

Ecology and Conservation status (IUCN) of *Cryptocarya anamalayana* Gamble Endemic to Southern Western Ghats

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The Genus *Cryptocarya* -family Lauraceae has 365 species, most of which are confined to tropical Asia (Plant List, 2010). *Cryptocarya anamalayana* Gamble is coming under endemic, Endangered B1+2c category of IUCN, 2018. The species was described by Gamble (1927) based on two specimens from Anamalai Hills of South India (R.H. Beddome 270 (K!) from Anamalai hills in June 1872 and C.A. Barber 6008(CAL!) from Punachi, Coimbatore in May 1903 with a description of immature fruits. No mature fruiting specimen of this taxon was collected or described by any of the subsequent authors. Mature fruiting specimens collected by Bachan 2010 from Sholayar and Vazhahcal Forests of central Kerala. Lectotypification was done based on the Beddome specimen (270 K!) by Bachan, *et al* 2018.

The population is reported from only three locations in the Sholayar forests after 10 years of intensive search. Data collected in 300m² (0.03 ha) plots in the habitat to understand the habitat characteristics of the region. Abundance plots of size 20x15m

were done around the mature trees. Distribution of the species were mapped QGIS/Map Info. Population characteristics were obtained from the plots. *Palaquium ellipticum*, *Cullenia exarillata*, and *Eleocarpus tuberculatus* were the major large tree associations, *Turpinia malabarica*, *Litsea coreaceae*, *Syzygium laetum* were medium tree associations and *Litsea floribunda*, *Antidesma montanum*, *Litsea bourdillonii* were small tree associations. The analyzed population characteristics were tabulated against the IUCN criterion to understand the Threatened status of the species. The population density, presence of only 21 individual trees in the important population location, less number of mature fruits and the assessment against IUCN criteria suggests that the species should be included in Critically Endangered (CR) Category. The present study recommends this species for Critically Endangered Category (CR).

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