

Notes on allocation of the mygalomorph spider genus *Anemesia* Pocock, 1895 (Araneae), with description of a new congener from Tajikistan

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The paper represents a preliminary note on the position of the poorly known Asian mygalomorph spider genus *Anemesia* Pocock, 1895 (the more detail study is in preparation). The examination of *A. tubifex* (Pocock) and the nearest species showed that the genus should be re-established from the synonyms of the mygalomorph spider genus *Nemesia* Audouin, 1826 (Nemesiidae: Nemesiinae) and transferred to the subfamily Cyrtaucheniinae (Cyrtaucheniidae). Jointly with the known cyrtaucheniid genera it shares a number of synapomorphies such as uncompleted biserial dentition of paired tarsal claws III-IV, the characteristic comb of spines on the prodistal edge of femur IV in females, the multilobate spermathecae in most of species, etc. (see: Raven, 1985). From those genera *Anemesia* differs by having the unique configuration of triangle clypeus compared with unusual shape of posterior pair of sternal sigillae, which are extremely long and narrow. At present the genus includes 3 known species: *A. tubifex* (Pocock, 1889) the type species, *A. birulai* (Spassky, 1937), *A. karatauvi* (Andreeva, 1968), and at least 6 undescribed congeners. One of them, *A. incana* sp. n. is described below.

In the paper the following abbreviations are used: ALE - anterior lateral eyes, AME - anterior median eyes, ITC - interior (unpaired) tarsal claw, PLE - posterior lateral eyes, PLS - posterior lateral spinnerets, PME - median lateral eyes, PMS - posterior median spinnerets; Fm - femur; Pt - patella; Tb - tibia; Mt - metatarsus; Tr - tarsus; d - dorsal; p - prolateral; r - retrolateral; v - ventral (position). All measurements are given in millimeters, except eye diameters and interspaces shown as ratio of the microscope scale units.

Anemesia incana Zonstein, sp. n. (Figs. 1–8)

Types: holotype – ♂, southwestern Tajikistan, foothills of Aruktau Mt. R., 1 km NE Gandzhina village (37°58'N 68°32'E, 750 m), 13.04.1987, coll. S. Zonstein. Paratypes (all from the same locality, including the allotype): 9-13.04.1987 – 12♂, 9♀ (S. Zonstein); 11.04.1988 – 1♂, 4♀ (S. Zonstein); 22.04.1992 – 1♂, 1♀ (S. Zonstein). The holotype is prepared for placement into the spider collection of American Museum (Natural History), New-York, other material except one male specimen sent to the collection of British Museum (Natural History) is divided between collections of Zoological Institute of Russian Acad. Sci. (St.-Petersburg), Zoological Museum of Moscow University and Hebrew University, Jerusalem.

Diagnosis: The new species differs from all the described congeners except *A. karatauvi* (Andreeva, 1968) by long and spinose palpal tibia in males and by entire receptacles in females; it can be distinguished from the last species by shape of the eye group and male embolus (sf. Andreeva, 1976, figs. 6, 7) as well as by a lesser number of the maxillary cuspules (4-10 vs. 30-40 and more) and a weakly developed cheliceral rastellum in both sexes.

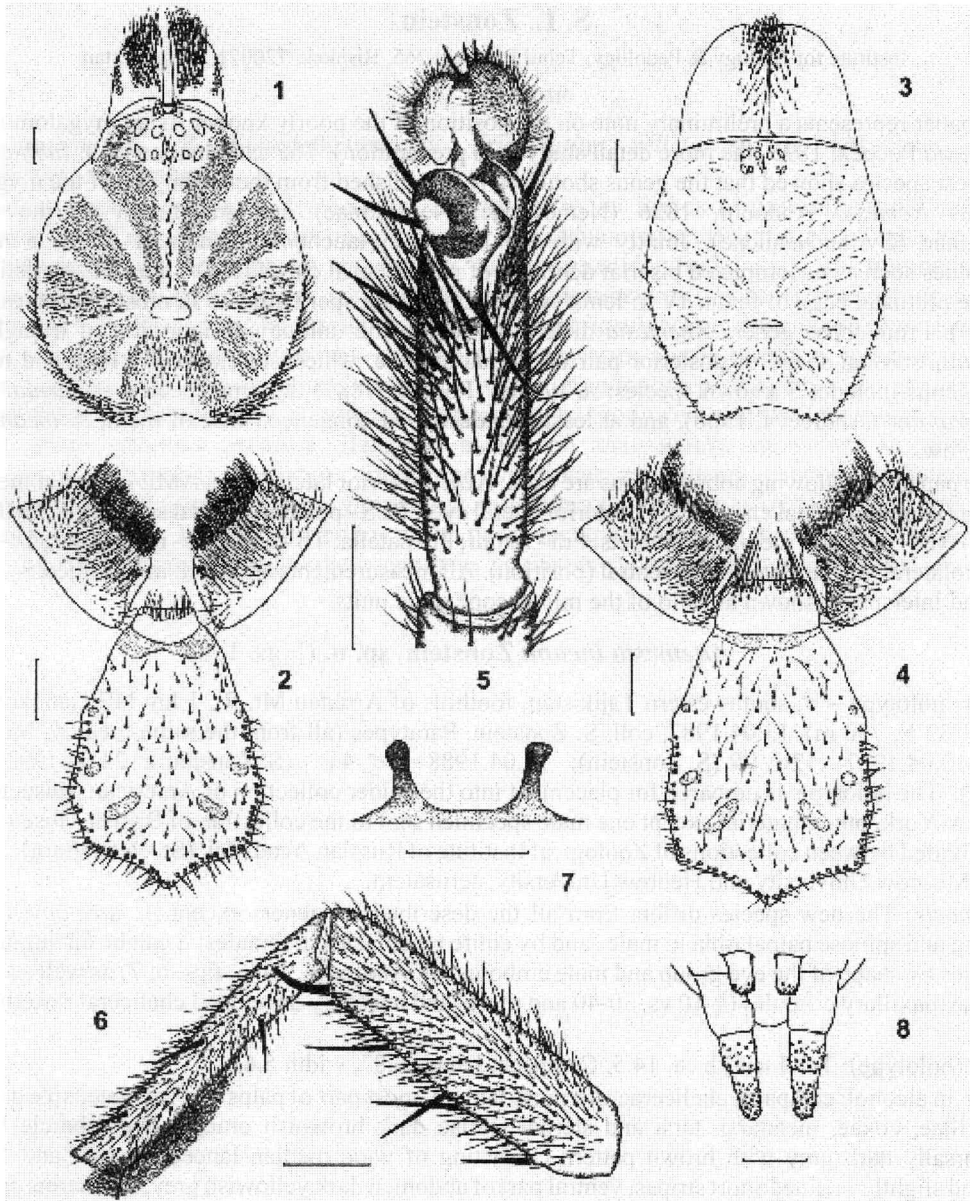
Male (holotype): Total length ca. 14.5. Carapace: length 6.87, width 5.63.

Color in alcohol: carapace, chelicerae, sternum, labium, most part of palps and legs intensive dark reddish brown; maxillae, coxae, metatarsi, tarsi and sternal sigillae dark brownish orange; eye tubercle blackened; abdomen dorsally dark grey with brown pattern consisting of wide median lanceolate spot and few paired transverse and slightly inclined short stripes, ventral part of abdomen dark yellowish grey, spinnerets pale yellow.

Carapace with caput slightly elevated, covered with appressed extremely fine silver hairs. Clypeus narrow. Eye tubercle well developed. Ratio of AME, ALE, PLE, PME: 14, 16, 10, 10. Interspaces: AME-AME 16, ALE-AME 14, ALE-PLE 14, PLE-PME 4, PME-PME 38. Thoracic fovea short pit-like. Chelicerae with 7 + 7 promarginal teeth and 3 + 4 large denticles. Weak rastellum consists of long bristles lacking tips and grouped in one transverse row. Intercheliceral tumescence not developed. Labium: length 0.63, width 1.05. Maxillae: 5 + 4 cuspules, serrula not evident. Sternum: length 4.25, width 3.30. Ratio of 1, 2, 3 sternal sigillae: 7, 11, 30. Posterior sigillae long oval subcentral.

Spination of palp: Fm d3, p2; Pt p2; Tb p3, r2, v3; Tr d5-6. Leg spination: **1**: Fm d5, p2; Pt 0; Tb p3, v7-8; Mt p2, v7; Tr 0; **2**: Fm d5, p7; Pt p3-4; Tb p3, v8; Mt p3, v6; Tr 0; **3**: Fm d4-5, p3, r2; Pt p4-5; Tb d1, p3, r3, v9-10; Mt d1, p3, r3, v10; Tr v4-10; **4**: Fm d5, p2, r3; Pt 0; Tb r3, v10-11; Mt p4, r2, v7-8; Tr 7-10. Preening combs absent. Leg measurements as shown in Table 1.

Scopula: distal on metatarsi I–II, entire on tarsi I–II, divided on tarsi III, sparse and widely divided on tarsi IV. Paired claws: outer and inner margins with 6–7 teeth. Trichobothria: 2 rows of 9–10 on tibiae, 14–17 on metatarsi, 14–17 on tarsi. Tarsal organ smooth, weakly domed. Spinnerets: PMS: length 0.63, diameter 0.30. PLS: maximal diameter 0.53; length of basal, medial and apical segments 1.45, 1.07, 0.95; total length 3.47; apical segment short-digitiform. Palpus: embolus tapering, slightly curved (Fig. 5).



Figs. 1–8. *Anemesia incana* sp. n.: 1, 3 – carapace; 2, 4 – sternum, labium and maxillae; 5 – palpus, ventral view; 6 – tibia and metatarsus I, retrolateral view; 7 – receptacles, ventral view; 8 – spinnerets, ventral view; 1, 2, 5, 6, 8 – ♂; 3, 4, 7 – ♀. Scale bar: 1.0 mm.

Female (allotype). Total length ca. 17.5. Carapace: length 8.15, width 7.07.

Color in alcohol: similar to that of male, except even more dark chelicerae.

Carapace with caput noticeably elevated over thoracic part and covered with fine silver hairs. Eye tubercle distinct. Ratio of AME, ALE, PLE, PME: 13, 16, 11, 10. Interspaces: AME-AME 20, ALE-AME 20, ALE-PLE 22, PLE-PME 5, PME-PME 53. Thoracic fovea narrow, deep and nearly stright. Chelicerae: 7 + 8 promarginal teeth and 3 + 6 large denticles, rastellum weak. Labium: length 0.85, width 1.63. Maxillae: 7 + 10 cuspules, serrula not evident. Sternum: length 4.75, width 3.97. Ratio of 1, 2, 3 sternal sigillae: 12, 17, 40. Posterior sigillae long oval subcentral.

Spination of palp: Tb p5, v18-20; Tr v1. Leg spination: all femora and most part of patellae aspinose; 1: Tb v8-10; Mt p1, v10; Tr 0; 2: Tb p3, v8-9; Mt p3, v8-10; Tr 0; 3: Pt r2; Tb p2-3, r2, v9-10; Mt p3-4, r3, v12-14; Tr 6-8; 4: Tb r2, v10-12; Mt r2, v11-12; Tar ca. 20. Leg measurements as shown in Table 2.

Scopula: distal on papal metatarsus and metatarsi I–II, entire on palpal tarsus and tarsi I–II, elsewhere absent. Palpal claw with 4 promarginal teeth. Paired claws of legs I–II: outer and inner margins with 6–7 teeth. Paired claws of legs III: 6 teeth on outer, 3 teeth on inner margins. Paired claws of legs IV: 3 teeth on outer, 1 tooth on inner margins. Trichobothria: 2 rows of 8–10 on tibiae, 16–20 on metatarsi, 15–18 on tarsi. Spinnerets. PMS: length 0.67, diameter 0.50. PLS: maximal diameter 0.93; length of basal, medial and apical segments 1.55, 1.13, 0.95; total length 3.63; apical segment triangle to short-digitiform. Spermathecae: entire (Fig. 7).

Natural history. Within inhabited areas the spiders certainly prefer to occupy the gentle north slopes of hills where their burrows grouped into large colonies are easily recognizable owing to the unique construction. Burrow of the adult female achieves 30–40 cm in length, in most cases the entrance is protected by overground funnel-shaped ring made of clay. Most seemingly, the period of spider activity falls on the winter and early spring months – some females had being observed closing their burrows with a soil plug by the end of April. The juvenile representatives of this species are the prey objects for specialized hunters – rudimentary-winged spider wasps belonging to the genus *Claveliocnemis* Wolf, 1968: *C. incisipennis* Wolf, 1968 and *C. brachypteris* (Gussakovskij, 1935).

Table 1. Leg measurements of *A. incana* sp. n., male holotype.

	Palp	I	II	III	IV
Femur	4.03	6.57	6.43	5.75	6.83
Patella	2.15	3.05	3.00	2.55	3.20
Tibia	3.23	5.17	4.65	3.30	5.57
Metatarsus		5.27	4.57	4.15	5.63
Tarsus	1.45	2.83	2.83	2.77	3.05
Total	10.86	22.89	21.48	18.52	24.28

Table 2. Leg measurements of *A. incana* sp. n., female allotype.

	Palp	I	II	III	IV
Femur	4.00	6.17	5.55	4.30	5.57
Patella	2.75	3.70	3.43	3.35	3.67
Tibia	3.25	4.37	4.05	3.23	4.55
Metatarsus		3.77	3.60	3.37	5.10
Tarsus	2.37	2.80	2.57	2.85	3.03
Total	12.37	20.81	19.20	17.10	21.92

References

- Andreeva E. M. 1976.** Spiders of Tajikistan. *Dushanbe, Donish: 1-195 [in Russian]*.
Raven R. J., 1985. The spider infraorder Mygalomorphae (Araneae): cladistics and systematics. *Bull. Amer. Mus. Nat. Hist.*, 182 (1):1-180.

Резюме

Зонштейн С.Л. Заметки о систематическом положении мигаломорфных пауков рода *Anemesia* Роскока, 1895 (Araneae), с описанием нового представителя рода из Таджикистана.

Опираясь на наличие у видов *Anemesia* ряда апоморфий, сближающих этот род с представителями сем. Суртаучениidae, предлагается перевести его сюда из сем. Немесиidae; приведено первоописание четвертого вида *Anemesia* – *A. incana* sp. n. из Южного Таджикистана (хр. Аруктау).