Mass occurrence of stink bug *Catacanthus incarnatus* (Dury) on *Gmelina arborea* Roxb. in Satara, Maharashtara

S.V. Thite[1] and B.A. Kore[2]

Gmelina arborea Roxb. (Verbinaceae) is a fast growing deciduous tree, occurring naturally throughout greater parts of India. It is commonly planted as a garden and an avenue tree; also grown in villages along agricultural land and on village community lands and wastelands. *G. arborea* is an unarmed, moderately sized to large deciduous tree with a straight trunk. It is wide spreading with numerous branches forming a large shady crown, attains a height of 30 m or more and a diameter up to 4.5 m. Flowering takes place during February to April when the tree is more or less leafless whereas fruiting between May and June. *G. arborea* has been traditionally used in India for several medicinal purposes like diuretic, antibacterial, antioxidant and antidiabetic (Nayak *et al*, 2011).

During field visits to Ajinkyatara Fort, Satara, Maharashtara ($17^0$14.337′ N & 073^0 59.675′ E height 742 m. msl.) in October 2015 an extensive aggregation of *Catacanthus incarnatus* (Sub Family - Pentatominae Family Pentatomidae) was observed on *G. arborea*. The identification and confirmation of this plant bug was done by using standard literature and expertise available (Distant, 1902). *C. incarnates*, also known as man-faced stink bug or man-faced shield bug is native to Southeast Asia and India. The bugs are named after spotted pattern that resembles a man's face when one views the dorsal side of the bug oriented head down and disagreeable odour which is produced from its body. Bhat & Srikumar (2013) states that the bugs are found in four different colour morphs namely viz., red, orange, yellow and cream with dark eye spot on their leathery scutellum and forewings, advertising their noxious taste and also perhaps functioning as eyespots to mislead predator. However during present study only two colour morphs namely red and yellow were observed (Fig. 1&2). Huge aggregation was noticed mostly on main trunk of tree (Fig. 3) and the later population was found scattered on different branches. In this aggregation only adult stage of bug was observed and rest life cycle stages were missing. After eight days the colony was shifted elsewhere from that habitat.

According to Kumar & Bajpai (2007) many species of bugs are found in aggregation because of pheromones or congregation of insect for protection, reproduction and feeding or combination of all. Recently mass occurrence of this bug has been reported from different regions of India. Mamlayya & Aland (2012) reported aggregation of approximately 400–500 bugs on a single branch of *Delonix regia* in Kolhapur, Maharashtra. Bhat & Srikumar (2013)

Fig 1. Red *C.incarnatus*

Fig 2. Yellow *C.incarnatus*

recorded about 300 bugs on a single cashew tree in Puttur region of Karnataka as a pest of cashew plantation. Waghmare *et al.*, (2015) reported mass occurrence of these bugs on different hosts namely *Ixora brachiata*, *Memecylon umbellatum*, *Glochidion ellipticum* and *Olea dioica* from Rangana fort, Kolhapur Maharashtra. But in the present study only four trees have shown extensive congregation on main trunk and approximately 200-300 bugs per branch. No any other tree has shown such a type of aggregation on the fort. Same type of aggregation has been noticed on *Delonix regia* in the same month from another study site away from the earlier described Ajinkyatara Fort site. In this aggregation most of the adults were observed in feeding state and very few mating pairs were noticed. Earlier reports state that every time a different host has been used for feeding by these bugs. This indicates their polyphagous nature.

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[1&2]Department of Botany, Yashvantrao Chavan Institute of Science, Satara, (M.S). Email: basavaraj.kore@rediffmail.com[2] (Corresponding author)

Fig 3. Aggregation of Bug on main trunk of tree

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