



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

1. Egg



3. Cocoon



2. larvae



4. Adult



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



Leucosyke capitellata



Macaranga aleuritoides



Macaranga densiflora



Premna angustifolia

STUDY AREA





Methods

**Collecting caterpillars
of the leaf miners**



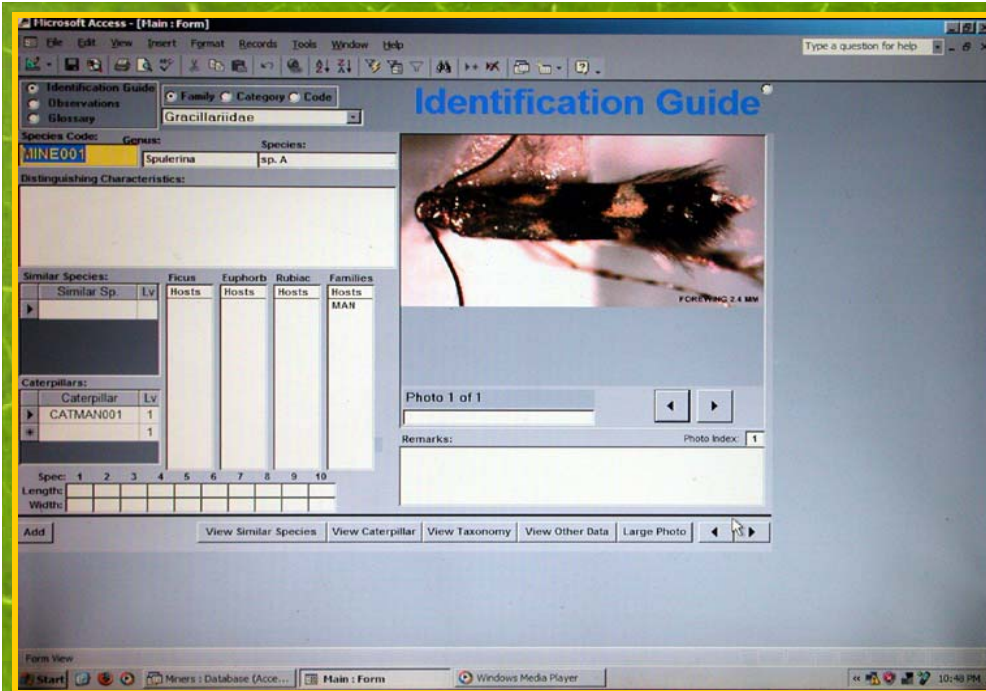
**Rearing adult miners,
mounting and drying
specimens**



Methods

Morph typing and data basing adult miners





Methods

Database and the
Observation
table of miners

Observation Data

Sp. Code	Host	#	Locality	Date	Accession #	Caterpillar	Observer	Ref
MINE001	MAN	1	Ohu	23 Sep 03	US00267090	CATMAN001		
MINE002	MAN	1	Ohu	23 Sep 03	US00267091			
MINE003	STR	1	Ohu	23 Sep 03	US00267088	CATSTR001		
MINE004	STR	1	Ohu	30 Sep 03	US00267089			
MINE005	GUL	1	Ohu	22 Sep 03	US00267080	CATGUL001		
MINE006	SEP	1	Ohu	23 Sep 03	US00267087	CATSEP001		
MINE007	MAL	1	Ohu	17 Sep 03	US00267085	CATMAL001		
MINE009	MAA	1	Ohu	10 Sep 03	US00267084			
MINE010	MAQ	1	Ohu	16 Sep 03	US00267081			
MINE011	MAA	1	Ohu	11 Sep 03	US00267083			
MINE012	MAD	1	Ohu	28 Aug 03	US00267082			
MINE013	POM	1	Ohu	22 Sep 03	US00267096			
MINE014	POM	1	Ohu	22 Sep 03	US00267095			
MINE015	LEU	1	Ohu	27 Sep 03	US00267092			
MINE016	PRE	1	Ohu	02 Sep 03	US00267094			
MINE017	PRE	1	Ohu	10 Sep 03	US00267093			
MINE018	KLE	1	Ohu	22 Sep 03	US00267097			
MINE019	PSM	1	Ohu	21 Sep 03	US00267098	CATPSM001		
MINE016	CAS	1	Ohu	23 Sep 03	US00267099	CATCAS001		orig. MINE020
MINE016	EUP	1	Ohu	22 Sep 03	US00267101			orig. MINE020
MINE022	LIT	1	Ohu	22 Sep 03	US00267100			
MINE023	LIT	1	Ohu	22 Sep 03	US00267109			
MINE024	TIT	1	Ohu	22 Sep 03	US00267108			
MINE025	PTC	1	Ohu	17 Sep 03	US00267107			
MINE026	PTC	1	Ohu	17 Sep 03	US00267106			
MINE027	PTC	1	Ohu	17 Sep 03	US00267105			
CATGUL001	GUL	1	Ohu	19 Nov 03				
CATMAN001	MAN	1	Ohu	19 Nov 03				

Record: 1 of 13658

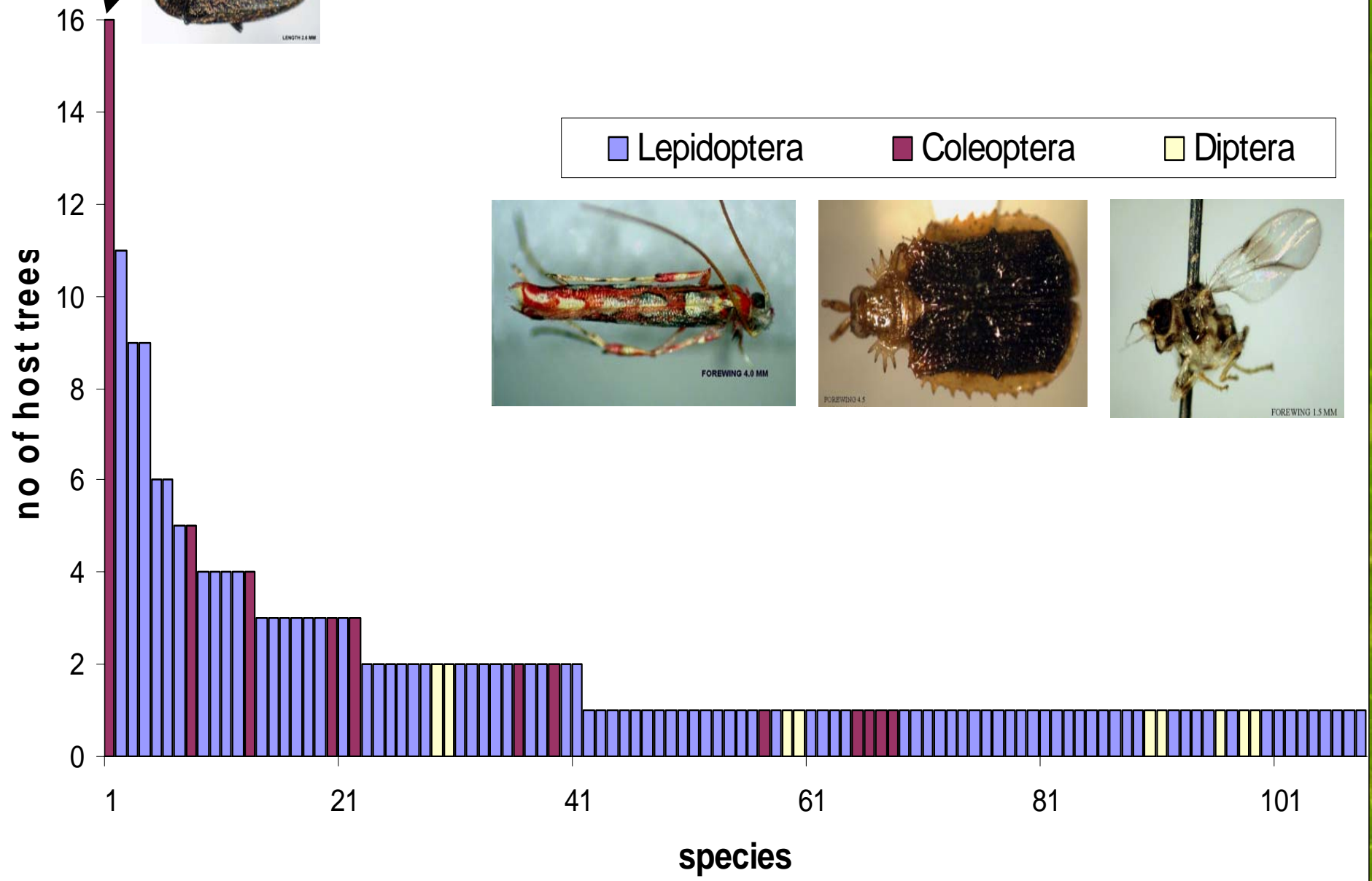
Samples of different species of the order of Lepidoptera, reared from different Host plants



FOREWING 3.6 MM

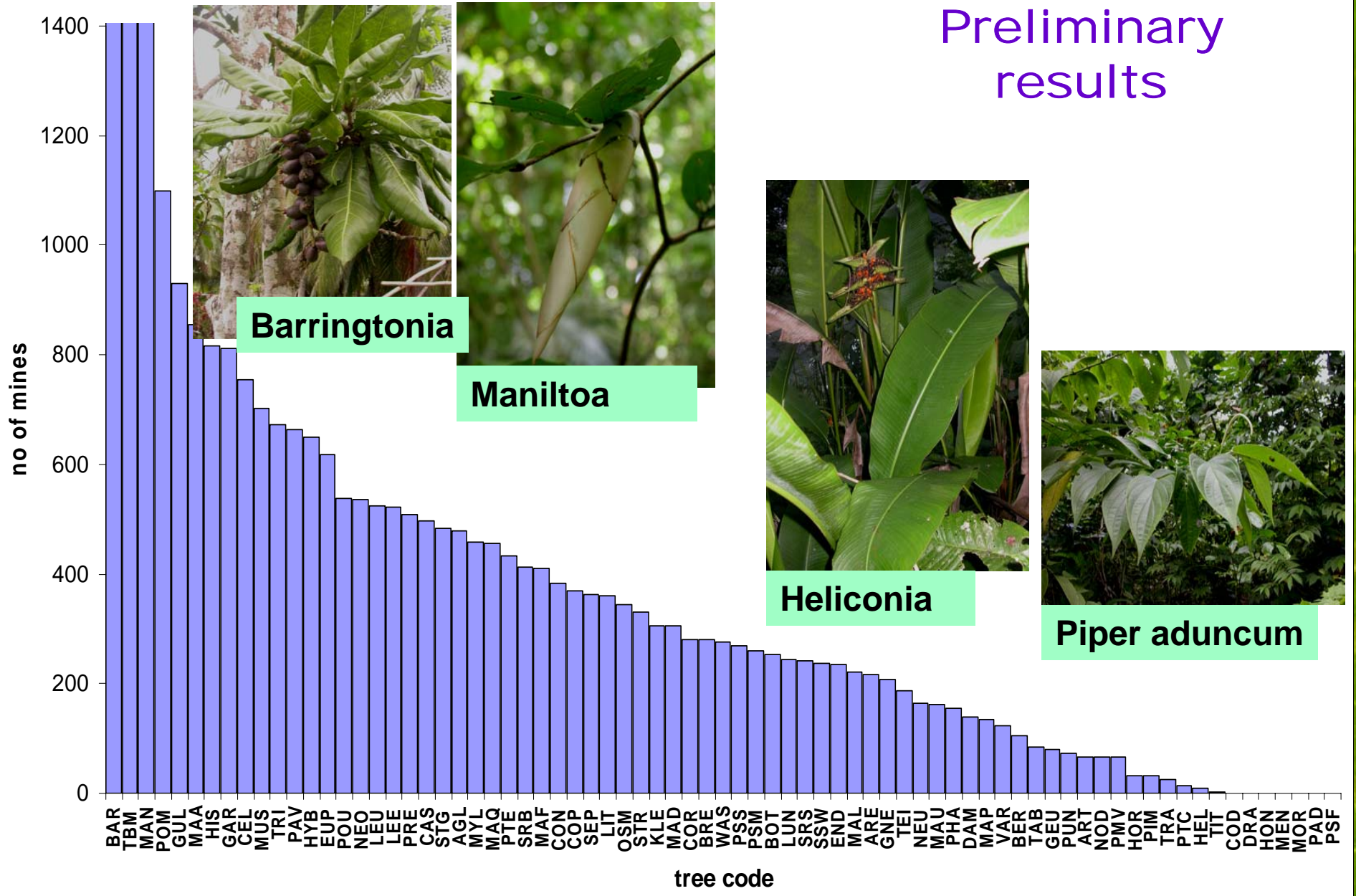
Preliminary results

no of host trees for each miner species



no. of mines on each tree

Preliminary results



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

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

THANK YOU