

# Occurrence of *Bagrada hilaris* (Burmeister) (Heteroptera: Pentatomidae) on *Parthenium hysterophorus* from India

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*Parthenium hysterophorus* L. (Asteraceae: Heliantheae), commonly known as parthenium, white top, congress grass, feverfew or carrot weed, is one of the worst weeds, threatening natural ecosystems and agro ecosystems in over 30 countries worldwide (Adkins & Shabbir 2014). Parthenium has proved a challenge and the

development of pest resistance, (Kaur *et al.* 2014). Still efforts are being made to control this weed by all possible means. As a part of survey conducted during 2012-2015 in the Haryana state (India), a whitish black insect with orange spots was regularly found to be feeding on young as well as mature plants of parthenium, in different



Fig.1. a-b) Adult bagrada bug feeding on seeds of parthenium weed; c-d) Foliage feeding by bagrada bug of parthenium weed

conventional means of its control have literally failed due to their innate drawbacks (Aggarwal *et al.* 2014). Many chemical pesticides used for its control have been or being phased out because of potential human health risks, environmental pollution, effects on non-target organisms and the

parts of the Kurukshetra district of Haryana. The insect was later identified as *Bagrada hilaris* (Burmeister), formerly known as *Bagrada cruciferarum* Kirkaldy or *Bagrada picta* (F.) (Hemiptera: Pentatomidae), is native to Africa, India, and Asia (Howard 1906) and it is known by various names,

including bagrada bug, painted bug. The insect was observed feeding on flowers, leaves and stem of parthenium plant (Fig. 1). *B. hilaris* prefers wild and cultivated mustards and it has been also reported on a wide range of hosts belonging into various plant families. These includes barley, oats, wheat, artichokes, beetroot, carrot, lettuce, peas (Daiber 1992), rice and sugarcane, and coffee (Rajpoot *et al.* 1996). Among 260 phytophagous arthropods species reported from Parthenium from its native homeland, 144 species actually fed on the weed (McClay *et al.* 1995). As per the existing literature scan and to the best of our knowledge, *B. hilaris* reported for the first time on *P. hysterophorus*.

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