A NOTE ON ISCHNURA NURSEI (MORTON, 1907): THE FIRST RECORD FROM NEPAL (ZYGOPTERA: COENAGRIONIDAE)

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Introduction
Morton (1907) described a damselfly species from Deera, India; since he was not certain about the generic placement, he published it as Ischnura? nursei. Laidlaw (1919), assigned this unusual species to genus Rhodischnura Laidlaw, 1919 because it differs in appearance from all known members of genus Ischnura Charpentier, 1840. Dumont (2013) demonstrated in a worldwide DNA analysis of 24 Odonata species that I. nursei belongs to the ‘pumilio clade s.l.’ and is a real Ischnura. Due to its bright red, yellow and black colours on the abdomen, and turquoise on the thorax, I. nursei is an enigmatic damselfly. Until 2011, the known distribution of I. nursei was limited to India and Pakistan (Nair 2011; Zia et al. 2011); Dumont et al. (2011) published the first record from Iran; Feulner & Judas (2013) published the first record for the United Arab Emirates; Bashar et al. (2014) published the first record for Bangladesh and Kunz (2015b) reported it from Oman. The record of I. nursei documented here is the first record for Nepal.

Observations
The Odonata survey was carried out in Jagadishpur lake and Baanganga river of Kapilvastu, Nepal, between January, 2019 and April, 2019. The Odonates were observed and photographed between 09:00 hr and 15:00 hr during low wind, warm and sunny weather. Ischnura nursei was photographed on 24 February, 2019 at 14:04 hr and on same day at 14:37 hr along the shoreline of Jagadishpur Lake (27°37'19.41"N &83° 5'41.54"E). Two male individuals of I. nursei were photographed. The first individual was observed basking on a blade of grass (Fig. 1) and the other was observed on the stem of a shrub (Fig 2). The species is an extremely small, low-flying damselfly, which rests frequently. The species was identified by consulting available literature, viz., keys (Fraser, 1933) and field guides and books (Nair, 2011; Subramanian, 2009) and also from the online resources (http://indianodonata.org) and then confirmed by experts.

In the field, the male of this extremely small species was identified at once by the characteristic zonation of the abdomen, which
is tri-coloured in a typical “Belgian” or “German” flag pattern, viz. red, yellow, and black on the dorsum and sides (Fig. 1 & 2). The pterostigma on the fore wing is larger than on the hind wing and reddish in colour (Morton, 1907; Fraser, 1920; Laidlaw, 1916, 1919) (Fig. 1 & 2). The male appendages are comparatively simple, rather uniformly light brownish in colour.

Result and discussion
Since its description in 1907, *I. nursei* was known from Pakistan and from all arid areas of Northwestern, Central, and Eastern India (Nair, 2011; Zia *et al.*, 2011). It is absent on the less arid Indian Peninsula (Subramanian, 2005; Subramanian *et al.*, 2011). The Pakistani records were updated only recently (Zia, 2010; Zia *et al.*, 2011). In addition to the westward extension of the known range to Iran, UAE and Oman, *I. nursei* was recorded eastwards too: Nair (2011) reported it twice from Odisha (India), and Bashar *et al.* (2014) published the first two records from Bangladesh. Kumar *et al.* (2015) found it fairly common throughout the year in Northeast India. The record of *I. nursei* from Nepal fills the distribution gap between known eastward distribution to Bangladesh and known westward distribution to Oman. Since artificial habitats like water reservoirs and smaller dams are used by *I. nursei* (Nair, 2011; Feulner & Judas, 2013); the record of *I. nursei* is not surprising as it was recorded from Jagadishpur Lake (Nepal) which is an artificial lake and located adjacent to Northwestern India. This record is an addition to known Nepalese fauna and extends the known distribution of this species to Nepal.

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References


Zia, A. 2010. *Biosystematics of damselflies (Zygoptera: Odonata) of Pakistan*. Department of Entomology; Faculty of Crop and
The Himalaya and associated mountain ranges rise from nearly sea level in the plains of Assam, India to 8848 m elevation in Nepal. The proximity to the tropics and the variety of vegetation types clothing these mountains has enabled their colonisation by a vast variety of creatures. The distribution of many of these is restricted to certain altitudinal belts. In the case of Troidine butterflies, the presence of their foodplants have been shown to be a major factor governing their altitudinal distribution (Smetacek, 2011).

The Indian Tortoiseshell Aglais caschmirensis (Kollar, [1844]) is a species of nymphalid butterfly found in the northern regions of the Indian subcontinent, primarily in the Himalaya from Kashmir to Arunachal Pradesh (Kehimkar, 2016). Irungbam et al. (2017) reported the species from Manipur. It has among the widest altitudinal distributions of any butterfly, being found from 400 – 5,360 m elevation (Kehimkar, 2016). The larval hostplants are species of Urtica L.

A specimen of the species was photographed at Miao (230 m), Changlang District, Arunachal Pradesh, on 30 May, 2019 around noon, when it was settling on cowdung outside a cowshed. Although the species is known to visit flowers, it usually does not settle on dung (Peter Smetacek pers. comm.)

The present record is around 170 m lower than its previous known lower limit mentioned by Kehimkar (2016). It is possible that the specimen photographed belongs to a resident population, since the larval hostplant, species of Urtica, grows abundantly in the area.

References
Irungbam, J., H. Huidrom & B. Soibam. 2017. Range extension of the Indian Tortoiseshell Aglais caschmirensis aesis (Fruhstorfer, 1912) Lepidoptera: Nymphalidae) into the hills of