

NOTES ON A COLLECTION OF LYCTOCORINAE
(HEMIPTERA : ANTHOCORIDAE) FROM GARO
HILLS (MEGHALAYA)

By

N. MURALEEDHARAN

Zoological Survey of India, Calcutt

(With 3 Text-fig.)

INTRODUCTION

We owe greatly to Distant (1906, 1910) for his pioneering work on Oriental Anthocoridae. Since then not much is known except seven species recently described by Ghauri (1972) and three species by Mura-leedharan & Ananthakrishnan (1974*a*-1974*b*). Many more species still await discovery from the vast Indian subcontinent with its varied climate and rich vegetation.

The present paper deals with the anthocorids collected by the author during a recent survey to the Garo Hills, Meghalaya in September-October, 1975. It has been observed that anthocorids, especially the Lyctocorinae are well represented in the Garo Hills. Of the five tribes included under this subfamily, three tribes, namely *Cardiastethini*, *Scolopini* and *Xylocorini*, are represented in these hills. Gross (1955) has shown that the anthocorid fauna is rich in the tropics rather than in the temperate zones. This is especially true of anthocorids of the Garo Hills. The warm humid climate and comparatively dense rain forests of these hills seem to be favourable for these bugs.

I am thankful to the Director, Zoological Survey of India, Calcutta for the facilities provided.

SYSTEMATIC ACCOUNT

Order HEMIPTERA

Family ANTHOCORIDAE

Subfamily LYCTOCORINAE

Tribe CARDIASTETHINI

1. *Amphiareus constrictus* (Stål)

1860. *Xylocoris constrictus* Stål *Rio Jan. Hemipt.* 2 : 44
1871. *Poronotus constrictus* (Stål) Reuter, *Ofvers. K. Vetensk Akad. Forh.* 28 : 562.
1872. *Xylocoris fulvescens* Walker, *Cat. Hemipt. Het. B. M.*, 5 : 160.
1872. *Xylocoris fumipennis* Walker, *Cat. Hemipt. Het. B. M.*, 5 : 160.
1884. *Asthenidea constricta* (Stål), Reuter, *Acta Soc. Sci. Fenn.*, 14 : 747.
1896. *Cardiastethus fulvescens* (Walker) : Lethierry & Servin, *Cat. Gen. Hem.*, 3 : 250.
1896. *Cardiastethus ? fumipennis* (Walker) : Lethierry & Servin, *Cat. Gen. Hem.*, 3 : 250.
1904. *Amphiareus fulvescens* (Walker) : Distant, *Ann. Mag. nat. Hist.*, 14 : 221.
1904. *Poronotellus constrictus* (Stål) : Kirkaldy, *Entomologist*, 37 : 280.
1913. *Lasiochilus sladeni* Distant, *Trans. Linn. Soc. Lond.*, 16 (2) : 185.
1958. *Cardiastethus macilentus* Hiura, *Ent. Rev. Japan*, 9 (2) : 39.
1965. *Amphiareus constrictus* (Stål) : Herring, *Proc. ent. soc. Wash.*, 67 (3) : 202.
1972. *Amphiareus constrictus* (Stål) : Carayon, *Ann. soc. ent. Fr. (N.S.)*, 8 (2) : 335.

Material.—2 ♂♂, 2 ♀♀, Meghalaya, Garo Hills, Songsak, 21.ix.1975. 2 ♀♀, Meghalaya, Garo Hills, Songsak, 19.ix.1975, (*N. Muraleedharan*).

Remarks.—This species has been the subject of much taxonomic controversy till Hering (1965) revealed its true systematic position. It is a very widely distributed species generally occurring in hay stacks, nests of birds and leaf litter.

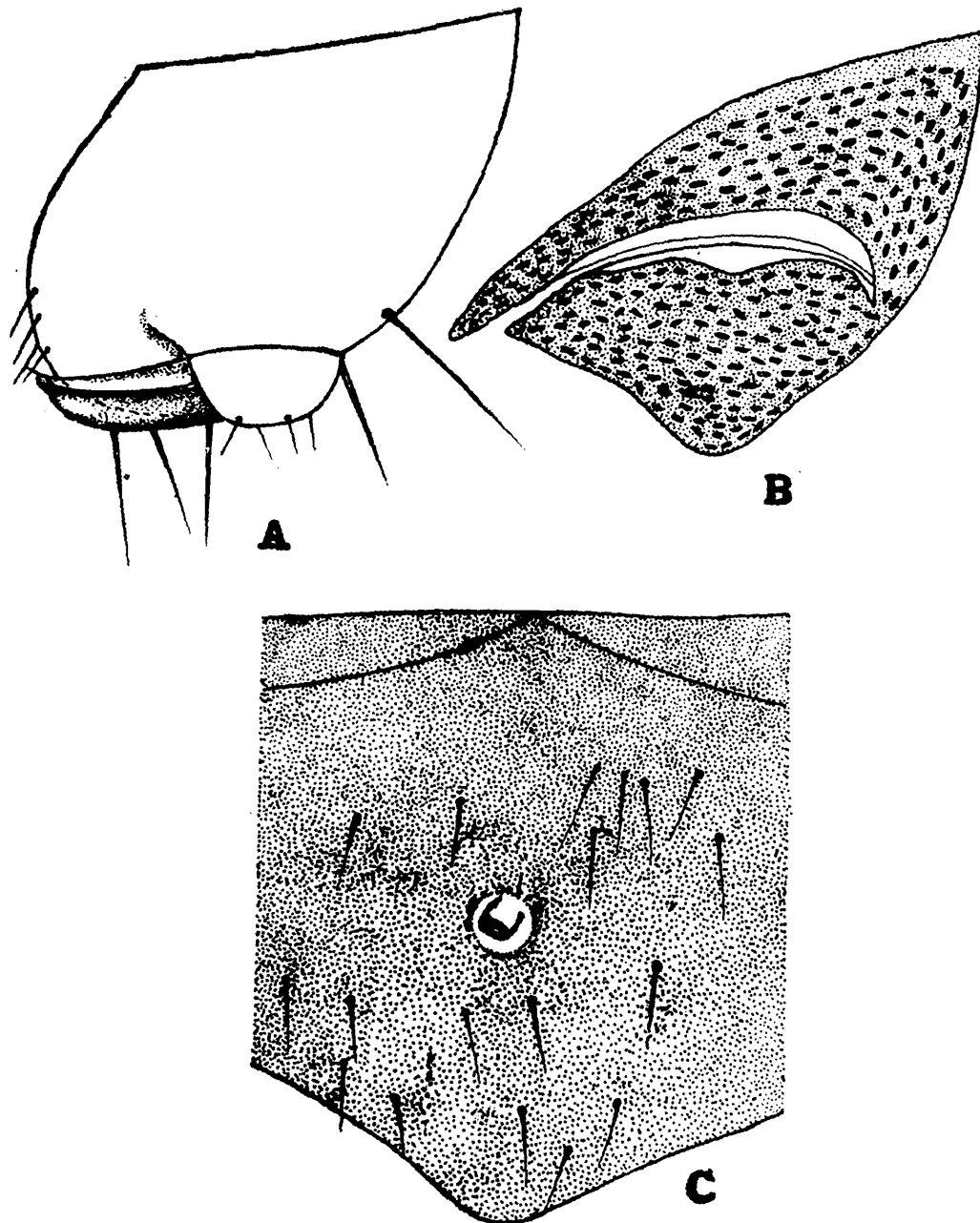
2. *Buchananiella indica* sp. nov.

(Text-fig. 1)

Body black. Antennal segments 1 and 2 yellowish-brown, 3 and 4 pale yellow. Rostrum yellowish-brown with apex dark. Head, pronotum and scutellum black. Legs uniformly yellow. Hemelytra with embolium, corium and clavus yellowish-brown, cuneus dark brown; membrane clouded. Ventral side of thorax and abdomen black.

Body densely pubescent. Head a little longer than wide. First segment of antenna reaching apex of head, second longest, third subequal to fourth. Rostrum short, reaching anterior margin of prosternum. Pronotum with a median callosity; lateral margins nearly straight and posterior border deeply concave. Scutellum setose with two fovea.

Legs not incrassate, foretibiae of males provided with a row of black teeth. Metathoracic scent gland canal curved posteriorly. Hemelytra reaching apex of abdomen; membrane with three veins. Long bristles present at posterior abdominal segments. Male genitalia without 'parameroid'. 'Omphalophore' in the form of a small circular opening.



Text-fig. 1.—*Buchananiella indica* sp. nov. A. Male genitalia, B. Scent gland, C. 'Omphalophore'

Measurements in mm.

	Male	Female
Length of head	0.34	0.34—0.40
Width of head across eyes	0.32	0.32—0.34
Length of antennal segment	1 0.08	0.08—0.10

Measurements in mm.

	Male	Female
„	2 0.27	0.25—0.30
„	3 0.15	0.15—0.17
„	4 0.18	0.18—0.20
Length of rostrum	0.34	0.35—0.42
Length of pronotum	0.25	0.25—0.30
Greatest pronotal width	0.59	0.46—0.51
Total length of body	1.90	2.46—2.51

Holotype: ♂ (Reg. No. 10144/H7), INDIA : Meghalaya, Garo Hills, Songsak, 19.ix.1975 (*N. Muraleedharan*). Paratypes: 3 ♀♀ (Reg. No. 10145/H7 to 10147/H7), same data as holotype, all in ZSI Colln.

The present bug resembles *B. crassicornis* Carayon in general appearance and colouration but can be readily separated from the latter by the nature of male genital clasper.

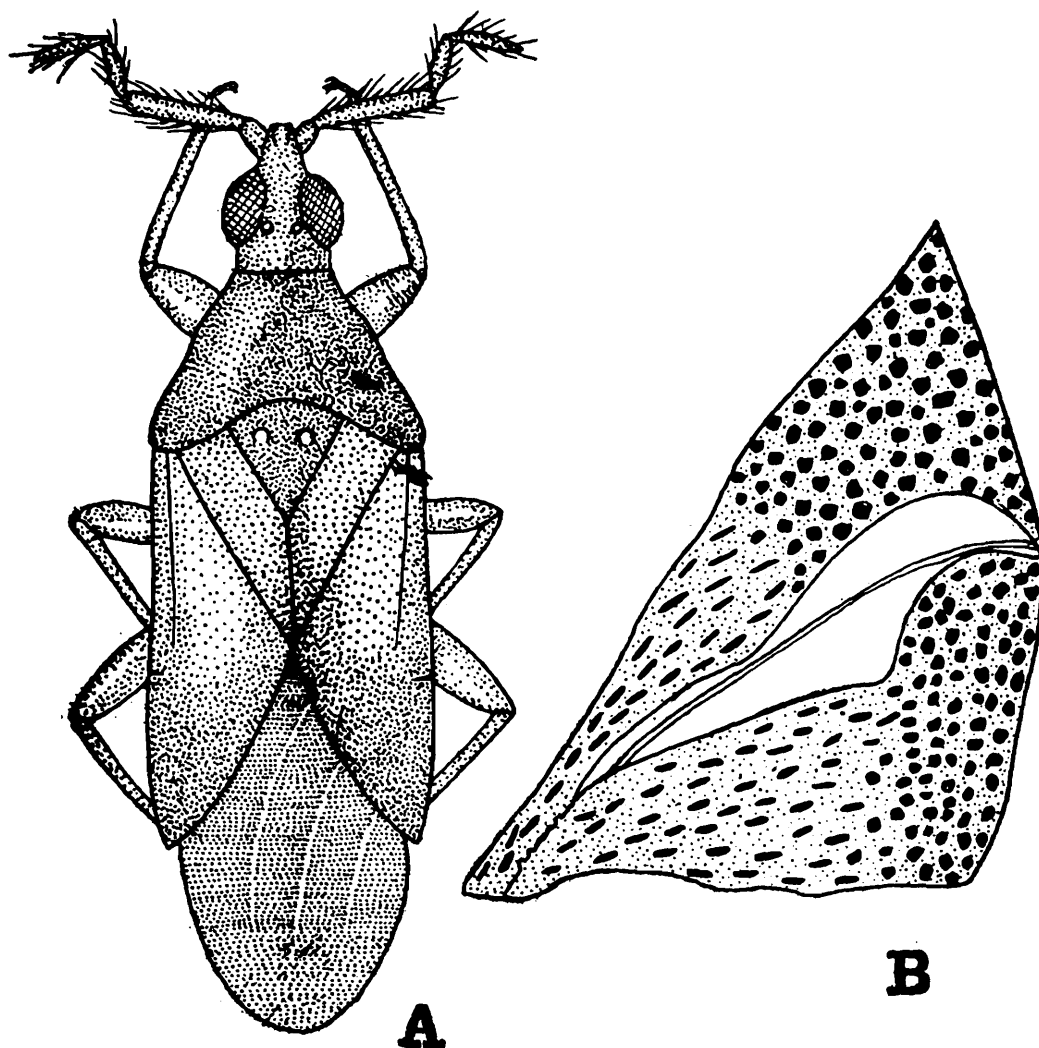
3. ***Buchananiella garoensis*** sp. nov.
(Text-fig. 2)

Body black. Antennal segments 1 and 2 black, 3 and 4 pale brown. Rostrum with apex yellow. Head, pronotum, scutellum and legs black. Hemelytra golden yellow with cuneus dark brown; membrane infumate

Head distinctly longer than wide. Rostrum reaching anterior margin of prosternum. Prothorax with median callosity; lateral margins nearly straight and posterior margin deeply concave. Scutellum bears two fovea. Hemelytra setose; membrane with three veins. 'Omphalophore' a circular opening.

Measurements of female in mm.

	Male
Length of head	0.39—0.42
Width of head across eyes	0.32—0.34
Length of antennal segment	1 0.10—0.10
„	2 0.30—0.42
„	3 0.25—0.28
„	4 0.18—0.22
Length of rostrum	0.34—0.42
Length of prothorax	0.25—0.28
Greatest pronotal width	0.61—0.71
Total length of body	2.38—2.72



Text-fig. 2.—*Buchananiella garoensis*, sp. nov. A. Adult ♀, B. Scent gland.

Holotype: ♀ (Reg. No. 10148/H7) : INDIA: Meghalaya, Garo Hills, Songsak, 19.ix.1975 (*N. Muraleedharan*). Paratypes: 3 ♀ ♀ (Reg. No. 10149/H7 to 10151/H7), data same as holotype (All in ZSI Colln.)

This species comes very close to the preceding one but can easily be differentiated by the dark colour of first and second antennal segments and legs and the longer second segment of antenna.

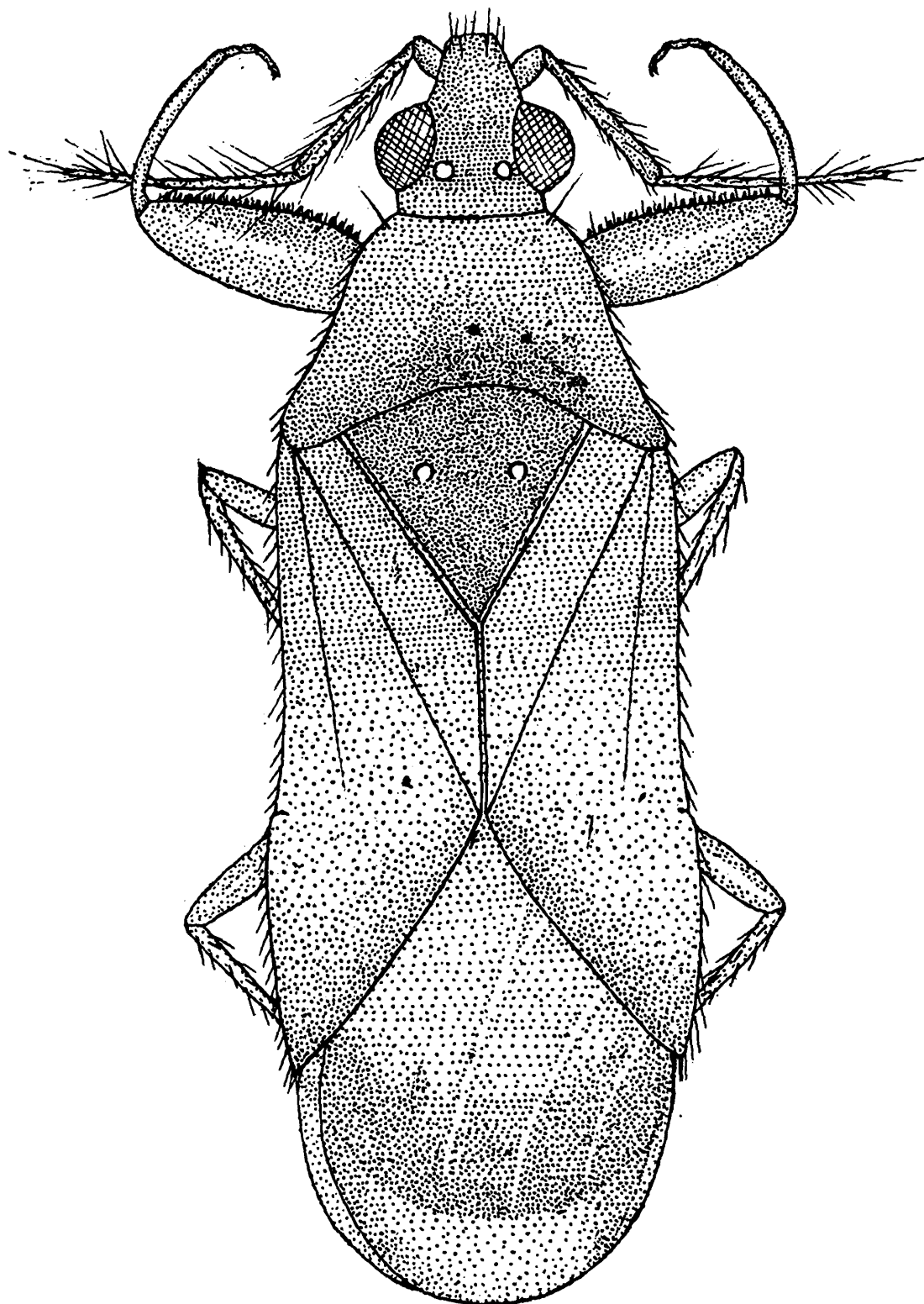
4. *Physopleurella vichitravarna* sp. nov.

(Text-fig. 3)

Body yellowish-brown. Antennae yellowish with apices of first and second segments dark. Rostrum uniformly pale yellow. Head yellowish-brown, posterior margin may be darker. Scutellum yellowish-brown to brown. Legs uniformly pale yellow. Hemelytra yellowish brown with dark brown cuneus. Meso and metasterna and ventro lateral regions of abdomen brown.

Body elongate, oval and densely setose. Head almost as long as wide. Eyes large. First antennal segment reaching apex of head, second

longest, fourth a little shorter than third. Rostrum very short, nearly reaching anterior margin of prosternum. Pronotum with two callosities and lateral carinae feebly developed. Anterior pronotal margin straight, lateral margins sinuate and posterior margin deeply concave. Scutellum depressed anteriorly with two fovea; lateral margins serrate. Forefemora incrassate and beset with two rows of spines, each row bearing 25-30 spines; foretibiae arched. Hemelytra extending to apex of abdomen; membrane with three veins, the inner one forked at base. Ostiolar canal curved anteriorly. Apex of abdomen with long bristles.



Text-fig. 3.—*Physopleurella vichitravarna*, sp. nov. Adult ♀.

Measurements of female in mm.

Length of head		0.37—0.39
Width of head across eyes		0.40—0.47
Length of antennal segment	1	0.08—0.10
„	2	0.37—0.52
„	3	0.22—0.35
„	4	0.20—0.34
Length of rostrum		0.30—0.35
Length of prothorax		0.34—0.35
Greatest pronotal width		0.83—1.01
Total length of body		2.67—3.62

Holotype: ♀ Reg. No. 10152/H7), INDIA: Meghalaya, Garo Hills, Songsak, 19.ix.1975. *N. Muraleedharan*). Paratypes: 2 ♀ ♀, (Reg. No. 10153/H7, 10154/H7) same data for holotype; 2 ♀ ♀, (Reg. No. 10155/H7-10156/H7) INDIA: Meghalaya, Garo Hills, Dainadubi, 12.ix.1975, (*N. Muraleedharan*), all in ZSI Colln.

The present species shows some similarities in colouration to *P. armata* Poppius but can be easily distinguished by the sinuate lateral margins of pronotum.

Tribe SCOLOPINI

5. *Scoloposcelis parallelus* (Motschulsky)

1863. *Anthocoris parallelus* Motschulsky, *Bull. Soc. nat. Moscou.*, 36 (3) : 89.
 1885. *Scoloposcelis parallelus* (Motschulsky) : Reuter, *Acta Soc. Sci. Fenn.* 14 : 717.
 1906. *Scoloposcelis parallelus* (Motschulsky) : Distant, *Fauna Brit. India Rhynch* 3 : 7.
 1909. *Scoloposcelis picicornis* Poppius, *Acta Soc. Sci. Fenn.* 39 : (9) : 26.
 1909. *Scoloposcelis parallelus* (Motschulsky) : Distant, *Fauna Brit. India Rhynch* 5 : 304.
 1909. *Scoloposcelis parallelus* (Motschulsky) : Poppius, *Wien ent. Ztg.* 29 : 140
 1954. *Scoloposcelis parallelus* (Motschulsky) : Gross. *Rec. S. Aust. Mus.* 11 (2) : 155.

Material.—4 ♂ ♂, 4 ♀ ♀, INDIA: Meghalaya, Garo Hills, Dainadubi, 13.ix.1975 (*N. Muraleedharan*).

Remarks.—*S. parallelus* (Motschulsky) is widely distributed in the Indo-Australian region. During the present survey, it has been observed that this species occur under barks of fallen trees, living among large colonies of *Dinothrips sumatrensis* Bagnall feeding on their eggs and larvae.

Tribe XYLOCORINI

6. *Xylocoris* (*Proxylocoris*) *clarus* (Distant)

1906. *Septicius clarus* Distant, *Fauna Brit. India Rhynch.* 5 : 295.
 1972. *Xylocoris clarus* (Distant): Carayon, *Ann. Soc. ent. Fr. (N.S.)* 8 (2) : 347.
 1972. *Xylocoris (Proxylocoris) clarus* (Distant) : Carayon, *Ann. Soc. ent. Fr. (N.S.)* 8 (3) : 597.

Material.—1 ♀, Meghalaya, Garo Hills, Songsak, 21.ix.1975
 (N. Muraleedharan).

Remarks.—Distribution in West Bengal, South India and Burma.

SUMMARY

This paper deals with six species of Anthocoridae from the Garo Hills. Of these, three species, namely *Buchananiella indica*, *Buchananiella garoensis* and *Physopleurella vichitravarna*, are new and the remaining three, viz. *Amphiareus constrictus* (Stål), *Scoloposcelis parallelus* (Motschulsky) and *Xylocoris (Proxylocoris) clarus* (Distant), are recorded for the first time from these hills.

REFERENCES

- DISTANT, W. L. 1906. *The Fauna of British India including Ceylon & Burma Rhynchota. Heteroptera-Homoptera.* 3 : 1-503 (Taylor & Francis)
- DISTANT, W. L. 1910. *The Fauna of British India including Ceylon & Burma Rhynchota. Heteroptera-Appendix.* 5 : 1-362 (Taylor & Francis)
- GHAURI, M. S. K. 1972. The identity of *Orius tantillus* (Motschulsky) and notes on Oriental Anthocoridae (Hemiptera-Heteroptera) *J. nat. Hist., London*, 6 : 409-421
- GROSS, G. F. 1955. A revision of the flowerbugs (Heteroptera : Anthocoridae) of Australian and adjacent Pacific Regions. Part II. *Rec. S. Aust. Mus.*, 11 (4) : 409-422.
- HERRING, J. L. 1965. The status of *Amphiareus* Distant, *Buchananiella* Reuter and *Poronotellus* Kirkaldy (Hemiptera : Anthocoridae). *Proc. ent. Soc. Wash.*, 67, (3) : 202-203.
- MURALEEDHARAN, N. & ANANTHAKRISHNAN, T. N. 1974a. New and little known species of *Orius* Wolff from India (Hemiptera-Anthocoridae) *Oriental Ins.*, 8 (1) : 37-41.
- MURALEEDHARAN, N. & ANANTHAKRISHNAN, T. N. 1974b. The genus *Buchananiella* Reuter from India with description of a new species (Heteroptera : Anthocoridae). *Oriental Ins.* 8 (1) 33—35,