

Short communication

**NEW RECORD OF *Brevennia rehi* (Lindinger) (HEMIPTERA
PSEUDOCOCCIDAE): RICE MEALY BUG FROM
CHHATTISGARH, INDIA**

D.K. Kaushik¹ and V.K. Nirmalkar²

Paddy is main staple food of Chhattisgarh and area under cultivation is about 3.6 million ha area, with average production of 20.41 q ha⁻¹ and productivity ranges from 1.2 to 1.6 t ha⁻¹. In Bilaspur district of Chhattisgarh state, 2.18 lac hectares of land comes under rice cultivation with average production of 25.53 q ha⁻¹ with 2.5 t ha⁻¹ productivity was recorded (Anonymous, 2018). The production and productivity is low as compared to other major paddy cultivated state, because of many biotic and abiotic stress, among them insects infestation is major constant, among the different insects found in the cultivated area (Nirmalkar *et al.*, 2016). A new insect found in the paddy-paddy cropping system is “rice mealy bug”. A severe infestation of the rice mealy bug, *Brevennia rehi* (Lindinger), was observed in the *kharif* season of 2015-16 and 2016-17 in different blocks of district Janjgir-Champ and 2016-17 in Bilaspur district of Chhattisgarh. The insect is recorded first time in early broadcast (2nd fortnight of June) Paddy var. Swarna at farmers field of village Kera block Navagarh, village – Jarvey (Cha), block- Baloda and village – Rasota, block – Pamgarh district Janjgir-Champa.

The insect was recorded in first fortnight of September 2015 with mild to severe form. Known mealy bug occurred from late Aug to 1st week of Sept in early sowing crops with low to severe form. The insect was confirmed as *Brevennia rehi* (Lindinger). The initial symptom was the presence of sunken patches on the plants, which showed stunted growth, waxy and peculiar depressions that later, produced a scorched appearance (Williams, 2004 ; Alam, 1967; Ghose, 1961 ; Ben-Dov, 2012).

Heavily infested plants did not bear panicles. The insects are colonized between the leaf sheath and stems, forming hard waxy masses (Fig 3-5). These symptoms are locally known as Hathi paun in Chhattisgarh (Fig -6).

During observation 32.84 % infestation was observed in square meter⁻¹. Under microscopic study the body of adult female observed elongate oval to broadly oval. Legs short and slender, with numerous translucent pores on each hind femur and tibia. Antennae short, each with six segments. Ostioles represented by posterior pair only. Cerarii numbering six or seven pairs, on the abdomen only. Multilocular disc pores present on the dorsum of the abdomen and head margin, and across the abdomen and around the entire margin on the venter. Quinquelocular pores fairly abundant over the entire body Grimshaw and Donaldson (2007) (Fig 1-2). In future the insect may cause's major problem in Paddy-Paddy cropping system where assured flood irrigation system is adopted through canal, river etc. when submerged condition is maintained, so there proper biology and proper management techniques is needed to understand and manage at economic level.

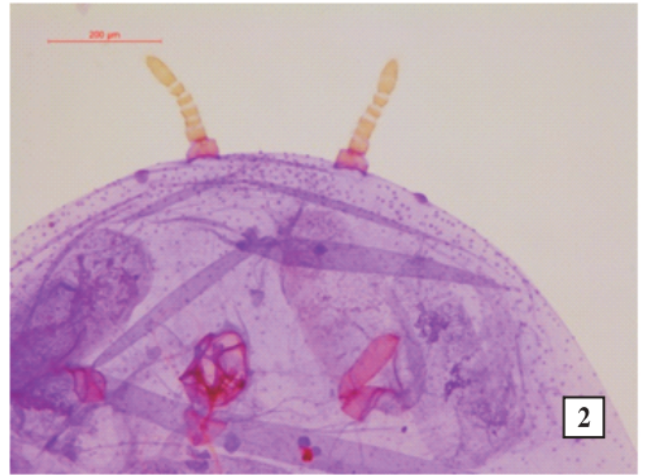
Diagnosis

The eggs are yellowish white in colour deposits in outer leaf sheaths. Nymphs are pale yellowish. Nymph is active and crawls about the plant for a while and settled itself on the plant/ stem and turns dark yellow after a day. Body gets covered with waxy. Female adults are reddish, oval, soft-bodied living in colonies inside the leaf sheath. Males are small, slender, pale-yellow, having single pair of wings and a style like process at the end of the abdomen but lack mouthparts. Males are seldom found in the colonies (Watson and Chandler, 2000 ; Ayyar, 1939 ; Anjaneyulu *et al.*, 1980 ; Williams *et al.*, 1981).

Rice Research Station, Moncompu, Thekkakara, Alappuzha Kerala Agricultural University identified and confirmed as *Brevennia rehi* (Lindinger) Hemiptera: Pseudococcidae (Williams *et al.*, 1981). This is the first record of this pest from Chhattisgarh, India.

1. Subject Matter Specialist (Entomology), Krishi Vigyan Kendra, Bilaspur, (I.G.K.V.) (C.G.)

2. Scientist (Plant Pathology), BTC College of Agriculture & Research Station, Sarkanda, Bilaspur, (I.G.K.V.) (C.G.)



Microscopic View of *Brevinnia rehi* (Rice Mealy Bug)



Nymphal stage of Mealy bug

Nymphal stage with cottony structure



Nymphal stage on leaf sheath

Mealy bug infested field showed sunken patches on standing rice crop

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