

MALABAR WILDLIFE SANCTUARY

Forest Minister Benoy Viswom, On 8th August, 2010, inaugurated the Malabar Wildlife Sanctuary. This is the 16th Wildlife Sanctuary coming up in Kerala with a mission to protect the rare species of flora and fauna.

Location and Extent: The sanctuary is located in Chakkittappara and Koorachundu revenue villages of Quilandy Taluk. The forests lie on the Northwest slopes of the Western Ghats contiguous with the forests of Ladysmith Reserved Forests and Kurichiar mala of Kalpetta Forest Range of South Wayanad Forest Division. The sanctuary lies along the boundary of Kozhikode district with Wayanad district to the north of the Tamarassery – Kalpetta Ghats. The Malabar Wildlife Sanctuary covering a total of 74.215015 sq.km extends between 11degree 75’ and 11degree 76 ‘North latitude and between 76 degree 20’ and 75 degree 38’ East longitude.

Topography : The sharp topographical gradient of the hills of sanctuary ranging from 40 to 1506 m is the primary reason for the diversity of plants and animals. The forests of Kakkayam is contiguous with the unique mountain systems of Banasuramala (2050m), Vellarimala (2100m), Kurichyarmala (1606m), Kakkanmala (1456m) and Vannathimala (1505m) and thereby occupy a unique position in the Southern Western Ghats

Temperature : The temperature varies from 16° C to 38° C, diurnal and seasonal variation being moderate, as typical of the tropical nature. As the altitude increases, the variation is comparatively minimal which is between 80c and 250c. The hottest months are April and May. December to February is relatively cool

Rainfall: Both south-west and north-east monsoons bring rains to this region. South West monsoon is heavier and more violent. The 1992 and 2007 monsoon season was unusually heavy and violent causing considerable damage to forest, cultivations and property. The south west monsoon starts in the first week of June, preceded by a few pre monsoon showers in April and May. The heaviest fall occurs in July and August. The north east monsoon is generally weak and

characterized by sporadic rains during afternoons in the month of October-November. December to March is generally dry months.

.Humidity : At the hills, the humidity varies from 60% to 100%. In the plains and foot of the hills, humidity varies from 50% to 90%, reaching saturation point during monsoon season. Mist is frequent in the higher elevation, with heavy deposition during December - February.

Drainage and Rivers : The forest catchment of the sanctuary is a rich conservatory of the basic resource of life “Water”. The reservoirs, the rivers and the projects in the area, sustain the water and power (electric) need of Kozhikode and Malabar. There are many seasonal and perennial streams that join the reservoirs constructed across the Kuttiady River, the largest river in Kozhikode district (Murat River in olden days). The existence of forests tract in the upstream catchments greatly influences the water quality in the downstream and reservoirs. It has a catchment area of about 583 km² and is estimated to discharge 1224.30 MCM of water annually. Other drainage systems that join the Kuttiady puzha are: Onipuzha ,Alerimuzhi thodu or Alampara thodu ,Kadantharapuzha ,Muthuveedu puzha

Flora: The Sanctuary has diverse vegetation types. These are the West-coast Tropical Evergreen, West-coast Semi evergreen, Southern Moist Mixed Deciduous, Southern Hill-top Evergreen forests, Grasslands, and Marshy grasslands (Vayals). The variety of vegetation types harbours more than 680 species of flowering plants including 226 species endemic to southern Western Ghats (about 30%). Sixty nine species of plants are placed under various threat categories Viable populations of tree species like *Meteoromyrtus wynaadensis*, *Syzygium stocksii*, *Eugenia argentea* (previously considered extinct), *Syzygium floccosum*, *Atuna indica* (previously considered extinct), *Coffea crassifolia* (previously considered extinct), *Garcinia malabarica*, *Humboldtia brunonis* var. *rakthapushpa*. *Atuna indica*, *Eugenia argentea* and *Humboldtia brunonis* var. *rakthapushpa* occur only in this sanctuary. More than 200 species of medicinal plants are reported in this sanctuary. Fifty two species of bryophytes including 28 liverworts and 24 mosses are reported. Sixteen of these are new to Kerala and 9 new to Peninsular India. Several of them are reported to occur only in this Sanctuary area. Fifty ferns reported from the area include three tree ferns.

Floral Endemism in the sanctuary : The high percentage of endemism in Kakkayam forest is very much comparable to other Protected Areas in South India. Actually, the percentage of endemism is higher at Kakkayam. If only tree species are considered, the percentage of endemism is far higher. There are 69 species of plants here, which are considered under various threat categories. Some trees like *Meteromyrtus wayanadensis*, *Syzygium stocksii*, *Parinarium indicum*, *Coffea crassifolia* (previously considered as extinct), *Garcinia malabarica* are found here with good and viable population. There are 39 species of grasses, 22 species of orchids and 28 species of legumes recognized from Kakkayam. The high representation of Lauraceae (16 species), Myrtaceae (11 species), Clusiaceae (10 species) and Melastomataceae (9 species) indicates the virginity and primary nature of this hill forest. These tree families with high percentage of endemism (up to 99% in some families) indicate the conservation significance of the area.

Fauna: Forty one species of mammals are reported in the area, which include 6 Western Ghats endemics. Of the 179 species of birds, 10 are endemics, 6 range restricted and 5 globally threatened species. Thirteen of these are listed in the schedule I of the Indian Wildlife Protection Act (1972). Preliminary surveys indicate the presence of 36 species of reptiles including 8 Western Ghats endemics. This forested habitat is known to be an ideal haunt for King Cobra, the largest venomous snake in the world. Thirty eight species of amphibians are known from this area of which 26 are Western Ghats endemics. The amphibians include the recently discovered *Philautus ponmudi*, *P. anili*, *P. tuberothumerus*, *P. neurostegona*, *P. ochlandrae*, *P. akroparallagi* and *P. chromasynhysi*. The type locality for *P. ochlandrae* is the reed brakes of Kakkayam dam site, the only known site for this species. The streams of Kakkayam support 52 species of fishes including 21 Western Ghats endemics. The hill stream habitats of Kakkayam are also known for the endangered Mahseer, Tor khudree. A total of 143 species of butterflies including 8 Western Ghats endemics are known from this area. Fifty one species of Dragon flies which include 11 species of Western endemics are reported from the region.

Faunal endemism in sanctuary area

Animal Groups	No. of Species	Endemics(WG)
Mammalian	41	6
Aves	179	10
Reptilian	36	12
Amphibian	38	26
Pisces	52	8
Butterflies	143	8
Dragonflies	51	11

Eco Tourism : The sanctuary is part of the Western ghats, a biodiversity hotspot. It also comes under the Nilgiri Biosphere Reserve and forms a part of the Wayanad Elephant Reserve. The picturesque dam site, unique climate, richness of biodiversity and gorgeous waterfalls of Urakkuzhi offers good eco tourism potential and is an important tourist destination of this region. The southern portions surrounding the reservoirs of this sanctuary are major tourist destinations in Kozhikode district. Visitor management and eco restitution activities are carried out through the Vana Samarakshana Samithies (VSS) at the ecotourism centres at Peruvannmuzhi and Kakkayam. At Kakkayam, the Urakkuzhy water fall and crystal clear streams are major attractions. At Peruvannamuzhy the dam, the garden, the animal rehabilitation centre and the Indian Institute of Spices Research are the areas frequented by the visitors . About 40000 people visit the area annually. Vehicles are not permitted to enter the Sanctuary.