STUDIES ON THE COPROPHILOUS ASCOMYCETES OF PAKISTAN
III: SEMIDELITSCHIA TETRASPORA SP. NOV.

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Cain & Luck-Allen (1969) described a new monotypic genus, Semidelitschia which they tentatively placed in the coprophilous loculoascomycetous family Sporormiaceae. They consider it to be closely related to Delitschia from which it differs in having l-celled ascospores. The only species included in S. agasmatica Cain & Luck-Allen.

The authors while studying coprophilous ascomycetous mycoflora of Pakistan, came across a fungus with l-celled ascospores. It does not fit in any known taxon. It does resemble S. agasmatica in so far as the apical apparatus of asci, spore colour, shape, septation and presence of germ-slits are concerned. However, it differs from the above mentioned species in having smaller dimensions of its perithecia, asci and ascospores and in always having 4-spored asc. The species is therefore described here as new.

Semidelitschia tetrasporea Mirza and Mahmood sp. nov. (Fig. 1).


Peritheca superficial, bare, black, globose to pyriform, ostiolate 90-280 × 122-220 μm, neck short, black, without hairs, about 22 × 41 μm: peridium membranaceous, pseudoparenchymatous. Cells of peridium brown, obscure. Asci 4-spored, cylindrical to clavate, broadly rounded at the apex, 60-72 × 12-16.5 μm with short stipe at the base. Ascospores obliquely uniseriate, non-septate, ellipsoid, 18.0-22.0 × 9.0-12.0 μm, at first hyaline, then olivaceous and granular and finally olivaceous-brown and opaque. Germ-slit extending the full length of the ascospores.

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Fig. 1. *Semideltitschia tetraspore* A. Peritheciun with asci & ascospore 100 x. B. asci with ascospore, 400 x.


The species of *Semideltitschia* resemble those of coprophilous genera *Sordaria* and *Hypocopra* in having 1-celled, dark coloured ascospores. *Sordaria* is however, different in having germ pores instead of germ-slits. This character readily separates sordariaceous fungi from xylariaceous genera to which *Hypocopra* belongs. Species of *Hypocopra* are characterized by the presence of a stroma and a complex apical apparatus in asci which usually gives a positive reaction (blue) to Melzer's reagent. Species of *Semideltitschia* lack these characters.
Cain & Luck-Allen (1969) have tentatively placed, their new genus in the family Sporomiaceae. Members of this family have bitunicate asci. The bitunicate nature of asci of *S. tetraspora* is not very clear. From the drawings of *S. agasmatiaca* given by Cain & Luck-Allen, it appears that the bitunicate nature of asci is not as distinct in *Semidelitschia* as in *Sporormia*. In Loculoscomycetes, the peridium develops prior to the development of ascogonium. Neither of the species of *Semidelitschia* have been grown in culture. Therefore, the position of this genus still remains doubtful.

References