Short Communication

Conchaspis angraeci Cockerell (Hemiptera, Conchaspididae) infesting jungle fire plant *Excoecaria cochinchinensis* Lour. (Euphorbiaceae) : A new host record from Kerala, India

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Abstract:
The study records a new host, the jungle fire plant, *Excoecaria cochinchinensis* Lour. (Euphorbiaceae) for *Conchaspis angraeci* Cockerell (Hemiptera, Conchaspididae) in India from Kerala. *E. cochinchinensis* is a popular foliage ornamental plant with vibrant red and green coloration, which was observed with severe infestation of *C. angraeci* popularly known as common false armored scale. Infestation leads to yellowing, wilting and defoliation, thereby reducing the economic value.

Keywords: Armored scale, India, Host association.

Excoecaria cochinchinensis is a small evergreen shrub grown as an ornamental plant, belonging to the family Euphorbiaceae (Luo et al.,2019). On maturation, the leaves obtain red colour on the abaxial surface of leaves and green on the adaxial surface, hence commonly known by the name jungle fire plant. Apart from the aesthetic value, the plant has medicinal significance in regions of Indonesia, where they use it for treating malaria, dysentery and cancer.

Conchaspis angraeci commonly known as the agraeci scale was recorded from Florida in 1979 by Hamon, and he described the scale having host association with several ornamental plants that include species of *Hibiscus*, *Pittosporum* and *Coccoloba* and orchids.The specimens collected from *Angraecum eburneum* var. *virens* from Jamaica (Cockerell, 1893) and from Honolulu city of Hawaii (Beardsley, 1983) indicates its importance. Newsbead (1893) described the angraecum scale as *Pseudinglisia rodrigueziae* which is its only synonym (MacGillivray,1921). In India, *C. ngraeci* was first recorded from Tamil Nadu associated with the host plants *Acalypha bicolor* and *Vanilla fragrans.* The economic value of the insect can be realized from the various reports across the globe such as from the Antigua islands of Caribbean (Malu Mphy, 2018) The scale was reported inhabiting *Trigonostemon malaccanus* from Malaya (Takagi 1992), *Codiaeum* from Indonesia (Suh et al., 2013), Schefflera from Malaysia (Suh et al., 2013) and *Hoya landgrantensis* Kloppenburg from Philippines (Lit Jr et al., 2022).

A large infestation of *Conchaspis angraeci* was observed on 13 April 2023 at Thiruvananthapuram (latitude- 8°31'32"N; longitude 76°55'8"W) on one year old plants of jungle fire plant *E. cochinchinensis* The main stem and side branches of the plants were covered with scales. The adult body was covered with whitish waxy scale resembling armor, a pointed dome like wax deposition was prominent on the dorsal region. Nymphs resemble crawlers having brownish body with distinct body segmentation and appendages.

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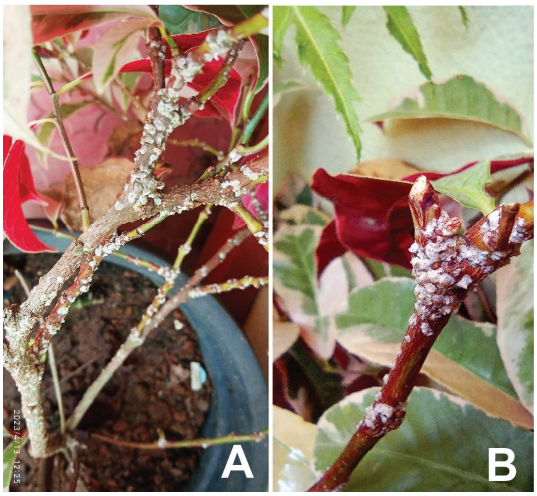

Figure 1. Encrustations of *Conchaspis angraeci* on the stems of *Excoecari acochinchinensis*

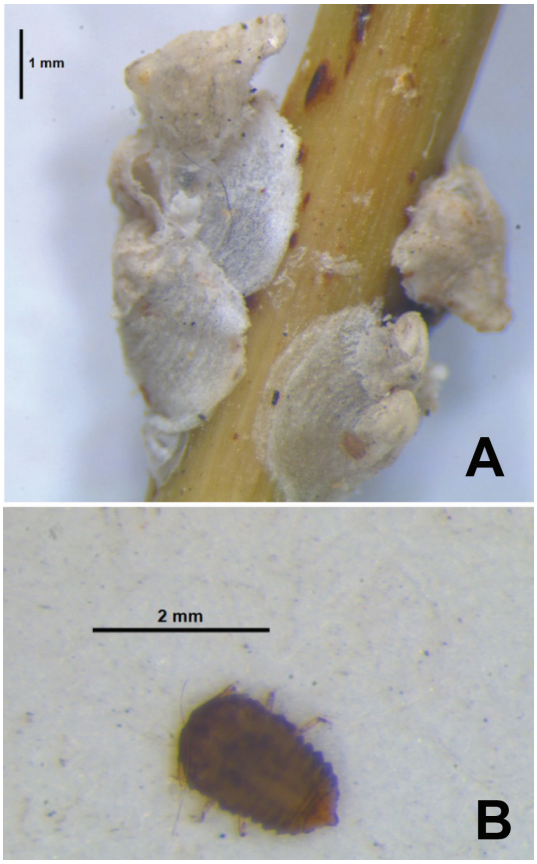

Figure 2. Images of life stages of *Conchaspis angraeci* (A) Adult scales (B) Crawler (immature stage)

The infested plants showed symptoms of defoliation. Leaves showed wilting and plants appeared to have less vigor. White encrustations of scales could be noticed on the stems of affected plants.

The scale insects were carefully collected from the infested stems of *E. cochinchinensis* using forceps. Live specimens and the damage symptoms on the host were photographed. The collected samples were observed under a stereomicroscope and adult and nymph stages were photographed. The adults were picked up using forceps and preserved in 95 per cent ethanol. Morphological characterization and identification of alcohol preserved specimens were carried out by the coccid taxonomist at ICAR-National Bureau of Agricultural Insect Resources, Bengaluru, Karnataka.

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