

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/309313683>

# Phytodiversity of Mankulam Forest Division, Kerala- Updated 20 October 2016

**Dataset** · October 2016

DOI: 10.13140/RG.2.2.15982.61761

---

CITATIONS

0

---

READS

49

**1 author:**



[Santhosh Kumar E.S.](#)

Jawaharlal Nehru Tropical Botanic Garden ...

**123** PUBLICATIONS **188** CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Development of a Systematic Garden at JNTBGRI [View project](#)

**PLANTS OF MANKULAM FOREST DIVISION**

---

**PHYTODIVERSITY OF  
MANKULAM FOREST DIVISION  
KERALA**



**Dr. E.S. SANTHOSH KUMAR**

**JAWAHARLAL NEHRU TROPICAL BOTANIC GARDEN AND RESEARCH INSTITUTE  
PALODE, THIRUVANANTHAPURAM DISTRICT  
KERALA, INDIA.**

## PLANTS OF MANKULAM FOREST DIVISION

---

Mankulam Forest Division is one of the richest region of biodiversity with a wide array of flora and fauna. It spreads with an area of 90.5 sq km is one among the Natural Heritage Spots in Western Ghats by the United Nations. It was formerly as part of the Kannan Devan Hills village, had taken on lease by a British Planter John Daniel Munroe from the erstwhile Poonjar Chief in 1877. Major portion of the leased area was converted for the cultivation of tea and coffee, however they had advocated to keep the Mankulam area intact as it is and refrain from doing any sort of developmental activities. In 1971, according to KDH (Resumption of lands) Act, the entire extent of lands in KDH was taken over by the Government and in 2007, Mankulam was notified as Reserve Forest. Mankulam division was formed in the year 1980 (vide order No. C4-37166/77 of District Collector, Idukki).



*Syzygium laetum* (Buch.-Ham.) Gandhi

## PLANTS OF MANKULAM FOREST DIVISION



*Acranthera anamallica* is an endemic and endangered species of the Western Ghats, belongs to the family Rubiaceae. This species was described by Col. Richard Henry Beddome, a British Military officer and naturalist in India, who became chief conservator of the Madras Forest Department between 1868-1874.



*Begonia dipetala* var *hydrophila* (C.B. Clarke) E.S.S.Kumar & Seema, belongs to the family Begoniaceae, is an endemic species of the southern Western Ghats.



*Balanophora indica* (Arn.) Wall. ex Griff., is a root parasite with separate sex in different plants. It belongs to the family Balanophoraceae. It is commonly known as *Athithippali* in Malayalam and used as a raw drug in Ayurvedic formulations.



*Argostemma anupama* Sivaraj., belongs to the family Rubiaceae, is an endemic species of Kerala described in 1964 by Prof. V.V. Sivarajan.



*Begonia fallax* A.DC.- an endemic species of south India. It is allied to *Begonia malabarica*, another endemic species of Kerala. But differs mainly by the taller habit with glabrous flowers with bifid placenta in the ovary.

## PLANTS OF MANKULAM FOREST DIVISION



***Biophytum candolleianum* Wight**, another endemic species of the Western Ghats. It belongs to the family Oxalidaceae, has been used by the local people for a variety of ailments.



***Bridelia stipularis* (L.) Blume**, an important ethno-medicinal plant used for enhancing male fertility. It belongs to the family Euphorbiaceae. An endemic species of the Peninsular India.



***Biophytum reinwardtii* var *keralanum* E.S.S.Kumar et al.**, is an endemic species of Kerala described in 2001. It is seen in Kottayam, Idukki and rarely seen in Thiruvananthapuram districts of Kerala. It is a very rare species having the smallest flower size in the known species of the World.



***Elaeocarpus tuberculatus* Roxb.**, belongs to the family Elaeocarpaceae, is a massive tree distributed in the Indo-Malesia regions. It is commonly known as Warty Marble Tree in English and *Bhadraksham* in Malayalam.

## PLANTS OF MANKULAM FOREST DIVISION



***Eugenia anamalaiensis* E.S.S.Kumar et al.**, is a new name for Beddome's *Eugenia gracilis* described in 1864 from Anamalai hills. *Eugenia gracilis* Bedd. is a later homonym of *Eugenia gracilis* O.Berg (1856). It is endemic to Kerala and Tamil Nadu states of India.



***Exacum atropurpureum* Bedd.**, belongs to the Gentian family Gentianaceae. A beautiful wild ornamental plant, seen endemic to the Western Ghats.



***Garcinia wightii* T. Anderson**, is an endemic species of the Western Ghats. It is a vulnerable species listed by IUCN, belongs to the family Clusiaceae, seen mainly along the river banks. It was described based on Robert Wight's collection from southern India in 1874.



***Henckelia meeboldii* (W.W.Sm. & Ramaswami) A.Weber & B.L.Burtt**, belongs to the family Gesneriaceae is a scapigerous herb endemic to the Western Ghats. It was collected by A.Meebold from Peerumedu Ghats during 1910-1911 and described by Smith and Ramaswami in 1914.



***Stenosiphonium russellianum* Nees**, belongs to the family Acanthaceae, distributed in south India and Sri Lanka. Like the genus *Strobilanthes*, species of *Stenosiphonium* are also plietesial, meaning that they flower once in its life time and wither off afterwards. The seeds will take its next generation. The exact reason for its long years to reach flowering is still unknown to science.

## PLANTS OF MANKULAM FOREST DIVISION



***Goniothalamus keralensis*** E.S.S.Kumar et al., belongs to the family Annonaceae, described in 2013. The type locality of this species is at Anakkulam in Mankulam Forest Division at an altitude of 1200 m MSL. It is allied to *G.wightii* another endemic species of the Western Ghats, but differs from it by the much longer leaves with acuminate or caudate-acuminate apex, the sepals are shorter and deciduous in fruits. The anthers with convex and glabrous connective, etc. It is an endangered species endemic to Kerala.



***Henckelia macrostachya*** (E.Barnes) A.Weber & B.L. Burtt., a critically endangered species of the family Gesneriaceae, rediscovered from Pettimudi, Munnar in 2013. It was first collected by Prof. E. Barnes from Ottapari Ridge near Munnar. It is available in Pambadumpara hills of Munnar.



***Hypericum mysorense*** F. Heyne, belongs to the family Hypericaceae is a potential anti-viral plant in the treatment of Herpes. Moreover, it can be introduced to gardens as a wild ornamental plant. It thrives well in acidic soil. One of the common elements in high altitude shola forests.

## PLANTS OF MANKULAM FOREST DIVISION



*Impatiens maculata* Wight, an endemic species of Kerala and Tamil Nadu regions of the Western Ghats.



*Impatiens aliciae* C.E.C.Fisch., is an endemic and endangered species of delicate balsam, collected by Prof. E.Barnes from Munnar-Neriamangalam Ghat road. It was described by C.E.C. Fischer, a forester-botanist of south India in 1934. Prof. Barnes and his wife Alice were the close friends of Mr Fischer and the specific epithet is after Mrs Alice.



*Impatiens wightiana* Bedd., is an endemic species of the southern Western Ghats. It is a rare species seen in the moist sholas and along the wet stream banks of Anamudi high ranges.



*Impatiens floribunda*, is an endemic species of the southern Western Ghats. It is commonly known as 'free flowering balsam', described in 1837 by Robert Wight, a surgeon-botanist in East India Company.



## PLANTS OF MANKULAM FOREST DIVISION



***Impatiens parasitica* Bedd.**, commonly known as 'Parrot Balsam' is an epiphytic balsam endemic to the southern Western Ghats. It was originally thought to be parasitic on trees, hence the species name, but it doesn't actually feed off trees.



***Impatiens henslowiana*** is a shrubby species of Balsam, described by Walker Arnott in 1836 from Sri Lanka. Later it was also recorded for south India. It is a promising wild ornamental plant worth introduction to gardens.



***Lasianthus idukkianus* E.S.S.Kumar et Roy**, is an endemic species of Kerala, described from Pambadumpara in Munnar in 2014. It is a shrubby species belongs to the family Rubiaceae.



***Lobelia nicotianifolia* Roth ex Schult**, belongs to the family Campanulaceae. The crushed leaf juice is good for leach repellent.

## PLANTS OF MANKULAM FOREST DIVISION



***Justicia santapau* Bennet**, belongs to the family Acanthaceae. It is an undershrub grows upto 1.5 m high. It is endemic to the southern Western Ghats.



***Neurocalyx calycinus* (R.Br. ex Benn.) Rob.**, is a subshrub seen as an understory growth in evergreen forests along stream banks. It is endemic to the south Western part of India.



***Ophiorrhiza barberi* Gamble**, is an endemic species of the southern Western Ghats, described in 1919 based on C.A. Barber's collection from Paralai, Anamalais.



***Nageia wallichiana* (C. Presl.) Kuntze**, belongs to Podocarpaceae family, is an endangered species with disjunct distribution in Indo-Malesian regions.



***Ophiorrhiza barnesii* C.E.C.Fischer**, belongs to the family Rubiaceae, is a critically endangered species only seen in Idukki district of Kerala. It was described in 1939 based on two collections made by Prof. Edward Barnes (Barnes 1753 & 1754) from the Kallar Valley of Idukki District in 1937. These are the only known collections of the species since 1937. Deb & Mondal (1987, 2001) considered it as 'possibly extinct'. It has been rediscovered from Kallar valley after a lapse of 75 years of its first discovery.



## PLANTS OF MANKULAM FOREST DIVISION



*Ophiorrhiza caudata* C.E.C. Fisch., belongs to the family Rubiaceae. It is endemic to the southern Western Ghats. It was first collected by Prof. Barnes from Kallar - Mankulam in Idukki district. It was rediscovered after a lapse of 70 years from its type locality. It is a critically endangered species owing to habitat destructions.



*Ophiorrhiza eriantha* Wight, belongs to the family Rubiaceae, is an endemic species of the Western Ghats.



*Osbeckia aspera* (L.) Blume, commonly known as Kalathi in Malayalam. It is distributed in south India and Sri Lanka.



*Osbeckia aspera* var. *travancorica* (Bedd. ex Gamble) Hansen, is an endemic and vulnerable species of the southern Western Ghats.



*Biophytum congestiflorum* Govindr., is another endemic species of Kerala.

## PLANTS OF MANKULAM FOREST DIVISION



***Begonia aliciae* C.E.C.Fisch.**, is an endemic species of the Western Ghats. It was originally collected by Prof. Barnes and given to his friend C.E.C.Fischer for naming. Fischer named this species after Mrs Alice, wife of Prof. Barnes.



***Sonerila nemakadensis* C.E.C. Fisch.**, is a critically endangered species was originally described from Nemaikadu gap in Munnar. Since its first collection by Prof. Barnes in 1933, it has been rediscovered by the scientists of JNTBGRI from its type locality.



***Peliosnathes tetra* Andrews**, is a perennial herb, distributed in Indo-Malesia. It belongs to the family Haemodoraceae (Bentham & Hooker's system) but are now placed in Asparagaceae (APG IV).

## PLANTS OF MANKULAM FOREST DIVISION



*Thunbergia mysorens* (Wight) T. Anderson, is commonly known as 'Indian clock vine' or 'Mysore trumpet vine' belongs to the family Acanthaceae.



*Syzygium occidentale* (Bourd.) Gandhi, belongs to the family Myrtaceae, is seen along the river banks.



*Piper peepuloides* Roxb., was originally reported from the Northern Part of India. It has been recently recorded for south India.

*Pothos armatus* C.E.C.Fisch., belongs to the family Araceae, is an endemic species of the Western Ghats. It was originally collected by C.A.Barber in 1903 from the Thambacherry Ghats in Wayanadu district in Kerala.



## PLANTS OF MANKULAM FOREST DIVISION



***Sonerila barnesii* C.E.C. Fisch.**, is a critically endangered species endemic to Kerala and Tamil Nadu states of India. It was first collected by Prof Barnes from Nadugani in Tamil Nadu. It was recollected from Mankulam forests in 2011.



***Ophiorrhiza incarnata* C.E.C.Fisch.**, is a critically endangered species endemic to the southern Western Ghats. It was first collected by Prof. Barnes from Nadugani in Nilgiri-Wynad region in 1937, but was published by Fischer in 1938. Dr Ridsdale from Rijksherbarium, The Netherlands has collected this species from Mankulam, where it is represented by a very few individuals only.



***Psychotria globicephala* Gamble**, is another endangered species of the Western Ghats, originally collected by Rober Wight from the Courtallum hills in 1835. This was published by J S Gamble in 1920. Gamble was a forester-botanist, who along with Fischer (after Gamble's death) published the botanical mammoth 'The Flora of the Presidency of Madras'.



## PLANTS OF MANKULAM FOREST DIVISION

### Thanks to:-

The Director, JNTBGRI for the facilities and to the authorities of Kerala Forest Department for the permission and other logistic supports.



Anakulam River



*Humboldtia sanjappae* was described by Dr N Sasidharan and Dr Sujanapal in 1987. It is an endemic species of the Southern Western Ghats, belonging to the family Fabaceae. It is known only from a single locality Neriamangalam in Idukki district.