

Inventory of Membracidae (Insecta: Homoptera) type specimens in the collections of Southern Regional Centre, Zoological Survey of India, Chennai

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Abstract

The type specimens of Indian membracids present in the National Zoological Collections of Southern Regional Centre, Zoological Survey of India, Chennai are currently inventoried. This comprises of 12 species and 19 examples. Type species are listed with generic name, original label information, date and place of collection along with geographical coordinates. In addition, the digital image of Type specimens and original labels are also documented.

Keywords: Homoptera, Insecta, Inventory, Membracidae

Introduction

The insects included under the family Membracidae are small-size and phytophagous belonging to the auchenorrhynchos Homoptera. They are easily distinguished by the presence of horn-like processes of the pronotum, very often assuming curious bizarre shapes in different species have earned the name “horn bugs” or “cow bugs”. Although endowed with powers of flight, they prefer to hop about when disturbed and this habit has earned them the popular name “tree hoppers” (Ananthasubramanian, 1996).

The membracids Type collections at the Southern Regional Centre, Zoological Survey of India, Chennai, is very small. Ananthasubramanian and Ananthakrishnan (1975a, b), Ananthasubramanian (1978, 1980a, b, 1982, 1984, 1996), Thirumalai and Ananthasubramanian (1981, 1985), Ananthasubramanian and Ghosh (1987a, b) described many species of Indian membracids, but only few type specimens are deposited in the National Zoological Collections of Southern Regional Centre,


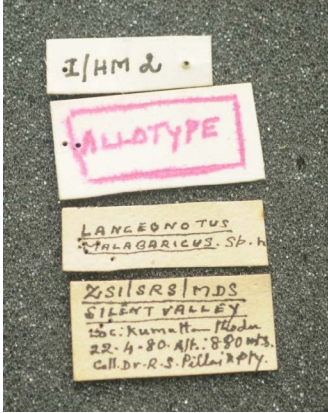
Chennai. The present work is to focus on documenting the available information's on holdings of type specimens of membracids at SRC, ZSI. The type specimens are listed by generic followed by original species name, author, type category, type locality, geographical coordinates, date of collection, collector name, and name of the journal and status of preservation. In addition to that the digital images of type specimens and original labels are also provided. The digital images of the type specimens were taken by using the Leica M205A Stereozoom Microscope.

Class	INSECTA
Order	HEMIPTERA
Suborder	HOMOPTERA
Superfamily	MEMBRACOIDEA
Family	MEMBRACIDAE


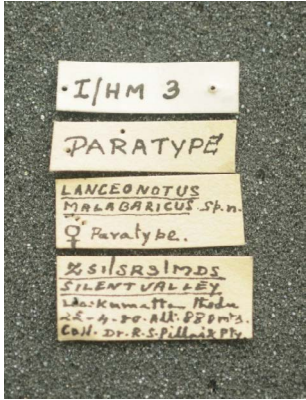
Genus *Lanceonotus* Capener, 1968

1. *Lanceonotus malabaricus* Thirumalai and Anantha subramanian, 1981

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Type Category	ALLOTYPE
ZSI Reg. No.	I/HM 2
Genera	<i>Lanceonotus</i>
Species	<i>malabaricus</i>
Described by	Thirumalai and Ananthasubramanian, 1981
Sex	Male
Locality	INDIA: Kerala: Silent Valley: Kumatanthodu
Geographical coordinates	
Latitude	11.069500, °N
Longitude	76.561000 °E
Altitude	880 mts
Date of collection	22.iv.1980
Name of collector	R.S. Pillai
Name of the Journal, volume number, page number and year	<i>Bulletin of the Zoological Survey of India</i> , 4(1): 27-29, 1981
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same

2. *Lanceonotus malabaricus* Thirumalai and Ananthasubramanian, 1981

	
Type Category	PARATYPE
ZSI Reg. No.	I/HM 3
Genera	<i>Lanceonotus</i>
Species	<i>malabaricus</i>


Described by	Thirumalai and Ananthasubramanian, 1981
Sex	Female
Locality	INDIA: Kerala: Silent Valley: Kumatanthodu
Geographical coordinates	
Latitude	11.069500, °N
Longitude	76.561000 °E
Altitude	880 mts
Date of collection	22.iv.1980
Name of collector	R.S. Pillai
Name of the Journal, volume number, page number and year	<i>Bulletin of the Zoological Survey of India</i> , 4(1): 27-29, 1981
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same

3. *Lanceonotus mukkaliensis* Thirumalai, 1986


	
Type Category	HOLOTYPE
ZSI Reg. No.	I/HM 13
Genera	<i>Lanceonotus</i>
Species	<i>mukkaliensis</i>
Described by	Thirumalai, 1986
Sex	Female
Locality	INDIA: Kerala: Silent Valley: 2 Kms towards Makkali
Geographical coordinates	
Latitude	11.178700 °N
Longitude	76.518700 °E
Altitude	860 mts
Date of collection	06.xii.1980
Name of collector	R.S. Pillai
Name of the Journal, volume number, page number and year	<i>Records of the Zoological Survey of India</i> , 84(1-4): 97-99, 1986
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same

Genus *Telingana* Distant, 1869

4. *Telingana majuscula* Thirumalai and Ananthasubramanian, 1981



	
Type Category	HOLOTYPE
ZSI Reg. No.	I/HM 4
Genera	<i>Telingana</i>
Species	<i>majuscula</i>
Described by	Thirumalai and Ananthasubramanian, 1981
Sex	Male
Locality	INDIA: Kerala: Silent Valley: Road leading to Valiyaparathodu
Geographical coordinates	
Latitude	11.110800°N
Longitude	76.432000 °E
Altitude	920 mts
Date of collection	23.iv.1980
Name of collector	R.S. Pillai
Name of the Journal, volume number, page number and year	<i>Bulletin of the Zoological Survey of India</i> , 4(1): 29-31, 1981
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same

5. *Telingana sabarigiriensis* Thirumalai and Ananthasubramanian, 1985

	
Type Category	HOLOTYPE


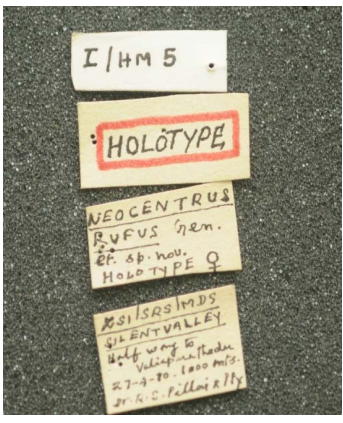
ZSI Reg. No.	I/HM 30
Genera	<i>Telingana</i>
Species	<i>sabarigiriensis</i>
Described by	Thirumalai and Ananthasubramanian, 1985
Sex	Female
Locality	INDIA: Kerala: Sabarigiri (Western Ghats): Pepparai
Geographical coordinates	
Latitude	9.368000 °N
Longitude	77.123900 °E
Altitude	420 mts
Date of collection	11.v.1981
Name of collector	G. Thirumalai
Name of the Journal, volume number, page number and year	<i>Entomon</i> , 10 (3): 223-225, 1985
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same

6. *Telingana sabarigiriensis* Thirumalai and Ananthasubramanian, 1985

	
Type Category	ALLOTYPE
ZSI Reg. No.	I/HM 31
Genera	<i>Telingana</i>
Species	<i>sabarigiriensis</i>
Described by	Thirumalai and Ananthasubramanian, 1985
Sex	Male
Locality	INDIA: Kerala: Sabarigiri (Western Ghats): Vettaiyar
Geographical coordinates	
Latitude	9.237900°N
Longitude	77.082500°E
Altitude	520 mts
Date of collection	11.v.1981
Name of collector	R. S Pillai
Name of the Journal, volume number, page number and year	<i>Entomon</i> , 10 (3): 223-225, 1985
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same


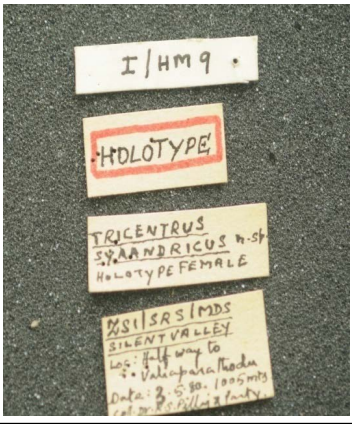
Genus *Neocentrus* Thirumalai and Ananthasubramanian, 1981

7. *Neocentrus rufus* Thirumalai and Ananthasubramanian, 1981

	
Type Category	HOLOTYPE
ZSI Reg. No.	I/HM 5
Genera	<i>Neocentrus</i>
Species	<i>rufus</i>
Described by	Thirumalai and Ananthasubramanian, 1981
Sex	Female
Locality	INDIA: Kerala: Silent Valley: Halfway to Valiyaparathodu
Geographical coordinates	
Latitude	11.110800 °N
Longitude	76.432000 °E
Altitude	1000 mts
Date of collection	27.iv.1980
Name of collector	R.S. Pillai
Name of the Journal, volume number, page number and year	<i>Bulletin of the Zoological Survey of India</i> , 4(1): 31, 1981
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same


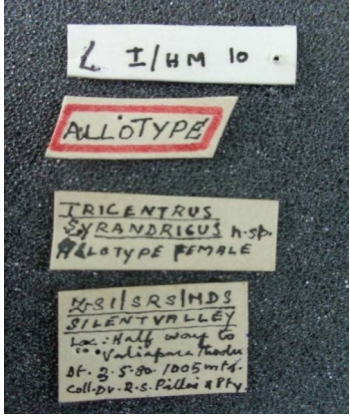
Genus *Tricentrus* Stål, 1866

8. *Tricentrus syrandrikan* Thirumalai and Ananthasubramanian, 1981


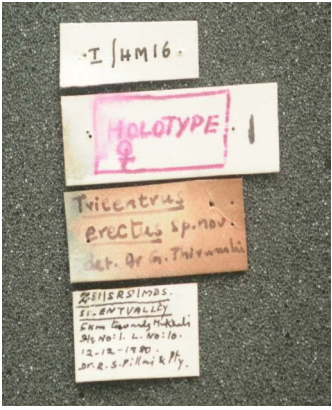
	
Type Category	HOLOTYPE

ZSI Reg. No.	I/HM 9
Genera	<i>Tricentrus</i>
Species	<i>syrandrikan</i>
Described by	Thirumalai and Ananthasubramanian, 1981
Sex	Female
Locality	INDIA: Kerala: Silent Valley: Halfway to Valiyaparathodu
Geographical coordinates	
Latitude	11.110800 °N
Longitude	76.432000 °E
Altitude	1005 mts
Date of collection	03.v.1980
Name of collector	R.S. Pillai
Name of the Journal, volume number, page number and year	<i>Bulletin of the Zoological Survey of India</i> , 4(1): 32-33, 1981
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same


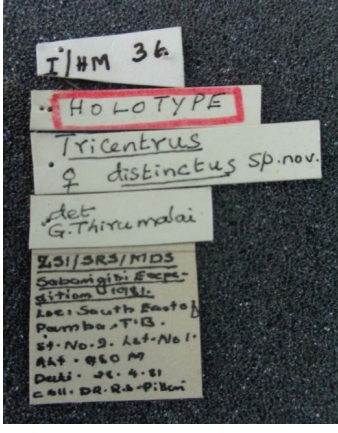
9. *Tricentrus syrandrikan* Thirumalai and Ananthasubramanian, 1981

	
Type Category	ALLOTYPE
ZSI Reg. No.	I/HM 10
Genera	<i>Tricentrus</i>
Species	<i>syrandrikan</i>
Described by	Thirumalai and Ananthasubramanian, 1981
Sex	Female
Locality	INDIA: Kerala: Silent Valley: Halfway to Valiyaparathodu
Geographical coordinates	
Latitude	11.110800 °N
Longitude	76.432000 °E
Altitude	1005 mts
Date of collection	03.v.1980
Name of collector	R.S. Pillai
Name of the Journal, volume number, page number and year	<i>Bulletin of the Zoological Survey of India</i> , 4(1): 32-33, 1981
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same

10. *Tricentrus erectus* Thirumalai, 1986


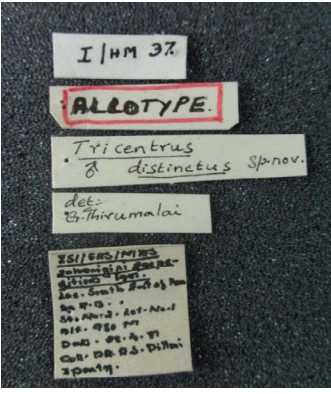
	
Type Category	HOLOTYPE
ZSI Reg. No.	I/HM 16
Genera	<i>Tricentrus</i>
Species	<i>erectus</i>
Described by	Thirumalai, 1986
Sex	Female
Locality	INDIA: Kerala: Silent Valley: 5 Kms towards Mukkali
Geographical coordinates	
Latitude	11.110200 °N
Longitude	76.445900 °E
Altitude	860 mts
Date of collection	12.xii.1980
Name of collector	R.S. Pillai
Name of the Journal, volume number, page number and year	<i>Records of the Zoological Survey of India</i> , 84 (1-4): 99-101, 1986
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same

11. *Tricentrus distinctus* Thirumalai and Ananthasubramanian, 1985


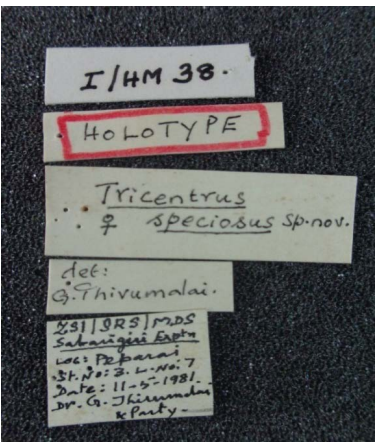
	
Type Category	HOLOTYPE
ZSI Reg. No.	I/HM 36

Genera	<i>Tricentrus</i>
Species	<i>distinctus</i>
Described by	Thirumalai and Ananthasubramanian, 1985
Sex	Female
Locality	INDIA: Kerala: Sabarigiri: South east of Pamba Travellers Bungalow
Geographical coordinates	
Latitude	9.222100 °N
Longitude	77.136100°E
Altitude	960 mts
Date of collection	28.iv.1981
Name of collector	R.S. Pillai
Name of the Journal, volume number, page number and year	<i>Entomon</i> , 10 (3): 229-230, 1985
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same


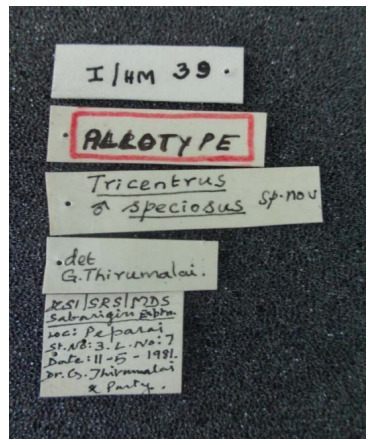
12. *Tricentrus distinctus* Thirumalai and Ananthasubramanian, 1985

	
Type Category	ALLOTYPE
ZSI Reg. No.	I/HM 37
Genera	<i>Tricentrus</i>
Species	<i>distinctus</i>
Described by	Thirumalai and Ananthasubramanian, 1985
Sex	Male
Locality	INDIA: Kerala: Sabarigiri: South east of Pamba Travellers Bungalow
Geographical coordinates	
Latitude	9.222100 °N
Longitude	77.136100°E
Altitude	960 mts
Date of collection	28.iv.1981
Name of collector	R.S. Pillai
Name of the Journal, volume number, page number and year	<i>Entomon</i> , 10 (3): 229-230, 1985
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same

13. *Tricentrus speciosus* Thirumalai and Ananthasubramanian, 1985

	
Type Category	HOLOTYPE
ZSI Reg. No.	I/HM 38
Genera	<i>Tricentrus</i>
Species	<i>speciosus</i>
Described by	Thirumalai and Ananthasubramanian, 1985
Sex	Female
Locality	INDIA: Kerala: Sabarigiri: Peppara
Geographical coordinates	
Latitude	9.368000 °N
Longitude	77.123900 °E
Altitude	420 mts
Date of collection	11.v.1981
Name of collector	G. Thirumalai
Name of the Journal, volume number, page number and year	<i>Entomon</i> , 10(3): 231-232, 1985
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same


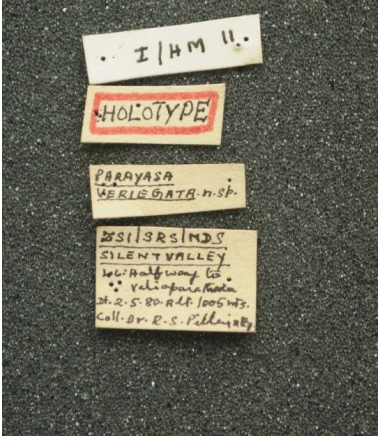
14. *Tricentrus speciosus* Thirumalai and Ananthasubramanian, 1985

	
Type Category	ALLOTYPE

ZSI Reg. No.	I/HM 39
Genera	<i>Tricentrus</i>
Species	<i>speciosus</i>
Described by	Thirumalai and Ananthasubramanian, 1985
Sex	Male
Locality	INDIA: Kerala: Sabarigiri: Pepparai
Geographical coordinates	
Latitude	9.368000 °N
Longitude	77.123900 °E
Altitude	420 mts
Date of collection	11.v.1981
Name of collector	G. Thirumalai
Name of the Journal, volume number, page number and year	<i>Entomon</i> , 10 (3): 231-232, 1985
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same


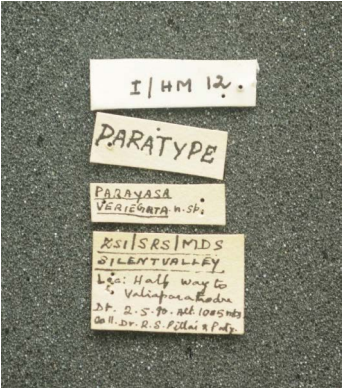
Genus *Parayasa* Distant, 1916

15. *Parayasa variegata* Thirumalai and Ananthasubramanian, 1981


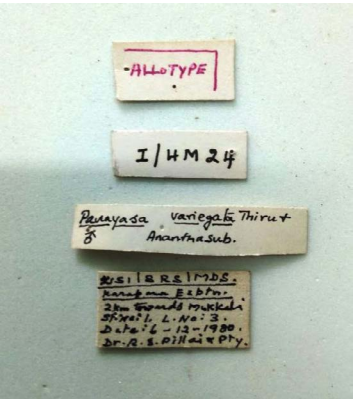
	
Type Category	HOLOTYPE
ZSI Reg. No.	I/HM 11
Genera	<i>Parayasa</i>
Species	<i>variegata</i>
Described by	Thirumalai and Ananthasubramanian, 1981
Sex	Female
Locality	INDIA: Kerala: Silent Valley: Halfway to Valiyaparathodu
Geographical coordinates	
Latitude	11.110800 °N
Longitude	76.432000 °E
Altitude	1005 mts
Date of collection	02.v.1980
Name of collector	R.S. Pillai
Name of the Journal, volume number, page number and year	<i>Bulletin of the Zoological Survey of India</i> , 4 (1): 33-34, 1981

State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same

16. *Parayasa variegata* Thirumalai and Ananthasubramanian, 1981

	
Type Category	PARATYPE
ZSI Reg. No.	I/HM 12
Genera	<i>Parayasa</i>
Species	<i>variegata</i>
Described by	Thirumalai and Ananthasubramanian, 1981
Sex	Female
Locality	INDIA: Kerala: Silent Valley: Halfway to Valiyaparathodu
Geographical coordinates	
Latitude	11.110800 °N
Longitude	76.432000 °E
Altitude	1005 mts
Date of collection	02.v.1980
Name of collector	R.S. Pillai
Name of the Journal, volume number, page number and year	<i>Bulletin of the Zoological Survey of India</i> , 4(1): 33-34, 1981
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same
Remarks	Fairly damaged


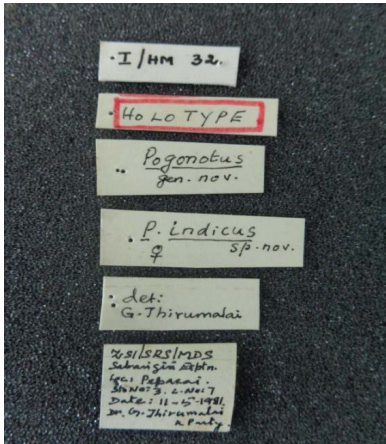
17. *Parayasa variegata* Thirumalai and Ananthasubramanian, 1981

	
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Type Category	ALLOTYPE
ZSI Reg. No.	I/HM 24
Genera	<i>Parayasa</i>
Species	<i>variegata</i>
Described by	Thirumalai and Ananthasubramanian, 1981
Sex	Male
Locality	INDIA: Kerala: Silent Valley: 2 Kms towards Mukkali
Geographical coordinates	
Latitude	11.13243°N
Longitude	76.429383°E
Altitude	860 mts
Date of collection	06.xii.1980
Name of collector	R.S. Pillai
Name of the Journal, volume number, page number and year	NA
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same
Remarks	Fairly damaged

Genus *Pogonotus* Thirumalai and Ananthasubramanian, 1985

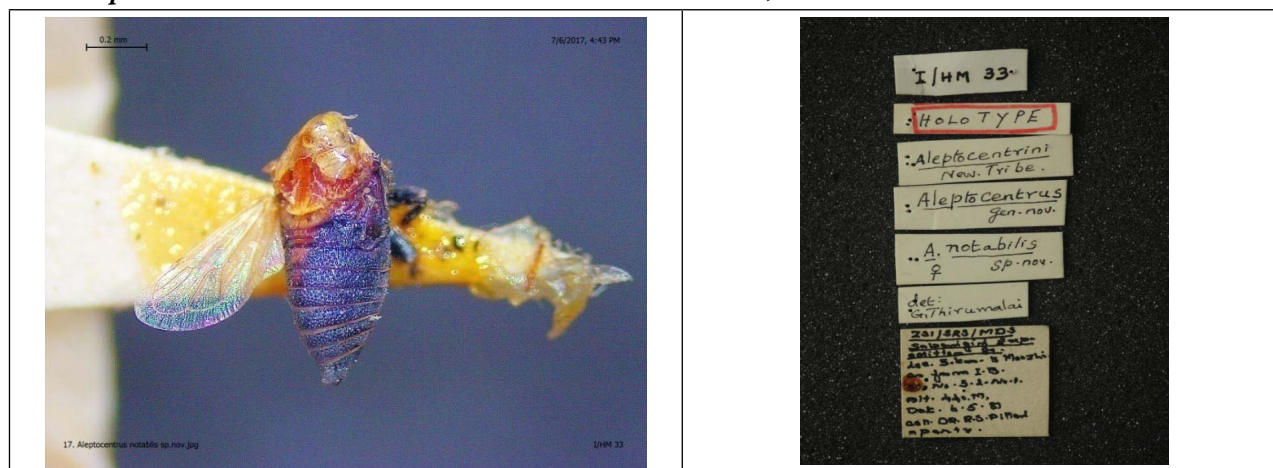
18. *Pogonotus indicus* Thirumalai and Ananthasubramanian, 1985

	
Type Category	HOLOTYPE
ZSI Reg. No.	I/HM 32
Genera	<i>Pogonotus</i>
Species	<i>indicus</i>
Described by	Thirumalai and Ananthasubramanian, 1985
Sex	Female
Locality	INDIA: Kerala: Sabarigiri: Peppara: 6 Km towards kakki
Geographical coordinates	
Latitude	9.465300 °N
Longitude	77.144200 °E
Altitude	420 mts
Date of collection	11.v.1981

Name of collector	G. Thirumalai
Name of the Journal, volume number, page number and year	<i>Entomon</i> , 10 (3): 225-227, 1985
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same
Remarks	Fairly damaged

Genus *Aleptocentrus* Thirumalai and Ananthasubramanian, 1985

19. *Aleptocentrus notabilis* Thirumalai and Ananthasubramanian, 1985



Type Category	HOLOTYPE
ZSI Reg. No.	I/HM 33
Genera	<i>Aleptocentrus</i>
Species	<i>notabilis</i>
Described by	Thirumalai and Ananthasubramanian, 1985
Sex	Female
Locality	INDIA: Kerala: Sabarigiri: 5 Km to Moozhiyar from IB
Geographical coordinates	
Latitude	9.309023°N
Longitude	77.069038°E
Altitude	440 mts
Date of collection	06.v.1981
Name of collector	R.S. Pillai and G. Thirumalai
Name of the Journal, volume number, page number and year	<i>Entomon</i> , 10 (3): 227-228, 1985
State of Preservation (Dry, Wet, Slide)	Dry / Pinned
Present valid name	Same
Remarks	Fairly damaged

Acknowledgements

Authors are extremely grateful to Dr. Kailash Chandra, Director, Zoological Survey of India, Kolkata, for providing facilities and inspiration to carry out this work. Authors are also thankful to Dr. K. A. Subramanian, Officer-in-Charge, Southern Regional Centre, Chennai, for his unstinted help and encouragement.

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