

If you do not know the names of things, the knowledge of them is lost, too. - Carl Linnaeus

Eponymous Genus



A.P. Ranjith *Research Associate*



Priyadarsanan Dharma Rajan *Senior Fellow*

Atree, a remarkable new genus of the subfamily Brachistinae (Hymenoptera: Braconidae) and the first report of the tribe Diospilini from India

Ranjith A.P., Priyadarsanan Dharma Rajan, Cornelis van Achterberg



With the discovery of a new species of wasp, *Atree rajathae* and two other already known species, a new genus of Braconid wasp was named '*Atree*'. "The discovery of a new genus of wasps by the ATREE team is a very significant finding "said Dr. Kamal Bawa, President of ATREE. "E.O. Wilson of Harvard University,

and perhaps the most celebrated biodiversity specialist, who passed away a few months ago, once remarked that it is the small things that run the world. Wilson's point was that our focus on biodiversity conservation on large mammals is somewhat misplaced. All creatures, big and small, are important components of nature and play critical roles in the functioning of the ecosystems that are declining all over the world. It is appropriate that as **ATREE celebrates its 25th anniversary**, the newly discovered genus is named after **ATREE**," he added.

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19 new species of parasitoids described in 2021-22

A.P. Ranjith & Priyadarsanan Dharma Rajan



Parasitoids are organisms that develop outside or inside another organism by taking nourishment from the hosts, eventually killing the host. A majority of the parasitoids are found to be important natural enemies to insect pests. Several studies have shown that parasitic Hymenoptera are very good alternatives for chemical control of insect pests. It is imperative to understand the host parasitoid-association of insects in different agricultural fields as well as forest ecosystems in order to implement effective natural control measures against insect pests. Even though more than 6000 parasitoid species have been reported from India, we make use of only less than 100 natural biological control systems.



Kerevata Belokobylskij (Hymenoptera: Braconidae: Rogadinae) is no longer a Papua New Guinean endemic with descriptions of three new species from the Indomalayan Region

Until now, *Kerevata* was known only from Papua New Guinea. Here we report a major range extension of the genus to the Indomalayan region (India and Vietnam), while describing three new species (two from India and one from Vietnam).

One of the new species collected from Biligiri Rangaswamy Temple Tiger Reserve in Karnataka is named after the late K. Ketha Gouda. Ketha Gouda, who passed away in 2012, was our committed field assistant, a nature lover and a great human being; no adjectives suffice to describe him. During this 25th anniversary year of ATREE, by naming this species Kerevata kethai, we remember Ketha Gouda.

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Discovery and description of the ichneumonid genus *Trieces* and three new species from the Indomalayan region

A.P. Ranjith, Priyadarsanan Dharma Rajan



ATREE's researchers, A.P. Ranjith and Priyadarsanan Dharma Rajan have recently described three new species of Trieces from the Indomalayan region for the first time, *T. irwini*, *T. isolatus* and *T. orientalis*. Out of these, two species (*T. irwini* and *T. isolatus*) were collected from Biligiri Rangaswamy Hills (B R Hills), Karnataka and one species (*T. orientalis*) from Zapami Village, Phek district, Nagaland. Among the three new species, the authors dedicated one species as a token of gratitude to the renowned dipterologist Prof. Michael Edward Irwin (Emeritus Professor, University of Illinois, Urbana Champaign, USA), a well-wisher and supporter of ATREE Insect Biosystematics and Conservation Laboratory.

Specimens from B R Hills were collected as a part of the Western Ghats Biodiversity Inventory program (WGII), supported by Schlinger Foundation, USA, and the specimen from Nagaland was collected as a part of the project on Bio-Resource and Sustainable Livelihoods in North East India funded by Department of Biotechnology, Govt. of India. The new species can be distinctly separated from other *Trieces* species by their peculiar morphological characteristics like longer face and reduced number of antennal segments. Most of the *Trieces* species were collected from dry habitats. The new species described in the present study were collected from dry deciduous, evergreen and wet forests, suggesting that *Trieces* species can exist in wet climates as well.

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Sahanashree R *Researcher*



Aswaj Punnath *Researcher*



Priyadarsanan Dharma Rajan Senior Fellow



Anoop Karunakaran *Research Associate*

Two new species of doryline ants (Hymenoptera,

4 new species of ants described

Formicidae) with 11-segmented antennae from India

Priyadarsanan Dharma Rajan, Aswaj Punnath, Sahanashree R



The *Parasyscia* are small, cryptic ants that usually nest in decaying logs or under rocks. The Parasyscia ganeshaiahi has a distinct yellowish-brown body with numerous macropunctures and smooth interspaces. The species was found deep inside the Eaglenest Wildlife Sanctuary (Arunachal Pradesh) at an elevation of 1400 m above sea level. As ATREE is celebrating its silver jubilee, one species is named *Parasyscia ganeshaiahi* in honour of one of its founders Prof. K. N. Ganeshaiah, eminent ecologist, thinker and writer who was instrumental in establishing the Insect Taxonomy and Conservation Laboratory in ATREE.



The *Syscia* are rare ants usually encountered in leaf litter, rotting wood and soil habitats. *Syscia indica* is a blind ant with a reddish-brown coloured body and numerous, relatively small, closely spaced punctures.

The discovery of *Syscia indica* marks the first record of this rare ant genus from India.

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Description of two new species of ants of the genus Myrmecina Curtis, 1829 (Hymenoptera: Formicidae: Myrmicinae) from the Eastern Himalayas

Aswaj Punnath, Anoop K, Priyadarsanan Dharma Rajan



Myrmecina, being cryptic ants, are rarely encountered in visual surveys and their biology and behaviour are poorly known. These ants live in small colonies of 30 to 150 individuals under stones or decaying wood.

Myrmecina bawai is named in honour of the founder president of ATREE, Prof. Kamaljit S. Bawa, renowned evolutionary ecologist and conservation biologist. Myrmecina bawai is unique from all its congeners in India with its remarkable yellow-coloured body with a dark tinge. Two workers of *Myrmecina bawai* were collected from Phawngpui National Park, often called Blue Mountain National Park. This is the highest mountain peak in Mizoram having a maximum altitude of 2157 m above sea level. *Myrmecina reticulata* have a remarkable and unique reticulate sculpture on the gaster (abdomen). This unique feature inspired us to name the species *Myrmecina reticulata*. The collection site of *Myrmecina reticulata* sits in the Dampa Tiger Reserve, Mamit district, at an elevation of 409 m above sea level.

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4 new species of reptiles described



Surya Narayanan *Researcher*

A new species of large-bodied gecko Hemidactylus Goldfuss, 1820 (Squamata: Gekkonidae) from the Western Ghats of India

Surya Narayanan



"The first thing that came to my mind was that I knew of only one species of large-bodied geckos, described from the outskirts of Bangalore. Attapadi in Kerala belongs to a completely different habitat and biogeographic zone, and hence we thought it was worth looking at this. We collected two individuals. They are difficult to catch due to their defensive behaviour. When you grab them, they lose their dorsal skin and escape and we are left holding the skin," remarks **Surya Narayanan.** He was with a team of researchers, who decided to name the new species *Hemidactylus easai*.

It is a species of large-bodied gecko known only from the Nilgiri-Attapadi landscape in the Western Ghats of India. This gecko is largely rock-dwelling (rupicolous) and only found in rocky habitats.

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A new Indian species of Rhinophis Hemprich, 1820 closely related to R. sanguineus Beddome, 1863 (Serpentes: Uropeltidae)

Surya Narayanan



Shieldtail snakes are one of the most interesting groups of burrowing snakes in the world, found in India and Sri Lanka. These snakes spend a significant time of their life underground and come to the surface only during the monsoon, for breeding. The name comes from a rough shield-like structure in the tail, sometimes used to mimic the head to confuse the predators or buy time to escape. Karinthandan's shieldtail was recently described from Wayanad in Kerala. The species is named in honour of Karinthandan, a member of the Paniya (also Paniyar, Paniyan) tribe indigenous primarily to the tri-state region of Kerala-Karnataka-Tamil Nadu. Karinthandan is believed to have been a chieftain (moopan) murdered in the 1700s by the British after he showed them the Thamarassery churam mountain pass between the Adivaram (foothills) and Wayanad plateau. Legend has it that Karinthandan's spirit is today chained to a banyan tree at Lakkidi in Wayanad, which has become a place of worship.





Herpetologist Deepak Veerappan has a snake named after him

Surya Narayanan

Xylophis deepaki or Deepak's woodsnake is one of the smallest species of snakes found in India, from the Agasthyamalai landscape in Tamil Nadu and Kerala. Xylophis snakes are subfossorial and endemic to the Western Ghats. They are known to feed on the earthworms and possibly other vertebrates. An interesting fact is that their close relatives are found in north-eastern India and Southeast Asia...

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New species of racer snake found in Tamil Nadu named after herpetologist Naveen Joseph

Surya Narayanan

Racer snakes are one of the most widespread snake groups found in the Sub-Saharan and Indian peninsulas. The name racer comes from its lightning speed locomotion, making it difficult to find it easily. Joseph's racer is a recently described species from coastal Tamil Nadu and are known only from the areas south of the river Kaveri. The closest relative is widespread in India and shows ontogenic variation...

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3 new species of snails described



N.A. Aravind Senior Fellow



Nipu Kumar Das *PhD Student*

Observations on natural diet and reproductive behaviour of an endemic snail *Indrella ampulla* (Benson 1850) (Gastropoda: Ariophantidae) from the Western Ghats, India

Surya Narayanan & N.A. Aravind



Indrella ampulla (Benson 1850) is a large terrestrial stylommatophoran gastropod belonging to the family Ariophantidae. The genus is endemic to India's Western Ghats and is monotypic, originally described originally from Koorda Ghat at Nilgiri Hills in southwestern India. In this newly published paper, Surya Narayanan and N.A. Aravind describe the natural diet and reproductive behaviour of this charismatic land snail.

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Micro snail species discovered in Meghalaya's Mawsmai cave

 1 mm

 1 mm

 Georissa mawsmaiensis

Nipu Kumar Das, N.A. Aravind

"We checked the wet walls of mawsmai cave with a head torch/mobile flash and found snail assemblages. They look like tiny sand particles. We collected a few samples and studied them under the microscope at ATREE," describe Nipu Kumar and N.A. Aravind.

From this trip, the duo described two snails. One was a new species - *Georissa mawsmaiensis*. The other was a redescribed species - *Acmella tersa* (with international collaboration). *Acmella tersa* was assessed later and found to be Critically Endangered.

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A New Frontier



Ganesan Rengaian Senior Fellow

Study identifies potential areas for discovering new plant species in Indian grasslands

Ganesan Rengaian, Ashish Nerlekar



Indian savannas are ancient ecosystems and not anthropogenic forest derivatives. Taxonomists are yet to discover most of the endemic plants in the Indian savannas, and understanding what kinds of plants are likely to be found would help speed up the discovery. Discovering the missing endemic species will be an uphill task and entail investing in nationwide programmes to develop a cadre of botanists with excellent taxonomy skills.

With limited resources for research involving fieldwork in general and taxonomy specifically, understanding whether there are species discovery hotspots in the study area might help prioritize botanical expeditions in places with greater species discovery payoffs.

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