



SUMMARY

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This treatise presents the results of the preliminary study of the family Pluteaceae Roze as it occurs in Kerala, together with a comprehensive review of the family. A total of fifty three taxa, ten belonging to *Volvariella* Speg. and forty three to *Pluteus* Fr. are described and illustrated.

All the species described were collected by the author from different forests of Kerala during the period 1993 - 1997. A total of fifty one species and two varieties belonging to two genera are fully described and illustrated with black and white line drawings depicting both a habit sketch and the microcharacters. The classification followed is essentially that of Singer (1986). Keys are provided wherever applicable for genera, sections, subsections and species. A full synonymy and author citations are quoted for each species and collection data are included. Colour photographs of some species are also provided.

The genus *Volvariella* Speg. includes nine species, one variety and genus *Pluteus* Fr. with forty two species and one variety.

Out of the ten species of *Volvariella* Speg. described from Kerala six species were earlier reported by other workers (Table-I) from India, while the following four species are additions to the Indian agaric flora

1. *Volvariella apalotricha* (Berk. & Br.) Pegler
2. *Volvariella glandiformis* (Berk. & Br.) Pegler
3. *Volvariella nigrodisca* Shaffer
4. *Volvariella taylori* (Berk.) Sing.

Volvariella nigrodisca Shaffer, a remarkable species so far known only from the type specimen (Shaffer, 1962) was collected thrice during the present study.

All the ten species of *Volvariella* Speg. are being reported for the first time from Kerala although all of them have been reported from other parts of the world.

Majority of *Volvariella* Speg. species collected during the south west monsoon and most of them were found in solitary isolated conditions.

The genus *Pluteus* Fr. is represented in Kerala by forty three taxa. Out of these, eighteen species are proposed as new. Except for *Pluteus cervinus* (Schaeff. : Fr.) Kumm., *Pluteus cubensis* (Murr.) Dennis and *Pluteus martinicensis* Sing. & Fiard all other taxa are additions to the Indian agaric flora.

A comparison of *Pluteus* Fr. species reported from Sri Lanka showed that out of the eighteen species known from Sri Lanka (Pegler, 1986), only four species viz., *Pluteus albolineatus* (Berk. & Br.) Sacc., *Pluteus glyphidatus* (Berk. & Br.) Sacc., *Pluteus eugraptus* (Berk. & Br.) Sacc. and *Pluteus fusconigricans* (Berk. & Br.) Sacc. are found to be common.

Majority of species of *Pluteus* Fr. found in Kerala are lignicolous, the rest are terrestrial. Most of the species occur in rather solitary, isolated manner and rarely in groups.

Of the three sections in *Pluteus* Fr. section *Hispidoderma* is the largest, represented by twenty six species followed by section *Celluloderma* with fourteen species and section *Pluteus* is represented poorly by three species.

Pluteus cervinus (Schaeff. : Fr.) Kumm., the type specimen of the family, genus and section, was recorded during the present study. *Pluteus martinicensis* Singer & Fiard so far known only from the type locality was also encountered in Kerala.

The species of *Pluteus* Fr. in Kerala shows close affinity to species recorded from other tropical regions of the world. The present investigation on Pluteaceae Roze in Kerala, revealed that the family is well represented in this region.