

## Eight new records of dragonflies from Jharkhand State, India (Odonata: Aeshnidae, Gomphidae, Libellulidae)

R. Babu<sup>1</sup> & Supriya Nandy<sup>2</sup>

<sup>1</sup> Southern Regional Centre, Zoological Survey of India, Chennai-600 028, India; baburzsi@gmail.com

<sup>2</sup> Sundarbans Regional Centre, Zoological Survey of India, Canning-743 329, West Bengal, India; supriyanandy@gmail.com

**Abstract.** A field survey carried out in 2008–2010 and examination of the collection of the National Zoological Collection, Zoological Survey of India (ZSI), Kolkata recorded eight Anisoptera species new for the state of Jharkhand. These are *Anaciaeschna jaspidea* (Burmeister, 1839), *Gynacantha dravida* Liefstinck, 1960, *Hemianax ephippiger* (Burmeister, 1839), *Orthetrum glaucum* (Brauer, 1865), *Orthetrum luzonicum* (Brauer, 1868), *Tramea limbata similata* (Rambur, 1842), *Tramea virginia* (Rambur, 1842), and a yet unidentified species of *Anisogomphus* Selys, 1858. These records increase the number of odonate taxa known from Jharkhand State to 73.

Key words. Odonata, new records, Jharkhand State, India

### Introduction

The odonate fauna of Jharkhand State (Eastern India) is comparatively poorly explored with only a few limited studies having been carried out in the past. Earlier records from Bihar State (to which Jharkhand belonged at that time) are given by FRASER (1933, 1934, 1936), BHASIN (1953), PRASAD & KUMAR (1977) and PRASAD & VARSHNEY (1988). Later on the Odonata of Jharkhand State proper has been studied by MITRA (2002) and BABU (2013).

### Material and method

Materials were obtained during field surveys by RB in 2008–2010 at different localities in various districts of Jharkhand State as well as by examination of specimens, collected by various scientists from the study area, in the National Zoological Collection, Zoological Survey of India (ZSI), Kolkata. Nomenclature followed here is after DAVIS & TOBIN (1985) and TSUDA (2000).

### List of collecting sites

(1) Meghahatubura, Saranda Forests, West Singhbhum district. (2) Ranchi. (3) Bokaro Coalfields (TISCO) 24 km E of Charhi, Hazaribagh district. (4) Marunchatra, near Hundru Falls, Ranchi district. (5) Forest around Kanhary Hills, 6 km N of Hazaribagh. (6) Ormanjhi, Ranchi district. (7) Jokpur pond, Ghatsila, East Singhbhum district. (8) Sakrugarh, Sahibganj district. (9) Bareil Lake, Udhwa Bird Sanctuary, Sahibganj district. (10) Bengabad, Giridih district.

## Results

The following species were recorded for the first time from Jharkhand State. The topographic position of the localities is provided in Fig. 1. If not stated otherwise, specimens collected by RB.

### Family Aeshnidae

1. *Anaciaeschna jaspidea* (Burmeister, 1839)

(1) 1 ♀ 24-iv-1990, leg. S.S. Saha.

2. *Gynacantha dravida* Lieftinck, 1960

(1) 1 ♂ 26-iv-1990, leg. S.S. Saha.

3. *Hemianax ephippiger* (Burmeister, 1839)

(2) 1 ♂ vii-1922, leg. A. Van Emelen.

### Family Gomphidae

4. *Anisogomphus* sp. (Selys, 1858)

(3) 1 ♀ (abdomen damaged) 14-vi-1994, leg. A.K. Sanyal.

### Family Libellulidae

5. *Orthetrum glaucum* (Brauer, 1865)

(4) 1 ♂ 30-xi-2008.

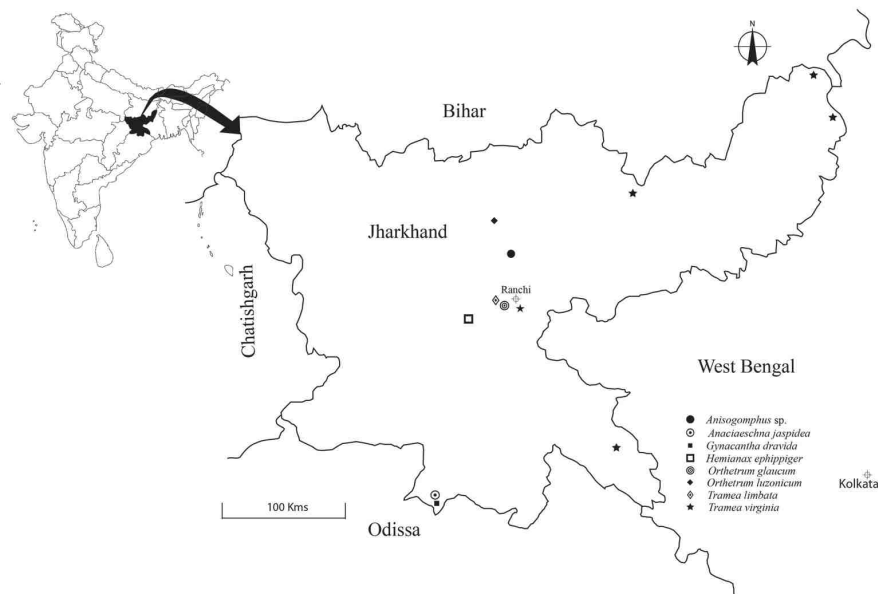


Fig. 1. Topographic position of the localities of the eight species newly recorded for the state of Jharkhand, India.

- 6. *Orthetrum luzonicum* (Brauer, 1868)**  
 (5) 1♂ 30-xi-1968, leg. R. Tilak.
- 7. *Tramea limbata similata* (Rambur, 1842)**  
 (6) 5♂ 1♀ (one copula) 11-xii-2010.
- 8. *Tramea virginia* (Rambur, 1842)**  
 (6) 7♂ 1♀ 11-xii-2010.  
 (7) 1♂ 1♀ (copula) 20-xi-2008.  
 (8) 2♂ 06-xi-2009.  
 (9) 3♂ 07-xi-2009.  
 (10) 1♂ 20-xi-2009.

**Acknowledgements.** We are grateful to Dr. K. Venkataraman, Director, Zoological Survey of India, for providing various facilities and encouragement to carry out this work. We express deep gratitude to the late Dr. T.R. Mitra for his inspirations and encouragement. The first author is thankful to Dr. K. Ilango, Scientist-D and Officer-in-Charge, Southern Regional Centre, Zoological Survey of India, Chennai, for extending various help during preparation of the manuscript. We are thankful to Asmus Schröter, Germany, for critically reading the manuscript.

#### References

- BABU R. 2013. New Zygoptera records from Jharkhand State, India. *Notulae odonatologicae* 8: 18-21
- BHASIN G.D. 1953. Odonata. *Indian Forest Leaflet* 121: 63-79
- DAVIS D.A.L. & TOBIN P. 1985. The dragonflies of the World: A systematic list of the extant species of Odonata. Volume II Anisoptera. *Societas Internationalis Odonatologica rapid Communications* 5
- FRASER F.C. 1933. The fauna of British India including Ceylon and Burma. Odonata. Volume 1. Taylor & Francis, London
- FRASER F.C. 1934. The fauna of British India including Ceylon and Burma. Odonata. Volume 2. Taylor & Francis, London
- FRASER F.C. 1936. The fauna of British India including Ceylon and Burma. Odonata. Volume 3. Taylor & Francis, London
- MITRA T.R. 2002. Geographical distribution of Odonata (Insecta) of Eastern India. *Memoirs of the zoological Survey of India* 19: 1-208
- PRASAD M. & KUMAR A. 1977. New record of Odonata from Dhanbad, Bihar. *Newsletter of zoological Survey of India* 3: 433-435
- PRASAD M. & R.K. VARSHNEY. 1988. The Odonata of Bihar, India. *Records of the zoological Survey of India. Occasional Paper* 110: 1-47
- TSUDA S. 2000. A distributional list of world Odonata. Privately published, Osaka

Received 2<sup>nd</sup> July 2014