

Record of *Anoplocnemis phasianus* (Fabricius, 1781) (Hemiptera, Heteroptera, Coreidae) from Goa, India

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ABSTRACT: In the survey on diversity of Coreidae, *Anoplocnemis phasianus* (Fabricius, 1781) is recorded for the first time in the state of Goa. External morphology of *A. phasianus* is described with its present geographical distribution, taxonomic photo plate, host plants, and natural photographs of the nymphs and adults are provided. © 2023 Association for Advancement of Entomology

KEY WORDS: Survey, diversity, host plant, morphology

Coreidae, commonly known as squash bug or leaf-footed bug, are medium to large sized bugs with four jointed antennae; some species in this family are bright colored with a head that is narrower than the pronotum, a four-segmented beak, front wings with veins, and three-segmented tarsi; extended hind tibiae in some species form a leaf like appearance (Gupta *et al.*, 2012). Their repugnatory glands release an unpleasant odour (Moody, 1930) that are supporting the defensive mechanisms against the predator species. They feed on cucurbits like squash and pumpkin, but some of them are pests of different agricultural crops (Bonjour and Fargo, 1989; Bonjour *et al.*, 1990). While conducting a bug survey in Goa, nymphs and adults of *Anoplocnemis phasianus* (Fabricius) were observed on *Senna obtusifolia* (Linn.) and it was identified by using literature of British Fauna of India (Distant, 1902), this is the first record of this taxon in Goa. Young shoots, flowers, leaves, and stems of *S. obtusifolia* were found to be infested frequently.

Anoplocnemis phasianus (Fabricius, 1781) (Plate 1: figs. 1-7; Plate 2: figs. 1-12)

Lygaeus phasiana, Fabricius 1781, *Spec. Ins.*, 2: p 361

Lygaeus grossipes, Fabricius 1803. *Syst. Rhyng.*, 2: p 205.

Cerbus tumidipes, Herrich- Shaeffer 1842, *Wanz. Ins.*, 6: p.54.

Mictis punctum, affinis, bicolor. Westwood 1842, in *Hope Cat.*, 2: p. 10.

Anoplocnemis phasiana: Distant 1902, *Fauna. Brit. Ind.*, 1:p. 346.

Specimens examined:

Male, 13. viii. 2021, Verna (North Goa), elevation (15m), coordinates (15°21'36" N; 73°55'44" E), Coll. Ayesha Shetkar, deposited in ADKS College, Dodamarg; Male, 18. viii. 2021, Verna (North Goa), elevation (15m), coordinates (15°21' 36" N; 73°55'44" E), Coll. Aishwarya Naik, deposited in

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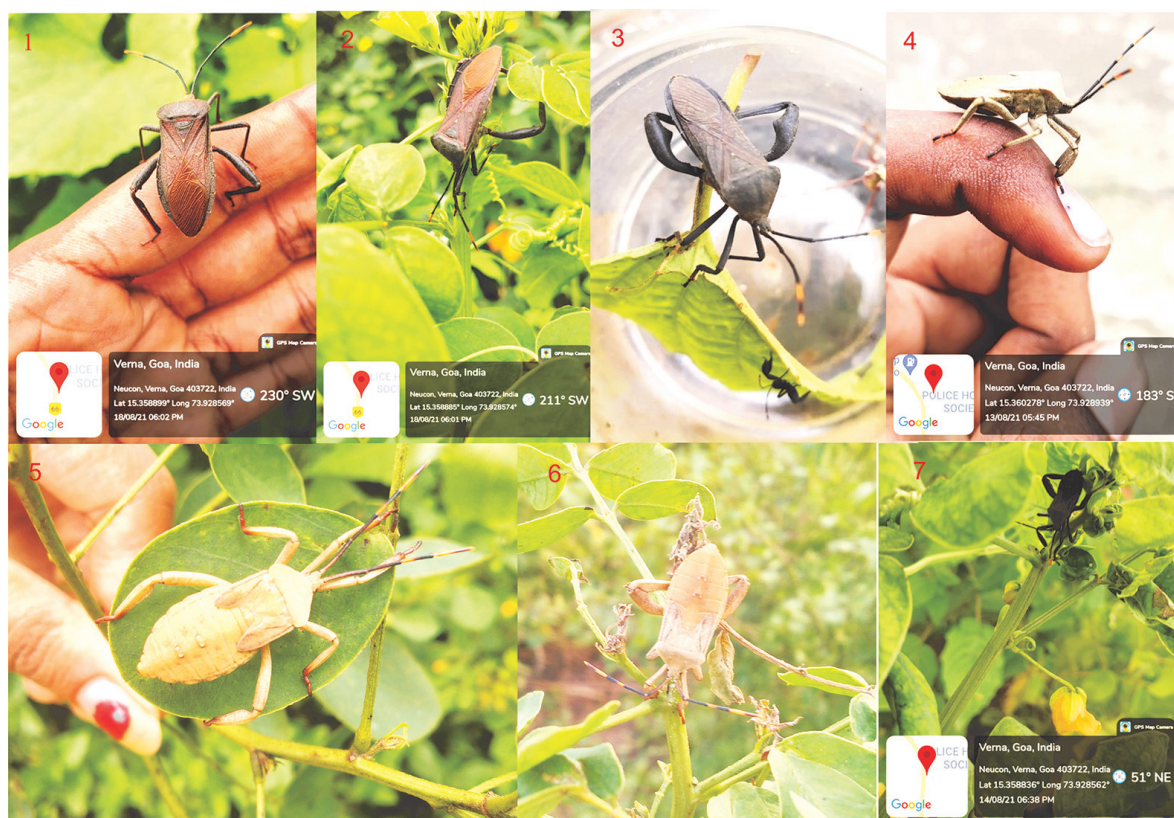


Plate 1: Figures 1-7. *Anoplocnemis phasiana* (Fabricius). 1. Dorsal view of female (brown colour); 2. Dorsal view of male (brown colour); 3. Dorsal view of male (black colour); 4. Fourth instar nymph, female; 5. Fourth instar nymph, female; 6 to 7. Fifth instar nymphs on host plant.

ADKS College, Dodamarg; Female, 21. viii. 2022, Sal (North Goa), elevation (2m), coordinates (15°41'53" N; 73°55'47" E), Coll. Ayesha Shetkar; Female, 21. x. 2022, Kasarpal (North Goa), elevation (20 m), coordinates (15°38'44" N; 73°56'26" E), Coll. Parshuram Naik, deposited in ADKS College, Dodamarg. Host plant *Senna obtusifolia* (Linn.). Measurements (in mm). Male: total body length about 26.9 to 27.1 and Female: total body length about 24.8 to 25.

Diagnostic characters: (Male)

Head: Head dorsally black, longer than broad, pubescence, ventrally brownish to black; clypeus somewhat longer than paraclypei; antenniferous tubercle prominent and slightly overhanging the median lobe, widely separated; antennal segments black to brownish and setose; first three segments black; apical segment luteous at base and apex; antennal segments I stout and longer than segment

II; segments I and IV slightly subequal; segment III smallest; segments II and III stout and slender; segment IV spindle shaped; eyes large and globose with dark brown colour, ocelli very close to eyes with light brown colour; buccula black and short, extending beyond antenniferous tubercle; rostrum short and black, extending beyond procoxae.

Thorax: Pronotum black, densely granular and setose, and sloping towards the head, length shorter than width; anterior lobe narrow and acute, separated by transverse sulcus from broad posterior lobe; humeral angles rounded, ridge like appearance at the base; lateral margins obliquely straight; posterior margins slightly sinuate; base of pronotum moderately sloping downwards towards scutellum; scutellum triangular, somewhat acute at the apex covered with setae; corium and clavus brownish, covered with fine setae; corium and clavus brownish, covered with fine setae and covered

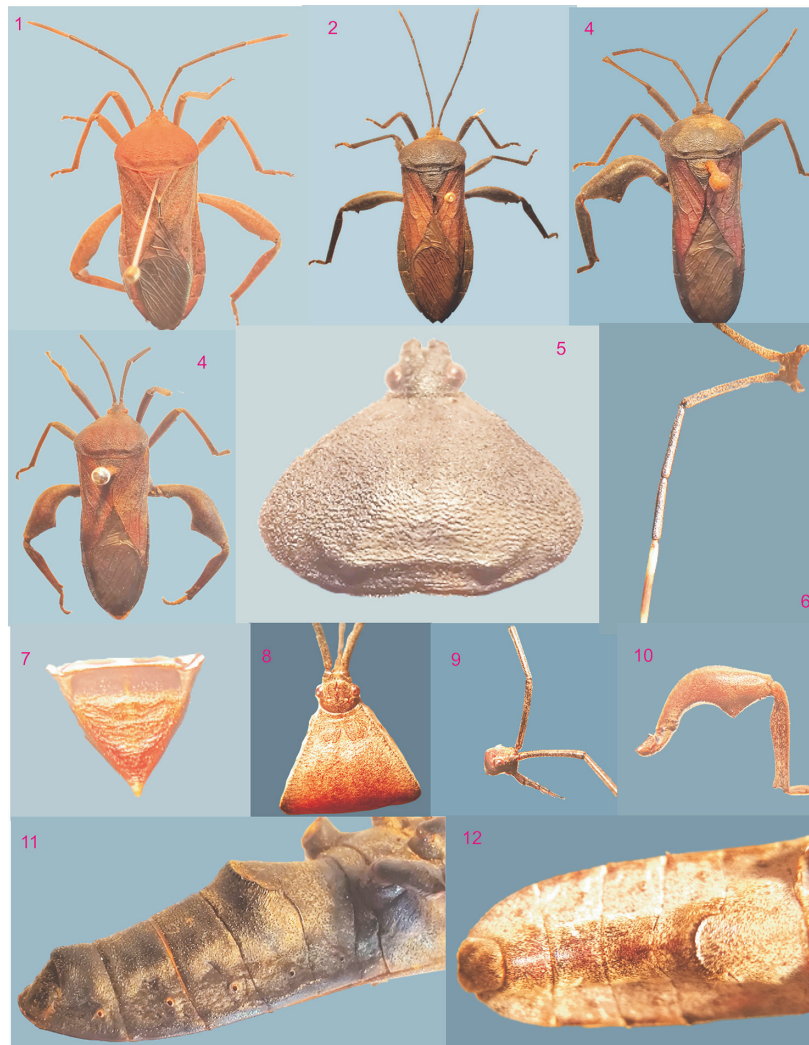


Plate 2: Figures 1-12. *Anoplocnemis phasina* (Fabricius), 1-2 Dorsal view female (colour variation); 3-4. Dorsal view of male (colour variation); 5. Thorax, male; 6. Antennae; 7. Scutellum; 8. Thorax, female; 9. Rostrum; 10. Hind leg, dorsal view; 11-12. Ventral view of abdomen, male (colour variation)

with some apparent punctures; legs black; posterior femora strongly incrassated and curved in the middle with prominent spine and many minute spines; whole dorsal surface granular and setose; the entire surface of tibia slightly granular and setose; posterior tibiae much flattened; membrane brownish, with network like venation, which is not extending beyond the apical segment of abdomen.

Abdomen: Abdomen long, elongate and brownish to black; connexivum black and visible; sternum black covered with setae; a semicircular elevated ridge at segments II and III; spiracles large and prominent; the whole area setose, and covered with numerous fine black granules.

In the past, researchers on Coreidae species included Distant (1902), Basu and Mitra (1977 a, b and c, 1978, 1996, 2003, 2004) in India. Coreidae is distributed throughout the world, including countries and Islands such as Archipelago, China, India, Myanmar, Malay Peninsula, Nepal, Sri Lanka, and Thailand (Distant, 1902, 1908 and 1918; Schuh and Slater, 1995; Cassis and Gross, 2002; Dolling, 1991; Aukema *et al.*, 2013). There are over 1,802 species under 252 genera in the world (Schuh and Slater, 1995), out of which 143 species under 45 genera are in India (Distant, 1902, 1908, 1910). *Anoplocnemis phasianus* was noted in Assam, Kerala (Thiruvananthapuram), Madhya Pradesh,

Meghalaya (Khasi hills), Nagaland (Naga Hills), Sikkim, Tamil Nadu (Sholinganallur), Uttarakhand (Gwaldam-Garud Tehsil), and West Bengal (Darjeeling and Buxaduar, Jalpaiguri district). Although *A. phasianus* was recorded from adjacent states such as Maharashtra (Mumbai and Bor Ghat) and Karnataka (Distant, 1902). There is no report of *A. phasianus* from Goa till date.

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