Report of invasive longhorn beetle, *Aristobia reticulator* (Voet) (Coleoptera: Cerambycidae) in aonla, *Emblica officinalis* Gaertn in India

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Recently, aonla, *Emblica officinalis* Gaertn trees in the North-Eastern region of India were severely damaged by a stem borer, *Aristobia reticulator* (Voet) (Coleoptera: Cerambycidae) (Fig. 1). The first report of the heavy incidence of this borer on aonla trees in Arunachal Pradesh, India was reported by Kumawat and Wangchu, 2021. This borer is a regular pest of longan trees in China and was earlier reported by Ho *et al*. 1990. However, *A. reticulator* (= *Aristobia testudo*) was first time noticed in India in the year 1997 on guava as a stem borer (Shylesha *et al.,* 2000). Later on, it caused heavy damage in litchi, *Litchi chinensis* Sonn as a stem borer in the state of Arunachal Pradesh in the year 2017 (Kumawat *et al*., 2017). Surveys were conducted in approximately 1000 sq km area to assess the incidence of *A. reticulator* in different litchi and aonla orchards of the Arunachal Pradesh. During surveys, 88.5% trees of litchi (Fig. 2) and 58.9% trees of aonla were damaged by this pest while most of the trees were infested by more than two larvae per plant (Fig. 3).

The beetles emerged during June-August from stems by making an exit hole (Fig. 4), and thereafter they fed on the bark of tender branches. Beetles were observed feeding on bark, by girdling stems, branches, and soft twigs, while larvae tunnelled inside the stem. The grubs caused maximum damage in saplings and branches. Females cut a slit into the bark and laid egg singly under it. Newly hatched grubs first started feeding sub-cortically and then enter in the sapwood. Grubs continued to move down the branches, feeding and ejecting frass from their tunnels. The grub formed a pupal cell under the bark. Beetles emerged from the pupal cell by cutting a circular exit hole. Adult males survived longer than females. The beetle has a life cycle of approximately one year. In host preference studies, *A. reticulator* laid eggs on litchi, followed by aonla whereas guava was the least preferred host for oviposition, although beetles were also found to feed on the bark of *Cajanus cajan* (L.) but larval development was not observed.

Since, the northeastern region of India is in close proximity with China and Myanmar and the bordering area is occupied with dense forest from all around, hence this pest might have invaded from China or Myanmar, where it was found to cause heavy damage in litchi plantations. *A. reticulator* may spread to major litchi growing states like Bihar, West Bengal, Uttar Pradesh, Jharkhand and other states, if quarantine measures are not taken.

Fig. 1 Beetle, *A. reticulator*

Fig. 2 Grub feeding on litchi

Fig. 3 Grub feeding on aonla

Fig. 4 Exit hole in the stem

References

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