

## Correspondence

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E. A. Makarchenko<sup>1,\*</sup>, X. Wang<sup>2</sup>. *PAGASTIA TIANMUMONTANA* SP. N. – A NEW SPECIES OF CHIRONOMIDS (DIPTERA: CHIRONOMIDAE: DIAMESINAE) FROM SOUTH CHINA. – *Far Eastern Entomologist*. 2017. N 336: 13-15.

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**Summary.** *Pagastia* (s. str.) *tianmumontana* Makarchenko et Wang, sp. n. is described on the base of adult male from the Tianmu Mountain Natural Reserve in South China. New species is closely related to the East-Palaeartic *Pagastia* (s. str.) *lanceolata* (Tokunaga, 1936) and can be separated from later by shape of anal point and gonostylus of hypopygium and by some other features.

**Key words:** Diptera, Chironomidae, Diamesinae, *Pagastia*, taxonomy, new species, China, Oriental region.

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**Резюме.** Из природного заповедника «Горы Тяньму» в Южном Китае по имаго самцу описан новый для науки вид *Pagastia* (s. str.) *tianmumontana* Makarchenko et Wang, sp. n. Новый вид наиболее близок восточнопалеарктическому *Pagastia* (s. str.) *lanceolata* (Токунэга, 1936), от которого отличается формой анального отростка гипопигия и гоностилиа, а также рядом других признаков.

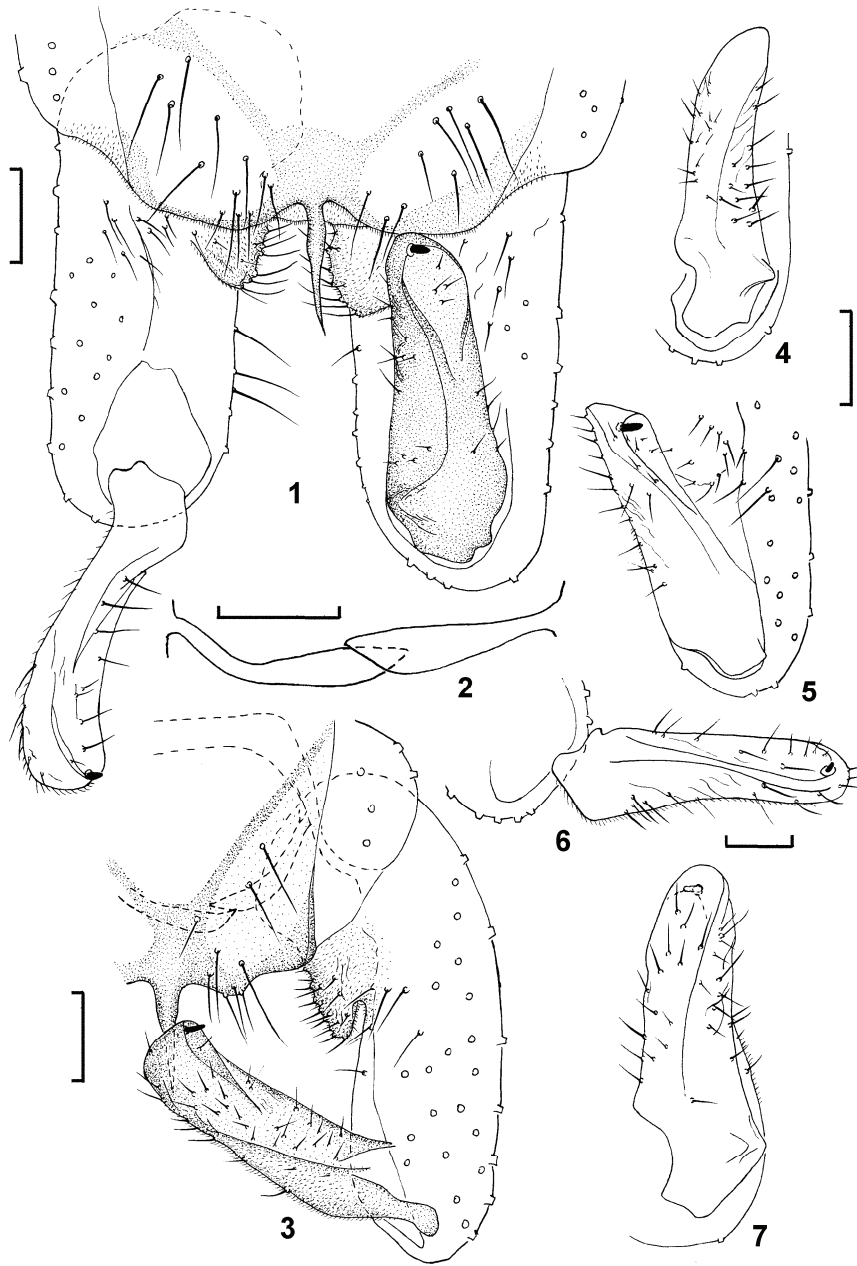
The genus *Pagastia* Oliver, 1959 is divided into two subgenera. The subgenus *Hesperodiamesa* Sublette, 1967 including one species, *H. sequax* (Garrett, 1925) from Canada. The subgenus *Pagastia* s. str. consists of six Palaeartic species, two Nearctic species, and two Oriental species (Makarchenko & Makarchenko, 2000; Ashe & O'Connor 2012). The description of a new species of the nominotypical subgenus from Oriental part of China is given below.

Material was fixed in 70% ethanol and mounted in Canadian Balsam. Morphological terminology follow Sæther (1980) and Makarchenko (1985). Holotype and paratypes are deposited in collection of the Nankai University, Tianjin, China.

### DESCRIPTION OF NEW SPECIES

*Pagastia* (s. str.) *tianmumontana* Makarchenko et Wang, sp. n.  
Figs 1–7

TYPE MATERIAL. Holotype – male, **People's Republic of China:** Tianmu Mountain Natural Reserve, Tianmu Mountain, Zhejiang Province, Xinchang County, light trap, 11.XI 1998, leg. Hong Wu. Paratypes: 5 males, the same data as holotype, leg. Hong Wu.



Figs 1–7. Details of the hypopygium structure of *Pagastia* (s. str.) *tianmumontana* sp. n. 1, 3 – hypopygium, dorsal view; 2 – lateral aedeagal lobes of phallopodemes; 4–7 – gonostylus in various positions. Scale bar 50  $\mu$ m.

DESCRIPTION. ADULT MALE (n = 4, except when otherwise stated). Total length 3.8–4.6 mm (n=5). Wing length 2.54–3.04 mm. Total length/wing length 1.45–1.52 (n=5).

Coloration. Head and thorax dark brown. Antenna yellowish. Abdomen and legs brown to dark brown.

Head. Eyes without hair. Temporal setae including 7–12 (n=4) orbitals, 6–12 postorbitals (n=5) and 6–19 inner verticals. Clypeus with 10–20 setae. Antenna with 13 flagellomeres and with well developed plume. Length of subapical seta of terminal flagellomere 30–46  $\mu$ m. AR 2.18–2.42 (n=5). Lengths ( $\mu$ m) of palpomeres 1–5: 30–42 (n=5) : 57–91 : 146–186 : 152–228 : 203–289 (n=5). Head width / palp length 0.77–0.97 (n=4).

Thorax. Anteprepronotum with 2–4 (n=5) median setae and 2–12 lateral setae. Acrostichals 4–12, dorsocentrals 12–20 (n=5), often with 2 rows, sometimes only with 1 row. Prealars 4–17. Scutellum with 11–28 setae. Length ( $\mu$ m) of the longest and the shortest acrostichals: 42–72 (n=5) : 30–46 (n=4).

Wing. Wing width 0.65–0.84 mm. Anal lobe well developed and with full fringed setae. Squama with 34–45 setae. R with 21–30 setae, R<sub>1</sub> with 11–19 setae, R<sub>4+5</sub> with 12–24 setae. RM/MCu 2.80–3.50.

Legs. BR<sub>1</sub> 3.53–3.75, BR<sub>2</sub> 3.08–3.33, BR<sub>3</sub> 4.13–4.50. Spur of front tibia 32–44  $\mu$ m. Spurs of middle tibia 26–38  $\mu$ m and 32–44  $\mu$ m long, of hind tibia 34–44  $\mu$ m and 56–72  $\mu$ m long. Hind tibial comb with 10–13 setae. Middle ta<sub>1</sub> with 1 pseudospur 24–28  $\mu$ m long, hind ta<sub>1</sub> with 1 pseudospur 22–28  $\mu$ m long. Length ( $\mu$ m) and proportions of legs segments are as follow:

P	fe	ti	ta <sub>1</sub>	ta <sub>2</sub>	ta <sub>3</sub>	ta <sub>4</sub>	ta <sub>5</sub>	LR	BV	SV
P <sub>1</sub>	1026–	1140–	912–	456–	304–	171–	114–	0.80–	2.20–	2.17–
	1216	1406	1159	741	380	190	152	0.86	2.95	2.95
P <sub>2</sub>	1064–	1064–	532–	304–	209–	114–	114	0.48–	3.41–	3.82–
	1292	1292	646	380	304	133		0.52	3.84	4.03
P <sub>3</sub>	1140–	1292–	741–	380–	228–	114–	114–	0.57–	3.71–	3.12–
	1444	1596	950	475	285	152	133	0.60	4.07	3.37

Hypopygium (Figs 1–7). Tergite IX with 11–25 setae, length 95–120  $\mu$ m. Laterosternite IX with 14–23 setae. Transverse sternapodeme 76–99  $\mu$ m (n=4) long. Anal point 46–65  $\mu$ m (n=5) long, narrow, tapering to the top; in apical part without peg (Fig. 1). Phallapodeme only with lateral aedeagal lobe which weakly sclerotized and wide in distal part (Fig. 2). Gonostylus as in Figs. 4–7. Gonocoxite 209–258  $\mu$ m long. Gonostylus 144–171  $\mu$ m long. HR 1.34–1.71.

COMPARISON. Adult male of *Pagastia* (s. str.) *tianmumontana* sp. n. is closely related to the East Palearctic species *P.* (s. str.) *lanceolata* (Tokunaga, 1936) and can be separated from later by shape of anal point and gonostylus of hypopygium and by some other features. Anal point of *P.* (s. str.) *tianmumontana* sp. n. narrow, tapering to the top and in apical part without peg; gonostylus long, in basal part with outer angle-shaped projection. Anal point of *P.* (s. str.) *lanceolata* widest in basal part and thin in apical, pointed and often with peg; gonostylus shorter and without outer angle-shaped projection in basal part.

ETYMOLOGY. From name of the Tianmu Mountain in China where was collected type material of a new species.

DISTRIBUTION. Known only from type locality in Tianmu Mountain Natural Reserve, Zhejiang Province, China.

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## REFERENCES

- Ashe, P. & O'Connor, J.P. 2009. *A World Catalogue of Chironomidae (Diptera). Part 1. Buchonommyiinae, Chilenomeiinae, Podonominae, Aphroteniinae, Tanypodinae, Usambaromyiinae, Diamesinae, Prodiamesinae and Telmatogetoninae*. Irish Biogeographical Society & National Museum of Ireland, Dublin. 445 pp.
- Makarchenko, E.A. 1985. *Chironomids of the Soviet Far East. Subfamilies Podonominae, Diamesinae and Prodiamesinae (Diptera, Chironomidae)*. DVNC AN SSSR Press, Vladivostok. 208 pp. [In Russian].
- Makarchenko, E.A. & Makarchenko, M.A. 2000. Revision of *Pagastia* Oliver, 1959 (Diptera, Chironomidae) of the Holarctic region. P. 171–176. In: Hoffrichter O. (ed.). *Late 20th Century Research on Chironomidae: an Anthology from the 13th International Symposium on Chironomidae*. Shaker Verlag, Aachen.
- Sæther, O.A. 1980. Glossary of chironomid morphology terminology (Chironomidae, Diptera). *Entomologica Scandinavica*, Suppl.14: 1–51.

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