



<http://dx.doi.org/10.11646/zootaxa.3904.3.7>

<http://zoobank.org/urn:lsid:zoobank.org:pub:5F3F4D0B-693D-4D86-8E06-1F72E5A1B675>

A new species of *Aulacogenia* Stål (Hemiptera: Heteroptera: Reduviidae: Stenopodainae) from India

PARAMITA MUKHERJEE¹, WANZHI CAI² & G.K. SAHA³

¹Zoological Survey of India, 'M' Block, New Alipore, Kolkata-700053, India. Email: paramitamukho@gmail.com

²Department of Entomology, China Agricultural University, Yuanmingyuan West Road, Beijing 100193, China.

E-mail: caiwz@cau.edu.cn

³Department of Zoology, University of Calcutta, 35, Ballygunge Circular Road, Kolkata-700019, India

Abstract

A new stenopodaine reduviid, *Aulacogenia darjeelingensis* sp. nov. belonging to the “corniculata species group” from India is described and illustrated. A key to the Indian species of the genus *Aulacogenia* Stål is provided.

Key words: Reduviidae, Stenopodainae, *Aulacogenia*, new species, species key, India

Introduction

The genus *Aulacogenia* was established by Stål (1870) for the type species *Aulacogenia acutangula* Stål. Bergroth (1906) proposed a new subgenus, *Allomastix* under the genus *Aulacogenia* Stål. Distant (1910) in “The Fauna of British India including Ceylon and Burma” added the Indonesia (Java) and Philippines as distribution areas of *Aulacogenia corniculata* Stål. Miller (1954) during the study of reduviid collection belonging to the genus *Aulacogenia* Stål, separated the species into two groups viz. acutangula group (seven spp.), and corniculata group (nine spp.) including two new species viz. *indica* Miller and *umbrosa* Miller from southern India. Biswas & Ghosh (1998) during the study of the fauna of Meghalaya recorded the species *corniculata* Stål from Rongram: Garo Hills: Meghalaya. Recently Zhao *et al.* (2005) reviewed the genus *Aulacogenia* Stål from China with the description of three new species viz. *papilla*, *dentata* and *dilatata* including a key to the world species of this genus. In this work they also modified the diagnostic characters of Miller’s species groups. Later Ambrose (2006) in his checklist of Indian assassin bugs, included two species viz. *indica* Miller and *umbrosa* Miller from India. Wang *et al.* (2008) added a further new species viz. *zhangi* Wang, Cai & Li from China.

Prior to this study, twenty species of this genus have been recorded from Oriental Region (Stål 1870; Distant 1910; Bergroth 1913; Miller 1954; Zhao *et al.* 2005 and Wang *et al.* 2008), of which three species have been from India. This paper presents a new species, *Aulacogenia darjeelingensis* sp. nov., from Darjeeling District of West Bengal (India), collected under bark of a dead standing tree, with a key to the Indian species known until now.

Material and methods

This study is based on the materials collected from field surveys from Kalijhora and Rangtong of Darjeeling District of West Bengal, under the bark of a dead standing tree. The holotype and paratypes are deposited in the National Zoological Collection of Zoological Survey of India, Hemiptera Section, Kolkata.

Measurement and photographs of the species were taken with the aid of Leica M 205A. All measurements are in millimetres.

TABLE 1. Diagnostic characteristic features to distinguish *Aulacogenia papilla* Zhao & Cai and *A. darjeelingensis* sp. nov.

Structure	<i>Aulacogenia papilla</i> Zhao & Cai	<i>Aulacogenia darjeelingensis</i> sp. nov.
Antennal tubercle	Antennal tubercle corneous.	Antennal tubercle divergent. (Fig. 3)
Postocular portion of head.	Postocular portion of head with two nodular tubercles.	Postocular portion of head with two rounded elevations not tubercles. (Fig. 3)
Rostrum	Greyish yellow markings present only on first rostral segment.	Greyish yellow markings present on all three rostral segments. (Fig. 4)
Humeral angle of pronotum	Humeral angle of pronotum with papilla-shaped process.	Humeral angle of pronotum with tuberculous process. (Fig. 5)
Abdomen	Five longitudinal stripes on ventral surface of abdomen black.	Four longitudinal stripes on ventral surface of abdomen black. (Figs. 7, 8)

Key to species of genus *Aulacogenia* Stål from India

1. Lateral angles of posterior pronotal lobe with tuberculous process (Fig. 5); postocular portion with two elevations but not tubercles (Fig. 3) *A. darjeelingensis* sp. nov.
- Lateral angles of posterior pronotal lobe rounded; postocular portion with tubercles 2
2. Basal segment of rostrum extending to anterior margin of eyes *A. corniculata* Stål
- Basal segment of rostrum extending to middle of eyes 3
3. External apical angle of connexival segments not or hardly at all produced *A. umbrosa* Miller
- External apical angle of connexival segments produced *A. indica* Miller

Acknowledgements

The authors are grateful to Dr. K. Venkataraman, Director, Zoological Survey of India, for encouragements and laboratory facilities and to Dr. Kailash Chandra, Additional Director, Dr. Animesh Bal, Retd. Additional Director, Dr. M. E. Hassan and Dr. K.A. Subramanian, Scientists, Zoological Survey of India for their help and support. We sincerely thank Dr. M. Malipatil (Department of Environment & Primary Industries Victoria, Australia) for critical reading of and helpful comments on the manuscript.

References

- Ambrose, D.P. (2006) A checklist of Indian assassin bugs (Insecta: Hemiptera: Reduviidae) with taxonomic status, distribution and diagnostic morphological characteristics. *Zoos' Print Journal*, 21, 2388–2406. [plus web supplement <http://www.zoosprint.org> of 34 pages]
- Bergroth, E. (1906) Systematische und synonymische Bemerkungen über Hemipteren. *Wiener Entomologische Zeitung*, 25, 1–12.
- Bergroth, E. (1913) New genera and species of Reduviidae from Borneo. *Journal of Sarawak Museum*, 3, 25–38.
- Biswas, B. & Ghosh, L.K. (1998) Insecta: Hemiptera: Heteroptera: Reduviidae. *Zoological Survey of India, State Fauna Series 4, Fauna of Meghalaya*, Part 4, 291–330.
- Distant, W.L. (1910) *The Fauna of British India, Including Ceylon and Burma. Rhynchota. Vol. 5.* Taylor and Francis, London, 362 pp.
- Maldonado, C. (1990) *Systematic Catalogue of the Reduviidae of the World (Insecta: Heteroptera)*. A special edition of Caribbean Journal of Science, Puerto Rico, 694 pp.
- Miller, N.C.E. (1954) New Reduviidae in the collection of the British Museum (Natural History). X. *Annals and Magazine of Natural History*, Series (12) 7, 209–224. <http://dx.doi.org/10.1080/00222935408651719>
- Stål, C. (1870) Hemiptera insularum Philippinarum. *Ofversigt of Kongliga Vetenskaps-Akademiens Forhandlingar*, 27, 607–776.
- Wang, H., Cai, W. & Li, Q. (2008) Notes on the genus *Aulacogenia* Stål (Hemiptera: Reduviidae: Stenopodainae) from China, with the description of a new species. *Zootaxa*, 1727, 57–62.
- Zhao, P., Cai, W. & Tomokuni, M. (2005) A review of the genus *Aulacogenia* Stål (Heteroptera: Reduviidae: Stenopodainae) from China. *Zootaxa*, 1055, 23–40.