

NOTE ON A SMALL COLLECTION OF FLEAS (INSECTA :  
SIPHONAPTERA) FROM MEGHALAYA

LAHIRI, A. R.

*Zoological Survey of India, Calcutta.*

ABSTRACT

Three flea species, e. g., *Ctenocephalides canis* (Curtis), *Xenopsylla cheopsis* (Rothschild) (family Pulicidae) and *Stivalius ferinus* (Rothschild) (family Pygiopsyllidae) have been recorded for the first time from Meghalaya along with some notes on injurious and parasitic effect inflicted upon human beings by the first mentioned species.

INTRODUCTION

Flea fauna of certain North East Indian states have in recent times been dealt with by Iyenger (1973), Kulkarni *et. al.* (1974) and Singh *et. al.* (in press). However, no species of flea has till date been reported in literature from the hill state of Meghalaya. Present contribution brings into record the existence of three flea species in the state, all collected by the writer from capital city Shillong. Occurrence of *Ctenocephalides canis* (Curtis) in human enclosures is also reported for the first time in India along with some details of the nature of resultant parasitic injury inflicted upon human beings.

MATERIAL STUDIED AND OBSERVATION

1. *Ctenocephalides canis* (Curtis)

*Pulex canis*, Curtis, 1826, *British Entomology*, 3 : 114.

*Material* : 4 ♂♂, 6 ♀♀, 23. viii. 1978, ex "bed sheet, blanket cover and pillow cover" of a residential house ; 1 ♂, 1 ♀, 25. viii. 1978, ex "*Mus musculus*" captured from the same residential house.

This species is recorded here for the first time in Eastern India and its occurrence in

human enclosures is also reported here for the first time in India, such occurrence having earlier been reported from countries like Africa, Iraq, America and Australia [Hubard (1947), Hopkins and Rothschild (1953)]. Collection of the fleas from bed sheets etc., mentioned above, was made when irritation due to flea bites experienced by the writer and other inhabitants of the house was predominant, but observation was continued throughout the occurrence of the incidence i. e., the months of August and September. Painful red sores causing scratching sensation and lasting for 2-3 days resulted from flea bites, the irritation caused appeared somewhat comparable to that caused by bed bugs. With the ability of jumping and penetrating cloth in the most swift manner, the fleas easily escaped notice when searched. Yet, pressing against any object for about a minute or so made the specimens momentarily less active and blood stain resulted when a freshly fed specimen was crushed to death.

Man, with hairs rather thinly covering the body, do not seem to be a suitable sheltering host of fleas, their occasional refuge in human enclosures might be, besides other

possibilities caused by some climatic factors as has been suggested by Hubard (1947).

This is a cosmopolitan species.

## 2. *Xenopsylla cheopsis* (Rothschild)

*Pulex cheopsis* Rothschild, 1903, *Ent. mon. Mag.*, **39** : 85.

*Material* : 1 ♂, 1 ♀, 10. viii. 1978, ex "*Rattus rattus*"; 1 ♂, 1 ♀, 17. viii. 1978, ex "*Rattus sp.*"; 1 ♂, 17. viii. 1978, ex "*Mus musculus*".

This species, known from different parts of Southern Asia, Africa and South America was so far reported only from Sikkim in Eastern India.

## 3. *Stivalius ferinus* (Rothschild)

*Pygiopsylla ferinus* Rothschild, 1908, *Proc. zool. Soc. London*, : 622.

*Material* : 4 ♂♂, 2 ♀♀, 24.viii.1978, ex "*Suncus murinus*".

This species, known from Sri Lanka, Nepal and other parts of India, was earlier reported only from Sikkim in Eastern India.

### ACKNOWLEDGEMENTS

The author is thankful to Dr. B.K. Tikader, Director, Zoological Survey of India, Calcutta,

for providing opportunity to do this work and to Sri K. N. Singh for his kind help in identification of the species.

### REFERENCES

- HOPKINS, G. H. E. AND ROTHSCCHILD, M. 1953. An illustrated catalogue of the Rothschild collections of Fleas (Siphonaptera) in the British Museum, London.
- HUBARD, C. A. 1947. Fleas of Western North America. viii+533 pp. Iowa state college, Iowa, U. S. A.
- IYENGER, R. 1973. The Siphonaptera of the Indian subregion. *Orient. Ins.*, Suppl. **3**, pp. 1-102.
- KULKARNI, S. M., BHAT, H. R. AND VIJAI DHANDA. 1974. A survey of Hematophagus Arthropoda in Western Himalayas, Sikkim and hill districts of West Bengal. Fleas (Siphonaptera). *Indian J. Med. Res.*, **62** : 1061-1088.
- SINGH, K. N. AND RAI, K. Occurrence of *Amphipsylla quadratedigita* Liu, Wu & Wu (Siphonaptera : Leptopsyllidae) on Sikkim vole (*Pitymis sikimensis*) in India. *Bull. zool. Surv. India*, (in press).