

# Kerala flood opened the gates to invasive plants

Landslides, overflowing rivers helped in spreading them

E.M. MANOJ

KALPETTA

Floods and landslips that caused widespread havoc all over Kerala in August have also unleashed several alien invasive species of plants into the State's waterbodies, posing a threat to native biodiversity and the aquatic environment, scientists have reported. An ongoing survey of the Kerala Forest Research Institute (KFRI), Peechi, on the impact of the extreme climatic events in the State, has revealed that this might lead to invasive biota being introduced afresh, or being reintroduced in places where the control of their populations was once achieved.

The study found that physical routes and paths formed due to landslides and the overflow of rivers had paved the way for the establishment of primary colonies of invasive species like Nila grass (*Mimosa diplotricha*), mikania (*Mikania micrantha*), lantana (*Lantana camara*) and Siam weed (*Chromolaena odorata*).

T.K. Hrideek, scientist, Genetics and Tree Breeding, KFRI, told *The Hindu* that the spread of the invasive species could threaten cultivable land and wildlife habitats alike. The survey revealed that invasive species like the water hyacinth (*Eichhornia crassipes*) and giant salvinia (*Salvinia mol-*



Lemon basil or Tea bush is one of the three new invasive species in the Wayanad Wildlife Sanctuary.

*esta*), present in the backwaters of the Kuttanad region, had started colonising paddy fields, cultivated lands and other isolated water bodies in nearby areas.

In Thrissur district's Kole wetlands, notified under the Ramsar Convention, invasive plants, especially grass species, such as matamat (*Rhynchospora corymbosa*), desho grass (*Pennisetum pedicellatum*), giant salvinia and water hyacinth were reportedly establishing a beach-head, using available soil resources. This may lead to the conversion of marshy wetlands into dry land, Dr. Hrideek said.

"In many areas of Thrissur, Palakkad, Wayanad and Idukki districts, seeds

of invasive species from mountainous areas have spread to new spaces formed by landslips. Hardy invasive species can grow very fast in landslip-affected areas by using available nutrients, while native species cannot adapt to such conditions. Later, this area will be a seed source for many invasive species," explains K. Muraleekrishnan, a research scholar with KFRI.

## SUNDAY SPECIAL

"In rubber plantations, cover crops (species grown mainly to prevent soil erosion) like mucuna (*Mucuna bracteata*), a nitrogen-regulating plant, are more likely to establish themselves in the new areas and subsequently spread into the forests through the corridors created by landslips. This could affect the soil and destroy the microhabitat of that area," he added.

"The threat [of invasive species] should be addressed in the process of [post-flood] reconstruction in the State," Dr. Hrideek said. "Elimination of invasive plants is a Herculean task but their spread can be tackled with the active participation of the public."

The Forest Department is conducting a survey to identify the area and density of the spread of invasive species in the Wayanad Wildlife Sanctuary.