

## **New Species / New Records F.Y. 2021-2022**

### **1. A new species of Impatiens (Balsaminaceae) from the Eastern Ghats of Tamil Nadu, India**

**October, 2021**

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#### **Abstract**

*Impatiens vaiyapurii* is described as a new species from the Kolli hills of Eastern Ghats in Tamil Nadu, India. The species shares several morphological characters with *I. dasysperma* Wight, which is endemic to the southern Western Ghats. The photographs, illustrations and conservation status of the species are provided here for easy identification.

**Key words:** Balsaminaceae, Eastern Ghats, *Impatiens flaccida*, India, Kolli Hills, New species

**Source:** [https://www.researchgate.net/publication/355166300\\_SPECIES\\_1\\_REPORT\\_A\\_new\\_species\\_of\\_Impatiens\\_Balsaminaceae\\_from\\_the\\_Eastern\\_Ghats\\_of\\_Tamil\\_Nadu](https://www.researchgate.net/publication/355166300_SPECIES_1_REPORT_A_new_species_of_Impatiens_Balsaminaceae_from_the_Eastern_Ghats_of_Tamil_Nadu)

### **2. Twelve new butterfly species recorded in the Eastern Ghats of Visakhapatnam district**

**November, 2021**

The study was recently published in a scientific journal and brought to light some interesting facts

Gossamer-winged butterflies conjure up images of flowery fields and sunshine-soaked gardens.

Indicators of a healthy environment and ecosystem, butterflies have been widely used by ecologists to study the impact of habitat loss and fragmentation, and climate change. So it is encouraging that 12 new species have been recorded as new to Visakhapatnam district in a research study on butterflies recently published in a scientific journal. It also brought to light some interesting facts.

The study was conducted between 2016 and 2018 by research director Mantha Ramamurthy, STPL Ushasri and Pavani Sagiraju of Dolphin Nature Conservation Society in Visakhapatnam. The research paper titled Butterflies of Visakhapatnam District, Andhra Pradesh, India, was published in the recent edition of the scientific journal, *Zoo's Print*. The 12 species recorded as new to Visakhapatnam district are — *Troides helena*, *Colotis amata*, *Delias hyparete*, *Eurema brigitta*, *E. laeta*, *Ixias pyrene*, *Lethe europa*, *Vanessa cardui*, *Ypthima baldus*, *Y. ceylonica*, *Virachola isocrates*, and *Freyeria trochylus*. The common names are common birdwing, small salmon Arab, painted jezebel, small grass yellow, spotless grass yellow, yellow orange-tip, bamboo treebrown, painted lady, common five-ring, white four-ring, orange-spotted grass jewel and common guava blue.



While the study documented the presence of these species in parts of Eastern Ghats of Visakhapatnam district like Chintapalli, G K Veedhi, Ananthagiri, Paderu, Araku and Sileru, a good number of these butterfly species can be seen

flitting about within the city limits as well. The researchers recorded many of these species in the urban environments of Kambalakonda, Thotlakonda, Indira Gandhi Zoological Park, Simhachalam Hills and Biodiversity Park.

There are 20,000 species of butterflies recorded in the world; of them 1,500 are reported from India. The northern part of the Eastern Ghats is an area with significant biodiversity value. However it remains poorly explored, especially with regard to studies of invertebrate diversity, particularly butterflies.

The study highlights the presence of a total of 105 species belonging to six families of which, 12 species were recorded as new to Visakhapatnam district. As many as seven species are legally protected in India under the Wildlife (Protection) Act, 1972. A total of 11 areas were selected from Visakhapatnam district, of which six areas were from Eastern Ghats forests and five from urban environments. Seven species are legally protected in India under the Wildlife (Protection) Act, 1972— *Pachliopta hector* under Schedule I, *Euploea mulciber* and *Appias libythea* under Schedule IV, and *Hypolimnas misippus*, *Lampides boeticus*, *Euchrysops cnejus*, and *Tanaecia lepidea* under Schedule II.

“Identification of butterflies needs very careful study because of seasonal changes, sexual dimorphism, where females look different and polymorphism, where same species exists in different morphological form because of mimicry,” says Ramamurthy.



In the study, 12 species were exclusively found in the Eastern Ghats forests of Visakhapatnam district but not in urban environments — *Troides helena*, *Delias hyparete*, *Ixias pyrene*, *Ariadne ariadne*, *Symbrenthia lilaea*, *Tanaecia lepidea*, *Ypthima baldus*, *Ypthima ceylonica*, *Ypthima huebneri*, *Caleta decidia*, *Talicaada nyseus*, and *Sarangesa dasahara*.



Two species were found only in urban environments of Visakhapatnam—*Appias libythea* and *Abisara bifasciata suffusa*. “The observations were made through transects, each of 500 metres length with five metres on either side, with one to three transects at every site. Observations were taken in the morning from 8am to noon when the butterflies were most active. Abundance of butterflies in different habitats were recorded,” says Ramamurty. The encountered butterflies were identified while they were in flight or in resting. Identification of the species was done mostly through photographic evidence.

Species which are difficult to identify were caught by hand net and released after examination.

### **Habitat threats**

The study also highlighted the butterfly habitats in urban areas that are affected due to pollution, industrialization and urbanization. “Vast stretches of plantation of monotypic and exotic species like *Bougainvillea spectabilis*, Madagascar almond, and *Conocarpus lancifolius* in traffic islands and road dividers pose a threat to the native species. Landscaping is seen everywhere for beautification purposes, which leaves no native herbal plants for the butterflies and larvae to flourish. Making every possible inch of urban space with concrete, not only depletes the water table but also reduces wild patches that attract butterflies,” says Ramamurty.

Creating public awareness by involving students, local people, forest dwellers, and tribals is essential in the conservation of butterflies. “These are an extremely important group of organisms used from centuries to study several areas of biological research, including navigation, pest control, embryology, mimicry,

evolution, genetics, population dynamics and biodiversity conservation,” says Ushasri.

**Source:** <https://www.thehindu.com/sci-tech/energy-and-environment/twelve-new-butterfly-species-recorded-in-the-eastern-ghats-of-visakhapatnam-district/article37579073.ece>

### **3. Two new species of flower flies discovered**

**January, 2022**

**Thiruvananthapuram:** Two new species of rare wasp mimicking flower flies have been discovered in the forests of the Western Ghats and North East. The newly discovered species has been named *Monoceromyia flavoscutata* and *M. nigra* and belong to the Syrphidae family. The discovery of the member of the rare genus *Monoceromyia* comes after a gap of 80 years in India.

“Flies belonging to the Syrphidae family are seen around us. But, flies belonging to *Monoceromyia* of the same family are rare. These flower flies are distinct and rare, with wasp-like features. It mimics the wasp-like features to escape from predators,” said Anooj assistant professor of entomology at College of Agriculture, Padannakkad. The study was published in the *Journal of Asia-Pacific Entomology*.



The members of the genus are extremely rare, with only 12 species being reported from India. The researchers also revised the genus and redescribed seven existing species in the genus. “The two species -- *Monoceromyia multipunctata* and *M*

polistoides -- are not different and are the same. Seven species were redescribed by adding more pictures and descriptions,” said Anooj. The species were discovered after surveys in the evergreen forests of Kerala, Tamil Nadu and Arunachal Pradesh.

Researchers said that the habitat requirements for the newly discovered species are unlike that of other flower flies. “The unique habitat preferences of the flies such as sap runs, colonies of stingless bees and water fills of plants like bamboo show their conservation value. You can’t find these flies everywhere,” said Anooj.

**Source:** <https://www.newindianexpress.com/states/kerala/2022/jan/09/two-new-species-of-flower-flies-discovered-2404696.html>

#### **4. Study identifies potential areas for discovering new plant species in Indian grasslands**

**March, 2022**

Over 200 endemic plant species have so far been discovered from the Indian savanna, finds study Global efforts to promote biodiversity conservation are expected to get a new boost, with a group of scientists finding that the grasslands in the Eastern Ghats and the eastern edge of the Western Ghats could be rich sources for discovering new plant species.

Over the years, scientists working to find new plant species, particularly in tropical



areas, have been focusing mainly on forests. Grasslands have been grossly ignored on the assumption that since they were formed by artificial degradation of forests, they may only have some already known species, and nothing new could be expected from them. However, studies in recent times have found this assumption to be misplaced. In India in particular, many new species have been discovered from grasslands in recent years. But the data had remained scattered and grasslands continue to be largely ignored.

In a new study, a team of researchers collated data from national, regional and local taxonomic and floristic accounts and analysed them to get a clearer idea. They began by examining the floristic data to look for plants endemic or restricted to the Indian savanna. They then looked at whether there were any patterns behind the discovery of the species across time and space and whether any key factors could help predict where new species could be discovered.

The study found that 206 endemic plant species have so far been discovered from the Indian savanna and 43 per cent were described in just the last two decades. It also showed that the Eastern Ghats Mountains and the eastern edge of the Western Ghats Mountains could be rich sources for discovering new species. Further, it indicated that the new species are more likely to be short-statured and be found in higher latitudes and elevations.

The study team consisted of Ashish Nerleker of the Department of Ecology and Conservation Biology at Texas A&M University, USA, Alok R. Chorghhe of Rajiv Gandhi Regional Museum of Natural History, Sawai Madhopur, Jagdish V. Dalavi of Shivaji University, Kolhapur, Raja Kullayiswamy Kusom of Indian Institute of Science, Subbiah Karuppusamy of Madura College, Madurai, Vignesh Kamath of Gubbi Labs, Karnataka, Ritesh Pokar of the Maharaja Sayajirao University of Baroda, Ganesan Rengaiyan of Ashoka Trust for Research in Ecology and the Environment (ATREE), and Milind M. Sardesai of Savitribai Phule Pune University, and Sharad S. Kambale of MVP Samaj's Arts, Commerce & Science College, Tryambakeshwar, Maharashtra. They have published a report on their work in the journal, *Biotropica* of the Association for Tropical Biology and Conservation.

**Source:** <https://www.downtoearth.org.in/news/wildlife-biodiversity/study-identifies-potential-areas-for-discovering-new-plant-species-in-indian-grasslands-81993>

## **5. A new species of *Pancratium* Dill. ex L. (Amaryllidaceae) from Eastern Ghats of India**

**March, 2022**

**Citation:** R. Prameela, J. Prakasa rao, S.B. Padal and M. Sankara Rao 2022. A new species of *Pancratium* Dill. ex L. (Amaryllidaceae) from Eastern Ghats of India. *Journal of Threatened Taxa*. 14, 3 (Mar. 2022), 20801–20804. DOI:<https://doi.org/10.11609/jott.7700.14.3.20801-20804>.

### **Abstract**

*Pancratium venkaiahii* is described as a new species from Eastern Ghats of India. It is closely allied to *P. st-mariae*. A comprehensive description with photo substantiation and comparison table are provided.

**Source:**<https://threatenedtaxa.org/JoTT/article/view/7700#:~:text=Sankara%20Rao%202022,.from%20Eastern%20Ghats%20of%20India>.

## **6. *Euphorbia ravii* (Euphorbiaceae: subg. *Euphorbia*), a new species from Andhra Pradesh, India**

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### **ABSTRACT**

*Euphorbia ravii* is described as a new species from Nigidi hills, Ananthapuramu district of Andhra Pradesh, India. It belongs to the subgenus *Euphorbia* section *Euphorbia*, it is closely allied to *E. caducifolia* but differs in many attributes which are Discussed here. An updated key for Indian *E. caducifolia* group is also provided for easy identification.

**Key Words:** Deccan Plateau, *Euphorbia caducifolia*, Nigidi hills, preliminary conservation status, section *Euphorbia*



**Source:**

<https://www.researchgate.net/publication/360311493> Euphorbia ravii Euphorbiaceae subg Euphorbia a new species from Andhra Pradesh India