

The Echo

Women in Bat Conservation: Juliet Vanitharani

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What is your focus in bat conservation and research?

Focus in bat conservation: My focus in bat conservation is assessing and documenting impacts on bat diversity. Despite the key benefits Indian bat species provide, they are subjected to unwarranted persecutions and indiscriminate fear, which threatens their existence. Indian government legislations and policies give very poor recognition to bats. The fruit bats are categorized under schedule V along with Vermin in Indian Wildlife Protection Act; however a decline in numbers of these species could have repercussion across the whole ecosystem. I am the Tamil Nadu State Biodiversity Expert Member and I am pressing the Ministry of Environment and Forests in the Indian government to consider the ecosystem services fruit bats and remove the fruit bats from schedule V of the Wildlife Protection Act.

Focus in bat research: Much of the work during the past few decades on Indian bat species has been restricted to the study on either their distribution or their physiology and, therefore, little is known about their actual status. The key to protect India's bats are learning more about their ecology and behaviour; therefore I focus my research to fill in the gap in Indian bat studies especially on population monitoring and impact assessments or the ecosystem services. My research findings are revealing how important bats are to India's diverse ecosystems.



What is your most thrilling/exciting/weird moment in your conservation and research career?

Thrilling experience: Research work on cave bats within the home range of tiger, leopard and bear in Southern western Ghats. (These animals will make growling noise by which they will be telling us go away this is my territory).

Weird experience: Sleeping in abandoned estate building in the forest interiors after hectic trekking and bat watch along with king cobra's nesting /resting sites. (Morning we can see the fresh skin moults of 16-18 feet length)

Exciting experience: Getting pit vipers and green vipers fallen from rock crevice and trees in the mist nets along with bats.

What is the most amazing thing you have learnt about bats?

My research findings has documented each bat species, both fruit eating and insect eating bats, have a specific core food item to feed upon which is their ecosystem service.

What's your favorite species and why?

Salim Ali's fruit bat *Latidens salimalii* This is the only endemic and endangered fruit bat of southern Western Ghats. The High Wavy Mountains remained the only recorded distributional record of *L.salimalii* until 1999, when its presence was recorded, in the Kalakkad-Mundanthurai Tiger Reserve, Tamil Nadu by myself and the research team. Their distribution range was extended between 110 and 160 km southwards in southern Western Ghats, India.

The bat by nature is very soft and even dies if they hear a big noise or disturbance. It is a colonial cave dweller. Their feeding roost studies gave me a wonderful story about their propagation role on many of the fruiting and flowering endemic trees of the evergreen forest who sustain may of the endemic vertebrate diversity.



What is the most satisfying part of your involvement with bat conservation and research?

- We have managed to get two species of Indian endangered bats, Salim Ali's fruit bat (*Latidens salimali*) and Wroughton's free-tailed bat (*Otomops wroughtoni*) protected under schedule I in pare with tiger conservation under Indian Wildlife Protection Act.
- We are now struggling hard to remove fruit bats from schedule V of Indian Wildlife Protection Act. We are approaching the Government of India to consider this.
- My research findings have linked bat species to numerous ecosystem services to both forest and agricultural areas. This 'value' of bat species highlight the need for robust bat populations.
- Creation of database on bat species distribution and habitat types in southern Western Ghats and also from islands of Gulf of Mannar.
- Compilation of a database on acoustic parameters of Indian bat species including taxonomic and habitat data.
- Promotion of bat conservation both locally and nationally through bat awareness programs and academic workshops.
- Disseminate data to the international scientific community by means of the publication of papers in peer-reviewed journals.

Do you have any advice for people who want to get involved in bat conservation?

Bats need friends who really love them. Bat conservationist should make public aware about their services to the ecosystem. Conservation work needs a lot of field proof data to support.