

(II)

**BRACHYMERIA SPECIES (HYMENOPTERA : CHALCIDIDAE) - A LARVAL
PUPAL PARASITOID OF ASPHADASTIS CRYPHOMYCHA MEYRICK,
POPLAR LEAF WEBBER IN PUNJAB**

Farm forestry is one of the important components of Agricultural Diversification Programme in the Punjab. Poplar and *Eucalyptus* are among the important trees grown either in blocks or on the boundaries of the fields in Punjab. Large number of insects have been reported to attack Poplar. Out of these insects off late, the Poplar leaf webber has attacked Poplar abundantly. Sohi (1990) reported that *Asphadastis*

cryphomycha is a key pest of Poplar in Punjab. Due the severity of attack many studies were planned and during one of the studies the larvae were found to be killed naturally. Larvae were then collected from the field and brought to the laboratory.

In the laboratory the larval pupal parasitoid *Brachymeria* spp (Fig. 1) emerged from the pupae. The parasitisation of the larvae by *Brachymeria* sp. varied from 3.15 to 6.25 per cent during different months (Table 1). In addition to the above mentioned parasitoid two predators, viz. a

Fig. 1

Brachymeria sp.
(Hymenoptera : Chalcididae)
a larval pupal parasitoid of *A. cryphomycha*

Table 1

*Per cent parasitisation of A. cryphomycha
pupae by Brachymeria sp. during
different months*

Month	Number of larvae Collected from field	Per cent Parasitisation
April	0	0.00
May	91	4.40
June	56	5.35
July	16	6.25
August	55	3.45
September	49	4.12
October	130	3.84
November	95	3.15
December	36	0.00

Fig. 2

Crossoglossa latecincta (Coleoptera :
Carabidae) a larval predator of
A. cryphomycha (3rd instar)

Fig. 3

Cheracanthium sp.
(Arachnida : Clubionidae) a larval
predator of *A. cryphomycha* (3rd instar)

Table 2

*Field population of predators of
A. cryphomycha during different months*

Month	Number of Webs observed	Total Spiders (per web)	Total Beetles (per web)
April	10	0.70	0.20
May	10	0.80	0.20
June	10	1.10	0.40
July	10	0.80	0.30
August	10	0.90	0.20
September	10	0.70	0.10
October	10	0.50	0.00
November	10	0.20	0.20
December	10	0.00	0.00

spider *Cheracanthium* sp. (Arachnida : Clubionidae) and a Beetle *Crossoglossa latecincta* Bates (Coleoptera : Carabidae) were recorded attacking the larvae of *A. cryphomycha*. The full grown spider *Cheracanthium* sp. ate 5-6 larvae/day. It preferred third instar larvae. The beetle, *Crossoglossa latecincta* Bates ate 1-2 larvae/day. It also preferred third instar larvae. In the field population of spider and the beetle varied from 0.20 to 1.10 and 0 to 0.40 per web (Table 2 and Fig. 2).

There is an urgent need to exploit the potential of these natural enemies in establishing biological control of the leaf webber.

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