

Mylocherus discolor - a pest of ber (*Ziziphus jujube*) in Tripura, India

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Abstract

Mylocherus discolor, is reported from a private nursery at Gandhigram in the state of Tripura, northeast India. It is a severe pest of *Ziziphus jujube* which is an economically important crop in Tripura.

Key words : *Ziziphus jujube*, *Mylocherus discolor*, Tripura, pest.

INTRODUCTION

The Coleopteran (Beetles and Weevils) is one of the most economically important insect orders due to its feeding habits diversity and damage potential to number of forestry, agricultural and horticultural crops and biocontrol agents against the harmful insect pests [2].

The weevils (Coleoptera: Curculionidae) are recognized as pests of forestry and agricultural crop which damage fruits, seeds, roots and leaves of seedlings/sampling, crops and also grains. More than 85,000 species of weevils belonging to 4144 genera have been reported from the different parts of the world [3].

Among these beetles *Mylocherus* species are of economic importance. The genus *Mylocherus* belong to the order Coleoptera, Family - Curculionidae and Subfamily - Otiorhynchinae. *Mylocherus discolor* is ferruginous brown, with patches of fawn-colored scaling and mottled black, dense covering of grayish to green, somewhat shining scales with black cuticular marks [1]. Most of these weevils were metallic green in color. It had much smaller eyes [7].

Elytra with punctuations arranged in parallel lines longitudinally; mid and hind femur with spines; mid femoral spines 1 no; three hind femoral spines (biggest is the proximal), femur enlarged distally, Venter is light yellowish with iridescence; pulvilli well developed, claw highly sclerotized and two tarsal segments [7].

It is a polyphagous pest with a wide range of host like maize, sugarcane, sunflower, citrus, mango, jute, cotton, brinjal, soyabean, litchi, Mulberry (*Morus alba*), *Dalbergia sisoo* and ber.

It is distributed in Maharashtra (Nagpur, Kolhapur), Madhya Pradesh (Indore), Assam, Andhra Pradesh, Jammu and Kashmir, Karnataka, Odisha [6].

Butani [4] reported that the adult weevils of *Mylocherus* species fed on leaves, nibbling the leaves from the margins and eaten away small patches of leaf lamina.

Ber or jujube, a common fruit grown in the warm subtropical regions of Pakistan, belongs to the genus *Ziziphus* of family Rhamnaceae. Several seedlings and grafted varieties are available in the country, more than a few species of *Ziziphus* bear edible



Figure 1: Adult *Mylocherus discolor* feeding on Jujube laves.

fruit, but two *Ziziphus jujube* and *Ziziphus mauritiana* are commercially important [5].

DISCUSSION

All *Mylocherus* species feed on the leaves. 2 to 4 adults are found congregating on the under surface of leaves, on the upright shoots and shoots tips. The adults of *Mylocherus discolor* are defoliators and cause damage by completely defoliating the plant. Initially a small hole is seen in the leaflet and gradually the entire leaf is eaten leaving the midrib (Fig: 1). Adult weevils were found to cause severe damage to both matured and immature leaves of ber [6]. The density of the weevil was high.

This was observed in a private horticulture nursery in Gandhigram (latitude 23.50'11" N and longitude 91.16' 30"E), 12 km away from Agartala. Adult *Mylocherus discolor* (fig: 3) found feeding on *Z. jujube* leaves. Beetle was identified following the paper of Majumder et. al 2014 [7]. Leaves of these trees were badly damaged (fig: 2) by these weevils. The density was high which indicates that this is a severe pest of *Ziziphus jujube* in Tripura where *Jujube* is an economically important crop.

CONCLUSION

Ziziphus jujube is an economically important crop in Tripura.



Figure 2: Badly damaged Jujube leaves by adult weevil.



Figure 3: Adult *Myllocerus discolor*

The *Myllocerus* beetle are the heaviest coleopteran defoliator on ber. These foliage insect pests not only cause damage on leaves but due to their attack the vigor of the tree is loosen and thus the fruit production is also reduced. The attacked seedlings or plants eventually die. Weevils as pest in agro ecosystem has been determined up to certain extent but predatory, nutritional and medical roles have not widely attempted to control its population. Hence, measures should be taken to control this weevil to save the crop.

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REFERENCES

1. Kiyanthi S, G. Mikunthan G Association of Insect Pests with Neem, *Azadiracta indica* with Special Reference to Biology of Ash Weevils, *Myllocerus* sp in Jaffna, Sri Lanka. American-Eurasian Journal of Scientific Research. 2009: 4 (4): 250-253.
2. Stebbing E.P. Forest Insects of Economic Importance Coleopteran. J.K. Jain Brothers, Motia Park, Sultania Road, Bhopal: India, 1977. p. 648.
3. O'Brien C. W, Wibmer G. J. Number of genera and species of Curculionidae (Coleoptera). Entomological News. 1978: 89(2-3): 89-92.
4. Butani D. K.. *Insects and Fruits*: Periodical Expert Book Agency; India, 1979
5. Muhammad Sarwar Incidence of Insect Pests on Ber (*Zizyphus jujube*) Tree. *Pakistan J. Zool.* 2006:38(4):261-263.
6. Paunikar S. *Myllocerus* spp., Serious Pest of Tree Seedlings In Forest Nurseries of North-Western and Central India. *Biolife*. 2015: 3 (1): 353-355.
7. Mazumder N, Dutta S. K, Bora P, Gogoi S, Das, Purnima . Record of litchi weevil, *Myllocerus discolor* (Coleoptera: Curculionidae) on litchi (*Litchi sinensis* Sonn. (Sapindaceae) from Assam. *Insect Environment*. 2014:20(1): 29-31.