



Observation on peculiar roosting behaviour of Greater False Vampire Bat

Greater False Vampire Bat *Megaderma lyra*, a medium-sized carnivorous bat species, is though known to be reported countrywide relatively common in southern parts of India. It usually preys upon large insects, spiders, and small mammals alike bats and rodents. It belongs to the family Megadermatidae, suborder Yinpterochiroptera, and order Chiroptera in class Mammalia. Its global distribution is known to range in Asia from the Afghanistan to southern China, Pakistan, India, Sri Lanka, and southeastern Asia.

Morphologically *Megaderma lyra* is a robust species with an average forearm length of 66.4 mm (56-0 - 71.5 mm) and significantly exceeds that of Lesser False Vampire bat, *Megaderma spasma*. The head is characterised by its large and oval ears which have a fringe of white hairs on their inner margins. The ears are joined medially



An individual of False Vampire Bat roosting over the branch of *Prosopis juliflora* grown wildly in the premises of Thalaiyathu Ayyanar Temple located at base of Kurumalai hills near Kurumalai village in Kayathar tahseel of Thoothkudi district of Tamil Nadu, India. © Arpan Joshi.



15.08.2021

Individuals of False Vampire Bat *Megaderma lyra* roosting at the wooden frame ceilings of 'kelu' type rooftop old and unattended house structure of Mr. Mariapan located at Vadakvandhanum village in Kayathar tahseel of Thoothkudi district of Tamil Nadu, India. © J. Dharmaraj.



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for between one third and half their length. Each ear has a bifid tragus, the posterior process of which is taller. The face is hairy on the forehead and upper cheeks. However, the snout is essentially naked and is flesh coloured but with some well-defined papillae.

During our recent extensive bat diversity research survey conducted through the period of 12–18 August 2021, we observed collative populations of around 230 individuals of *Megaderma*



K.R. Senacha while demonstrating the morphology of an individual of False Vampire Bat *Megaderma lyla* to Arpan Joshi which was handled for identification and then released back at its old and unattended roadside factory / storage roost premises near Government Water Pump House located at Eppodhumbendranvillage in Ottapidaram tahseel of Thoothkudi district of Tamil Nadu, India. © J. Dharmaraj.



Table 1. Detailed account of morphological measurements noted of a male individual of False Vampire Bat *Megaderma lyra* found roosted at an old and unattended ruined building located inside premises of Thalaiyathu Ayyanar Temple at base of Kurumalai hills near Kurumalai village in Kayathar tahseel of Thoothkudi district of Tamil Nadu, India.

	Name of the characteristic morphological part	Measurements in millimetres (mm)
1	Head and Body length (HB)	80.25
2	Tail length (T)	31.25
3	Forearm length (FA)	62.78
4	Foot length (HF)	16.2
5	Thumb length (Thumb)	20.65
6	Nose leaf length	17.61
7	Ear length (E)	30.85
8	Femur length (F)	20.45
9	Tibia length (TIB)	35.02
10	Wing Span length (WSP)	413.21
11	2nd Metacarpal length (2 Mt)	55.28
12	3rd Metacarpal length (3 Mt)	49.21
13	1st Phalanx of the 3rd Metacarpal length (1 Ph 3 Mt)	27.91
14	2nd Phalanx of the 3rd Metacarpal length (2 Ph 3 Mt)	45.75
15	4th Metacarpal length (4 Mt)	53.28
16	1st Phalanx of the 4th Metacarpal length (1 Ph 4 Mt)	16.16
17	2nd Phalanx of the 4th Metacarpal length (2 Ph 4 Mt)	21.72
18	5th Metacarpal length (5 Mt)	55.82
19	1st Phalanx of the 5th Metacarpal length (1 Ph 5 Mt)	19.79
20	2nd Phalanx of the 5th Metacarpal length (2 Ph 5 Mt)	20.34

lyra at 10 different places across five (Ottapidaram, Thoothukudi, Ettayapuram, Kayathar, and Vilathikulam) of the total 12 tahseels of Thoothukudi district in Tamil Nadu state of India.

While surveying diversity of bats in the villages of Thoothukudi district we went to investigate an old and unattended ruined building (9.064°N, 77.877°E) located in the midst of lush green premises of Thalaiyathu Ayyanar Temple at base of the prevailing

hills near 3 km to the Kurumalai village in Kayathar tahseel. Thereon, we observed a mixed colony of *Megaderma lyra* (30–35 individuals) and Dusky Leaf-nosed Bat *Hipposideros ater* (4–5 Individuals). So as to confirm species we caught a male individual of *Megaderma lyra* using a hand net, handled scientifically and took required morphological measurements (Table 1) and released back safely to the said roost premises. Once we completed our scientific investigations



and about to move from this place we were thrilled to note that about eight individuals of *Megaderma lyra* were roosting calmly in the daylight on the branches of the trees of *Prosopis juliflora* grown in close proximity of the said roost premises. At all the other nine roosting sites of *Megaderma lyra* explored and investigated during the said bat research survey we have seen that individuals of this species roosted in semi-dark wooden base ceilings and upper parts of the fore walls of the dilapidated and isolated structures of old houses but not over the foliage of any trees. We have monitored the individuals roosted on branches of the trees of *P. juliflora* for about 45 minutes time period but they have not opted to move inside the adjoining old and unattended ruined building roost. We therefore believe those individuals of *M. lyra* roosted on the branches of the trees of *P. juliflora* by their choice but not due to any anthropological disturbance. We therefore consider it as a peculiar roosting behaviour of *M. lyra*.

Acknowledgements: Being first author of this research note I wish to thank my mentors and Co-authors, Dr. Sumit Dookia for providing me privileged opportunity to be part of this bat research survey team and Dr. K.R. Senacha for enabling me to not only learn the tools and techniques of bat research but inspire to inculcate the sense of appreciation and zeal to pursue quality research on species of Indian bats. My special thanks to Ms. Trisa Bhattacharjee, my co-fellow at the Ram Hattikudur Advanced Training in Conservation, Coimbatore, India for helping me in writing this research article.

Arpan Joshi¹, K.R. Senacha², Mamta Rawat³, Sumit Dookia⁴ & J. Dharmaraj⁵

^{1,3} The ERDS Foundation, 1002, G-2-B Block, Golf Links Residency, Sector 18 B, Dwarka, New Delhi 110075, India.

² Indian Bat Conservation Foundation (IBCF), Vasai (West), Mumbai, Maharashtra 401202, India.

⁴ University School of Environment Management, Guru Gobind Singh Indraprastha University, Golf Course Rd, Sector 16 C, Dwarka, Delhi 110078, India.

⁵ Department of Zoology, Sri Vijay Vidyalaya College of Arts and Science, Nallampalli, District Dharmapuri, Tamil Nadu 636807, India.

Emails: ¹arpanjoshia8@gmail.com (corresponding author),

²senacha@gmail.com, ³rawatscorner@gmail.com,

⁴sumitdookia@gmail.com, ⁵dharmaraj590@gmail.com

Citation: Joshi, A., K.R. Senacha, M. Rawat, S. Dookia & J. Dharmaraj (2022). Observation on peculiar roosting behaviour of Greater False Vampire Bat. *Small Mammal Mail* #442, In: *Zoo's Print* 37(1): 63–66.