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43/2 Varadarajulu Nagar, 5th Street West, Ganapathy, Coimbatore, Tamil Nadu 641006, India
Registered Office: 3A2 Varadarajulu Nagar, FCI Road, Ganapathy, Coimbatore, Tamil Nadu 641006, India
Ph: +91 9385339863 | www.threatenedtaxa.org
Email: sanjay@threatenedtaxa.org

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COMMUNICATION

Addition to the Odonata fauna of Tripura, India

Dhiman Datta [1], B.K. Agarwala [2] & Joydeb Majumder [3]

[1,2,3] Ecology and Biodiversity Laboratories, Department of Zoology, Tripura University, Suryamaninagar, Tripura 799022, India.
[1] dhimandatta991@gmail.com, [2] bagarwala00@gmail.com, [3] jmtugemo@gmail.com (corresponding author)

Abstract: The present study was conducted in nine different locations (forested areas and unclassified natural areas) of six administrative districts of Tripura State from March 2012 to May 2019 as part of the biodiversity exploration of the state for further addition of odonate fauna. In this communication, we report six species of Anisoptera and seven species of Zygoptera as new records from Tripura State. Among these 13 newly recorded species, one Anisoptera and two Zygoptera species are Data Deficient and the rest are Least Concern according to IUCN Red List.

Keywords: Damselfly, dragonfly, Insecta, amphibiotic, habitat preference, Indo-Burma biodiversity hotspot, range extension, data deficient, regional species pool, IUCN Red List.

Abbreviations: TU—Tripura University | ODO—Odonata | AESH—Aeshnidae | GOMP—Gomphidae | LIBE—Libellulidae | EUPH—Euphaeidae | PLAT—Platycnemididae | COEN—Coenagrionidae| IMG XXXX (4 digits)—raw image number of photograph.

Bengali: বর্তমান অধ্যয়নটি ত্রিপুরা রাজ্যের ছয়টি জেলার নয়টি ভিন্ন স্থানে (বনাঞ্চল এলাকায় এবং অশ্রেণীবদ্ধ প্রাকৃতিক এলাকায়) করা হয়েছে মার্চ ২০১২ থেকে মে ২০১৯ পর্যন্ত, রাজ্যের জীববৈচিত্র্য অন্বেষণের অংশ হিসাবে আরও নতুন প্রজাতির ফড়িং রাজ্যের 'ফড়িং তালিকায়' যোগ করার জন্য। এই কমিউনিকেশনে, আমরা ত্রিপুরা রাজ্যের 'ফড়িং তালিকায়' Anisoptera-র ছয়টি প্রজাতি এবং Zygoptera-র সাতটি প্রজাতি নিবন্ধন করি। IUCN রেড লিস্ট অনুযায়ী, এই ১৩টি নতুন নিবন্ধীকৃত প্রজাতির মধ্যে, একটি Anisoptera এবং দুটি Zygoptera প্রজাতি Data Deficient এবং বাকিগুলি Least Concern.

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Author details: Mr. Dhiman Datta did master's degree in Zoology from Tripura University, Suryamaninagar, West Tripura and presently working as a visiting Lecturer of Women's College, Department of Zoology, Agartala, Tripura. His research interests are diversity and ecology study of odonates, ants, moths, and butterflies. Dr. Basant Kumar Agarwala is a retired professor of Tripura University, Department of Zoology, and ex-chairman of Tripura State Pollution Control Board. He works on taxonomy, diversity and ecology of aphids, ladybird beetles, butterflies, odonates, and many more insects. Dr. Joydeb Majumder pursued his master's degree and PhD in Zoology from Tripura University and currently works as a program manager of Biodiversity Conservation in the Project for Sustainable Catchment Forest Management Project (SCATFORM), Tripura. His research interests are diversity and ecological study of aphids, ladybird beetles, snakes, butterflies, moths, and odonates.

Author contributions: DD and JM have collected the data and prepared the manuscript; BKA reviewed the manuscript and also allowed using laboratory facilities.

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INTRODUCTION

The insect order Odonata comprises of dragonflies (Anisoptera) and damselflies (Zygoptera). Members of this order are widely distributed, insectivorous, and amphibiotic. Egg and larval stages are aquatic and the adult stage is terrestrial. Odonata insects prefer hilly streams, and forested riparian habitats and most of the endemic and rare species are restricted to these habitats (Andrew et al. 2008, 2009; Subramanian 2009, 2012; Mitra et al. 2010; Subramanian et al. 2011; Koparde et al. 2015). Habitats like ponds, lakes, coastal marshes, natural & man-made water bodies, water logged areas, grass lands, and paddy fields support species richness and diversity (Subramanian 2009, 2012; Mitra et al. 2010; Subramanian et al. 2011; Majumder et al. 2014; Tiple & Khoparde 2015). The eastern India is one of the globally rich areas of odonates, and the forest streams and rivers of this region are natural habitats for many endemic and habitat-specialist species. In the eastern Himalaya, high endemism occurs in Khasi hills and Darjeeling-Sikkim Himalaya (Subramanian & Babu 2017). Tripura province, a small hilly State of northeastern India in Indo-Burma biodiversity hotspot zone (Myers et al. 2000), supports diverse odonate fauna (Clausnitzer et al. 2009) due to habitat diversity and micro habitat richness.

Of the 6,392 odonate species recorded across the world (Paulson et al. 2022), 488 are known from India (Subramanian & Babu 2017). India's odonate fauna include 186 species/ subspecies as endemic (Subramanian & Babu 2017). Lahiri (1977, 1987) made notable contributions to odonates of Meghalaya and Manipur (parts of north eastern India). Mitra (2002) did the most comprehensive work on odonates of north eastern India, including a review of all the literature available till then. Joshi & Kunte (2014) reported 69 species including one addition (*Calicnemia erythromelas* Selys, 1891) to the Indian Odonata fauna from Nagaland. Joshi et al. (2017) reported *Pseudothemis zonata* (Burmeister, 1839) and *Burmagomphus divaricatus* (Lieftinck, 1964) for the first time from Nagaland and Manipur, respectively. In Tripura, Srivastava & Sinha (2000) reported 35 species and Majumder et al. (2014) reported 53 species. In this paper, we report our findings on Odonates from Tripura State.

METHODS

Study area

The present study was conducted at nine different locations (forested and unclassified habitats, Table: 1) of Tripura, from March 2012–May 2019 as a part of biodiversity exploration study. Geographically, Tripura lies between 22.9333°N—24.53333°N & 91.1666°E—92.35°E, and in the meeting point of two biodiversity hotspots (Eastern-Himalaya hotspot in the east and Indo-Myanmar hotspot region in the west) (Myers et al. 2000). This small north-eastern hilly state (Tripura) has a tropical savanna climate and receives an annual rainfall ranges from 1800–2400 mm approximately; south-west monsoon spread over seven months almost (April–October) and average minimum temperatures are around 20–25 ^{0}C, maximum temperatures are around 30–35 ^{0}C with elevation range varying from 15 m (lowest) to 930 m (highest).

Field sampling and Identification

In this opportunistic study, field observations and photography of odonates were conducted mainly on clear sunny days between 08:00 h and 12:00 h during monsoon season to record maximum species of odonates (Majumder et al. 2014). Species were recorded though random walks along potential habitats like streams, bamboo forest, small forest patch, manufactured water bodies, and deep forest habitats and followed direct search technique (Sutherland 1996) and sighting is opportunistic. Comet optical binoculars 8 x 40 NV JL 77888 were used during field observations and photographs were taken by Canon EOS 50D, Canon Power Shot SX 530 HS, Canon Power Shot SX 200 IS, and SONY DSC-HX 200V camera models and YU 5010A mobile device. At first sight, photographs were taken and individuals were identified with the help of reference books (mentioned below in identification part). If only photography was not enough for identification, then specimens were captured and these were released back to their respective habitats, after visual observation and photographic identification in field was successful. In cases where field identification was not enough, then effort was made to collect at least one individual with insect net for accurate identification in the Ecology & Biodiversity Laboratory of Tripura University under permission from the authority of Tripura Biodiversity Board, Government of Tripura [letter no. F. 22/3(6)/for JBIC/I&P/B-D/07/2336 and 4972-76 dated 07.01.2009 and 29.06.2009], respectively. Morphological characters for identification of unidentified species were studied

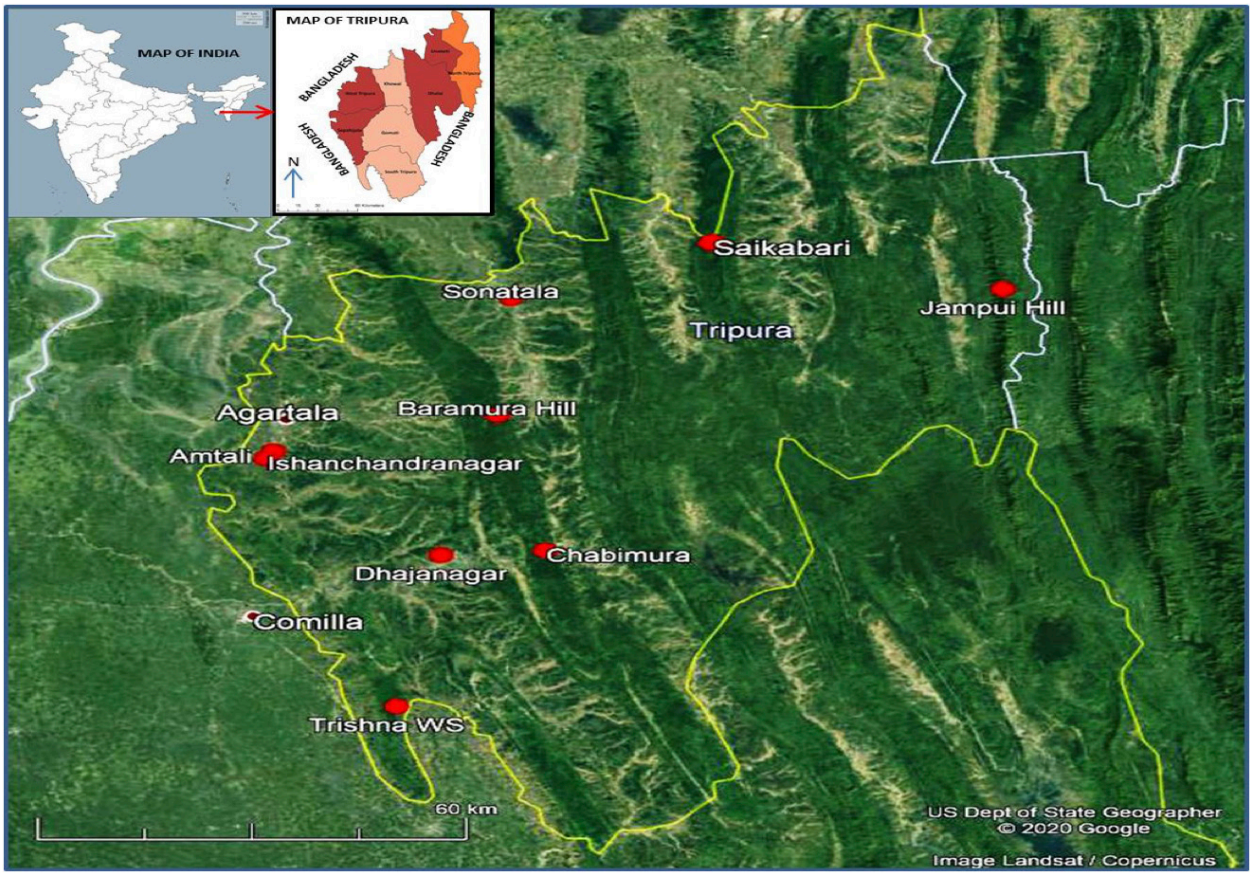

Image 1. Google Earth image of India showing the Tripura state and different study sites of six administrative districts.

Table 1. Geoco-ordinates of the study sites.

District	Study sites	Latitude (N)	Longitude (E)	Elevation (meter)	Habitat types
Dhalai	Saikabari (SB); Study site-1	24.12^0	91.90^0	123	Perennial stream surrounded by moist-deciduous secondary forest
Gomati	Chabimura(CM); Study site-2	23.54^0	91.60^0	47	Riparian woody forest
	Dhajanagar (DN); Study site-3	23.54^0	91.46^0	107	Man-made freshwater pond
Khowai	Baramura Hill (BH); Study site-4	23.81^0	91.57^0	44	Secondary mixed-moist deciduous forest nearby small stream
	Sonatala (ST); Study site-5	24.04^0	91.61^0	33	Slow flowing drain water surrounded by herbs and shrubs
North Tripura	Jampui Hill (JH); Study site-6	23.99^0	92.28^0	176	Slow flowing stream surrounded by semi-evergreen forest
South Tripura	Trishna Wildlife Sanctuary (TWS); Study site-7	23.25^0	91.37^0	45	Natural freshwater lakes with submerged vegetation
West Tripura	Amtali (AT); Study site-8	23.77^0	91.26^0	27	Secondary scrub jungles
	Ishan Chandra Nagar (ICN); Study site-9	23.75^0	91.25^0	25	Man-made freshwater pond surrounded by scrub jungles

in laboratory using Zeiss Stemi 508 stereo zoom 8:1 microscope**.** Photographs of the observed habitat types explored in this study, helped in recording the habitat preference of different odonates.

Identification of recorded specimens was done with the help of identification keys provided by Fraser (1933, 1934, 1936); Mitra (2002); Subramanian (2009, 2014); Nair (2011), and with online databases**,** <www.

indianodonata.org> (Joshi et al. 2019). The taxonomic list follows widely accepted systematics of Odonata by Dijkstra et al. (2013) and Subramanian & Babu (2017). Recordings of location parameters such as latitude, longitude, and elevation were done with the help of Garmin eTrex Vista GPS device. Conservation status of the recorded odonates of this study was according to the International Union for Conservation of Nature (IUCN) Red List of Threatened Species (IUCN 2020).

RESULTS

Thirteen species of Odonata are reported as new records and added to the Odonata fauna of Tripura from this study. Of these, six dragonfly species belong to six different genera under three families, namely Aeshnidae, Gomphidae, Libellulidae, and seven damselfly species belonging to seven different genera under three families, namely Coenagrionidae, Euphaeidae, and Platycnemididae (bold marked species of Appendix 1). A detailed account of findings is given below:

Suborder: Anisoptera Selys, 1854

Family: Aeshnidae Rambur, 1842

1. *Periaeschna magdalena* (Martin 1909) (Image 3.1)

Material examined: 2 males (TU/ODO/AESH/IMG0358), 30.iii.2012, Chabimura, Photo: J. Majumder;1 male (TU/ODO/AESH/IMG0002), 22.xi.2012, Jampui Hill, Photo: J. Majumder.

Habitat: Slow flowing streams surrounded by woody riparian forest.

IUCN Red List status: Least Concern (Dow 2009)

Distribution: Bhutan, China, India and Viet Nam.

Comments: Genus *Periaeschna* and species *P. magdalena* are reported for the first time from Tripura. Fraser (1936) reported this species from Garo Hills, Meghalaya which is approximately 255 km and 265 km (in aerial distance) far from Chabimura (study site-2) and Jampui hills (study site-6), respectively.

Family: Gomphidae Rambur, 1842

2. *Macrogomphus montanus* Selys, 1869 (Image 3.2)

Material examined: 1 female (ODO/GOMP/IMG 6290), 30.v.2019, Sonatala, Photo: D. Datta.

Habitat: Dry shrub jungle near to human habitation.

IUCN Red List Status: Data Deficient (Subramanian 2010)

Distribution: Bangladesh, India, and Nepal.

Comments: Genus *Macrogomphus* and species *M. montanus* are reported for the first time from Tripura. Earlier, Fraser (1936) reported this species from Assam and Khan (2018) reported it from different locations including Khagrachari (approximately 110 km far from Sonatala, Study site- 5) from the Chittagong Division, southeastern Bangladesh.

Family: Libellulidae Rambur, 1842

3. *Tetrathemis platyptera* Selys, 1878 (Image 3.3)

Material examined: 1 male (TU/ODO/LIBE/IMG0001), 09.vi.2013, Dhajanagar, Photo: J.Majumder.

Habitat: Man-made freshwater pond surrounded by secondary vegetation.

IUCN Red List Status: Least Concern (Dow 2020)

Distribution: China, India, Indonesia, Lao People's Democratic Republic, Peninsular Malaysia, Myanmar, Thailand and Viet Nam.

Comments: Genus *Tetrathemis* and species *T. platyptera* are reported for the first time from Tripura. Earlier, Laltanpuii (2017) reported this species from different locations including Reiek (approximately 110 Km far from Dhajanagar, Study site-3) of Mamit District, Mizoram.

4. *Tramea limbata* Desjardins, 1832 (Image 3.4)

Material examined: 1 male (TU/ODO/LIBE/DSC02352), 01.xi.2013, Trishna WLS, Photo: J. Majumder.

Habitat: Natural freshwater lake with submerged vegetation.

IUCN Red List Status: Least Concern (Clausnitzer 2016)

Distribution: Botswana, Cameroon, Cape Verde, The Democratic Republic of the Congo, Cote d'Ivoire, Gabon, India, Liberia, Mali, Mauritius main island, Mayotte, Nepal, Nigeria, Oman, South Africa, Sri Lanka, Yemen and Namibia.

Comments: Genus *Tramea* and species *T. limbata* are reported for the first time from Tripura. Earlier, Laltanpuii (2017) reported this species from different locations including Lengpui (approximately 130 Km far from Trishna WLS, Study site- 7) of Aizawl District, Mizoram.

5. *Trithemis festiva* Rambur, 1842 (Image 3.5)

Material examined: 2 male (TU/ODO/LIBE/IMG0712), 12.vii.2016 Baramura Hill, Photo: D. Datta

Habitat: Slow flowing streamlets surrounded by secondary mixed moist deciduous forest

IUCN Red List Status: Least Concern (Dow 2009)

Distribution: Afghanistan, Cambodia, China, Cyprus, Greece, Hong Kong, India, Indonesia, Iran, Iraq, Lao People's Democratic Republic, Malaysia, Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Russian Federation, Singapore, Sri Lanka, Taiwan, Province of

China, Thailand, Turkey, and Viet Nam.

Comments: Species *T. festiva* is reported for the first time from Tripura. Earlier, Rajesh Sanap recorded this species from Hatikuli Tea Estate, Golaghat District, Assam (posted in Odonata of India), approximately 600 Km far from Baramura Hills, Study site- 4.

6. *Zyxomma petiolatum* Rambur, 1842 (Image 3.6)

Material examined: 1 female (TU/ODO/LIBE/IMG2208); 03.viii.2017, Sonatala, Photo: D. Datta; 1 male (TU/ODO/LIBE/IMG0571), 24.iv.2018, Sonatala, Photo: D. Datta

Habitat: Shady areas with big trees and scrub jungles.

IUCN Red List Status: Least Concern (Subramanian & Dow 2017)

Distribution: Australia, Bangladesh, Brunei Darussalam, China, Hong Kong, India, Indonesia, Japan, Lao People's Democratic Republic, Malaysia, Myanmar, Nepal, New Caledonia, Palau, Papua New Guinea, Philippines, Seychelles, Singapore, Sri Lanka, Taiwan, Province of China, Thailand, Vanuatu, and Viet Nam.

Comments: Genus *Zyxomma* and species *Z. petiolatum* are reported for the first time from Tripura. Earlier, Takhelmayum & Gupta (2014) reported this species from Keibul Lamjao National Park (KLNP), Manipur, approximately 230 km far from Sonatala (Study site-5).

Suborder: Zygoptera Selys, 1854

Family: Coenagrionidae Kirby, 1890

7. *Aciagrion occidentale* Laidlaw, 1919 (Image 4.1)

Material examined: 1 female (TU/ODO/COEN/DSC00945), 13.viii.2013, Saikabari, Photo: J. Majumder; 1 female (TU/ODO/COEN/IMG0003), 11.viii.2013, Amtali, Photo: J. Majumder.

Habitat: Slow flowing small perennial streams surrounded by secondary bushy forest

IUCN Red List Status: Least Concern (Mitra 2010)

Distribution: Bangladesh, Cambodia, India, Sri Lanka, Thailand and Viet Nam.

Comments: *A. occidentale* is reported for the first time from Tripura. Earlier, Bora & Meitei (2014) reported this species from the ICAR Research Complex for NEH Region, Umaim, Meghalaya, which is approximately 170 Km and 220 Km far from Saikabari (study site-1) and Amtali (study site-8), respectively.

8. *Argiocnemis rubescens* Selys, 1877 (Image 4.2)

Material examined: 1 male (TU/ODO/COEN/IMG0158), 29.iii.2012, Chabimura, Photo: J. Majumder.

Habitat: Stagnant marshy water body with submerged vegetation and surrounded by scrub jungles.

IUCN Red List Status: Least Concern (Mitra 2017)

Distribution: Australia, Bangladesh, Brunei Darussalam, India, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Papua New Guinea, Philippines, Singapore, Thailand and Vietnam.

Comments: *A. rubescens*is reported first time from Tripura. Earlier, Boruah et al. (2016) reported this species from Kaziranga National Park (KNP), Assam, approximately 360 km far from Chabimura (study site-2).

9. *Mortonagrion aborense* Laidlaw, 1914 (Image 4.3)

Material examined: 2 females (TU/ODO/COEN/DSC04897), 15.iii.2013, IC Nagar, Photo: J. Majumder.

Habitat: Freshwater pond surrounded by shrubs and bamboo brakes.

IUCN Red List Status: Least Concern (Subramanian 2010)

Distribution: Bangladesh, India, Indonesia, Malaysia, and Thailand.

Comments: Genus *Mortonagrion* and species *M. aborense* are reported for the first time from Tripura. Earlier, Boruah & Saikia (2015) reported this species from Barpeta, Assam, approximately 285 Km far from IC Nagar (study site-9).

Family: Euphaeidae Jacobson & Bianchi, 1905

10. *Dysphaea walli* Fraser, 1927 (Image 4.4)

Material examined: 2 males (TU/ODO/EUPH/IMG8754), 17.vi.2013, Chabimura, Photo: J. Majumder.

Habitat: Alongside riverbank, surrounded by mature riparian mixed-moist deciduous forest.

IUCN Red List Status: Data Deficient (Dow 2019)

Distribution: Bangladesh, India and Myanmar.

Comments: Genus *Dysphaea* and species *D. walli* are reported for the first time from Tripura. An earlier observation (Anonymous 2020a) (www.indianodonata.org) by Somen Sarkar reported the species from Jeypore-Dehing Rain Forest, Dibrugarh District, Assam, approximately 570 km far from Chabimura (study site-2).

Family: Platycnemididae Tillyard, 1917

11. *Elattoneura campioni* Fraser, 1922 (Image 4.5)

Material examined: 2 females (TU/ODO/PLAT/DSC00750), 13.viii.2013, Saikabari, Photo: J. Majumder.

Habitat: Free flowing stream surrounded by mature secondary squashy semi-evergreen forest.

IUCN Red List Status: Data Deficient (Sharma &Dow 2010)

Distribution: India and Myanmar

Comments: Genus *Elattoneura* and species *E.*

campioni are reported for the first time from Tripura. Earlier, Boruah et al. (2016) reported this species from Kaziranga National Park (KNP), approximately 290 km far from Saikabari (study site-1).

12. *Prodasineura verticalis* Fraser, 1921 (Image 4.6)

Material examined: 2 males (TU/ODO/PLAT/DSC00579), 10.viii.2013, Saikabari, Photo: J. Majumder.

Habitat: Free flowing stream surrounded by secondary mixed-moist deciduous forest.

IUCN Red List Status: Least Concern (Dow 2010)

Distribution: Bangladesh, Brunei Darussalam, China, India, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, and Thailand.

Comments: Genus *Periaeschna* and species *P. magdalena* are reported for the first time from Tripura. Earlier, Subramanian (2015) reported this species from northeastern India. An observation (Anonymous 2020b) published in Odonata of India (www.indianodonat.org) website by Rejoice Gassah from Dosdewa Forest Trail, Karimganj District, Assam, approximately 50 km far from Saikabari (study site-1).

13. *Pseudocopera ciliata* Selys, 1863 (Image 4.7 and 4.8)

Material examined: 2 males, (TU/ODO/PLAT/IMG0196), 29.iii.2018, Sonatala, Photo: D. Datta; 1

Image 2. Habitat photographs of study sites: 1—Perennial stream surrounded by moist-deciduous secondary forest (Saikabari, study site-1) | 2—Riparian woody forest (Chabimura, study site-2) | 3—Man-made freshwater pond surrounded by herbs and shrubs (Dhajanagar, study site-3) | 4—Slow flowing streamlet surrounded by secondary mixed moist deciduous forest (Baramura Hill, study site-4) | 5—Slow flowing drain surrounded by herbs and shrubs (Sonatala, study site-5) | 6—Slow flowing stream surrounded by semi-evergreen forest (Jampui Hill, study site-6) | 7—Natural freshwater lake with submerged vegetation (Trishna WS, study site-7) | 8—Secondary scrub jungles (Amtali, study site-8) | 9—Part of a pond surrounded by scrub jungles (IC Nagar, study site-9). © 2, 4, 5, 7—Dhiman Datta | © 1, 3, 6, 8, 9—Joydeb Majumder.

female (TU/ODO/PLAT/IMG6928), 26.v.2016, Sonatala, Photo: D.Datta

Habitat: Slow flowing drain water area near to pond or paddy field.

IUCN Red List Status: Least Concern (Dow 2018)

Distribution: Bangladesh, Cambodia, China, Hong Kong, India, Indonesia, Peninsular Malaysia, Myanmar, Taiwan, Province of China, Thailand and Vietnam.

Comments: Genus *Pseudocopera* and species *P. ciliata* are reported for the first time from Tripura. Earlier, Josh & Kunte (2014) reported this species from Intanki, Peren District, Nagaland which is approximately 255 km far from Sonatala (study site-5). All distances mentioned here are aerial distance between two selective areas.

DISCUSSIONS AND CONCLUSIONS

Before this study, quality field data on distribution and habitat preference of odonates was scanty from most of the eastern Himalayan range, particularly from the southern and eastern parts including the state Tripura of India. Present study is a substantial advancement of the odonate diversity of Tripura over the earlier studies (Srivastava & Sinha 2000; Majumder et al. 2014). After this study with addition of 13 species, the updated odonate fauna of Tripura state is represented by 75 species under 49 genera (28 Anisoptera genera and 21 Zygoptera genera) and nine families (4 Anisoptera and 5 Zygoptera); (Appendix 1). Three odonata species namely, *M. montanus*, *D. walli* and *E. campioni* showed Data Deficient as per IUCN Red List categories of threatened species. Among the 13 species reported here, 12 species are endemic to India except *D. walli* as per Subramanian & Babu (2017). *P. magdalena, Macrogomphus montanus, Tetrathemis platyptera, Tramea limbata, Trithemis festiva, Z. petiolatum, Aciagrion occidentale, Argiocnemis rubescens, Mortonagrion aborense, Elattoneura campioni, Prodasineura verticalis, Pseudocopera ciliata* are endemic to India recorded from this study. Members of *T. festiva* are found commonly near streams and those of *Zyxomma petiolatum* are common in shady areas surrounded by big trees and shrubs. Members of *Aciagrion occidentale, Argiocnemis rubescens, Mortonagrion aborense, P. ciliata* are very common in their respective study sites. However, *P. magdalena, M. montanus, T. platyptera, T. limbata, Dysphaea walli, E. campioni, P. verticalis* are found to be comparatively rare in their study sites. The documenting of the regional species pool from this part of India has benefited the inclusion of previously unrecorded odonate species, which will help future researchers in the understanding of species biology, distributional ranges, and prospective habitats.

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Image 3. Photographs of new records of dragonflies: 1—*Periaeschna magdalena* (male) | 2—*Macrogomphus montanus* (female) | 3—*Tetrathemis platyptera* (male) | 4—*Tramea limbata* (male) | 5—*Trithemis festiva* (male)|6—*Zyxomma petiolatum* (male). © 2, 5, 6—Dhiman Datta | © 1, 3, 4—Joydeb Majumder.

Image 4. Photographs of new records of damselflies: 1—*Aciagrion occidentale* (female)| 2—*Argiocnemis rubescens* (male)|3—*Mortonagrion aborense* (female) | 4—*Dysphaea walli* (male) |5—*Ellatoneura campioni* (female)|6—*Prodasineura verticalis* (male) | 7—*Pseudocopera ciliata* (female) | 8—*Pseudocopera ciliata* (male). © 7, 8—Dhiman Datta | © 1–6—Joydeb Majumder.

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Appendix 1. Updated checklist of dragonflies and damselflies recorded from Tripura. It contains species from all the studies done so far from Tripura (Srivastava & Sinha 2000, Majumder et al. 2014) along with the present study (in bold fonts).

	Scientific name with author and year of description	Family
	Dragonflies	
1	*Gynacantha subinterrupta* Rambur, 1842	Aeshnidae
2	***Periaeschna magdalena*** Martin, 1909	Aeshnidae
3	*Ictinogomphus rapax* Rambur, 1842	Gomphidae
4	***Macrogomphus montanus*** Selys, 1869	Gomphidae
5	*Paragomphus lineatus* Selys,1850	Gomphidae
6	*Acisoma panorpoides* Rambur, 1842	Libellulidae
7	*Aethriamanta brevipennis* Rambur, 1842	Libellulidae
8	*Brachydiplax chalybea* Brauer, 1868	Libellulidae
9	*Brachydiplax farinosa* Krüger, 1902	Libellulidae
10	*Brachydiplax sobrina* Rambur, 1842	Libellulidae
11	*Brachythemis contaminata* Fabricius, 1793	Libellulidae
12	*Camacinia gigantea* Brauer, 1867	Libellulidae
13	*Cratilla lineata* Brauer, 1878	Libellulidae
14	*Crocothemis servilia* Drury, 1773	Libellulidae
15	*Diplacodes nebulosa* Fabricius, 1793	Libellulidae
16	*Diplacodes trivialis* Rambur, 1842	Libellulidae
17	*Lathrecista asiatica* Fabricius, 1798	Libellulidae
18	*Neurothemis intermedia* Ris, 1919	Libellulidae
19	*Neurothemis fulvia* Drury, 1773	Libellulidae
20	*Neurothemis intermedia* Rambur, 1842	Libellulidae
21	*Neurothemis tullia* Drury, 1773	Libellulidae
22	*Onychothemis testacea* Laidlaw, 1902	Libellulidae
23	*Orthetrum brunneum* Fonscolombe, 1837	Libellulidae
24	*Orthetrum chrysis* Selys, 1891	Libellulidae
25	*Orthetrum glaucum* Brauer, 1865	Libellulidae
26	*Orthetrum luzonicum* Brauer, 1868	Libellulidae
27	*Orthetrum pruinosum* Burmeister, 1839	Libellulidae
28	*Orthetrum Sabina* Drury, 1770	Libellulidae
29	*Orthetrum triangulare* Selys, 1878	Libellulidae
30	*Palpopleura sexmaculata* Fabricius, 1787	Libellulidae
31	*Pantala flavescens* Fabricius, 1798	Libellulidae
32	*Potamarcha congener* Rambur, 1842	Libellulidae
33	*Rhodothemis rufa* Rambur, 1842	Libellulidae
34	*Rhyothemis variegata* Linnaeus, 1763	Libellulidae
35	***Tetrathemis platyptera*** Selys, 1878	Libellulidae
36	*Tholymis tillarga* Fabricius, 1798	Libellulidae
37	***Tramea limbata*** Desjardins, 1832	Libellulidae
38	*Trithemis aurora* Burmeister, 1839	Libellulidae
39	***Trithemis festiva*** Rambur, 1842	Libellulidae
40	*Trithemis kirbyi* Selys, 1891	Libellulidae
41	*Trithemis pallidinervis* Kirby, 1889	Libellulidae
42	*Urothemis signata* Rambur, 1842	Libellulidae
43	***Zyxomma petiolatum*** Rambur, 1842	Libellulidae
44	*Epophthalmia vittata* Burmeister, 1839	Macromiidae
	Damselflies	
45	*Neurobasis chinensis* Linnaeus, 1758	Calopterygidae
46	*Vestalis gracilis* Rambur, 1842	Calopterygidae
47	*Vestalis smaragdina* Selys, 1879	Calopterygidae
48	*Aristocypha quadrimaculata* Selys, 1853	Chlorocyphidae
49	*Libellago lineata* Burmeister, 1839	Chlorocyphidae
50	***Aciagrion occidentale*** Laidlaw, 1919	Coenagrionidae
51	*Aciagrion pallidum* Selys, 1891	Coenagrionidae
52	*Agriocnemis femina* Brauer, 1868	Coenagrionidae
53	*Agriocnemis lacteola* Selys, 1877	Coenagrionidae
54	*Agriocnemis pygmaea* Rambur, 1842	Coenagrionidae
55	*Agriocnemis splendidissima* Laidlaw, 1919	Coenagrionidae
56	***Argiocnemis rubescens*** Selys, 1877	Coenagrionidae
57	*Ceriagrion cerinorubellum* Brauer, 1865	Coenagrionidae
58	*Ceriagrion coromandelianum* Fabricius, 1798	Coenagrionidae
59	*Ceriagrion olivaceum* Laidlaw, 1914	Coenagrionidae
60	*Enallagma parvum* Selys, 1876	Coenagrionidae
61	*Ischnura rubilio* Selys, 1876	Coenagrionidae
62	***Mortonagrion aborense*** Laidlaw, 1914	Coenagrionidae
63	*Onychargia atrocyana* Selys, 1865	Coenagrionidae
64	*Pseudagrion australasiae* Selys, 1876	Coenagrionidae
65	*Pseudagrion microcephalum* Rambur, 1842	Coenagrionidae
66	*Pseudagrion rubriceps* Selys, 1876	Coenagrionidae
67	***Dysphaea walli*** Fraser, 1927	Euphaeidae
68	*Euphaea ochracea* Selys, 1859	Euphaeidae
69	*Calicnemia imitans* Lieftinick, 1948	Platycnemididae
70	*Coeliccia didyma* Selys, 1863	Platycnemididae
71	*Copera marginipes* Rambur, 1842	Platycnemididae
72	*Copera vittata* Selys, 1863	Platycnemididae
73	***Elattoneura campioni*** Fraser, 1922	Platycnemididae
74	***Prodasineura verticalis*** Fraser, 1921	Platycnemididae
75	***Pseudocopera ciliata*** Selys, 1863	Platycnemididae

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