



Rec. zool. Surv. India : 108(Part-4) : 113-117, 2009

NEW RECORDS OF ODONATA (ANISOPTERA) FROM MAHARASHTRA

R. BABU, CHAYA SINHA AND M. PRASAD*

Zoological Survey of India, M-Block, New Alipore, Kolkata-700 053, India

INTRODUCTION

The Odonata (dragonflies and damselflies) is a small order of insects and they are more common in warmer parts of the world than in temperate areas. A variety of characteristics separate dragonflies from the rest of the insect world and make them perfectly designed aerial predators. Dragonflies are among the most attractive and fascinating order of insects. Damselflies are slimmer, often smaller, and usually fly more slowly than dragonflies. Earlier information on the odonata fauna of Maharashtra state has been recorded by Fraser (1933, 1934 and 1936), Bhasin (1953), Mitra (1986), Prasad (1996), Kulkarni and Prasad (2002, 2005), and Kulkarni *et al.* (2002, 2004, 2005, 2006), who have reported a total of 86 species from the Maharashtra. The present paper reports five species of Odonates (Anisoptera) representing four genera under two families which have recorded for the first time from Maharashtra state.

MATERIALS AND METHODS

The materials studied in this paper were collected by various parties from Zoological Survey of India, Kolkata and Western Regional Station, Z.S.I., Pune and present in the National collections of Zoological Survey of India, Kolkata.

SYSTEMATIC ACCOUNT

Phylum ARTHROPODA

Class INSECTA

Order ODONATA

Suborder ANISOPTERA

*Present Address : *Sajjan Apartments, 81/A, Uma Kanta Sen Lane, Paikpara, Kolkata-700 030*

Superfamily AESHNOIDEA

Family GOMPHIDAE

Genus *Anormogomphus* Selys1. *Anormogomphus heteropterus* Selys

1854. *Anormogomphus heteropterus* Selys, *Bull. Acad. Belg.*, **21** : 61.

1934. *Anormogomphus heteropterus*, Fraser, *Fauna Brit. India, Odonata*, **2** : 174-176.

Diagnostic characters : Eyes and ocelli brown; an obscure brown line at base of frons and in front of occiput. Prothorax sandy-yellow with obscure brownish transverse lines; thorax darker yellow with a grass-green tinge laterally; legs sandy-yellow with black spines; wings pale, pterostigma pale yellow between black nervures, covering 1-2 cells. Abdomen pale sandy yellow marked with dark brown spot on each side of segment 1, baso-lateral and broad apico lateral on segment 2, small blackish-brown spot on each side of apical border of segment 3 and 6. Anal appendage yellow.

Material examined : 1 ♀, Hammalwada, Aurangabad, 04.ix.1964, Coll. R.N. Chopra.

Distribution : INDIA : Arunachal Pradesh, Bihar, Himachal Pradesh, Maharashtra (Aurangabad), Orissa, Punjab and Uttarakhand.

Elsewhere : Pakistan.

Genus *Onychogomphus* Selys2. *Onychogomphus grammicus* (Rambur)

1842. *Gomphus grammicus* Rambur, *Ins. Nevrop.* p. 164.

1854. *Onychogomphus grammicus*, Selys, *Bull. Acad. Belg.*, **21(2)** : 35.

1936. *Onychogomphus grammicus*, Fraser, *Fauna of Brit. India, Odonata*, **2** : 256-257.

Diagnostic characters : Labium yellowish; labrum, face and frons sandy yellow; base of frons, vertex and occiput black. Prothorax black, thorax yellow marked with black; legs yellow; wings hyaline, pterostigma yellow between black nervures, covering 5 cells. Abdomen tumid at base, segment 1 yellow with a basal black spot on each side, segment 2 with a trilobed yellow dorsal band tapering apically and lying between narrow black stripes, the sides broadly yellow, 3 to 6 yellow with broad black apical rings and a median spot on the jugal suture tapering laterally, basally and apically; 4 to 6 apical ring sends a prolongation forwards on either side which meets the jugal spot and encloses a yellow subdorsal spot; 7 to 10 ochreous or reddish yellow. Anal appendages as long as segment 9 and 10.

Material examined : 1 ♂, Ahmednagar, 15.iv.1983, Coll. A. R. Lahiri.

Distribution : INDIA : Central India, Northern India and Maharashtra (Ahmednagar).

Superfamily LIBELLULOIDEA

Family LIBELLULIDAE

Genus *Indothemis* Ris3. *Indothemis limbata limbata* (Selys)

1891. *Trithemis limbata* Selys, *Ann. Mus. Civ. Genova*, **30** : 463.

1911. *Indothemis limbata*, Ris, *Cat. Coll. Selys fasc.*, **13** : 530-531.

1936. *Indothemis limbata limbata*, Fraser, *Fauna Brit. India, Odonata*, **3** : 341-342.

Diagnostic characters : Labium, labrum, face, frons, occiput black, sides of face, frons and bases of mandible yellowish or pale brown; eyes black above, brown below; prothorax, thorax and abdomen uniformly black; legs black; wings hyaline, apices very narrowly blackish-brown for not more than one cell deep; base of wings dark mahogany-brown; pterostigma ochreous, paler along posterior border. Anal appendage black.

Material examined : 1 ♂, Lonavala, Poona, 16.x.1965, Coll. B.S. Lamba.

Distribution : INDIA : Arunachal Pradesh, Assam, Maharashtra (Pune), Mizoram, Orissa, Karnataka and West Bengal.

Elsewhere : Malaysia, Myanmar, Singapore and Thailand.

Genus *Orthetrum* Newman4. *Orthetrum japonicum internum* MacLachlan

1894. *Orthetrum japonicum internum* MacLachlan, *Ann. Mag. Nat. Hist.*, **13**(6) : 431.

1936. *Orthetrum japonicum internum*, Fraser, *Fauna of Brit. India, Odonata*, **3** : 304-305.

Diagnostic characters : Labium and labrum ochreous, middle lobe labium dark reddish brown; face and frons olivaceous green. Prothorax black, thorax olivaceous green on mid-dorsum and antealar sinus, humeral region with a broad stripe of reddish-brown. Legs black; wings hyaline, extreme base tinted with dark amber-yellow; discoidal cell traversed in forewing. Abdomen broad at base, tapering to the anal end, entirely pulverulent bluish white, almost chalky white in adult.

Material examined : 2 ♂♂, Near forest nursery, Seminary Hills, Nagpur, 1.iv.2005, Coll. R. Babu.

Distribution : INDIA : Arunachal Pradesh, Assam, Maharashtra (Nagpur), Meghalaya, Nagaland and Western Himalaya.

Elsewhere : China, Japan, Myanmar, Nepal, Pakistan, Taiwan, Thailand and Vietnam.

5. *Orthetrum testaceum testaceum* (Burmeister)

1839. *Libellula testacea* Burmeister, *Handb. Ent.*, 2 : 859.
 1890. *Orthetrum testaceum*, Kirby, *Cat. Odon.*, p. 39.
 1910. *Orthetrum testaceum testaceum* Ris, *Cat. Coll. Selys Lib. Fasc.*, 10 : 181.
 1936. *Orthetrum testaceum testaceum*, Fraser, *Fauna of Brit. India, Odonata*, 3 : 309- 310.
 1954. *Orthetrum testaceum testaceum*, Lieftinck, *Treubia*, 22 (suppl.) : 138.

Diagnostic characters : Labium, labrum, face and frons yellowish or pale brown. Prothorax and thorax ferruginous; legs reddish brown. Wings hyaline with very pale uniform brownish tint slightly intensified at apices and dark golden-amber spot at base of the hind wing extends up to arc and to the anal angle. Abdomen broad at base, strongly carinated, bright scarlet-red.

Material examined : 1 ♂, Nallah behind Home Guard, Poona, 25.xi.1960, Coll. B. K. Haldar; 1 ♂, N. C. L. Compound, Poona, 8.viii.1961, Coll. B. K. Haldar.

Distribution : INDIA : Arunachal Pradesh, Maharashtra (Pune) and Orissa.

Elsewhere : Bangladesh, China, Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Thailand, Taiwan and Vietnam.

SUMMARY

The paper incorporates the account of five species under four genera are recorded for the first time from Maharashtra. All the five species are represented by single or double specimens.

ACKNOWLEDGEMENTS

The authors are grateful to Dr. Ramakrishna, Director, Zoological Survey of India, and Dr. A.K. Hazra, Joint Director (Retd.) and Officer-in-Charge of Entomology Division, Zoological Survey of India, Kolkata for providing various facilities and encouragement to carryout this work. We are also thankful to Smt. Supriya Nandy of the same Department for her kind help.

REFERENCES

- Bhasin, G.D. 1953. Odonata. In : *A Systematic catalogue of the main identified entomological collection of the Forest Research Institute, Dehra Dun, Parts 9-21* (Eds. M.L. Roonwal et al.). *Indian Forest Leaflet*, 121(3) : 63-69.
 Fraser, F.C. 1933. *Fauna of British India including Ceylon and Burma, Odonata*, Vol. I. pp. 428. Taylor & Francis Ltd., London.

- Fraser, F.C. 1934. *Fauna of British India including Ceylon and Burma, Odonata*, Vol. II. pp. 398. Taylor & Francis Ltd., London.
- Fraser, F.C. 1936. *Fauna of British India including Ceylon and Burma, Odonata*, Vol. III. pp. 461. Taylor & Francis Ltd., London.
- Kulkarni, P.P. and Prasad, M. 2002. Insecta : Odonata. In : *Fauna of Ujani. Zool. Surv. India Wetland Ecosys. Series, 3* : 91-104.
- Kulkarni, P.P. and Prasad, M. 2005. Insecta : Odonata. In : *Fauna of Melghat Tiger Reserve. Zool. Surv. India Conservation Area Series, 24* : 297-316.
- Kulkarni, P.P., Prasad, M. and Talmale, S.S. 2002. New record of damselfly *Pseudagrion microcephalum* (Rambur) (Odonata : Coenagrionidae) from Maharashtra. *Bionotes, 4*(3) : 58.
- Kulkarni, P.P., Prasad, M. and Talmale, S.S. 2004. Insecta : Odonata. In : *Fauna of Pench National Park. Zool. Surv. India Conservation Area Series, 20* : 175-205.
- Kulkarni, P.P., Prasad, M. and Talmale, S.S. 2005. Insecta : Odonata. In : *Fauna of Tadoba-Andhari Tiger Reserve. Zool. Surv. India Conservation Area Series, 25* : 197-226.
- Kulkarni, P.P., Talmale, S.S. and Prasad, M. 2006. Insecta : Odonata. In : *Fauna of Sanjay Gandhi National Park. Zool. Surv. India Conservation Area Series, 20* : 175-205.
- Mitra, T.R. 1986. Note on the Odonata fauna of Central India. *Rec. zool. Surv. India, 83* : 69-81.
- Prasad, M. 1996. An account of the Odonata of Maharashtra State, India. *Rec. zool. Surv. India, 95* : 305-327.