PHYSIOGRAPHY, CLIMATE, AND VEGETATION OF KERALA

K. Agretious Thomas “Floristic studies on some dark-spored agarics of Kerala” Thesis. Department of Botany, University of Calicut, 2000
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Kerala lies in the extreme south-west corner of the Indian subcontinent, bordered by Karnataka State on the north, Tamil Nadu on the south and east, and the Arabian Sea on the west. It lies between 8.2° and 12.8° north latitudes and 74.8° and 77.5° east longitudes. Kerala has an area of 38,864 Km² representing 1.18% of the total area of India.

The Western Ghats form a mountain barrier in the east extending from north to south with a few breaks. The average height of these mountain ranges is about 900 m with some peaks reaching up to 2680 m. Based on the topography, Kerala is divisible into three geographical regions: Highlands, Midlands, and lowlands. The highlands slope down westward from the Western Ghats with numerous valleys and gorges clothed with dense evergreen forest tracts. The midlands, lying between the mountains and lowlands, are made up of undulating hills and valleys. The lowlands or the coastal belt is composed of the river deltas, backwaters, and the shore of the Arabian Sea. Both the midlands and lowlands are densely populated and are intensely cultivated.

There are 41 west-flowing rivers and three east-flowing rivers which pass across Kerala with their innumerable tributaries and branches. These rivers are Monsoon-fed and hence, may turn into rivulets in summer.

The tropical humid climate of Kerala with intermittent wet and dry periods is associated with two types of Monsoons, viz., South-west Monsoon and North-east Monsoon. The rainfall is distributed in these two Monsoons and generally extends from early June to middle of December with a comparatively less rainy interval in September and October. These Monsoon rains are generally abundant or sometimes torrential and may continue for a few days without a break. The South-west Monsoon first hits Kerala coast during June and continue showering till the end of August. These three months are the wettest period in Kerala. The North-east Monsoon, also called the Retreating Monsoon, extending from the October to the middle of December, brings comparatively less rain in Kerala. The mean
annual rainfall in Kerala is 300 cm. It varies from 100 cm in some parts of the plains to over 760 cm in the hills. The highest relative humidity varies from 100 in June to 80 in December and lowest from 78 in July to 48 in January. The temperature ranges between 24°C and 37.5°C in the plains and between 10°C and 32°C in the hills. The dry weather starts from middle of December and extends to early June.

Based on geographical and vegetational features, India is divided into a number of phytogeographic regions and Kerala falls in the Malabar region, which extends from southern Gujarat to Kanyakumari along the western side of the peninsula. The main distinctive characteristics of the Malabar flora are the presence of taxa belonging to families such as Clusiaceae, Dipterocarpaceae and Myristicaceae, presence of many species of bamboos and palms, and the abundance of species of Malayan type, especially taxa belonging to Sterculiaceae, Myrtaceae, Melastomataceae, Gesneriaceae, Piperaceae, Marantaceae, Cannaceae, Zingiberaceae, Musaceae, Orchidaceae and Araceae (Chandrasekharan, 1962).

About 10,000 Km² land area of Kerala State is under forest cover. All the major types of forests such as wet evergreen and semi-evergreen forests, tropical moist deciduous forests, tropical dry deciduous forests, montane subtropical and temperate shola forests and grasslands are found in Kerala (Manoharan, Uniyal, Sathish Kumar, 1997). Of these, dry type of forest is of limited occurrence in Kerala. Presently, 24 %of the total forest area is protected as conserved areas.
MAP OF KERALA SHOWING MAIN COLLECTION LOCALITIES

Adhar

Pulikaramba

Morazha

Muthanga

Peakuzhy

Mappady

Vellarimala

Nilambur

Calicut Univ. Campus

Geruvayoor

Nellampathy

Munnar

Boothathanatottu

Top Station

India