

## A new *Enithares* (Insecta: Heteroptera: Notonectidae) from India

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### Abstract

The backswimmer *Enithares unguistigris* sp.n. from the Indian State of Rajasthan is described. It is closely related to *Enithares mandalayensis* DISTANT, 1910 and *E. uncata* LUNDBLAD, 1933 with which it is compared.

**Key words:** Nepomorpha, Notonectidae, water bug, backswimmer, new species, India

### Zusammenfassung

Die Rückenschwimmerart *Enithares unguistigris* sp.n. wird aus dem indischen Staat Rajasthan beschrieben. Sie wird mit den nahe verwandten Arten *Enithares mandalayensis* DISTANT, 1910 und *E. uncata* LUNDBLAD, 1933 verglichen.

### Introduction

When in his outstanding work, Dr. Ivor Lansbury revised the Oriental species of the backswimmer genus *Enithares* SPINOLA, 1837 (LANSBURY 1968) he recorded five species for the fauna of the Indian mainland plus one species, *Enithares rogersi* DISTANT, 1910, from the Nicobar and Andaman Islands. Of the five mainland species, three are endemic in the south (*Enithares fusca* BROOKS, 1948, *E. hungerfordi* BROOKS, 1948, *E. triangularis* (GUÉRIN-MÉNEVILLE, 1844)), one occurs from the Arabian Peninsula to northern India (*Enithares lineatipes* HORVÁTH, 1889), and one is wide-spread all over tropical Asia (*Enithares ciliata* (FABRICIUS, 1798)). In his check-list of the true water bugs of India, THIRUMALAI (2007) added two species: He recorded the southeast Asian species *Enithares mandalayensis* DISTANT, 1910 from two states in northeastern India and – citing a personal information by J.T. Polhemus – the Burmese species *E. intha* PAIVA, 1918 from Meghalaya. Here I describe a new species from northwestern India which is related to *Enithares mandalayensis* and *E. uncata* LUNDBLAD, 1933.

### Material and methods

The type material is dry mounted on card boards. The holotype is deposited in the National Museum Prague, the paratypes in the P. Šrámek Private Collection, Jilemnice, Czech Republic (one male and one female) and in the Natural History Museum Vienna (one male). For comparison I used specimens of *E. mandalayensis*, *E. uncata*, and *E. sinica* housed in the Natural History Museum Vienna.

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The stacked digital image was taken with a Leica DFC camera attached to a Leica MZ16 binocular microscope and processed with the help of Leica Application Suite. It was then stacked with ZereneStacker 64-bit and processed with Adobe Photoshop 7.0.

*Enithares unguistigris* sp.n. (Figs. 1–9, 13)

**Etymology:** The specific epithet means “tiger’s claw” from the Latin *unguis* = claw and *tigris* = tiger and refers to the species-specific, strongly curved claw on the male’s middle leg. It is used as a noun in apposition.

**Type material:** Holotype and paratypes (two males, one female) labelled “N 27° 08’ 22” E 076° 20’ 38”\ INDIA BOR. OCC. Rajasthan st.\ Alwar distr., Naranimata env.,\ shadowy pool\ 29. 7. 2002, lgt. P. Šrámek”

**Description** (if no variation is given, measurements refer to holotype):

Size: Body length of males 7.48–7.56 mm (holotype: 7.48 mm), of female 7.35 mm. Maximum body width of males 2.86–2.93 mm (holotype: 2.88 mm), of female 2.81 mm. Head width of males 2.28–2.36 mm (holotype: 2.36 mm), of female 2.25 mm. Pronotum width of males 2.68–2.75 mm (holotype: 2.75 mm), of female 2.63 mm.

Colour (dorsal pattern see Fig. 1; see also comparative notes): Eyes reddish brown. Vertex yellowish, anteriorly with reddish tinge; in males vertex with pair of narrow black lines along eye margins. Pronotum yellowish, posteriorly with or without pale brown transverse band; posterior half of pronotal foveae infuscated. Mesoscutellum yellowish. Hemelytra pale yellowish or reddish, in centre strongly infuscated, at distal part of clavus almost black; sides and membrane paler, yellowish. Venter of head and lateral parts yellowish, medial parts brown to black; legs yellowish, variably infuscated.

Structural characters: Small, robust, parallel-sided species, tapering near end of abdomen. Head large, in dorsal view rounded, vertex anteriorly slightly bulging (Fig. 1). Greatest width of vertex 0.44 times head width, synthlipsis 0.18 times head width. Head length slightly greater than anterior width of vertex and about one-fourth greater than medial pronotum length (slightly less in female). Nodules on sides of labrum distinct (much more prominent in males). Pronotum width approximately three times medial pronotum length, in males 2.86–2.97 times, in female 3.08 times). Lateral margins of pronotum strongly diverging, posterior margin almost straight. Dorsal margin of pronotal fovea directed straight caudad before turning lateral. On hemelytron, embolium extremely slender; nodal furrow curved cephalad, less than its own length removed from membranal suture. Metaxiphus subtriangular (Fig. 6). Both meso- and metafemora with basal depression (corresponding with embolar margin of forewing).

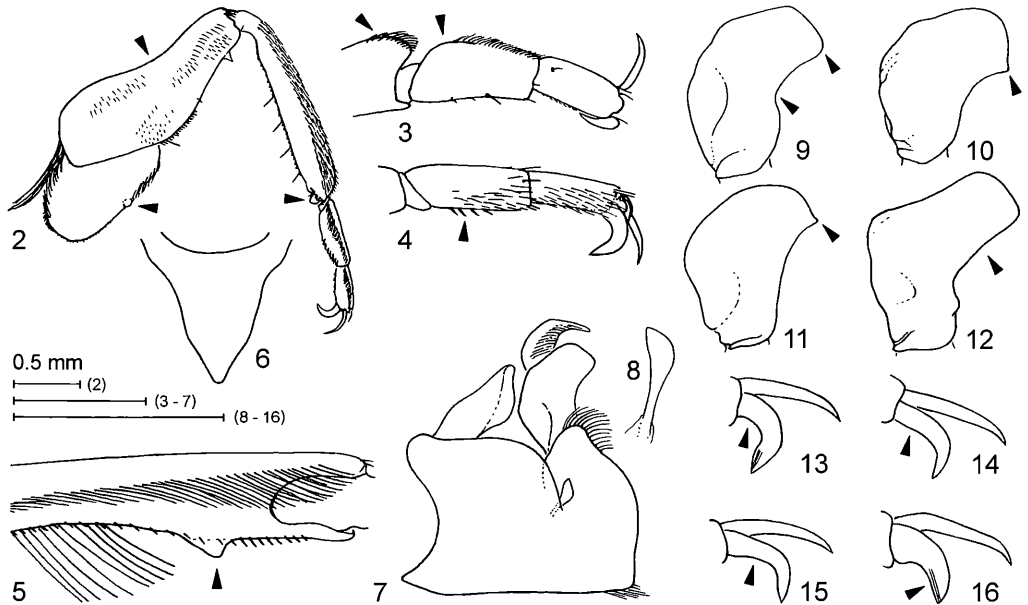
Male: Protibia simple; protarsus only slightly expanded, first tarsomere 2.1 times as long as second and 3.0 times as long as wide. Middle leg (Fig. 2): Mesotrochanter rounded, but with weak prominence on caudal margin; mesofemur with small subapical spine; mesotibia with prominent apical spur; mesotarsus (Figs. 3, 4) distinctly expanded; first tarsomere with pilose, convex ventral outline, and with curved row of ca. 6–7 black spines. Outer claw of mid-leg (Fig. 13) thickened, strongly and evenly curved inwards, apically crenate. Metafemur with distinct, tooth-like subapical expansion.

Male genital capsule as in Figure 7. Parameres (Fig. 8) very small and slender. Lateral arms of basal plate of aedeagus as in Figure 10.

Fig. 1: Habitus, dorsal aspect, of *Enithares unguistigris* sp.n., male paratype.



**Comparative notes:** *Enithares unguistigris* sp.n. is closely related to two other small species (body length 6.7–8.0 mm), *E. mandalayensis* DISTANT, 1910 from the south-eastern Asian mainland (from northeastern India and Myanmar to Vietnam and the Malay Peninsula; LANSBURY 1967, THIRUMALAI 2007) and *E. uncata* LUNDBLAD, 1933 from Sumatra, Java, and Borneo (LUNDBLAD 1933, ZETTEL & al., in press). These three species share specific characteristics in the males: anteriorly concave mesofemur (also in females); spur at the distal end of the mesotibia; subapically dilated metafemur; and, most distinct of all, a thickened and strongly curved outer claw on the middle leg. Next relative of this group is probably *Enithares sinica* (STÅL, 1854) with a similarly thickened and (less) curved claw, but specimens of larger size (body length 8.2–9.5 mm), male with large metafemoral spur and without mesotibial spur. The male of *Enithares intha* has a thickened, but almost straight outer claw (LANSBURY 1973) and is also comparatively large. The male of *E. unguistigris* sp.n. is distinguished from *E. mandalayensis*, *E. uncata* and *E. sinica* by the shape of the outer claw of the middle leg (comp. Figs. 13–16), by the lateral arms of basal plate of aedeagus (comp. Figs. 9–12), and by a slightly greater, tooth-like expansion of the metafemur (Fig. 5); and from *E. mandalayensis* also by the slender shape of the paramere (Fig. 8). The females of the three species, *E. unguistigris*, *E. mandalayensis* and *E. uncata*, are difficult to separate (*E. sinica* differs by size). However, in both sexes the head of *E. unguistigris* sp.n. is slightly wider than in *E. mandalayensis* and *E. uncata* (if compared with pronotum width). Measurements of the ratio (head width / pronotum width) are 0.85–0.86 in *E. unguistigris* sp.n. (n = 4), 0.79–0.83 in *E. mandalayensis* (n = 20) and 0.80–0.84 in *E. uncata* (n = 5). The colour



Figs. 2–16: Morphological characters of males of (2–9, 13) *Enithares unguistigris* sp.n., (10, 14) *E. mandalayensis*, (11, 15) *E. uncata*, and (12, 16) *E. sinica*: (2) Left foreleg. (3, 4) Right mesotarsus, two aspects. (5) Distal part of right metafemur showing subapical tooth. (6) Metaxiphus, ventral aspect. (7) Genital capsule, lateral aspect. (8) Left paramere, lateral aspect. (9–12) Lateral arms of basal plate of aedeagus, lateral aspect. (13–16) Claws on middle leg.

of the type specimens of *E. unguistigris* sp.n. appears very distinguishing. However, I have seen a female of *E. ciliata* (FABRICIUS, 1798) of similar colour from the same collection (but another locality), so that I suspect that this unusual tinge might be a result of a specific preservation.

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