Bill No. 58/6 dt. 3.9.74. forh. 12/2

Passed for payment on

[Reprint, from J. Bombay nat. Hist. Soc. 70 (1): 223-224. 6-12-73] 4.11.74.

MISCELLANEOUS NOTE File Mo. LR-EP/188/70/40164 dt. 2070

20. NEW RECORDS OF HYMENOPTEROUS PARASITES OF PEA LEAFMINER PHYTOMYZA ATRICORNIS MEIGEN (DIPTERA: AGROMYZIDAE)

The pea leafminer Phytomyza atricornis Meigen is the most common and widespread leafminer throughout the world. The larva of this pest is polyphagus and attacks a large number of plants belonging to several natural orders. According to Trehan & Sehgal (1963), the larva feeds indiscriminately on pallisade and spongy mesenchymatous tissues but never consumes the entire tissues between the upper and lower epidermis and the endodermal cells containing starch are largely avoided. Ahmad & Gupta (1941), while studying the biology of this pest on pea, reared an Eulophid, Solenotus sp. from its larval stages. Narayanan et al. (1956) reared an ectoparasite Solenotus sp., an endoparasite, Rhopatotus sp. and an unidentified braconid on the larval stages of this host fly. Only recently Odak et al. (1968) have recorded Opius sp. (Braconidae) and Neochrysocharis sp. (Eulophidae) as parasites of P. atricornis from Gwalior (India). The present study was, therefore, undertaken to investigate parasites of this leafminer in the Ranchi area and leaves of pea (Pisum sativum Linn.) were collected. The following six hymenopterous insects emerged from the leafmines.

1. Chrysocharis sp. (Eulophidae)

Thompson (1943, 1954) has recorded Chrysocharis sp., C. elongatus and C. syma from New Zealand, Yugoslavia and England respectively, as parasites of this leafminer.

- 2. Tetrastichus sp. (Eulophidae).
- 3. Cirrospilus sp. (Eulophidae).
- Opius sp. ? phaseoli Fischer (Braconidae).
- 5. Opius sp. ? lantanae Bridw. (Braconidae).
- 6. Sphegigaster sp. (Pteromalidae).

## ACKNOWLEDGEMENTS

My thanks are due to Sri Y. Sankaranarayanan, Director and Dr. A. Bhattacharya, Entomologist of the Institute, for encouragement. Thanks are also due to Sri B. P. Mehra, Scientific Officer of the Institute JOURNAL, BOMBAY NATURAL HIST. SOCIETY, Vol. 70 (1)

for constant help and going through the manuscript and to Mr. R. D. Eady, Commonwealth Institute of Entomology, London, for the identification of the parasites.

INDIAN LAC RESEARCH INSTITUTE, NAMKUM, RANCHI, BIHAR, May 20, 1970.

R. S. GOKULPURE

## REFER'ENCES

Анмар, Т. & Gupta, R. L. (1941): The pea leafminer Phytomyza atricornis (Meigen) in India. Indian J. Ent. (Meigen) 3:37-49.

3: 3/-49.

NARAYANAN, E. S., SUBBA RAO, B. R. & KAUR, R. B. (1956): Studies on the biology of the parasites of the pea leafminer, *Phytomyza atricornis* (Meigen). *Proc. Indian Acad. Sci.* (B) 44: 137-147.

ODAK, S. C., DHAMDHERE, S. V. & KAURAVA, A. S. (1968): New records of hymenopterous parasites of *Phytomyza atricornis* (Meigen), a serious pest of pea. *Indian. J. Ent.* 30(3): 250.

THOMPSON, W. R. (1943): A catalogue

of the parasites and predators of insect pests. Parasites of the Dermaptera and Diptera. Sect. 1, Part 2. Common-wealth Institute of Biological Control:

60.
Thompson, W. R. (1954): A catalogue of the parasites and predators of the insect pests. Hosts of hymenoptera (Galliceratid to Evaniid) Sect. 2, Part 3.

TREHAN, K. N. & SEHGAL, V. K. (1963): Range of host plants and larval feeding in *Phytomyza atricornis* Mg. (Diptera: Agromyzidae). *Entomologist's mon. Mag.* 99: 1-3.