Pak. J. Bot., 39(6): 2193-2194, 2007.

GEASTRUM SESSILE AND *G. VULGATUM* NEW RECORDS FROM PAKISTAN

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Abstract

Geastrum sessile and *G. vulgatum* are being reported for the first time from Gilgit valley, Pakistan. These species are characterized by the production of pointed starfish-like rays on fruiting body. Spores are sub-spherical, very finely spiny and warty.

During the study on Macrofungi of Gilgit valley, Pakistan in summer 2004, the specimens were collected from Nulter, District Gilgit (alt 2915m, N = 36 ^{o} 08, E =74 ^{o} 11), growing on groups on soil under broad-leaved and conifer trees. On the basis of microscopic examination, these were identified as *Geastrum sessile* and *G. vulgatum* (Fig. 1 & 2) after reference to Ahmed (1997), Demoulin & Marriot (1981), Surcek (1988), Ahmed (1972), Ainsworth (1987), Alexopoulos (1996), Buczacki (1989) and Hawksworth *et al*., (1995).

Fuiting body of *Geastrum sessile* is 2-5cm, sub-spherical, stem–less; outer peridium scaly-fibrous, cream-ochre, splitting at maturity into 5-8cm, pointed starfish-like rays to reveal spore sac. Spore sac 1-4cm, spherical, inner peridium smooth, brown. It opens by central apical pore. Glaba first pale, then brownish, powdery, capilitium unbranched. Spores dark-brown, sub-spherical, very finely spiny, 2.5-3x3-3.5 µm in size. Similarly the fruiting body of *Geastrum vulgatum* is 4-8cm, sub-spherical, stem less; outer peridium coarsely scaly, at first creamy pink, then pinkish-brown, very thick, fleshy, splitting at maturity into 6-9, pointed, starfish-like rays to reveal spore sac. Spore sac 2-3cm, sub-spherical, inner peridium brown, smooth, very thin, papery, opening by small central apical pore. Gleba at first pale, firm, then brownish, powdery, capilitium unbranched with marked central tuft. Spores dark brown, sub spherical, finely warty, 3.5x4-5 µm. Both species growing in summer and autumn. They are inedible and used for external treatment of injuries *Geastrum sessile* and *G. Vulgatum* appearing to be a new record not hither to reported from Pakistan. (Mirza & Qureshi, 1978; Ahmed *et al*., 1997).

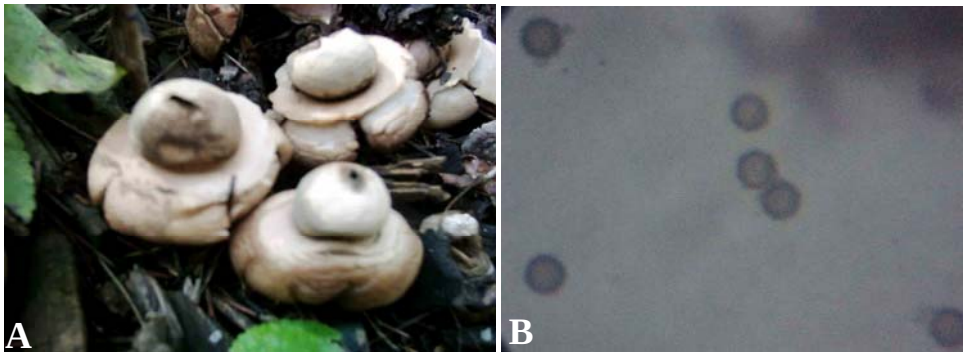

Fig 1. A= Fruiting body of *Geastrum sessile.* B= Basidiospores.

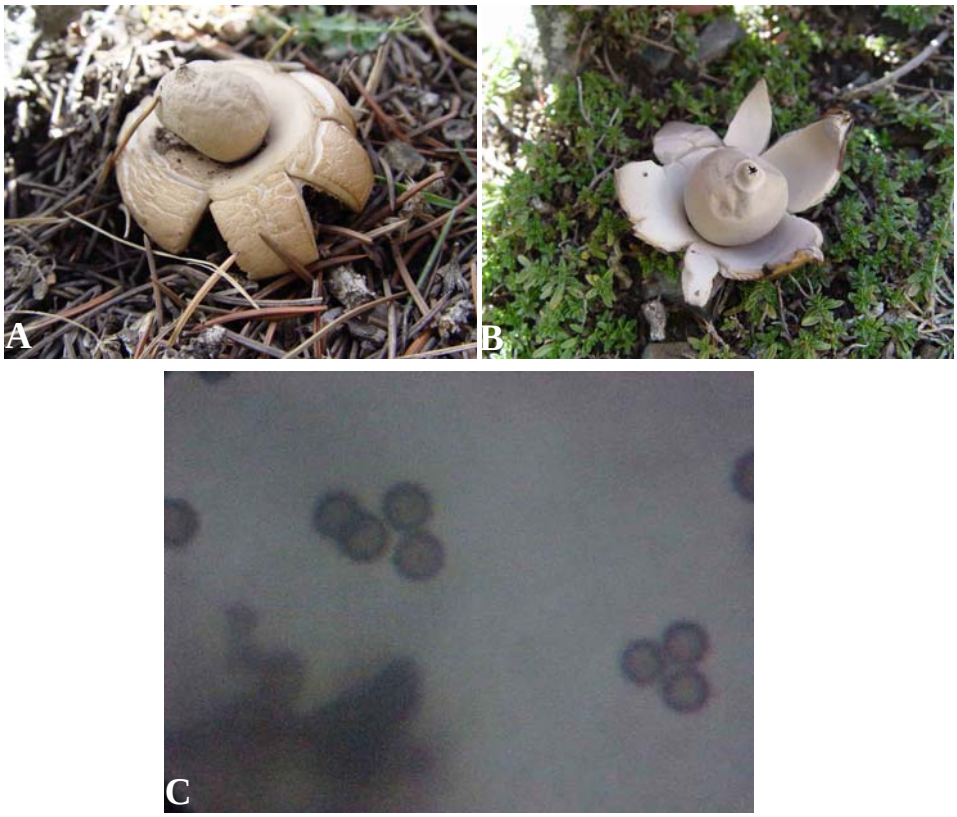

Fig. 2. A= Fruiting body of *Geastrum vulgatum*, B= Starfish like rays, C= Basidiospores.

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(Received for publication 8 October 2007)