



# North-East Twinning Program- Key characteristics of Brown plant hopper from North- East under foldscope- #Indiafoldscopephase1

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DATE RECEIVED:  
November 28, 2018

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## Brown Plant Hopper

**Scientific names:** *Nilaparvata lugens*(Stal)

**Manipuri Name:** *Waikupchubi*

The **brown planthopper are** the most important pests of rice, which is the major staple crop for about half the world's population. They damage rice directly through feeding and also by transmitting two viruses, rice ragged stunt virus and rice grassy stunt virus. High population of planthoppers cause leaves to initially turn orange-yellow before becoming brown and dry and this is a condition called "hopperburn" that kills the plant. This pest is known to migrate long distances, such as from tropical southern China north to Japan in large numbers.

**Morphological characteristics** (as observed under foldscope)

- Adults are ochraceous brown in colour dorsally and deep brown ventrally
- Antenna is long and on pedicel of antenna is bulbous (Fig 1)
- Wings with annal veins and forms Y shaped structures( Fig 2)
- At the end of the tibiae of the hind legs, there is a movable flattened spur (the "calcar") that is found only in delphacidae family (Fig 3)

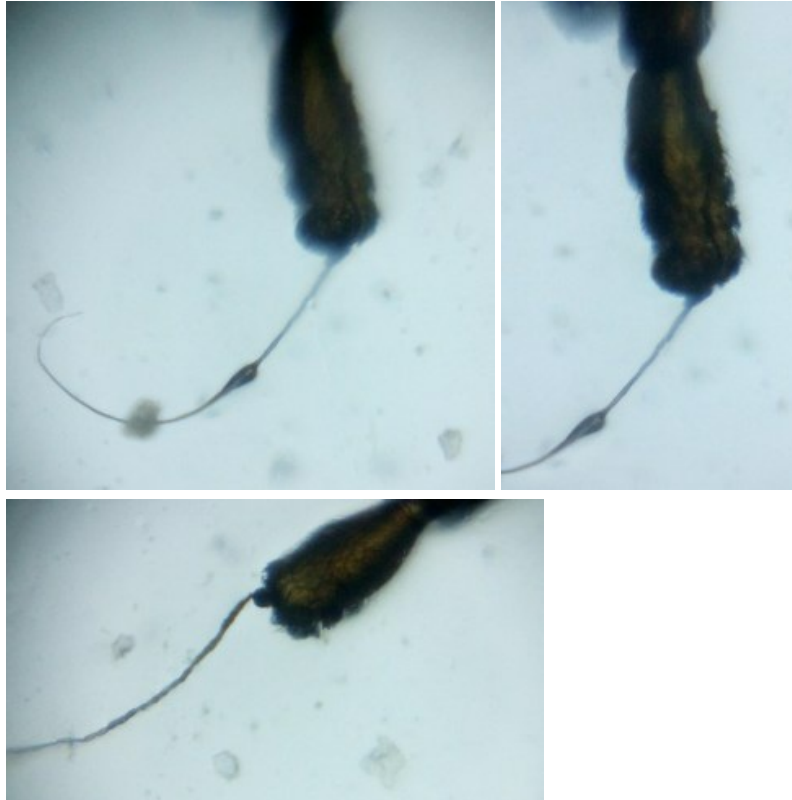


Fig. 1: Antenna of brown plant hopper under foldscope

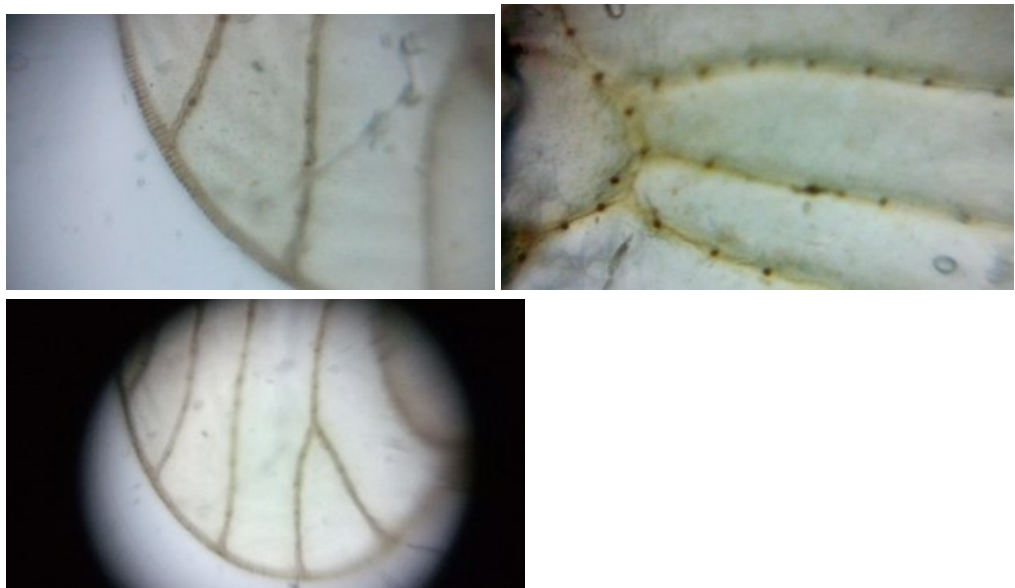


Fig. 2: Wing of brown plant hopper under foldscope

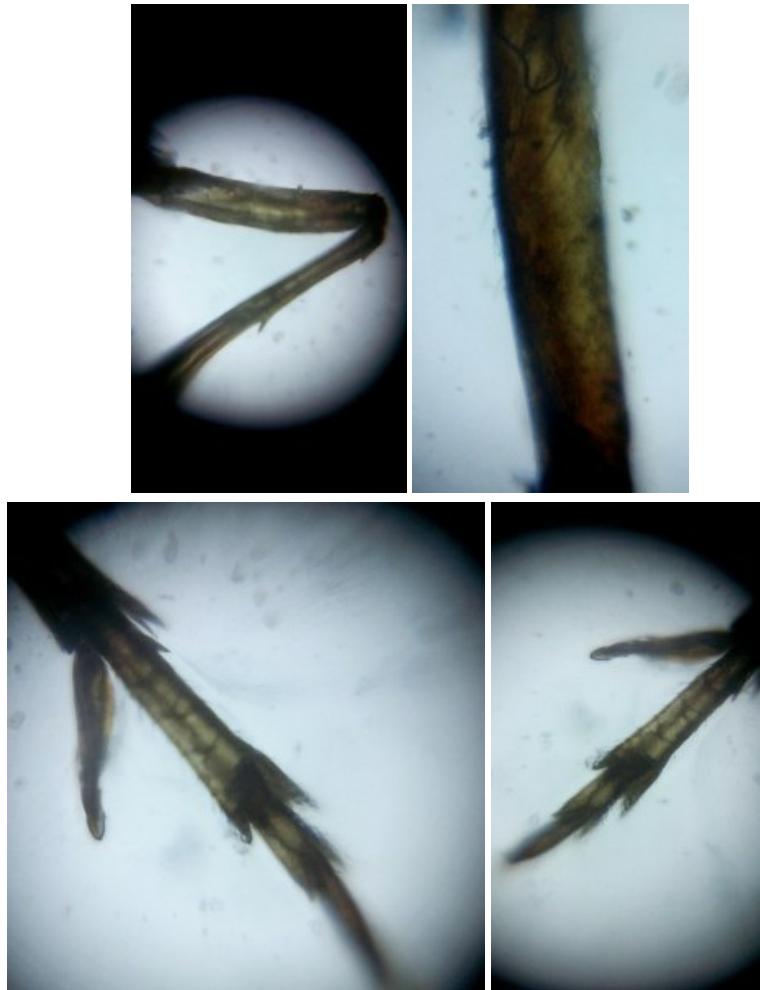


Fig. 3: Hind leg of brown plant hopper under foldscope