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THREE NEW SPECIES OF ODONATOUS INSECTS IN THAILAND. III. *IDIONYX THAILANDICA* SPEC. NOV. (ODONATA : CORDULIIDE)

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I. thailandica sp. n. (holotype ♂, allotype ♀: Khao Yai National Park, Nakhon Ratchasima prov., 13/14–VI–1984) is described, illustrated and compared with *I. yolanda* Sel.

INTRODUCTION

Idionyx Selys, 1870, is an oriental genus with over twenty known species. So far three have been reported from Thailand. Our dragonfly material collected in Nakhon Ratchasima province, central Thailand, In June 1984 includes a new species of the *yolanda*–group.

DESCRIPTION

IDIONYX THAILANDICA SP. N.

Material.–Holotype: ♂, Vicinity of Huey Lam Takhong stream at the headquarters of Khao Yai National Park, Nakhon Ratchasima province, Thailand 14 June 1984. –Allotype ♀, from exactly the same spot as the holotype (a tiny rainwater pit, at short distance from the steep, forested bank of the

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river), 13 June 1984. Both specimens collected by M. Hämäläinen and P. Kamnerdratana. Holotype deposited in the Museum of Zoology, University of Helsinki : allotype in the author's collection.

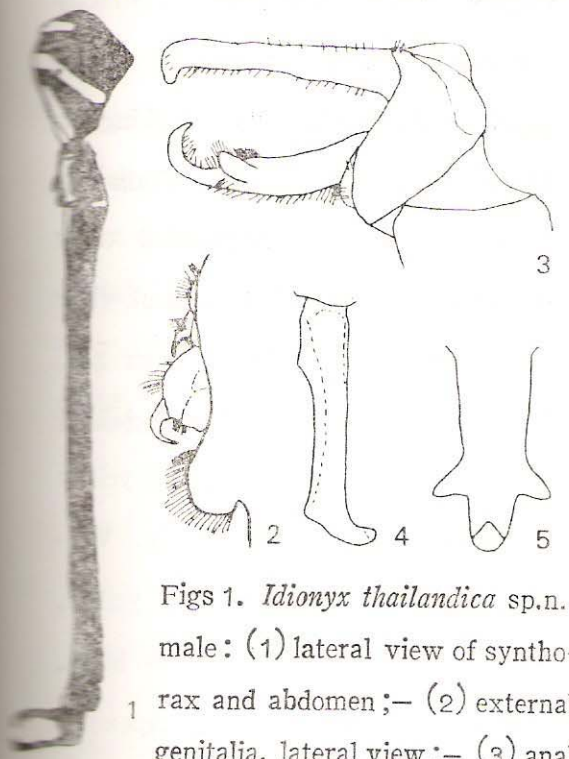
MALE –Head. –Eyes dull green. Labium yellowish–brown. Mandibles black at base, yellowish apically. Labrum brigth lemon-yellow, its anterior and posterior margins narrowly bordered witn brown. Anteclypéus shining deep brown with a large medial yellowishgray triangle tapering upwards. Postclypeus, frons and vertex black, with metallic green lustre, furnished with plenty of dark hairs. Anterior surface of frons coarsely wrinkled. Vertex low and convex, surface punctate. Antennae brown. Occipital triangle black. Rear of head entirely black.

Thorax. –Prothorax brown, except for the whitish–yellow anterior lobe and the yellow posteroventral corner of the median lobe. Synthorax metallic dark green : dorsal carina, mesothoracic collar and acuto–alar triangles dull black, not metallic. Sides of synthorax marked with bright lemon –yellow bands as in Figure 1. Synthorax beneath black and dark brown with yellow markings as in *I. yalonda*

Legs. –First pair with coxa, trochanter and most of tibia yellow and femur dark brown, its lower surface paler. Secound pair with most of coxa, trochanter and tibia yellow, femur dark brown. Third pair dark brown, only the posterior part of coxa and tibia yellowish.

Wings. –Hyaline, diffusely tinted with yellowish–brown all over the wing membrane. Nodal index 6.14 : 8.9/ 14.6 : 9.8. Pterostigma black, short, covering two or little less than two cells. Hypertrigone crossed once in fore and hind wing. Two cubito–anal crossveins in in hind wing. Anal loop made of 9 cells. Membranula pale brown. Discoidal field with a row of 12–13 single cells in fore wing and 6–7 single cells in hind wing followed by multiple cells.

Abdomen. –Markedly expanded dorsally in segments 2–3 unlike in *I. yolanda*. Segments 7–9 distinctly expanded laterally, much more profoundly than in *I. yolanda*. Apex of segment 8 nearly twice as broad as apex of segment 6. Black, basal three segments shining. Bright yellow markings on side as in Figure 1. Intersegmental rings 1–2 and 2–3 mostly yellow, rings 3–8 obscurely yellowish, a clear small yellow spot middorsally in rings 3–4, 4–5 and 5–6. A distinct yellow middorsal stripe extending along the apical 4/5 of segment 2. In segments 3–6 only a very narrow and obscure pale yellow middorsal line. Ventral margins in segments 4–6 narrowly yellow, in segments 3 and 7–9 more broadly yellow colour visible from lateral view in the basal part of segment 3 and in segment 9. Segment 10 all black, raised and forming a middorsal crest. Apex of auricles shining black. External genitalia shaped as in Figure 2; blackish–brown, anterior hamulus and part of the apical hook of posterior hamulus reddish–brown. Posterior lobe furnished with a tuft of golden hairs. Anal appendages black, long and narrow, resembling those of *I. yolanda* However, the lateral hooks in the inferior appendage are more robust than in *I. yolanda*.



Figs 1. *Idionyx thailandica* sp.n., male : (1) lateral view of synthorax and abdomen ;– (2) external genitalia, lateral view ;– (3) anal appendages and the 10th abdominal segment, lateral view ;– (4) shape of left superior appendage, dorsal view ; – (5) shape of inferior appendage, dorsal view.

Measurements (mm). –Abdomen (incl. appendages) 32, hind wing 29.

FEMALE – Head similarly coloured as in male. Frons and vertex shaped as in Figure 2.

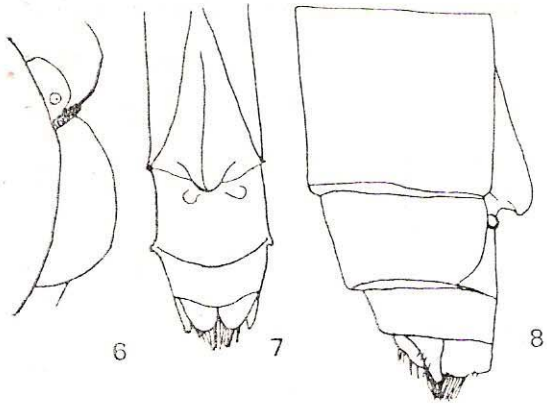


Fig. 2. *Idionyx thailandica* sp.n., female: (6) shape of frons and vertex, lateral view (hairs excluded); – (7) apex of abdomen, ventral view; – (8) apex of abdomen, lateral view.

Synthorax as in male. However, the yellow band crossing the spiracle bends slightly posteriorly at its upper end.

Legs as in male.

wings hyaline, clear. Base of fore and hind wing yellowish apically to the level of the fourth antenodal vein. In hind wing the yellow colour at base extends from costa to the first cell-row below the cubital space. Nodal index 7.13 : 9.9/13.7 : 9.9. Hypertrigone crossed once in fore and hind wing. Two cubito-anal crossveins in hind wing. Pterostigma black, covering a little more than two cells. Anal loop consists of 10-11 cells; 11-13 single cells in the discoidal field in fore wing and 5-6 in hind wing.

Abdomen of the typical compressed type, apical segment only slightly expanded laterally. Segment 2 distinctly expanded dorsally just apically to the jugal suture. Black, yellow markings on side of segmente 1-2 quite similar to those in male. Intersegmental rings coloured as in male, but without clear yellow middorsal spots in rings 3-6. Middorsal yellow stripe in segment 2 narrower than in male. Middorsal yellow line in segments 3-7 as in male. Ventral margin of segments 3-8 yellow. Valvula vulvae and appendages black, shaped as in Figures 7-8. Apex of abdomen furnished with a tuft of golden hairs.

Measurements (mm). – Abdomen 29, hind wing 30.

DISCUSSION

1. thailandica is somewhat larger and more robust than *1. yolanda*. Males can be easily separated by the shape of the abdomen and by differences in external genitalia and in anal appendages. Anal appendages and genitalia of *1. yolanda* are well illustrated by Lieftinck (1939).

Females of *Idionyx* are much more difficult to separate than males; those of *thailandica* ane *yolanda* are quite similar. They may be separated by the shape of the yellow band crossing the spiracle. In *1. yalanda* the band narrows from the spiracle upwards and turns slighty anteriorly at its upper end. In *1. thailandica* the width of the band is more even, and it does not turn anteriorly. Further, in *thailandica* the metallic green band, covering part of the metepimeron, is evenly widened from near the anterior corner of the metepimeron upwards, whereas in *yolanda* the metallic green band is distinctly angulate at a point just dorsal to the middle of its length.

REFERENCE

Lieftinck, M.A., 1939. Critical notes on the Malaysian species of Idionyx, Hegen (Odon). *Treubia* 17 : 199–204.