A new record of the occurrence of *Thunbergia sanguinarius* (Stal.) (Hemiptera : Lygaeidae) on *Decalapis hamiltonii* Wight & Arn. an endangered medicinal plant

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ABSTRACT: Studies conducted at Indian Institute of Horticultural Research, Bengaluru during 2013-14 revealed the occurrence of a heavy incidence of a bug, *Thunbergia sanguinarius* (Stal.) (Hemiptera : Lygaeidae) on the fruits of *Decalapis hamiltonii*, an endangered medicinal plant. Both adults and nymphs were observed sucking sap from the fruits. Mean population was 5.20/fruit and 25% of fruits on 50% of plants were infested with bugs. The affected fruits showed marks of sap sucking by nymphs and remained stunted and adversely affecting the seed development. There are no earlier reports on the occurrence of the pest on this plant species and hence it warrants a constant vigil on the pest.

Keywords: *Decalapis hamiltonii*, medicinal plant, new record, *Thunbergia sanguinarius*

*Decalapis hamiltonii* Wight & Arn. (F: Periplocaceae), commonly known as swallow root, is an important medicinal plant and is found to grow along rocky slopes, big rock boulders and rocky crevices and small mounds where there is thick vegetation at an altitude from 300 to 1200 m. The plant is a monotypic, climbing shrub. It has been extensively studied for its medicinal importance and is used in wide drug preparations (Reddy and Murthy, 2013). It is found in wild habitats of southern parts of Deccan Peninsula and the Western Ghats of India (Gamble and Fischer, 1957). Though relatively widespread, its populations are fragmented and gradually declining due to destructive harvesting of the tuberous roots (Giridhar et al., 2005). As it is considered a rare, endangered and threatened (RET) plant species, collections are being conserved at Institute of Horticultural Research, Bengaluru, Karnataka, India. During the regular monitoring of medicinal plant species for pest incidence, we had come across a heavy incidence of *Thunbergia sanguinarius* (Stal.) (Hemiptera : Lygaeidae) on the fruits of *D. hamiltonii*. A congregation of about 5-12 nymphs/fruit was recorded and on further closer observation, it was found that nymphs were sucking the sap from fruit surface. In due course, nymphs started dispersing to other fruits, indicating that oviposition took place on fruits. The infestation was recorded during the February - March which is also the most crucial period for seed development. Both adults and nymphs were observed sucking sap from the fruits. Mean population was 5.20/fruit and 25% of fruits on 50% of plants were infested with bugs. The affected fruits showed marks of sap sucking by nymphs and remained stunted thus adversely affecting the seed development. Though roots are primary parts of medicinal use, seeds are equally important, both for propagation and medicinal properties, and hence the bug could be a potential pest of economic importance.

Perusal of literature shows no previous reports of *T. sanguinarius* infesting *D. hamiltonii* and it is also

![Fig. 1. Nymphs and adult of *Thunbergia sanguinarius* feeding on the fruits of *Decalapis hamiltonii*](image)
interesting to note that, the infestation confined only to the particular plant species, in spite of the availability of several medicinal plant species in the vicinity. The nymphs were observed on both young and matured fruits (Fig. 1).

The adult bugs are moderate in size, 1/6 to 5/8 inch long, marked with red, black or white lines, spots or flecks (Metcalf, 1962), ocelli present, four segmented antennae on either side of the head. The rostrum is again four segmented; also the wings are characterized by 4-5 single veins. The legs were found to have rotator coxae, three segmented tarsi and pulvilli. Thoracic gland openings are prominently evident (Nayar et al., 1983). Most of the lygaeid bugs are phytophagous in nature, brightly colored and are commonly feed on milkweeds. Since D. hamiltonii also contains the milky latex, the bug could have preferred to feed on it. Though T. sanguinarius has been recorded in India, the reports on its distribution, host range and extent of damage are unconfirmed. As T. sanguinarius is a potential pest with a host range that comprises endemic and threatened medicinal plants, studies on management aspects need further attention.

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REFERENCES


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