

## A First report of a Chrysomelid beetle infesting on indigenous orchid, *Eulophia andamanensis* Reichb.f. in Bay Islands.

V. Baskaran, K. Abirami, L. Saravanan\*, P. Simachalam, R.K.Gautam and S. Dam Roy

Andaman and Nicobar islands the 'hotspots' of biodiversity are virtually a paradise for tropical orchids. Orchids are mysterious in many ways and the incredible shapes and colour of their flowers records their position as "Botanical Jewels". A total of 152 wild indigenous species of orchids from 58 genera have been reported from Andaman and Nicobar Islands owing to its favourable tropical warm and humid climate (Pandey and Diwakar, 2008). There is a wide range of variation in habitat and distribution of orchids in the Island ecosystem. So far, no endemic genus of orchid is reported from this Island, but 30 species are found to be endemic. Among the endemic orchid species, *Eulophia andamanensis* Reichb.f. is an important tropical terrestrial orchid of Andaman Islands with brilliant colored light green flowers. It is known for its potential as export commodity owing to its good quality and other features like long spike and many green florets. It is having national as well as international market value as cut flower and potted plant. *Eulophia* is a widespread genus of terrestrial orchid belonging to subfamily Vandoideae, tribe Cymbidieae and subtribe Cyrtopodiinae with sub terrestrial tubers and distinct pseudobulb. Botanically flowers are of medium size fully open and spread out, displaying the pretty lip. Sepals and petals are similar and sub equal, the dorsal sepal and petals are broader, the lateral sepals are often fused at base with the column and the base of the lip may also be fused. Lip is distinctive, usually 3-lobed, with two side lobes are erect and clasping the column, broad mid-lobe is out-thrust, spreading,

entire or again bi-lobed, the upper surface of the disc is variously crested, ridged or lamellated or rarely smooth. At base the lip has a small sac or a short spur. Column is stout, often with two lateral flaps. Florets are borne on long spike of 120-150 cm and last for 49 days with two to four spikes per plant and 29-49 number of florets per spike. The flowering time is November to February and flowers last for about seven weeks. *Eulophia andamanensis* Reichb.f. is known for longest spike length and it has been recorded in Limca book of records in the year 2013 (Anonymous, 2013).

A Chrysomelid beetle, *Lema* sp. (Coleoptera: Chrysomelidae) was observed to infest on an orchid, *Eulophia andamanensis* Reichb.f. during the month of November to April in the research farm of Central Island Agricultural Research Institute, Port Blair, Andaman and Nicobar Islands. The grubs immediately after hatching feeding on the tender flower spikes of this orchid. The grubs were creamy yellow, translucent or light grayish in colour with black head and legs. The grubs feed voraciously and attain bigger size in short time. Before pupation, the grubs reduced in size, stopped feeding and attached itself to the solid substrate or flower spikes at the terminal portion of the abdomen and removed the larval skin. At the time of pupation the grubs secreted whitish frothy substances that hardened to form cocoon and covered itself. The pupae were exarate. The adults were metallic light or pale brown in colour. Both the adults and grubs in particular were found damaging the flower spikes, tender foliage and growing tips of this orchid. Shallow

ICAR-Central Island Agricultural Research Institute, Port Blair-744101, Andaman and Nicobar Islands, India

\* ICAR- Indian Institute of Oil Palm Research, Pedavegi-534 450, West Godavari (Dt.), Andhra Pradesh, India  
Corresponding author: E-mail: vbaski01@gmail.com

holes or scars were produced on the site of feeding. The affected spikes were discoloured to brown, deformed and susceptible to invasion of secondary fungi. Ultimately the affected spikes rotted and dried out. On an average 5- 10 grubs found feeding on the spikes. The adults chewed the tender spikes and tender plant parts. This resulted in shallow pitting on the spikes which also cause rotting and drying of spikes. Heavy infestation could

weaken plants and reduce the economic yield significantly. Further studies on taxonomy, seasonal activity, biology etc will be helpful to formulate an effective pest management programme for this pest.

**This is the first report of *Lema* sp. infesting on orchid, *Eulophia andamanensis* Reichb.f from this region.**



Figure : *Lema* beetle attack in *Eulophia andamanensis* Reichb.f

### References

Anonymous, (2013), Kendriya Anusandhan Sansthan Ke Vigyanik Rashtriya Record Me. *Dweep Samachar*, May, 8. P.1.

Pandey, R. P. and Diwakar, P.G. (2008), An integrated checklist flora of Andaman and Nicobar Islands, India. *Journal of Econ. Taxon. Bot.* Vol. 32(2): 403-496.