

UNIYALA KERALENSIS: ENVIRONMENT

NEWS: Plant species first collected 27 years ago identified as new species of the genus *Uniyala*

WHAT'S IN THE NEWS?

A new plant species, *Uniyala keralensis*, has been discovered in Kerala's Agasthyamala Biosphere Reserve, identified as distinct within the genus *Uniyala* due to its unique physical features. The species is endemic to southwest India, with a Data Deficient conservation status under the IUCN Red List.

Discovery of *Uniyala keralensis* - A New Shrub Species in Kerala

1. Discovery and Research of *Uniyala keralensis*

- The plant species *Uniyala keralensis* was discovered in the Agasthyamala Biosphere Reserve (ABR) in the Thiruvananthapuram district of Kerala, India.
- It was first collected in 1998 by researchers E.S. Santhosh Kumar and S.M. Shareef during field exploration at the Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI) in Palode, Kerala.
- Initially, the shrub was believed to belong to the species *Vernonia multibracteata*, but further research and comparisons led to its classification as a new species within the genus *Uniyala*.
- The research, which included detailed studies of the plant's physical features and herbarium specimens, concluded that it was a distinct species of the genus *Uniyala*.
- The findings were published in the journal *Phytotaxa*, confirming the new species as *Uniyala keralensis*.
- The species is endemic to southwest India, specifically in the Agasthyamala Biosphere Reserve region.

2. Physical Characteristics of *Uniyala keralensis*

- *Uniyala keralensis* is a small to large shrub, reaching a height of 1 to 3 meters.
- The shrub has attractive light purple florets, making it visually distinct in the area.
- Compared to other species in the genus *Uniyala*, such as *Uniyala comorinensis* and *Uniyala salviifolia*, *Uniyala keralensis* exhibits several unique physical features:
 - **Larger Leaves:** The leaves are relatively larger compared to those of related species.
 - **Long Petioles:** The plant has fairly long petioles, which are slender stalks that attach the leaves to the stem.

- **Fewer Lateral Veins:** The leaves of *Uniyala keralensis* have fewer lateral veins than its close relatives in the genus.
- The plant flowers and fruits from August to April, which is typical for species found in the region's tropical climate.

3. Habitat and Distribution of *Uniyala keralensis*

- *Uniyala keralensis* is found in the open areas along the western mountain slopes of the Agasthyamala Biosphere Reserve (ABR), located in Kerala.
- The plant thrives at elevations ranging from 700 meters to 1,400 meters above sea level, making it adaptable to higher altitudes in the Western Ghats.
- The current population of *Uniyala keralensis* is estimated to consist of approximately 5,000 individuals, which vary in age and size.
- The plant occupies an area of around 250 km², and it is divided into four subpopulations within this region. These subpopulations are scattered across the biosphere reserve, but their overall population density and distribution are not yet fully understood.

4. Conservation Status of *Uniyala keralensis*

- The International Union for Conservation of Nature (IUCN) has assessed *Uniyala keralensis* as **Data Deficient (DD)** under the IUCN Red List Criteria (IUCN 2024).
- The Data Deficient status indicates that there is insufficient information available regarding the plant's population trends, distribution, and overall conservation status.
- Further research is needed to assess the exact conservation needs of this species and to



ensure its protection in the face of habitat changes and potential threats.

5. About the Genus *Uniyala*

- The genus *Uniyala* is named after renowned plant taxonomist B.P. Uniyal, who made significant contributions to the study of plant taxonomy.
- *Uniyala* is a genus within the Asteraceae family and includes 11 species, most of which are found in southern India and Sri Lanka.
- The genus is known for its shrubs that are typically found in the hilly and montane regions of the Western Ghats and other areas of the southern Indian subcontinent.
- Each species within the genus shares certain characteristics, but *Uniyala keralensis* stands out for its unique features and localized habitat in the Agasthyamala Biosphere Reserve.

6. Significance of the Discovery

- The discovery of *Uniyala keralensis* highlights the biodiversity of the Agasthyamala Biosphere Reserve and the broader Western Ghats region, which is known for its rich plant and animal diversity.
- This new species contributes to our understanding of the flora in southwest India and emphasizes the need for ongoing research in these ecologically important areas.
- The identification of this species as a new addition to the genus *Uniyala* also enhances our knowledge of the taxonomic relationships within the Asteraceae family, which is one of the largest and most diverse plant families in the world.

7. Conclusion

- *Uniyala keralensis* is a new and significant species of shrub found in the Agasthyamala Biosphere Reserve in Kerala.
- With its distinct physical characteristics and unique habitat in the western slopes of the Western Ghats, this species represents a valuable contribution to plant biodiversity.
- As a newly discovered species, it requires further conservation attention and research to ensure its long-term survival, especially as its conservation status remains uncertain. The discovery also reinforces the critical importance of preserving biodiversity hotspots like the Agasthyamala Biosphere Reserve, which continues to reveal new species and ecological insights.

Source: <https://www.thehindu.com/news/national/kerala/plant-species-first-collected-27-years-ago-identified-as-new-species-of-the-genus-uniyala/article69333684.ece>

