

we successfully recorded the daily movements and home ranges of the five males. The collars dropped off by the end of March 2023, and were successfully recovered.

Although the inseminations were unsuccessful, we have demonstrated that male and female pampas deer can be handled without any resulting health issues or injuries. We are now revising the protocols for optimizing the oestrous cycle synchronization so that we can reattempt insemination in the next reproductive season.

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### Conservation of *Diospyros crumenata* (Ebenaceae), an Endangered tree endemic to the Western Ghats, India

The Western Ghats of India are recognized as a biodiversity hotspot and are remarkable for their floristic diversity and endemism. *Diospyros crumenata* Thwaites of the family Ebenaceae is an Endangered, dioecious tree endemic to this region. It grows up to 25 m tall in evergreen forests. There is only limited data available for this rare species, so the research team of Kerala Forest Research Institute conducted population surveys from August 2021 to March 2023, locating populations in Poringalkuthu, Vellanipacha and Mannamangalam in the Kerala part of the Western Ghats. We recorded the number of mature individuals, area of occupancy, extent of occurrence, and any natural regeneration or threats.



Characteristics and conservation of *Diospyros crumenata*: (a) habit, (b) & (c) fruit, (d) predated fruits, (e) processed seeds, (f) seed damage by unidentified insects, and (g) planting stock.

We observed that the tree flowers and fruits irregularly. The fruits, locally known as *karimbudan*, are edible. There are eight seeds per fruit, and the seeds are recalcitrant and lose viability within 2 weeks of collection. The fruits are typically consumed before they reach maturity, and fallen fruits are affected by fungal infections. The fruits are consumed in particular by the Endangered lion-tailed macaque *Macaca silenus*, which is endemic to the Western Ghats. The conservation of this tree is therefore important for the conservation of this primate.

We determined that the main threats to *D. crumenata* are (1) the low number of reproductively active trees, (2) poor recruitment of seedlings, (3) irregular flowering and fruiting, (4) low seed viability, and (5) consumption of the fruits by tribal people and by wild animals. As there appear to be constraints to the reproduction of this species in the wild, ex situ conservation may be required. We have grown 2,000 seedlings of *D. crumenata* in the Kerala Forest Research Institute nursery and are planning to plant them in the species' natural habitat.

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