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Response to "Talmale, S.S. & A.D. Tiple (2013). New records of damselfly *Lestes thoracicus* Laidlaw, 1920 (Odonata: Zygoptera: Lestidae) from Maharashtra and Madhya Pradesh states, central India" with a note on identification of *Lestes concinnus* Hagen in Selys, 1862 and *L. umbrinus* (Selys, 1891)

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Lestes thoracicus Laidlaw, 1920 is said to be confined to Orissa, Bengal and Bihar in India according to Fraser (1933). Talmale & Tiple (2013) in the manuscript New records of damselfly *Lestes thoracicus* Laidlaw, 1920 (Odonata: Zygoptera: Lestidae) from Maharashtra and Madhya Pradesh states, central India have enumerated characters of *Lestes thoracicus* which none of the specimens actually exhibit, as follows from their own photos. Identity of their specimens, as well as Indian records of *Lestes umbrinus* (Selys, 1891), are discussed below.

The species *L. thoracicus* is best described by Asahina (1985: 2–13) "The dorsal side of head darkened but the labrum, anteclypeus, base of mandible and genae whitish. Postclypeus is only darkened at the posterior half. Pterothorax pale bluish olive with two small spots on metepisternum. Wings hyaline with pale brownish venation, pterostigma is remarkable with central black marking surrounded by paler area.

Abdomen mat black dorsally, sides pale bluish olive from 2 to 6th segments, distal segments almost mat black, only the last segment shows some yellowish pattern. Superior appendage largely brownish with distal dark portion. Inferiors extending beyond the subbasal spine of the superior and is furnished with apical brush." Fraser (1933) gives the keys to differentiate the female of *L. thoracicus* as, "The female resembles that of *Lestes umbrinus* (Selys, 1891) rather closely, but distinguished by the head marked with black and by the pterostigma bordered outwardly only with pale brown". The most obvious character in general is a dark middorsal line in last three abdominal segments in both sexes in *Lestes concinnus* Hagen in Selys, 1862, in *L. thoracicus* the middorsal line is only on the last segment of abdomen accompanied on both sides by two spots. Another striking difference is that the pterostigma is unicolorous with pale brown colour in the specimens in the manuscript, whereas in *L. thoracicus* it's dark with pale brown outline only.

The anal appendage figures in Talmaly & Tiple (2013) best match with figures of *L. concinnus* Hagen in Selys, as depicted by Asahina (1985) and Lieftinck (1960). Identification by Talmaly & Tiple (2013) was based on denticulations of the inner lobe of the cercus, not shown in the *L. unbrinus* drawing by Fraser (1933). Actually the denticulations are present in both *L. umbrinus* and *L. concinnus* which are closely related, as is well shown by Lietinck (1960). It is not a key to differentiate between these three *Lestes* species. Another point to note is the tips of the cerci are prominently dark in *L. thoracicus.*

There used to be uncertainty about the taxonomic status of the species *L. umbrinus* and *L. concinnus*. To quote Fraser (1933), "Laidlaw is of opinion that it is synonymous with *L. concinnus* Selys, form the Philippines and Java; after carefully comparing the description of the species with *L. umbrina,* I feel inclined

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to share his opinion. If, as he says, Selys had compared the two insects he would probably have hesitated before describing *L. umbrina* as a separate species; the shape of the anal appendages and the markings of segments 8–10 in the female do not differ from *L. concinna.*"

To add to this, M.A. Lieftinck (1934) synonymised these two species and after that these two species were considered synonyms with *Lestes concinnus* having the preference until 1960; he himself restored the status of these two species in his manuscript 'On the Identity of some little known Southeast Asiatic Odonata in European Museums Described by E. De Selys Longchamps with descriptions of new species' (Lieftinck 1960) after studying the types and original descriptions of these two species. He put forth two very important differences between these two species, viz., the shape of pterostigma and anal appendages. The cell of pterostigma is more elongated in *Lestes umbrinus* than in *L. concinnus.* In *L. umbrinus,* the apical portion of the cerci of the male is less abruptly bent than in *L. concinnus*. Also, the paraprocts are more widely divaricate and are almost concealed when seen from dorsal view in *L. umbrinus,* whereas in *L. concinnus* they are invariably exposed and well visible when seen from above. After considering this characters and figures depicted by Lieftinck we can positively reach to a conclusion that the specimens collected by Talmale & Tiple (2013) are of *L. concinnus.*

L. concinnus has been reported from Andra Pradesh, Gujarat, Maharashtra, Meghalaya, Uttar Pradesh and West Bengal. It is wide spread species in peninsular India and probably co-occur with *L. umbrinus* (Subramaniam 2013, pers. comm.). From outside Indian borders it has been reported from a wide range of localities.

Lestes umbrinus has been reported from India from: Allahabad (Laidlaw 1920), Nagpur (Laidlaw 1920), Waltair (Laidlaw 1920), Cutch (Fraser 1930, 1933), Duars, West Bengal (Fraser 1933) and is generally considered widespread in India. From outside India it was reported from Myanmar, Thailand, and China. Some (if not nearly all) records of *L. umbrinus* are most likely to be misidentifications of *L. conccinus*. Already the records from China and Thailand are considered to be misidentifications (Hämäläinen & Pinratana 1999; Wilson & Xu 2007).

At present, the only reliable record of *L. umbrinus* (Selys, 1861) in the sense by Lieftinck (1960), fixed by his lectotype designation in the heterogenous type series of three specimens by Selys, is the couple represented by the male lectotype itself and the female paralectotype. Noteworthy that even the type locality of this taxon is unclear: Lieftinck (1960: 230–231) provided the following

Lestes thoracicus	*Lestes concinnus*
Mid-dorsal line on last two segments accompanied by two spots on either side of the line on the last segment.	Dark mid-dorsal line on last three segments.
Pterostigma dark with pale outline.	Pterostigma uniformly pale brown.
Tip of the cerci dark.	Cerci uniformly coloured.
Dorsum of the head jet black	Dorsum of head dark brown.

information about this couple: "... a small label with Atkinon's? writing (which reads as Parishatt, Pashinath, or Pasighat, but not Pamizah). ... The locality "Pamizah" was later supposed by Fraser to be in Bengal, but the writing on the label is undecipherable (There is the place named Pasighat in eastern Pakistan, near Sadiya at the Brahmaputra, north of the Naga Hills).

All this means that the records of *L. umbrinus* also need reviewing and future researchers need to take a note of it. After more research has been done on the current status of *L. umbrinus* and *L. concinnus* then we will be able to further comment on stability of *L. umbrinus* as a different species. Also, with the example of this manuscript the records of *L. thoracicus* from India also need a review

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