

FIRST RECORD OF THE ASSASSIN BUG *Acanthaspis fulvipes* DALLAS, 1850 (HETEROPTERA: REDUVIIDAE: REDUVIINAE) FROM MAHARASHTRA, INDIA

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ABSTRACT

The interesting species *Acanthaspis fulvipes* belonging to the subfamily Reduviinae of family Reduviidae is a common assassin bug of suborder Heteroptera and it is numerous distributed in India. The present research paper deals with the first record of *Acanthaspis fulvipes* from Maharashtra, with briefly added some diagnostic character.

KEYWORDS: *Acanthaspis fulvipes*, Reduviidae, Heteroptera, Maharashtra, India

The Reduviidae bugs are one of the successful groups of suborder Heteroptera. They are widely distributed in terrestrial ecosystems. The member of this group is blood suckers, pathogenic and one of the largest group of predatory animals. The Reduviidae species have adapted to a wide range of terrestrial habitats and diversified in their prey choices while developing a wide repertoire of innovative prey capture Strategies (Soley et al. 2011; Wignall and Taylor. 2011; Forero et al. 2011; Zhang and Weirauch, 2011; Jacobson, 1991). They are mostly common in tropical rainforest, but they are generally found in tropical rainforest, semi-arid zone, scrub jungle and agro-ecosystem (Ambrose, 2006). A total of 6250 species and subspecies in 913 genera and 25 subfamilies was globally reported (Maldonado, 1990) of which 465 species, under 144 genera belonging to 14 subfamilies were reported in India (Ambrose, 2006). The genus *Acanthaspis* is widely distributed and they comprise 42 species known from Indian (Biswas and Mitra, 2011) of these only 10 species of Reduviinae were reported from Maharashtra State (Sharma and Bano, 2012) without *Acanthaspis fulvipes*. This species was first described by Dallas in 1850, later original description on *Acanthaspis fulvipes* was done by Distant from India (Distant, 1902). In recent, distribution, taxonomic status and diagnostic characteristics of this species was studied by Ambrose a checklist of Indian assassin bugs (Ambrose, 2006). The Fauna of Reduviidae in Maharashtra State are poorly developed and Major work on this family was done by other state researchers from India. The present study provided important information about this family and especially for the species of *Acanthaspis fulvipes*. The present study is briefly added some Morphological character of this species because in feature easily identified to the Entomologists.

MATERIALS AND METHODS

Common assassin bug *Acanthaspis fulvipes* was collected from R. B. Madkholkar Mahavidyalaya, Chandgad, Kolhapur, by hand picking method. Photography of this species was made by Canon 1300 D Cameras with 18-55 lenses. The specimen was identified using species identification keys (Distant, 1902) and a research paper (Ambrose, 2006).

RESULTS AND DISCUSSION

Systematic account:

Order: Hemiptera

Suborder: Heteroptera

Family: Reduviidae

Subfamily: Reduviinae (Acanthaspidinae Distant, 1902)

Genus: *Acanthaspis* Amyot and Serville, 1843

Acanthaspis fulvipes (Dallas, 1850)

1850. *Platymeris fulvipes* Dallas, Tr. Ent. Soc.: f.3

1902. *Acanthaspis fulvipes* Distant, Fauna Brit. India, Rhynchota, 2:259.

2006. *Acanthaspis fulvipes* Ambrose, Zoos' Print Joun., 21 (9): 19.

Material examined: 1ex, R. B. Madkholkar Mahavidyalaya, Chandgad, Kolhapur, 4. Viii. 2016, Coll. Sadashiv More.

Diagnostic character: Antennae brownish and faintly black, basal segment of antennae longer than head, segment first short with faintly black, segment second slightly longer than first and somewhat black, segment third longest than first and second with brownish color; Head short, dark black, anteocular and postocular portion of head is black, postocular portion

of head a little larger than antecular region, ocelli slightly white, Rostrum brownish, basal segment is larger than second, eyes semi globular with slightly brown; Pronotum black, anterior lobe moderately sculptured and posterior lobe rugulose, humeral angles pointed spine, its scutellum black in color, scutellar spine black with long, obliquely ascendant; Membrane black, large yellow spot on behind middle of each corium and yellow spots on connexivum and beneath ochraceous; Entire legs covered with numerous brownish hairs, apices of anterior, intermediate and posterior femur, and all the tibiae and tarsi reddish

brown, all the tibiae covered with more brownish hairs than all the femora, all the joints of femora slightly larger than tibiae; Abdomen and central disk reddish brown, Last segment of abdomen covered with brownish hairs.

Length: 26mm

Humeral angle, length: 7mm

Distribution: India: Maharashtra, Chhattisgarh, Assam, Sikkim, and West Bengal. Elsewhere: Bhutan and Bangladesh.

Acanthaspis fulvipes (Photo Plate 1)

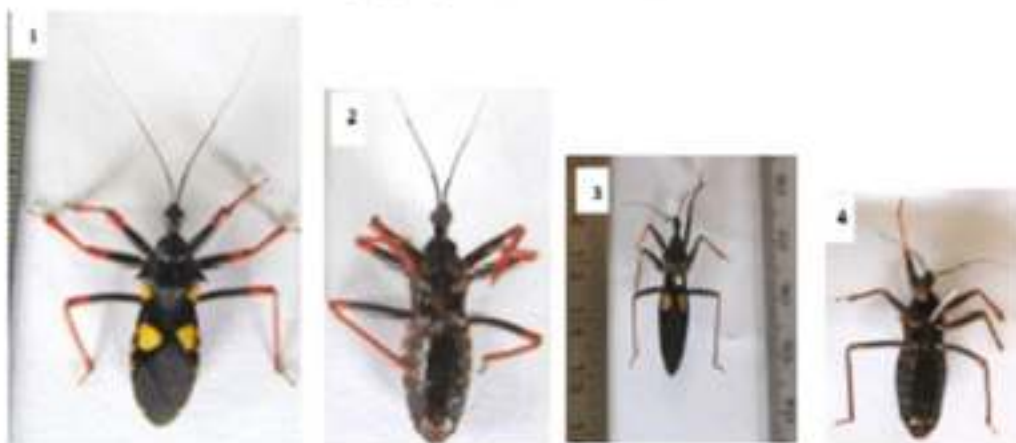
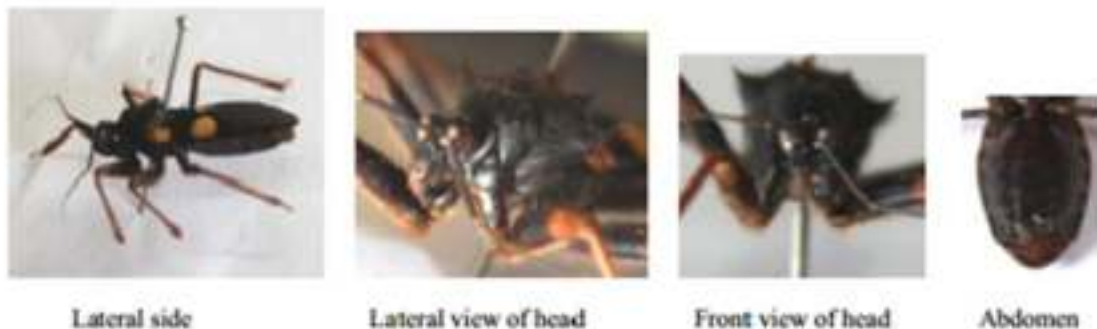


Fig. 1 and 2 without dry, 3 and 4 after dry



Lateral side

Lateral view of head

Front view of head

Abdomen

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REFERENCES

Ambrose D. P., 2006. A Checklist of Indian Assassin bugs (Insecta: Hemiptera: Reduviidae) with taxonomic status, distribution and diagnostic morphological characteristics. *Zoos' Print*; **21**(9): 2388-2406.

Biswas B. and Mitra B., 2011. Checklist of Indian Assassin Bugs (Insecta: Hemiptera:

- Reduviidae). Website: <http://zsi.gov.in/checklist/reduviidae>, pdf: 33 pp.
- Distant W. L., 1904. The Fauna of British India, including Ceylon and Burma, Rhynchota, Vol. II, Taylor and Francis, London, 1-503.
- Forero D., Choe D. H. and Weirauch C., 2011. Resin Gathering in Neotropical Resin Bugs (Insecta: Hemiptera: Reduviidae): Functional and Comparative Morphology. *Journal of Morphology*, **272**: 204–229.
- Jacobson E., 1911. Biological notes on the hemipteron *Ptilocerus ochraceus*. *Tijdschrift voor Entomologie*, **54**:175–179.
- Maldonado C., 1990. Systematic catalogue of the Reduviidae (Insecta-Heteroptera) of the world. Caribbean Journal of Science edition, University of Puerto Rico, Puerto Rico, 694 pp.
- Sharma R. M. and Bano R., 2012. Fauna of Maharashtra, State fauna series 20 (Part-2). Zoological Survey of India, 477-478
- Soley F. G., Jackson R. R. and Taylor P.W., 2011. Biology of *Stenolemus giraffa* (Hemiptera: Reduviidae), a web invading, araneophagic assassin bug from Australia. *New Zealand Journal of Zoology*, **38**:297–316.
- Wignall A. E. and Taylor P. W., 2011. Assassin bug uses aggressive mimicry to lure spider prey. *Proceedings of the Royal Society B-Biological Sciences*, **278**:1427-1433.
- Zhang G. and Weirauch C., 2011. Sticky predators: a comparative study of sticky glands in harpactorine assassin bugs (Insecta: Hemiptera: Reduviidae). *Acta Zoologica*, doi:10.1111/j.1463-6395.2011.00522.x