

Short communication**NEW RECORD OF LEAF FOOTED BUGS OF GENUS, *HOMEOCERUS* (HEMIPTERA : COREIDAE) ON *DALBERGIA SISSOO* FROM JHARKHAND, INDIA****Sailesh Chattopadhyay**Department of Forest Biology and Tree Improvement, Faculty of Forestry, Birsa Agricultural University, Kanke, Ranchi- 834 006, India.
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ABSTRACT : Two sap sucking bug species of genus *Homoeocerus* Burmeister viz. *Homoeocerus angulatus* Westwood and *Homoeocerus macula* Dallas (Hemiptera : Coreidae) were observed to cause notable damage to shisham seedlings, saplings and young plantation of *Dalbergia sissoo* in Jharkhand. The present finding of these two species associated with shisham (*Dalbergia sissoo* Roxb.) is the first record from Jharkhand, India.

Key words : *Homoeocerus angulatus*, *Homoeocerus macula*, new record, *Dalbergia sissoo*.

Homoeocerus Burmeister is the genus of sap sucking insects, which are commonly called as Leaf footed bugs, belonging to the family Coreidae of order Hemiptera. The most important characteristic feature of this genus is the distinctly deflected central lobe of the head between two lateral lobes (Biswas *et al*, 2014). Besides other diagnostic characters of the genus are longer second joint of antenna than the first, corium with a large transverse macular spot at inner angle and having a broad basal fascia to the pronotum between the lateral angles (Sheikh *et al*, 2017). Species of the genus *Homoeocerus* are very host specific and infestation of a few species of this genus have been recorded to feed on juices of different vegetables and tree species viz. *Homoeocerus* spp. on okra, tomato and brinjal (Rana *et al*, 2017); *Homoeocerus signatus* on *Acacia nilotica* and *Prosopis cineraria* (Vir and Verma, 1996) and on *Dalbergia sissoo* (Kalia and Lal, 1999); *H. pallenson* cashew (Dwomoh *et al*, 2008); *H. variabilis* on *Prosopis cineraria* (Haldhar, 2012); *H. inornatus* on *Gmelina arborea* (Kumar and Chandra, 2017); *H. marginalis* on *Falcataria moluccana* (Setyawan *et al*, 2018). In the present finding, an endeavor has been made to record two species of genus *Homoeocerus*, viz. *H. angulatus* Westwood and *H. macula* Dallas as the sap sucking bugs in shisham nursery and plantation.

During the course of periodical survey in the campus

nursery and plantation of Faculty of Forestry, Birsa Agricultural University, Ranchi (23.18° N, 85.19° E; alt 625 MSL), a large number of leaf footed bugs were observed to suck sap from soft tender shoots and leaves of shisham seedlings, saplings and young plantation during 2018 – 2019. These bugs were collected by net sweeping from the shisham foliage. The insects were then killed in the insect killing bottle by using ethyl acetate, pinned properly and kept in fumigated boxes containing naphthalene balls for further identification. Later the bugs were identified as *Homoeocerus angulatus* Westwood and *Homoeocerus macula* Dallas respectively with the help of available literature (Distant, 1902; Hegde, 1995; Gupta and Singh, 2011). The adults of *H. angulatus* (Fig. 1) is 19– 20 mm long and is characterized by greenish scutellum and connexivium, extended light brown line of the pronotum up to the tip of the head, subacutely prominent lateral angles, outer blackish marginal lines on the 1st to 3rd joints of antennal segments and slightly shorter 3rd joint than the 4th whereas the *H. macula* (Fig. 3) is 17 – 19 mm long and its identifying characters are faint levigate line of the pronotum, longest second joint of antenna and equal sized trilobed pygophore.

Both the *Homoeocerus* spp. were noticed to cause damage to shisham seedlings, saplings and young plantations by sucking the sap on the tender shoots and leaves during last week of March to first week of August,



Fig. 1 : *Homoeocerus angulatus* (adult).



Fig. 2 : *Homoeocerus angulatus* (in copula).



Fig. 3 : *Homoeocerus macula* (adult).



Fig. 4 : *Homoeocerus macula* (in copula).

2019. But severity of damage caused by these sucking insects was found in nursery condition resulting dried appearance of apical tender shoots and leaves. Members of *H. angulatus* were noticed more abundant than *H. macula* and sometimes they were also observed in copula (Figs. 2 & 4) during day time. The report of these two leaf footed bugs *H. angulatus* and *H. macula* associated with shisham is the first record from Jharkhand state as no documentation is there in the study report of insect pests on shisham in Jharkhand state of India (Kumar, 2017). Furthermore, detailed study on sap sucking behaviour and the extent of damage of these two *Homoeocerus* spp. in relation to meteorological parameters has been taken into account for formulating better management practices of such insect pests.

REFERENCES

- Biswas B, Hassan M E, Chandra K and Praveen K (2014) On an account of Coreoidea (Heteroptera : Hemiptera) from Chhattisgarh, India. *Rec. Zool. Surv. India* **114**(Part- 4), 637 – 650.
- Distant W L (1902) *The Fauna of British India including Ceylon and Burma, Rhynchota*. Vol. II, Taylor and Francis, London, pp. 503.
- Dwomoh E A, Ackonor J B and Afun J V K (2008) Survey of insect pests associated with cashew (*Anacardium occidentale* Linn.) and their distribution in Ghana. *African J. Agricult. Res.* **3**(3), 205 -214.
- Gupta R and Singh D (2011) Comparison of external male genitalia of ten species of genus *Homoeocerus* Burmeister from India. *Entomon* **36**(1-4), 135 – 143.
- Haldhar S M (2012) Report of *Homoeocerus variabilis* (Hemiptera: Coreidae) on khejri (*Prosopis cineraria*) in Rajasthan, India: Incidence and morphometric analysis. *Florida Entomologist* **95**(4), 848 – 853.
- Hegde V (1995) *Records of the Zoological Survey of India*. Occasional paper no. 168. On Heteroptera (Insecta) from the Western ghats, India. ZSI Publ. pp. 88.
- Kalia S and Lal R R (1999) Insect pests of *Dalbergia sissoo* Roxb. at and around Jabalpur. *Advances in Forestry Research in India* **20**, 190- 202.
- Kumar A (2017) The study of insect pests of *Dalbergiasissoo* Roxb. and their seasonal incidence in Jharkhand, India. *American J.*

- Agricult. Fores.* **5**(5), 137 – 144.
- Kumar A and Chandra G (2017) Insect pests on *Gmelina arborea* Roxb. in different agroclimatic zones of Jharkhand, India. *Arthropods* **6**(1), 8 – 20.
- Rana N, Amin T, Iqbal M, Nargis S, Afzal S and Fatema S (2017) Distribution pattern of foliage insects among the summer vegetable, viz. okra, brinjal and tomato. *J. Entomol. Zool Stud.* **5**(6), 490 – 497.
- Setyawan Y P, Hidayat P and Puliafico K P (2018) Herbivorous insects associated with Albizia (*Falcataria moluccana*) sapling in bogor. *IOP Conf. Ser.: Earth Environ. Sci.* **197** (012018), 1 – 8.
- Sheikh A H, Thomas M and Bhandari R (2017) On the account of Coreoidea (Heteroptera :Hemiptera) from Dumna National Park, Jabalpur, India. *National Journal of Multidisciplinary Research and Development* **2**(3), 244 – 247.
- Vir S and Verma S K (1996) Insect pests of agroforestry leguminous trees of India. *Annals of Arid Zone* **35**(4), 349 – 549.