HOST SPECIFICITY OF THE LEAF MINERS

IN THE LOWLAND RAINFOREST OF OHU VILLAGE MADANG PAPUA NEW GUINEA

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Introduction

The leaf miners include mostly moths, but also beetles and flies.

The adults are among the smallest known Lepidoptera (less than 5mm). The larvae mine through the leaves, petioles, green bark, fruits or seeds, finally leaving the mine to pupate in oval silken cocoons, usually in the leaf litter or soil.



STAGES OF DEVELOPMENT





2. larvae



3. Cocoon



4. Adult



We studied 75 different woody plant species in the lowland rainforest of Ohu village Madang Papua New Guinea



Leucosyke capitellata



Macaranga densiflora



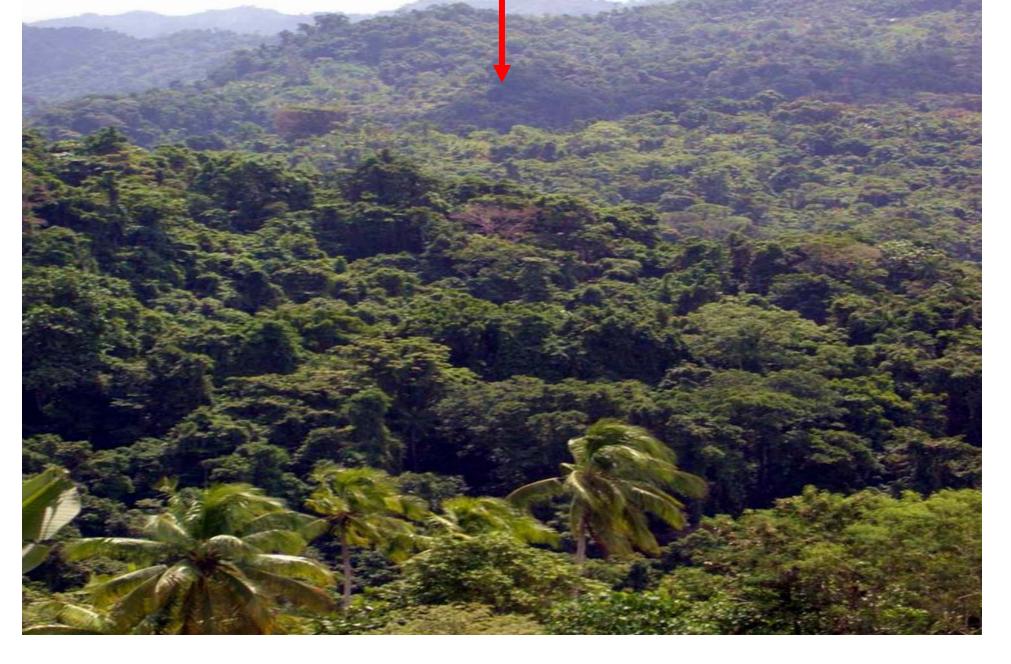


Macaranga aleuritoides



Premna angustifolia







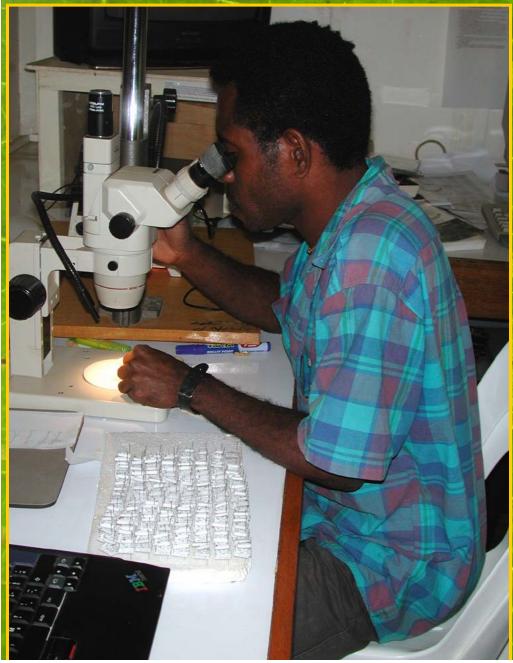
Methods

Collecting caterpillars of the leaf miners



Rearing adult miners, mounting and drying specimens

Methods



Morph typing and data basing adult miners



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Methods

Database and the Observation table of miners

Samples of different species of the order of Lepidoptera, reared from different Host plants







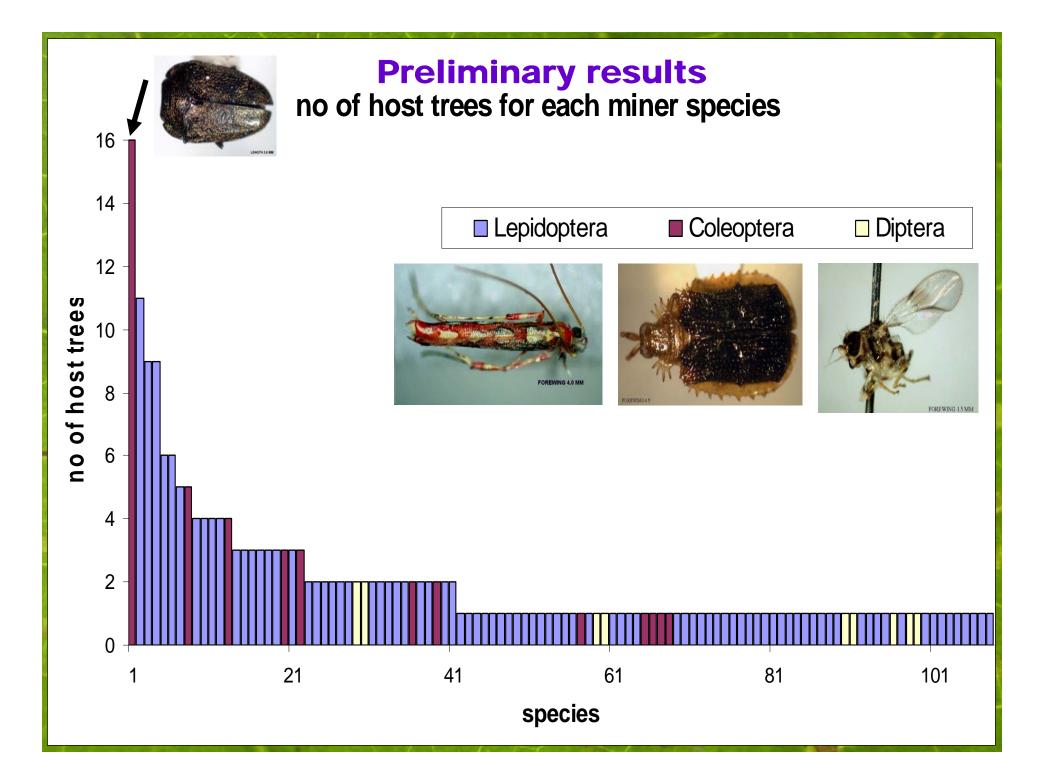


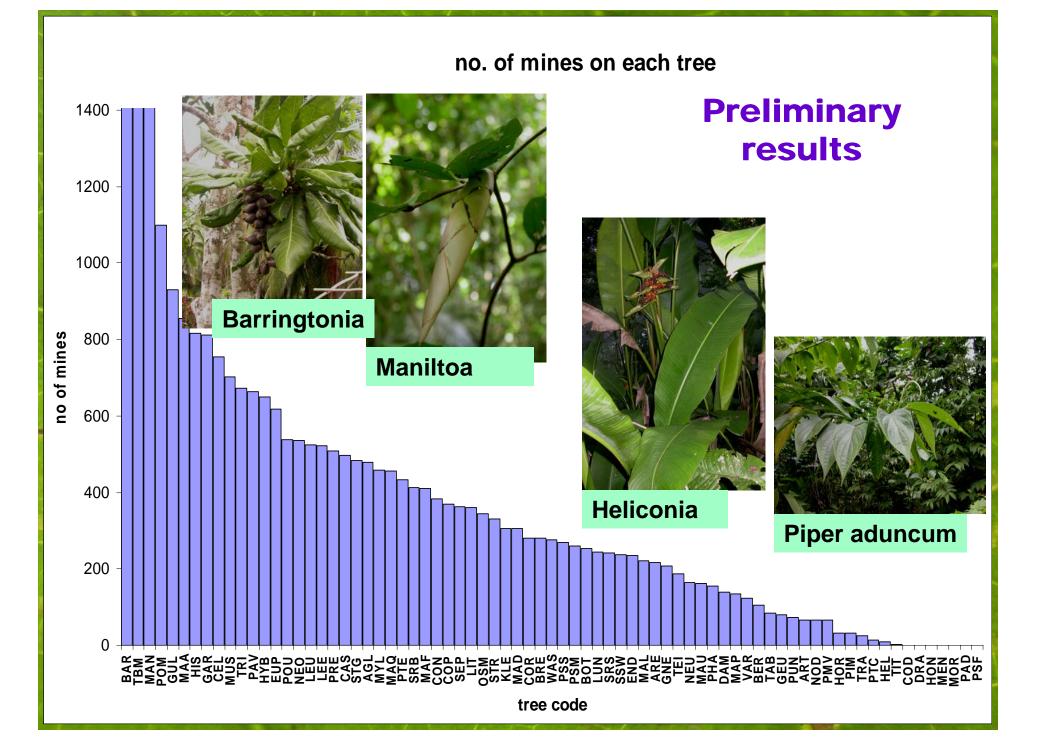












Conclusions

*From 75 selected trees, we collected more than 28,000 individuals of leaf miners, more than 10 000 from that reared to adults

*Only few species of leaf miners were generalist while most of the other species were feeding on one tree species only.

* most of the trees have between 200 to 600 individuals of miners from 1500 m² of foliage.

Acknowledgements

We are very grateful to our major sponsor National Science Foundation NSF USA for the long term support.

Lastly we would like thank the Parataxonomists and staffs of Ohu bus laboratory to carry out the study of leaf miners.

THANK YOU