintinaceae from Gilgit-Baltistan, Pakistan.

Materials and Methods

Samples of basidiomycetous fungi were collected from different areas of Gilgit-Baltistan. These fungi were photographed in their natural habitat and macroscopic details along with altitude and latitude (using a GPS model Lowrance ifinder) were recorded. The samples were brought to Department of Biological Sciences, Karakoram International University, Gilgit and identified up to species level after reference to Ahmad *et al.*, (1997), Demoulin & Mirriott (1981), Surcek (1988), Buczacki (1989), Leelavathy & Ganesh (2000), Swann & Taylor (1993), Shibata (1992), Murakami (1993), Gardezi (2002) and Sultana *et al.*, (2011). The specimens were dried at room temperature to make a herbarium for future reference. An Olympus B x51 microscope equipped with bright field and camera Olympus DP 12 was used to examine and photographs the fungi.

Results

During the present work, two species viz., *Lentinus lepideus* and *Lentinus tigrinus* were recorded. These species have been recorded for the first time from Gilgit-Baltistan, All these species appeared to be new records from Pakistan not hither to reported.

Key to species of genus *Lentinus*

1. Gills at first white then straw colour-----*L. lepideus*

- Gills first white then ochreous, fairly narrow, fairly distant-----*L. tigrinus*

Lentinus lepideus Fr. Epicr. P. 390, Saccardo, *Syl.Fung.* Vol. 5, 1887, p. 581.

Distinguishing characters: Cap 5-12cm wide, at first dome-shaped, later convex, then expended and slightly depressed in center, covered with brown scales. Stipe up to 7cm long and 3cm thick, solid and tough usually attenuated downwards into blackish root-like extension. It is covered with scales but after maturation scales gradually decrease in size. Gills narrow, at first white then straw in color. Smell faint. Flesh white, firm, and thick. Spores ellipsoid, smooth, 8-12x4-5µm in size.(Fig.1).

Season: September- October.

Occurrence: It was collected from Mushkin forest, District Astore, alt 2622m, N= 35°23', E=74°42'.

Ethnic uses/Importance: Inedible

Habit/Habitat: Usually in groups. Especially in buried parts of woods.

Previous Report from Pakistan: None.

Lentinus tigrinus (Bull.) Fr. *Epicr.* p. 389, Saccardo, *Syl. Fung.* Vol. 5, 1887, p. 580.

Distinguishing characters: Cap 3-7cm, at first convex, then slightly depressed, and covered with small brown scales. Stem 4-5cm long, central, fairly slender, tapering slightly downwards, scaly, indefinite ring zone. Gills first white then ochreous, fairly narrow, fairly distant. Smell faint, unpleasant. Flesh white. Spores elongated ellipsoid, smooth 6-7x2-3 μ m in size, non-amyloid. (Fig. 1).

Season: July - October.

Occurrence: It was collected from Dichal nalla, District Astore, alt.3322m, N= 35°44', E= 74°56'.

Ethnic uses/Importance: Inedible.

Habit/Habitat: Usually grows in small groups on woods, especially on buried parts of wood.

Previous Report from Pakistan: None.

Conclusion

Lentinus lepideus can be differentiated from *L. tigrinus* by its first whitish then straw colour gills whereas *L. tigrinus* has first whitish than ochreous gills.

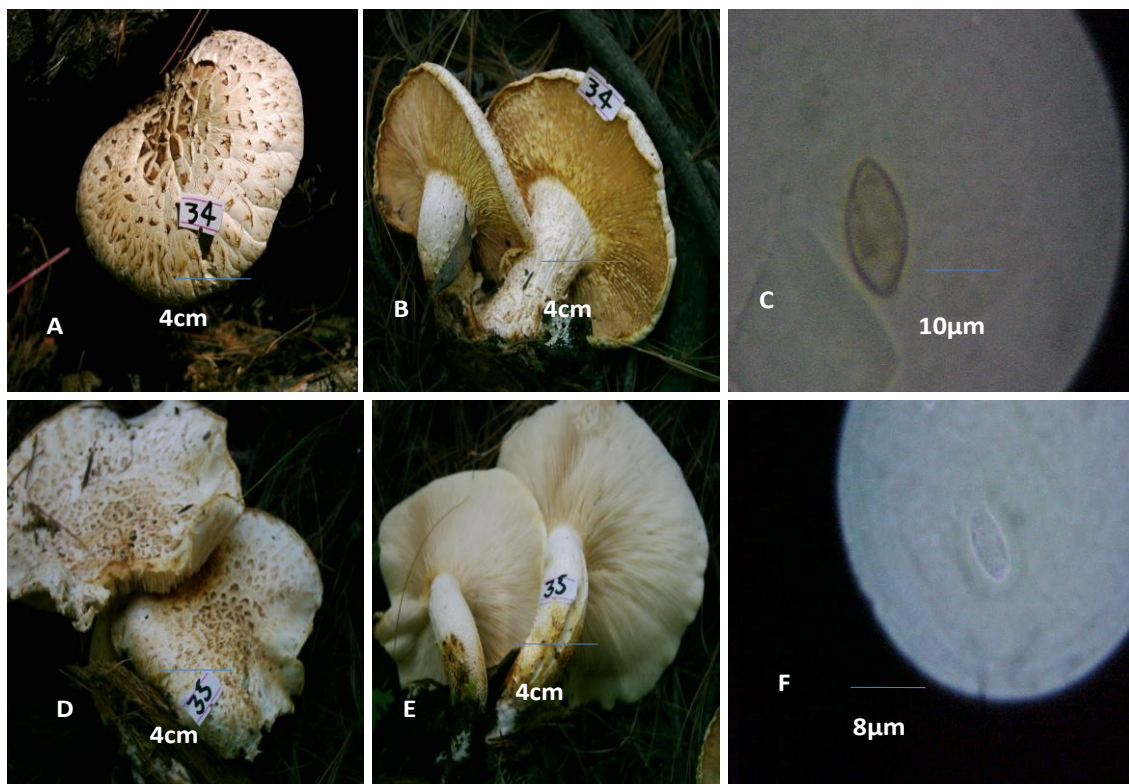


Fig.1. *Lentinus lepideus* (A-C), *Lentinus tigrinus* (D-F).

Explain (A-C means fruiting body and spore of *Lentinus lepideus* while D-F means fruiting body and spore of *L. tigrinus*)

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