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Diamesa amanoi sp. п., a new species of Diamesinae (Diptera, Chironomidae) from Nepal, with notes on taxonomy and distribution of some *Diamesa* Meigen

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Abstract: A new species, *Diamesa amanoi* sp. п., from Mera La (alt. 5,050 m), Nepal is described. The present new species is most closely related to *D. subletti* Makarchenko from North America. *Diamesa plumicornis* Tokunaga which had been regarded as Japanese endemic species is newly recorded from South Korea, and *D. pankratovae* Makarchenko et Bulgakov is recognized as a new synonym of *D. filicauda* Tokunaga.

INTRODUCTION

Up to the present time the Nepalese subfamily Diamesinae are represented by the following 15 species: *Boreoheptagyia rotunda* Serra-Tosio, *B.* sp., *Diamesa aberrata* Lundbeck, *D. barraudi* Pagast, *D. khumbugelida* Saether et Willassen, *D. koshimai* Saether et Willassen, *D. loeffleri* Reiss, *D. planistyla* Reiss., *D. praedpua* Saether et Willassen, *D. yalavia* Saether et Willassen, *Pagastia* sp. 1, *P.* sp. 2, *Pseudodiamesa branickii* (Nowick), *P. nepalensis* Reiss, and *P.* sp. 1 (Reiss, 1968; Roback and Coffman, 1987; Saether and Willassen, 1987; Serra-Tosio, 1983, 1989).

We described below the male of *Diamesa amanoi* sp. n. from Nepal and also adduced new data on taxonomy and distribution of *D. filicauda* Tokunaga and *D. plumicornis* Tokunaga from the Palaearctic region.

The terminology in the paper follows Hansen and Cook (1976) and Saether (1980). Holotype of *Diamesa amanoi* sp. n. is deposited in Natural History Museum and Institute, Chiba, Japan (registrated number: CBM-ZI 72725). Paratypes are deposited in Institute of Biology and Pedology, Far East Branch of Russian Academy of Sciences, Vladivostok, Russia.

Diamesa amanoi Makarchenko et Kobayashi, sp. n. (Figs. 1-5)

Male. General color dark brown. Body length 3.4-3.6 mm, body length/wing length 0.9-1.0.

Head. Eyes pubescent. Temporals 5-9, postorbitals 9, clypeals 4-8. Antenna with 13 flagellomeres, plumes reduced (Fig. 1). Pedicel with 2-3 setae 85.8 μm long. Length of subapical seta of terminal flagellomere 16.5-32.1 μm, length of flagellomere's setae 66-175 μm. AR 0.85-1.12. Length of last 4 maxillary palp segments (μm): 82.5 : 109 : 99 : 142. Head width/palp length 1.2. Diameter of sensilla capitata of maxillary palp 9.9-1.0 μm.

Thorax. Antepronotum with 3-4 ventrolateral setae. Dorsocentrals 5-8, prealars 4-5, scutellars 10-12.

Wing. Length 3.2-3.9 mm. R and R^1

Table 1. Length (urn) and proportions of legs.

P	f	t	ta_1	ta_2	ta_s	ta_4	ta_5	LR	SV	BV
P1	1363-1661	1470-1874	980-1193	533-660	277-383	85-107	107-128	0.63-0.67	2.87-3.02	3.62-4.09
P2	1598-1981	1427-1789	724- 937	405-533	213-298	85	107-128	0.49-0.55	3.93-4.18	4.5 -4.78
P_3	1598-1917	1619-1917	1044-1385	575-724	277-362	107	128	0.64-0.77	2.77-3.08	3.92-3.95

with 8-16, R_4+_5 with 2-4 macrotrichia. Squama with 23-27 setae.

Legs. BR 1 = 1.0-1.9, BR2 = 1.3-1.9, BR3 = 1.9. Front tibial spur length 42.9-59.4 µm, middle tibial spurs 36.3-46.2 and 39.6-46.2 µm, hind tibial spurs 56.1-59.4 and 56-59.4 µm long respectively (Table 1). Hind tibial comb consisting of 16-18 spines.

Hypopygium (Figs. 2-5). Tergite IX with 6-9 setae on each side. Laterosternite with 6-8 setae. Anal point 95.7-121.5µm long, with small terminal peg (Fig. 3). Medial field of gonocoxite well developed, with numerous microtrichia and setae particularly strong ventrally and with some short setae dorsally (Fig. 2). Basimedial setal cluster absent. Gonostylus bifurcated, with massive and blackish dorsal fork which in about 2.3 times longer of ventral fork; ventral fork small and narrow, with terminal spine (Figs. 4-5).

Female, pupa and *larva* are unknown.

Type material. Holotype: ♂, Mera La, Nepal, N27°43' 18", E86°54' 17", alt. 5,050 m, 10. VIII. 1995, M. Amano leg. Paratypes: 3 ♂♂, the same data as holotype, 10. VIII. 1995, M. Amano leg.

Etymology. Named in honour of Dr. M. Amano, Natural History Museum and Institute, Chiba, Japan, who collected this species in Nepal.

Remarks. Two species of *Diamesa* with bifurcate gonostylus have been known. These are *D. geminata* Kieffer from Holarctic and *D. subletti* Makarchenko from the Nearctic region (Makarchenko, 1986). *D. amanoi* sp. n. is most close to *D. subletti* from which can be easily separated by reduced antennal setae and different structure of gonostylus. Lobes of gonostylus in *D. subletti* are subequal in shape and length (Fig. 6); ventral (inner) lobe length/dorsal (outer) lobe length, 0.6-0.7; ventral lobe with terminal spine and tooth (Fig. 7). Dorsal lobe of gonostylus in *D. amanoi* sp. n. is massive, ventral lobe is small and narrow, with terminal spine only (Figs. 2, 4-5); ventral lobe length/ dorsal lobe length, 0.4.

Diamesa filicauda Tokunaga, 1966

Diamesa filicauda Tokunaga, 1966: 274, Figs. 2-6, ♂♀.

Diamesa pankratovae Makarchenko, et Bulgakov, 1986: 37, Figs. 1-2, ♂ PL. Syn. nov.

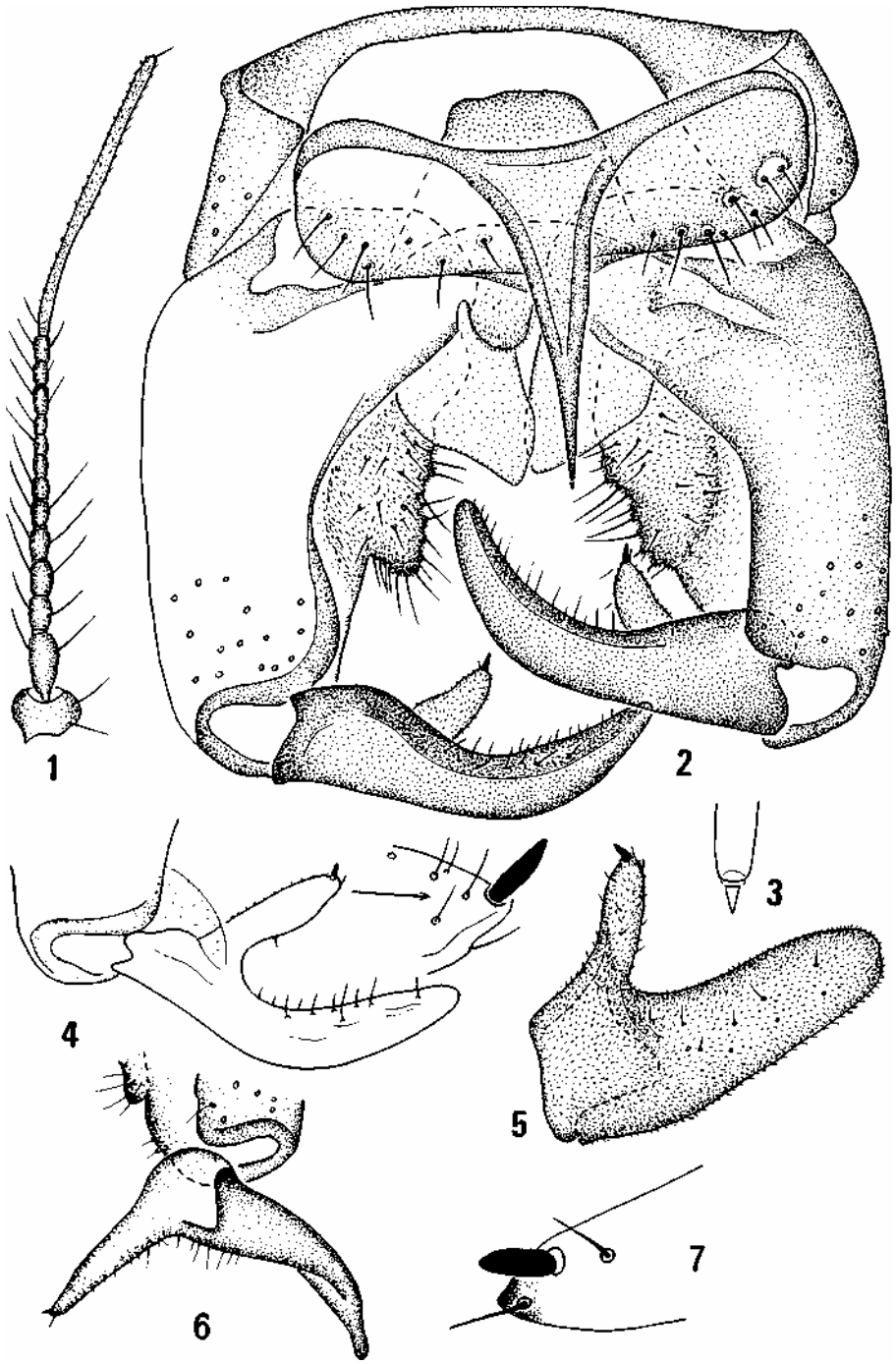
Material examined. Holotype: ♂ [KPU 0190], Mt. Noshaq, NE Afganistan, alt. 3,800 m, 27. VIII. 1960, R. Yoshii leg. *Other specimens examined:* 3 ♂♂, Shavazikolonsai River, Tashkent Region, Chatkalsk Nature Reserve, Uzbekistan, alt. 1,200m, 21. II. 1983, G. Bulgakov leg; ♂♂, Menyuan, Qinhai Pr., China, 15. VII. 1989, X. Wang leg.

Distribution. Afganistan, Uzbekistan and China.

Remarks. This is the first new information on systematics and distribution of *D. filicauda* since it was described by Tokunaga (1966). In the original description, the detail figure of some structures of male hypopygium was not given and therefore we could not compare *D. filicauda* with some related species before examining holotype. We had a chance to examine the holotype and discovered that hypopygium of *D. filicauda* is identical with that of *D. pankratovae.* The latter species must be a synonym of *D. filicauda.*

Diamesa plumicornis Tokunaga, 1936

Diamesa plumicornis Tokunaga, 1936:



Figs. 1-7. Male of *Diamesa amanoi* sp. n. (1-5) and *Diamesa subletti* Makarchenko (6-7). 1, antenna; 2, hypopygium; 3, anal point; 4-6, gonostylus, ventral view; 7, apical part of gonostylus (ventral lobe).

548; 1937: 62; Goetghebuer, 1939: 27; Makarchenko and Yamamoto, 1995: 299.

Material examined. Lectotype: ♂, Kashima, Nagano Pref., Japan, 13. X. 1930, K. Imanishi leg. *Other specimens examined:* 3 ♂♂, Toyamazawa R., Nikko Nat. Park, Tochigi Pref., Japan, 21. IX. 1988, R. Ueno leg; 1 ♂, 5 pupae, Pusan, South Korea, 4. III. 1996, B. Youn leg.

Distribution. Japan (Honshu) and South Korea.

Remark. For a long time, *D. plumicornis* has been considered to be indigenous to Honshu, Japan. Finding of this species in South Korea is for the first time outside Japan.

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