

SHORT COMMUNICATION

M. G. Krivosheina. THE SHORE FLIES OF THE GENUS *BRACHY-DEUTERA* LOEW, 1862 (DIPTERA, EPHYDRIDAE) OF THAILAND. – Far Eastern Entomologist. 2010. N 212: 7-11.

М. Г. Кривошеина. Мухи-береговушки рода *Brachydeutera* Loew, 1862 (Diptera, Ephydriidae) Таиланда // Дальневосточный энтомолог. 2010. N 212. С. 7-11.

The genus *Brachydeutera* Loew, 1862 belongs to the tribe Dagini of subfamily Ephydrinae (Diptera, Ephydriidae) [3]. It includes 16 species of shore flies distributed in the world but more typical for the southern regions: seven species are known as Afrotropical, six species – as Australasian/Oceanian, three species – as Oriental, and few species are recorded from Nearctic, Palaearctic and Neotropical Regions. A review of the genus *Brachydeutera* of Thailand is proposed below. The three species are recorded: *B. hardyi* Wirth, 1964, *B. longipes* Hendel, 1913 and *B. pleuralis* Malloch, 1928. The latter species is registered in Thailand for the first time. I express my sincere thanks to Dr. Andrey L. Ozerov and Dr. Nikita E. Vikhrev (Zoological Museum Moscow State University) for the material on Ephydriidae collected in Thailand and discussed in this paper.

Genus *Brachydeutera* Loew, 1862

DIAGNOSIS. The genus *Brachydeutera* is one of the remarkable genera of Ephydriidae: the combination of brown dorsal and silvery-white ventral coloration of the body, prominent facial carina, protruding clypeus, long rays of arista, short costal vein of wing extended to R_{4+5} only (Fig. 1) in addition to its habitats: adults are accomplished water-skaters on the surface of small quiet bodies of water – don't allow to have doubts as to its generic determination.

Small to large flies with body length 1.45-5.35 mm. Frons wider than long, laterocline *fr-or* 2-3, both *vie* and *vii* present, *oc* proclinate and divergent. Face generally bare, facial hairs weak. Medial carina is vertical, prominent, clypeus protudent, grey or brown. Arista with long 6-12 rays. Thorax is brown dorsally, silvery-white ventrally. Brown coloration on anepisterna is sharply delimited in some species from pale grey coloration of ventral pleural areas or brown coloration of scutum gradually becomes paler laterally, merging with pale grey pleural coloration. Anterior *npl* seta is absent or present. Wings hyaline or brownish, costal vein extended to R_{4+5} only, vein R_{2+3} short, as a result costal vein ratio is about 3 : 1. Scutellum from 1.3 to 2 times wider than long. Scutellar setulae weak and sparse or strong and numerous. Abdomen silvery or partly brown dorsally, silvery-white ventrally, flat in females and convex in males.

Natural history. All the species of *Brachydeutera* seem to have the same habits: imagoes are excellent water-skaters and abundant in relatively stable sites – small pools or shallow ponds where there is a considerable pollution and much organics (Fig. 2). We discovered the flies *Brachydeutera ibari* Ninomiya, 1929 in the wayside ditch filled with sewage and duck excrements, the larvae developed successfully in it [1]. In Thailand the flies were taken from the surface of open sewage water near hotel laundry. No larvae were discovered in it.

Key to Thailand species of the genus *Brachydeutera*

1. Brown coloration of upper anepisternum is sharply delimited from pale grey coloration of ventral part of anepisternum. Crossvein *m-cu* forms oblique angle with *CuA*₁ ***B. hardyi* Wirth, 1964**
- Brown coloration of scutum gradually becomes paler laterally, merging with pale grey pleural coloration. Crossvein *m-cu* nearly perpendicular with *CuA*₁ 2
2. Scutellar width 1.3 times of its length. Fused surstyli long, slender with apex rounded ***B. longipes* Hendel, 1913**
- Scutellar width 2.0 times of its length. Fused surstyli short, wide, apex bifid ***B. pleuralis* Malloch, 1928**



Fig. 1. *Brachydeutera pleuralis*, male, general view (Photo by A. Ozerov).

***Brachydeutera hardyi* Wirth, 1964**

Figs 0-00

MATERIAL. 2 ♂, 2 ♀, Thailand: Chong Buri, Jomtien (12.864786°N, 100.897867°E) 05.II 2009, N.Vikhrev leg.; 1 ♂, 8 ♀, Thailand: Khao Yai National Park (14.437506°N, 101.376536°E), 10.II 2009, 11.II.2009, N.Vikhrev leg.

NOTES. The species is easily distinguished by sharply divided brown-grey coloration on anepisternum and inclined crossvein *m-cu*. Male terminalia: apex of epandrium + fused surstyli broadly rounded (Fig. 3).

DISTRIBUTION. Australasian/Oceanian: Micronesia, Papua New Guinea, Solomon Islands. Oriental: India, Malaysia (Mathis, Zatwarnicki, 1995), Thailand.

Thailand as an area of distribution of this species was given in the work by Mathis & Ghorpade [2], but later excluded for some reason in the World Catalogue [3]. So we can confirm now the distribution of this species in Thailand.



Fig. 2. Imagoes of *Brachydeutera* sp., feeding on water surface (Photo by N. Vikhrev).

***Brachydeutera longipes* Hendel, 1913**

MATERIAL. 2 ♂, 1 ♀, Thailand: Chong Buri, Jomtien (12.864786°N, 100.897867°E) 05.II 2009, A.L.Ozerov leg.; 4 ♂, 3 ♀, Thailand, Sa Kaeo, (13.770678°N, 102.069779°E, 09.II 2009, A.L.Ozerov leg.; 4 ♀, Thailand, Phuket (North part) 15, 20, 26. II 2009, N. Vikhrev leg.; 1 ♀, Thailand: Khao Yai National Park (14.437506°N, 101.376536°E), 10.II 2009, 11.II 2009, N.Vikhrev leg.

NOTES. The species can be surely determined by the absence of sharp border of brown-grey coloration on anepisternum, narrow scutellum and the structure of male terminalia: fused surstyli long and slender (Fig. 4).

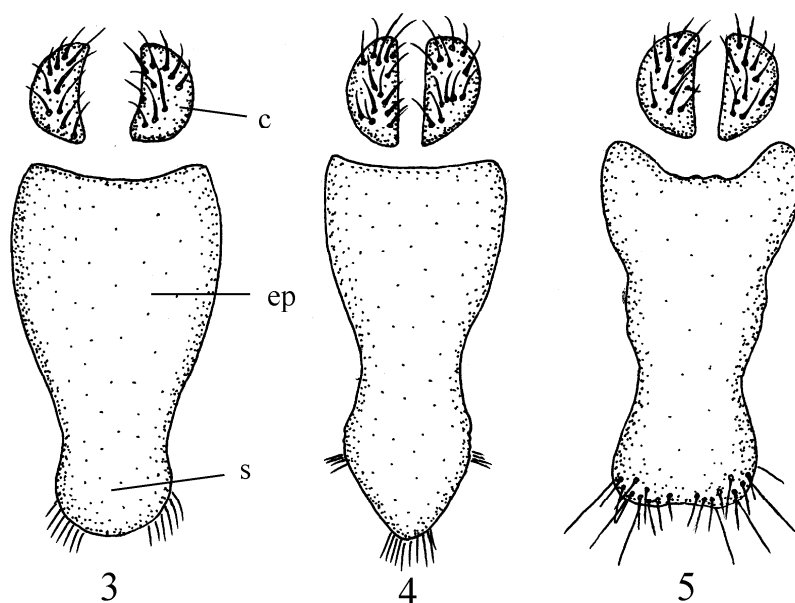
DISTRIBUTION. The most widely distributed species of the genus, known from Afro-tropical, Nearctic, Neotropical, Palaearctic and Oriental (including Thailand) Regions [3].

***Brachydeutera pleuralis* Malloch, 1928**

MATERIAL: 2 ♂, 3 ♀, Thailand: Chong Buri, Jomtien (12.864786°N, 100.897867°E) 05.II 2009, A.L.Ozerov and N. Vikhrev leg.; 1 ♀, Thailand: Khao Yai National Park (14.437506°N, 101.376536°E), 11.II 2009, N.Vikhrev leg.

NOTES. This species is characterized by grey coloration of anepisternum, wide scutellum and the structure of male terminalia: fused surstyli seem to be slightly bifid at apex (Fig. 5).

DISTRIBUTION. Afrotropical Region: Cape Verde, Madagascar, South Africa (Transvaal), Tanzania. Australasian/Oceanian Region: Australia (Northern territory, Queensland). Oriental Region: India, Malaysia, Vietnam [3]. Herein this species is registered for the first time from Thailand.



Figs 3-5. Details of the structure of male genitalia of *Brachydeutera* species: 3) *B. hardyi* Wirth; 4) *B. longipes* Hendel; 5) *B. pleuralis* Malloch. Abbreviations: *c* – cercus; *ep* – epandrium; *s* – fused surstyli.

1. Krivosheina, M.G. 1988. Morphology of preimaginal stages of *Brachydeutera ibari* Nino-miya and *Cnestrum lepidopes* Becker (Diptera, Ephydriidae). *Bull. Moscow. Soc. Natur. Section Biological*, 93(3): 49–54. (In Russian).
2. Mathis, W.N. & Ghorpade, K.D. 1985. Studies of Parydrinae (Diptera: Ephydriidae), I: A Review of the genus *Brachydeutera* Loew from the Oriental, Australian and Oceanian Regions. *Smithsonian Contribution to Zoology*, 406: 1–25.

3. Mathis W.N. & Zatwarnicki, T. 1995. World Catalog of shore-flies (Diptera, Ephydriidae).
Memoirs on Entomology. International, 4: 1–423.

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