



New record of black marsh dart *Onychargia atrocyana* Selys, 1865 (Odonata, Zygoptera, Platycnemididae) from Shikohabad (Firozabad district, Western Uttar Pradesh, India), with systematic account, distribution and other aspects

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ARTICLE INFO	ABSTRACT
<p>Research Article Received on April 10, 2023 Revised on April 18, 2023 Accepted on May 06, 2023 Published on May 14, 2023</p> <p>Article Authors Akhlq Husain, Dheerendra Singh</p> <p>Corresponding Author Email drakhlqhusain@gmail.com</p>	<p>Present communication deals with the new record of <i>Onychargia atrocyana</i>, the Black Marsh Dart, a rare damselfly, belonging to family Platycnemididae, order Odonata, from Shikohabad, Firozabad district, Uttar Pradesh (India), with its systematic account, altitudinal range, distribution, habitat, breeding habit and conservation status. It will be the 3rd record from western Uttar Pradesh only.</p>
PUBLICATION INFO	KEYWORDS
<p>International Journal of Agricultural Invention (IJAI) RNI: UPENG/2016/70091 ISSN: 2456-1797 (P) Vol.: 8, Issue: 1, Pages: 81-86 Journal Homepage URL http://agriinventionjournal.com/ DOI: 10.46492/IJAI/2023.8.1.12</p>	<p>New Record, <i>Onychargia atrocyana</i>, Shikohabad (Uttar Pradesh)</p>

HOW TO CITE THIS ARTICLE

Husain, A., Singh, D. (2023) New record of black marsh dart *Onychargia atrocyana* Selys, 1865 (Odonata, Zygoptera, Platycnemididae) from Shikohabad (Firozabad district, Western Uttar Pradesh, India), with systematic account, distribution and other aspects, *International Journal of Agricultural Invention*, 8(1): 81-86. DOI: 10.46492/IJAI/2023.8.1.12

The odonate fauna of various states of India with records of *Onychargia atrocyana*, the Black Marsh Dart, has attracted the attention of various workers during the past (Laidlaw, 1914, 1919; Fraser, 1924, 1931, 1933; Srivastava and Sinha, 1993, 2004; Mitra, 1994, 2002; Prasad, 2004, 2007; Emiliyamma *et al.*, 2007; Emiliyamma, 2009; Mitra and Babu, 2010; Dawn and Chandra, 2014; Subramanian and Babu, 2018; Subramanian *et al.*, 2018; www.indianodonata.org) but not much is known about the occurrence of this species (*O. atrocyana*) from Uttar Pradesh except for (Singh,

2022) who recorded it from Agra and Gautam Buddh Nagar districts in Western Uttar Pradesh and the record in a website (www.indianodonata.org) from Dhanauri Wetlands in Gautam Buddh Nagar district. Prasad (1976, 1977), Ram *et al.*, (1983), Tyagi (1983), Kanaujia *et al.* (2015) and Duney and Dubey (2019) though dealt with Odonata of some areas of Uttar Pradesh (Eastern parts *viz.* Azamgarh, Ballia, Deoria and Gorakhpur; Tarai area-Lakhimpur Kheri; Kanpur, Parayagraj and Unnao districts) but didn't record this species (*O. atrocyana*).

Recently a good example of the same has been sighted from a residential area in Shikohabad, Firozabad district in Western Uttar Pradesh and recorded here as new for this area.

Study Site

Chowk Haji Aijaz Husain, Rukanpur, Shikohabad, District Firozabad, Uttar Pradesh (India).

Physiography

Shikohabad is a city under Firozabad district in south-western part of Uttar Pradesh state. It is located at 27.1°N and 78.6°E, with an average elevation of 163 m. The river Sirsa flows between the city and railway station.

Weather

The average temperature in February was around 23°C, ranging between 28°C (day time) and 17°C (night).

Flora Around

Azadirachta indica, the Neem; *Bougainvillea glabra*, the Bougainvillea; *Carrisa carandus*, the Karonda; *Catharanthus roseus*, the Sadabahar; *Chrysanthemum* sp., the Guldaodi; *Citrus limon*, the Lemon; *Clerodendrum* sp., the Hedge Plant; *Cycas revoluta*, the Sago Cycas; *Delonix regia*, the Gulmohar or Royal Poinciana; *Iresine herbstii*, the Blood Leaf; *Jasminum sambac*, the Arabian Jasmine or Bela; *Juniperus* sp.; *Lagerstroemia parviflora*, the Pride of India or Savni; *Murraya koenigii*, the Curry plant; *Monoon longifolium*, the False Ashoka; *Tabernaemontana divaricata*, the Crepe Jasmine or Pinwheel Flower; *Tagetes* sp., the Marigold or Genda, etc.

Systematic Account, Distribution and Other Aspects

Onychargia atrocyana Selys, 1865

Synonymy

Onychargia atrocyana Selys, 1865. *Bull. Acad. Belg.*, 20 (2): 416; Kirby, 1890. *Cat. Odon.*: 139; Kirby, 1893. *J. Linn. Soc. Lond., Zool.*, 24: 563 (male, female, Sibsagar, Assam); Kruger, 1898. *Stett. Ent. Zeit.*: 118; Ris, 1914. *Noca Guinea (Zool)*, 3 (2): 94-95, fig. 113; Laidlaw, 1919. *Rec.*

Indian Mus., 16 (2): 171, 172 (Sibsagar, Assam); Laidlaw, 1920. *Proc. Zool. Soc. Lond.*: 335; Fraser, 1923. *J. Bombay nat. Hist. Soc.*, 29 (4): 745; Fraser, 1924. *Rec. Indian Mus.*, 26 (5): 428, 489 (Coorg; Fraserpet beyond Sidapur; Virajpet; above Hatti river beyond Mercara); Fraser, 1931. *Rec. Indian Mus.*, 33 (4): 448 (Coorg); Fraser, 1933. *Faun. Brit. India*, Odonata, 1: 417-418, figs. 179, 180a, b (N. Coorg; Malabar; Paralai, Anaimalai); Ram and Prasad, 1999. *Rec. Zool. Surv. India*, 97 (2): 114 (Arunachal Pradesh); Mitra, 2002. *Mem. Zool. Surv. India*, 19 (1): 83-84, fig. 11 (Eastern India); Prasad, 2004. Insecta: Odonata. In: Fauna of Gujarat, *State Fauna Series*, 8 (Part - 3): 25 (male); Prasad, 2007. Odonata. In: Fauna of Andhra Pradesh. *State Fauna Series*, 5 (Part-3): 119, 137 (male); Mitra & Babu, 2010. *Rec. zool. Surv. India*, Occ. Paper No. 315: 81-84, fig. 71 (Arunachal Pradesh, Assam, Manipur, Nagaland, Odisha and West Bengal); Dawn and Chandra, 2014. *Check List*, 10 (5): 1106; Subramanian and Babu, 2018. Insecta: Odonata, In: *Faunal diversity of Indian Himalaya: 232* (Central and Eastern Himalaya); Subramanian *et al.*, 2018. *Atlas of Odonata (Insecta) of the Western Ghats, India*: 120 (text + fig. male, female mating), 121 (map); Singh, 2022. *Field Guide to the Dragonflies and Damselflies of Northwest India*: 202-203, 505, 2 figs (male, female). *Onychargia vittigera* Selys, 1891. In: de Selys. In: Birmania e regione vicine. 32. Odonates. *Annali del Museo Civico di Storia Naturale di Genova*, 30: 433-518. (syn. of *Onychargia atrocyana* vide <https://www.gbif.org/species/174538829>). *Onychargia vittigera?* de Selys, Laidlaw, 1914. *Rec. Indian Mus.*, 8 (4): 343 (teneral male without last 4 segments of abdomen, Dejoon, N. Lakhimpur, Assam).

Common Names

Black Short-tail, Marsh Dancer or Black Marsh Dart.

Classification

Class Insecta, order Odonata, suborder Zygoptera, superfamily Coenagrionoidea, family Platycnemididae, subfamily Platycneminae, genus *Onychargia selys*, 1865.

Sighting and Photograph

1 example; Chowk Haji Aijaz Husain, Rukanpur, Shikohabad, Firozabad district, Uttar Pradesh (India); 22. ii. 2023; by 1st author (AH).

Description

Male

Head including labium and clypeus black, with a narrow citron-yellow stripe between eyes, bases of mandibles and labrum also citron-yellow or yellowish-black, however labrum finely bordered with black and with a median basal black point; eyes black above and brownish below; prothorax and thorax also black but latter with a deep purplish reflex; thorax with narrow citron-yellow ante humeral stripes in sub-adult and teneral stage, sides citron-yellow and marked with a broad oblique black stripe over postero-lateral suture in that stage, all these marks obscured by pruinescence in adults; legs black; wings hyaline, pterostigma olivaceous-yellow or yellow, paler around and covering more than a cell; 10-11 post post-nodal nervures in forewings and 10 in hind-wings; abdomen black or dark-blue with yellow marks on lateral sides of segments 1 and 2 and narrow bluish basal rings on segments 3 to 6; anal appendages black.

Female

Almost similar to male but ante-clypeus brownish, post-clypeus black and yellow; prothorax with a small sub-dorsal and a very large citron-yellow lateral spot; thorax black but without purple reflex; wings with an extra post-nodal nervure; abdomen marked with yellow and with an additional yellow spot on segment 8 and another on sides of vulvar scales; anal appendages short, pointed, conical and black.

Size

Male- abdomen 26 mm, hind-wing 19 mm (Fraser, 1924); male-abdomen 23 mm, hind-wing 17 mm; female- abdomen 23 mm, hind-wing 18 mm (Fraser, 1933); male- abdomen 23 mm, fore-wing 17.5 mm, hind-wing 16.5 mm (Prasad, 2004); male-abdomen 24 mm, fore-wing 19.5 mm, hind-wing 19.0 mm (Prasad, 2007).

Altitudinal Range

1250 m (Dow, 2020).

Distribution

India: Uttar Pradesh: Firozabad district: Chowk Haji Aijaz Husain, Rukanpur, Shikohabad (new record). Rest of Uttar Pradesh: Agra and Gautam Buddha Nagar districts (Singh, 2022); Dhanauri Wetlands, Gautam Buddha Nagar district (www.indianodonata.org).

Rest of India

Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Central and Eastern Himalaya, Chhattisgarh, Delhi, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Manipur, Nagaland, Odisha, Rajasthan, South India, Tamil Nadu, Tripura, West Bengal, Western Ghats and Western India (Laidlaw, 1914, 1919; Fraser, 1924, 1931, 1933; Srivastava and Sinha, 1993, 2004; Mitra, 1994, 2002; Ram and Prasad, 1999; Prasad, 2004, 2007; Emiliyamma *et al.*, 2007; Emiliyamma, 2009; Mitra and Babu, 2010; Dawn and Chandra, 2014; Subramanian and Babu, 2018; Subramanian *et al.*, 2018; Singh, 2022; www.indianodonata.org).

Elsewhere

Bangladesh, Borneo, Brunei Darussalam; Cambodia; China (Yunnan), Hong Kong, Indonesia (Java; Sarawak), Laos, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Taiwan, Thailand and Vietnam (Fraser, 1924, 1933; Lieftinck, 1971; Brooks, 1981; Kiauta and Kiauta, 1983; Tsuda, 1991; Prasad, 2004, 2007; Mitra and Babu, 2009; Tze-Wai *et al.*, 2011; Orr and Dow, 2015; Subramanian *et al.*, 2018; Kalkman *et al.*, 2020; Dow, 2020; Singh, 2022; en.wikipedia.org).

Habitat

Seen near small bushes and sometimes near water bodies like ponds and marshes with small grassy vegetation and forests around (Prasad, 2007; Subramanian *et al.*, 2018).

Breeding

Breeds in ponds filled with weeds and marshes in forests (Fraser, 1933; Emiliyamma *et al.*, 2007).

Conservation Status

IUCN Red List- Least Concern (Dow, 2020).

Remark

Mitra (2002) described a female as *Onychargia* sp. from Mizoram (Eastern India) which differs from present material in its larger size and colouration of different body parts, likely to be a different or new species.

Acknowledgement

The authors are thankful to Dr. S. S. Talmale, Scientist-C, Western Regional Centre, Zoological Survey of India, Rawet Road, Pune, Maharashtra (India) for help in some literature.



Fig 1. *Onychargia atrocyana*, the Black Marsh Dart (from Shikohabd, U.P.)



Fig 2. *Onychargia atrocyana*, the Black Marsh Dart, male (from G.B. Nagar, U.P.)



Fig 3. *Onychargia atrocyana*, the Black Marsh Dart, male (from G.B. Nagar, U.P.)



Fig 4. *Onychargia atrocyana*, the Black Marsh Dart, mating (from G.B. Nagar, U.P.)

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