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Data Article

Edible wild mushrooms of the Western Ghats: Data on the ethnic knowledge

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ABSTRACT

The edible wild mushrooms are most important in food security of ethnic groups and tribals throughout the world. Various indigenous strategies are followed to trace wild mushrooms suitable for human consumption. Data presented in this article projects ethnic knowledge on 51 edible wild mushrooms (in 23 genera) in the Western Ghats region of India. Information collected with support of ethnic groups/tribals pertains to habitats, substrates, mutualistic association, extent of availability, extent of edibility and method of processing of wild mushrooms. Extensive field visits and interactions with ethnic groups were performed to collect the data on each mushroom. Initially, most of these mushrooms were identified based on the indigenous methods and designated with vernacular names (Are-Gowda, Kodava and Tulu). Based on macromorphology (in field) and micromorphology (in laboratory), each mushroom was identified with its systematic name. Among the 51 wild mushrooms irrespective of extent of availability, the most preferred include *Astraeus hygrometricus, Clitocybe infundibuliformis, Fistulina hepatica, Lentinus sajor-caju, Pleurotus* (5 spp.) and *Scleroderma citrinum* and *Termitomyces* (18 spp.). This data forecasts the importance of documentation of traditional knowledge, protection of habitats, management of resources (tree species and substrates) and sustainable exploitation of wild mushrooms.

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Specifications Table

Subject area	*Biology*
More specific subject area	*Mycology*
Type of data	*Tables, graphs, and pictures*
How data was acquired	*Interviews, survey, field monitoring (macromorphology), laboratory studies (micromorphology), and photographs*
Data format	*Filtered, and analyzed*
Data source location	*Western Ghats region of India*
Data accessibility	http://shodhganga.inflibnet.ac.in/handle/10603/131845

Value of data

- The data presented here project ethnic knowledge on 51 edible wild mushrooms occurring in different regions of the Western Ghats of India.
- Without overlap, wood/monocot stub and soil consists of 18 (12 genera) and 33 (11 genera) edible mushrooms, respectively indicating their substrate specificity.
- The data project the importance of geographic location, substrate and ecological conditions suitable for growth of edible mushrooms, which is of immense value for conservation.
- There is a great variation in the quality within the substrate preferred by mushrooms and likely this factor influences the extent of occurrence (biomass) and nutritional attributes.
- The data on type of mushroom, ethnic name, habitats, substrates, extent of edibility, extent of availability (biomass), mutualistic associations (ectomycorrhizal and termites) and their nutritional values stimulates further research.
- Owing to nutritional and nutraceutical significance of edible mushrooms, our data forecasts strategies for restoration/conservation of habitats and possibilities of *ex situ* cultivation as measure of food security and health of tribals.
- This data also forecast the value of edible wild mushrooms especially geographic indications and intellectual property rights for indigenous knowledge and food security.

1. Data

Edible mushrooms constitutes alternative source of food against plant- or animal-derived food sources [1]. Despite cultivation of a few mushrooms in large scale [2], wild edible mushrooms are the major concern in food security of ethnic and tribal population [1]. Other than nutritional value, wild mushrooms are also contributed significantly as nutraceuticals [3]. The Western Ghats region of India constitutes a major hotspot of diversity of wild mushrooms [4]. Indigenous techniques of identification of habitats, edible mushrooms, substrate preference, collection and processing are yet to be explicitly documented. Table 1 composed of specific questionnaire adapted to document mainly the habitats, ethnic names, substrates, methods of processing (e.g. cooking, fried in oil, partially burn and pickling/salting), extent of occurrence and extent of edibility of wild mushrooms by the ethnic groups. To avoid overlap, separate questionnaire was used for each mushroom. Tables 2 and 3 possess systematic names, ethnic names, substrate preference, extent of occurrence and extent of edibility on wood/monocot stub and soils, respectively. Ethnic name of mushroom mainly dependent on the substrate (wood/monocot stub or soil), macromorphology (shape, size, color, difference in umbo and aroma/fragrance) and the names are often overlapping. For instance, the ethnic name is same for different mushrooms growing on a specific type of soil (*Phlebopus* spp. and *Termitomyces* spp.). The name differs for a specific mushroom when it grows on different type of wood/monocot stub (*Fistulina* spp. and *Pleurotus* spp.). Figs. 1 and 2 consist of photographs of selected wild mushrooms of

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