

## FAUNA OF RAJASTHAN, INDIA—NEUROPTERA

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### INTRODUCTION

#### (a) General

The collection dealt with here includes specimens of Neuroptera from various localities of Rajasthan (from the districts of Bikaner, Jaipur, Jaisalmer, Jodhpur, Nagaur and Chittorgarh) and is brought by different survey parties of the Zoological Survey of India during the years 1958-61, 64-65.

This paper is important from the standpoint of Geographical distribution. This is the first attempt to study of Neuroptera hitherto unrecorded from Rajasthan. So, in this respect, all the species are new records from the area. Moreover, *Halter halterata* (Forsk.) is recorded for the first time from India.

#### (b) Acknowledgements

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#### List of Species Arranged Phylogenetically

##### Order Neuroptera

##### Family 1. Mantispidae

1. *Mantispa indica* Westw.

##### Family 2. Chrysopidae

2. *Chrysopa* sp.

##### Family 3. Nemopteridae

3. *Halter halterata* (Forsk.)
4. *Croce filipennis* Westw.

##### Family 4. Myrmeleonidae

5. *Acanthaclisis edax* (Walker)

6. *Centroclisis eustalacta* (Gerst.)
7. *Creoleon perfidus* (Walker)
8. *Myrmecaelurus acerbus* (Walker)
9. *Myrmecaelurus* sp.
10. *Palpares patiens* (Walker)
11. *Palpares nobilis* Navas
12. *Palpares pardus* (Rambur)
13. *Neuroleon guernii* Navas

## SYSTEMATIC ACCOUNT

## Family MANTISPIDAE

1. *Mantispa indica* Westw.

1848. *Mantispa indica* Westw., *Trans. R. ent. Soc. Lond.*, (N. S.), 1 : 268, fig. 5  
 1853. *Mantispa indica* Walker, *Cat. Brit. Mus. Neur.* : 226.  
 1909. *Mantispa indica* Needham, *Rec. Indian Mus.*, 3 : 195.  
 1933. *Mantispa indica* Banks, *Indian For. Rec.*, 18 (6) : 2.

*Material*.—Jodhpur District : 1 ex., Jodhpur.

*Distribution*.—Rajasthan : Jodhpur Dist., U. P. : Kangra Valley; Mysore : Fraserpet; Assam : Sibsagar.

## Family CHRYSOPIDAE

2. *Chrysopa* sp.

*Material*.—Nagaur District : 1 ex. : Nawa.

## Family NEMOPTERIDAE

3. *Halter halterata* (Forsk.)

- Panorpa halterata* Forsk., *Descript Anim.*, 97, pl. 25, fig. 2.  
 —*Nemoptera pallida* Oliv., *Enc. Meth.*, 8 : 179, 5, pl. 98, fig. 1.  
 — „ „ Lam., *Hist. Nat. Anim. Invert.*, 4 : 419, 5.  
 — „ „ Ram., *Hist. Nat. Ins. Neur.* : 335, 5, pl. 8, fig. 4.  
 —*Nemopteryx africana* Leach, *Zool. Miscell.* 2 : 74, pl. 85.

1836. *Nemoptera halterata* Klug., *Abh. Kon. Akad. Wiss. Berlin* : 94, 8.  
 1853. *Nemoptera halterata* Forsk., Walker, 1853. *Cat. Brit. Mus. Neur.* : 473.  
 1909. *Halter halterata* Forsk., Needham, J. G., *Rec. Indian Mus., Cal.*, 3 : 201.

*Material*.—Jaipur District : Coll. T. G. Vazirani; 4 exs., Phulera. Nagaur District: Coll. T. G. Vazirani : 4 exs., Gudha: Coll. B. Biswas: 2 exs. Sambhar Lake. Coll. T. G. Vazirani: 1 ex. Jhapog.

*Distribution*.—Rajasthan : Jaipur and Nagaur Dist. Beluchistan.

*Remarks*.—The species is recorded for the first time from India.

4. *Croce filipennis* (Westwood)

1848. *Nemoptera filipennis* Westwood, *Cab. orient. Ent.*, pl. 34.  
 1853. *Nemoptera filipennis* Walker, *Cat. Brit. Mus. Neur.* : 476.  
 1909. *Croce filipennis* Needham, *Rec. Indian Mus.*, 3, 196.  
 1911. *Croce filipennis* Imms, *Trans. Linn. Soc.*, 11 : 151-160.

*Material*.—Jodhpur District : Coll. J. S. Bhatti : 4 exs. : Jodhpur.

*Distribution*.—Rajasthan : Jodhpur Dist., West Bengal : Calcutta, lower Bengal, North Bengal, Bombay : Surat, Jagatpuri.

## Family MYRMELEONIDAE

5. *Acanthacilisis edax* (Walker)

1853. *Myrmeleon edax* Walker, *Cat. Brit. Mus. Neur.* : 317.  
 1909. *Myrmeleon edax* Needham, *Rec. Indian Mus.*, 3 : 200.  
 1921. *Acanthacilisis edax* Dover, *Rec. Indian Mus.*, 22 : 397-398.

*Material*.—Bikaner District : Coll. M. Chandra : 2 exs. Kolayat.

*Distribution*.—Rajasthan : Bikaner Dist., Tamil Nadu : Ramnad, Madura Dist.

6. *Centroclisis eustalacta* (Gerst.)

1863. *Acanthacilisis eustalacta* Gerstaecker, *Stett. ent. Ztg.*, 24 : 178.  
 1866. *Centroclisis eustalacta* Hagen, *Stett. ent. Ztg.*, 27 : 378.  
 1909. *Acanthacilisis eustalacta* Needham, *Rec. Indian Mus.*, Cal., 3 : 200.

*Material*.—Jodhpur District : Coll. A. K. Datta : 1 ex. : Paota, Jodhpur. Bikaner Dist : Coll. M. Chandra : 2 exs. : Kalayat.

*Distribution*.—Rajasthan, Jodhpur Dist. U.P. : Lucknow.

7. *Creoleon perfidus* (Walker)

1853. *Myrmeleon perfidus* Walker, *Cat. Brit. Mus. Neur.* pts. I-IV : 350.  
 1853. *Myrmeleon sedulus* (Walker), *Cat. Brit. Mus. Neur.*, pts. I-IV : 355.  
 1853. *Myrmeleon adversus* Walker, *Cat. Brit. Mus. Neur.*, pts. I-IV : 358.  
 1868. *Creagris perfidus* MacLachlan, *J. Linn. Soc. Zool.*, 9 : 277-278.  
 1909. *Creagris sedulus* Needham, *Rec. Indian Mus.*, 3 : 201

*Material*.—Nagaur District : Coll. T. G. Vazirani : 1 ex. : Gudha, Jodhpur District : 1 ex. : Jodhpur.

*Distribution*.—Rajasthan : Nagaur & Jodhpur Dist. Bombay (Bulsar); North India.

*Remarks*.—*Creagris* Hagen 1860 (Neurop.) is a homonym of *Creagris* Neitner, 1857 (Coleop.) Hence Tillyard changed the genus *Creagris* of Neuroptera to *Creoleon* (vide *Proc. Linn. Soc. N. S. Wales*, 43, p. 436). So according to the present author *Creagris perfidus* should be named as *Creoleon perfidus*.

8. *Myrmecaelurus acerbus* (Walker)

1853. *Myrmeleon acerbus* Walker, *Cat. Brit. Mus. Neur.*, pts. I-IV : 366.  
 1868. *Myrmecaelurus acerbus* MacLachlan, *J. Linn. Soc. Zool.*, 9 : 278.  
 1909. *Myrmecaelurus acerbus* Needham, *Rec. Indian Mus.*, Cal., 3 : 201.

*Material.*—Nagaur District : T. G. Vazirani : 4 exs. : Gudha.  
 Nagaur District : (i) T. G. Vazirani : 1 ex. Sambhar Lake. (ii) A. K. Mukherjee : Several exs. : Sambhar Lake.

Nagaur District : T. G. Vazirani : 1 ex. : Lihorana.

Bikaner District : Coll. M. Chandra : 3 exs. : Kolayat, Jaisalmer District : Coll. B. Biswas : 1 ex. : Nokh, Nagaur District : Coll. B. Biswas : 1 ex. : Sambhar Lake.

*Distribution.*—Rajasthan : Nagaur, Bikaner & Jaisalmer Dist., Punjab : Chevist; U. P. : Mussoorie; Bihar : Pusa & Palamau; Baluchistan.

9. *Myrmecaelurus* sp.

*Material.*—1. Bikaner District : (i) Coll. M. Chandra : 5 exs. : Kolayat, (ii) Coll. M. Chandra : 3 exs. : Pugal. (iii) Coll. M. Chandra : 1 ex. Lankaransah. 2. Jaisalmer District : Coll. B. Biswas : 4 exs. : Nokh. 3. Nagaur District : Coll. T. G. Vazirani : (i) 3 exs. : Nawa. (ii) 2 exs. : Lihorana. (iii) 4 exs. : Gudha. (iv) 1 ex. : Phulera. (v) 1 ex. : Japog.

10. *Palpares patiens* (Walker)

1853. *Myrmeleon patiens* Walker, *Cat. Brit. Mus. Neur.*, pts. I-IV : 305.  
 1868. *Palpares patiens* MacLachlan, *J. Linn. Soc. Zool.*, 9 : 275.

*Material.*—Nagaur District : (i) Coll. T. G. Vazirani : 2 exs. : Sambhar Lake. (ii) Coll. T. G. Vazirani : 2 exs. Gudha; Jaipur District : (i) Coll. T. G. Vazirani : 1 ex. Korsina; Bikaner District : Coll. M. Chandra : 5 exs. : Pugal.

*Distribution.*—Rajasthan : Nagaur, Jodhpur & Jaipur Dist.; Orissa : Barkuda Id. Chilka Lake, Ganjam Dist.; Bihar : Dalkhola, Purneah Dist.

11. *Palpares nobilis* Navas

1931. *Palpares nobilis* Navas, *Rev. Acad. Cienc. Zaragoza*, 14, : 77.

*Material.*—Bikaner District : Coll. M. Chandra : (i) 4 exs. : Kolayat. (ii) 1 ex. : Pugal.

Jaisalmer District : (i) Coll. B. Biswas : 4 exs. : Nokh. (ii) Coll. M. Chandra : 3 exs. : Nokh.

*Distribution.*—Rajasthan : Bikaner & Jaisalmer Districts. Quetta,

12. *Palpares pardus* (Rambur)

1842. *Myrmeleon pardus* Rambur, *Hist. nat. Ins. Neur.* : 375.  
 1853. *Myrmeleon pardus* Walker, *Cat. Brit. Mus. Neur.* : 308.  
 1868. *Palpares pardus* MacLachlan, *J. Linn. Soc. Zool.*, 9 : 275.  
 1909. *Palpares pardus* Needham, *Rec. Indian Mus.*, 3 : 200.

*Material.*—Chittorgarh District : Coll. S. Biswas 1 ex. : Chittorgarh.

*Distribution.*—Rajasthan : Chittorgarh Dist. U. P. (Dehra Dun, base of W. Himalaya); Orissa (Khurda); S. India (Bangalore); Bombay (Surat); Bengal (Pusa & Rampurhat); North Bengal.

13. *Neuroleon guernii* Navas

1974. *Neuroleon guerneii* Navas, *Rev. Russe. Ent.*, Petrograd, 14, : 319.

*Material.*—Bikaner District : (i) Coll. M. Chandra : 1 ex. : Pugal; (ii) Coll. M. Chandra : 1 ex. : Kolayat.

*Distribution.*—Rajasthan : Bikaner Dist., Bombay : Bandra.

## SUMMARY

A systematic account of the Neuroptera fauna of Rajasthan is given for the first time. The present paper includes eleven species all of which are new record from the area and one of them viz., *Halter halterata* (Forsk.) is recorded for the first time from India.