

# The spiders genus *Cedicus* Simon 1875 (Arachnida Aranei Agelenidae) from Middle Asia.

## Пауки рода *Cedicus* Simon 1875 (Arachnida Aranei Agelenidae) из Средней Азии.

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**KEY WORDS:** *Paracedicus* subgen.n., *Cedicus ephthalitus* sp.n., *Cedicus gennadii* sp.n., *Cedicus parthus* sp.n., Middle Asia.

**КЛЮЧЕВЫЕ СЛОВА:** *Paracedicus* subgen.n., *Cedicus ephthalitus* sp.n., *Cedicus gennadii* sp.n., *Cedicus parthus* sp.n., Средняя Азия.

**ABSTRACT:** Partial redescription of the spider genus *Cedicus* Simon 1875 is given on the basis of Middle Asian material. A new subgenus, *Paracedicus* n. is described for two new species, *C.ephthalitus* sp.n. (♂♀, SW-Kopetdagh Mts.), and *C.gennadii* sp.n. (♂♀, C., SW-Kopetdagh Mts., Tuakyr Plateau). The subgenus *Cedicoides* Charitonov 1946 is redelimited; it includes *C.simoni* Charitonov 1946, *C.maerens* Simon 1889, *C.pavlovskyi* Spassky 1941, and *C.parthus* sp.n. from C- and SW-Kopetdagh Mts. (♂♀). The female of *C.maerens* is redescribed (holotype), its male is described for the first time.

**РЕЗЮМЕ:** На основе материала из Средней Азии дано частичное переписание рода *Cedicus* Simon, 1875. Описан новый подрод *Paracedicus* subgen.n. с двумя видами: *C.ephthalitus* sp.n. (♂♀, ЮЗ Копетдаг), и *C.gennadii* sp.n. (♂♀, Ц, ЮЗ Копетдаг, плато Туакыр). Пересмотрен объем подрода *Cedicoides* Charitonov 1946; он включает *C.simoni* Charitonov 1946, *C.maerens* Simon 1889, *C.pavlovskyi* Spassky 1941, а также новый вид *C.parthus* sp.n. из Ц и ЮЗ Копетдара (♂♀). По голотипу переписана самка *C.maerens*, впервые дано описание самца этого вида.

The genus *Cedicus* Simon 1875 was described from Middle East and is known only from the Palearctic realm. The genus is well defined, but its taxonomic position is not clear. Traditionally, it was placed in the family Agelenidae (subfamily Cybaeinae) [Bonnet 1956]. However, Lehtinen [1967: 325] placed *Cedicus* within the family Amaurobiidae (subfamily Desinae) along with several other genera. Forster [1970: 21] was uncertain about the placement of this genus, and Brignoli [1983: 494]

lists it under "Desidae, incertae sedis".

In Middle Asia (i.e. former republics of Soviet Central Asia), three species of *Cedicus* are known from Turkmenistan (*C.maerens* Simon 1889), Tajikistan (*C.pavlovskyi* Spassky 1941), and Uzbekistan (*C.simoni* Charitonov 1946). While analyzing spider collections from Turkmenistan (1975-1987), three new species of *Cedicus* were discovered. Here we give descriptions of new species, as well as the description of the poorly known *C.maerens* Simon 1889 (the male of this species was not described previously). We also give the amended description of the genus. A short diagnosis in English was published by Lehtinen [1967: 326].

All material, including type specimens, is deposited in the Zoological Museum of Moscow State University (ZMMU), Moscow, Russia.

The following abbreviations are used in the text: ALE - anterior lateral eyes, alt. - altitude, AME - anterior median eyes, ibid. - ibidem (found in the same place); PLE - posterior lateral eyes; PME - posterior median eye; AEC - anterior edge of the cheliceral groove; PEC - posterior edge of the cheliceral groove. All measurements are given in millimeters.

### Genus *Cedicus* Simon 1875.

Type species: *C.flavipes* Simon 1875: 48, pl. (*terra typica* unclear: "Corsica" - erroneously; "Syria", possibly Lebanon or Israel).

Simon 1875: 48, pl; 1889: 378; Kulczynski 1908: 77, pl. II, fig. 20-21 (*C.flavipes*); Spassky 1941: 13, fig. 2 (*C.pavlovskyi*); Kharitonov 1946: 22, fig. 8-9 (*C.simoni*); Bonnet 1956: 977; Lehtinen 1967: 221, fig. 137-139 (*C.flavipes*); De Blauwe 1973: 8, fig. 4-8 (*C.flavipes*).

**DESCRIPTION.** Spiders of a medium size (5 to 10 mm). Carapace with a dark medial groove with

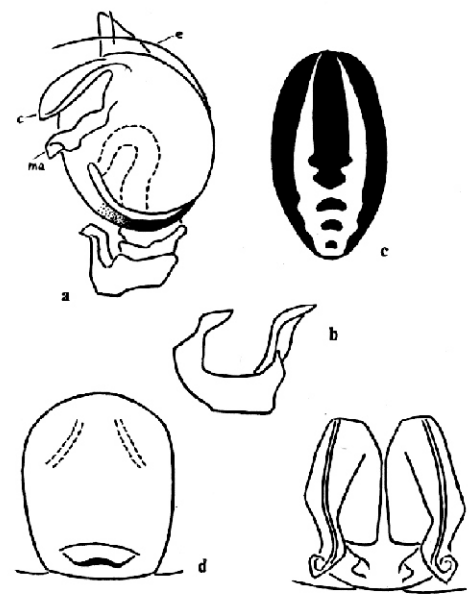


Fig. 1. *Cedicus ephthalitus* Fet, sp.n.: a) male palp; b) male palp tibia, dorsal view; c) abdomen, dorsal view; d) female epigyne; e) endogyne. Abbreviations: e - embolus, ma - median apophysis of a bulbous.

Рис. 1. *Cedicus ephthalitus* Fet, sp.n.: а) палец самца; б) голень пальца самца, дорсально; в) брюшко самца, дорсально; г) эпигина самки; е) эндигина. Условные обозначения: е - эмболюс, ма - медиальный отросток бульбуса.

stripes radiating from it. Clypeus, maxillae and sternum lightly colored, with rare dark bristles. Chelicerae enlarged, dark, with slightly expressed transverse wrinkles, with long bristles along the anterior edge. Both edges of the cheliceral groove bear several teeth (from three to six). Dorsal side of the abdomen usually with a pattern of light longitudinal bands on dark background. Colulus is well developed. Cribellum and calamistrum are lacking. In the copulatory apparatus of the male, the embolic conductor is well-developed.

### *Cedicus ephthalitus* Fet, sp.n.

Fig. 1a-e.

**MATERIAL.** Holotype, 1♂ (ZMMU Ta-4009). Turkmenistan: Southwest Kopetdagh, Aidere Valley, alt. 800 m, 11.05-10.06.1979, horsetail community (*Equisetum ramosissimum*) next to a mountain brook; coll. V.Fet. Paratypes (3♂♂ and 4♀♀): 1♂ (Ta-4010), ibid., coll. V.Fet; 1♀ (Ta-4011), Aidere Valley, 04.1975; 1♂ (Ta-4012), Aidere Valley, meadow, 20-27.09.1978, coll. V.Fet; 1♂

(Ta-4013), Aidere Valley, under a walnut tree, 11-18.03.1979, coll. V.Fet; 1♀ (Ta-4014), Mount Khas-sardagh, alt. 1600 m, mountain steppe (*Festuco-Stipetum*), 19.04.1979, coll. V.Fet; 2♀♀ (Ta-4015), ibid., 4-8.04.1982, coll. N.S. Ustinova.

**DIAGNOSIS.** *C.ephthalitus* belongs to a new subgenus (described below), and can be distinguished from the only known related species *C.gennadii* sp.n. by the shape of tibial palpal apophysis in the male (Fig. 1a,b), details of the structure of epigyne and vulva in the female (Fig. 1d,e), abdominal pattern (Fig. 1c) and spination of legs. Also, these two species seem to be vicariant ecologically, with *C.ephthalitus* being confined to moist and highland habitats.

**DESCRIPTION.** **MALE.** Body length (without chelicerae) 4.85. Carapace length 2.40, width 1.00. Carapace brownish-yellow. Eyes: AME 0.04, ALE 0.10, PME 0.10, PLE 0.10, AME-AME 0.04, AME-ALE 0.07, PME-PME 0.10, PME-PLE 0.08, AME-PME 0.07, ALE-PLE 0.04. The length of the basal segment of chelicera 1.25. AEC with five teeth (the fourth from the apex is larger than others), PEC with three teeth. Legs yellow. Spine positions: femur I-II, dorsal 1.1, anterolateral 1; femur III dorsal 1.1.2; femur IV dorsal 1.1.1; patella III, anterolateral 1, posterolateral 1; patella IV dorsal 1; tibia I, anterolateral 1, ventral 1.2.2, tibia II, ventral 1.1.2, tibia III, dorsal 1.1, anterolateral 1.1, ventral 2.2.2; tibia IV, dorsal 1, anterolateral 1.1, ventral 2.2.2; metatarsus I-II, ventral 2.2.2, metatarsus III, dorsal 1.2.1.2, anterolateral 1.2.2, ventral 2.1.1.2, posterolateral 1.1.2; metatarsus IV, dorsal 1, ventral 1, posterolateral 1.1; tarsus III, anterolateral 1, ventral 1; tarsus IV, anterolateral 1.1, posterolateral 1.1. Dorsal abdominal pattern as in Fig. 1c. Palpus as in Fig. 1a-b.

**FEMALE.** Body length 6.25. Carapace length 3.25, width 1.75. Differs from the male in cheliceral dentation: AEC with teeth (as in the male), but PEC with four teeth. Epigyne as in Fig. 1d, vulva as in Fig. 1e.

**DERIVATIO NOMINIS.** The specific epithet is derived from an ethnonym: the Ephthalites were a tribe of nomads (also called "White Huns") who lived in Turkmenistan in the early Middle Ages (until VI century A.D.).

**DISTRIBUTION.** Turkmenistan. Known only from mountains of Southwest Kopetdagh.

**BIOLOGY.** *C.ephthalitus* is found in moist meadows along mountain brooks, and also in the mountain steppe belt, alt. 800 to 1600 m. The mating period is March to June (when adult males are recorded).

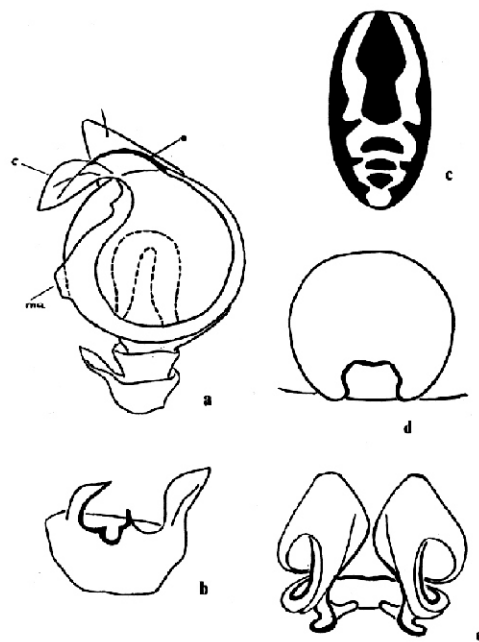


Fig. 2. *Cedicus gennadii* Fet, sp.n.: a) male palp; b) male palp tibia, dorsal view; c) abdomen, dorsal view; d) female epigyne; e) endegyne. Abbreviations as in Fig. 1.

Рис. 2. *Cedicus gennadii* Fet, sp.n.: а) палец самца; б) голень пальца самца, дорсально; в) брюшко дорсально; д) эпигина самки; е) эндегина. Условные обозначения как на рис. 1.

*Cedicus gennadii* Fet, sp.n.  
Fig. 2a-e.

*C. simoni* (nec Charitonov 1946): Fet and Kuznetsov 1982: 60; Fet 1983: 836.

**MATERIAL.** Holotype. 1♂ (ZMMU Ta-4028). Turkmenistan: C-Kopetdagh, Kurtusu Valley, 15-22.03.1980, coll. G.T. Kuznetsov. Paratypes (49♂♂ and 6♀♀): 8♂♂ (Ta-4029), ibid.; 1♂ (Ta-4016), C-Kopetdagh, Kurkulub, 20-27.05.1977, coll. G.T. Kuznetsov; 9♂♂ 1♀ (Ta-4017), C-Kopetdagh, Kalintinsky Reserve, 7-15.12.1979, coll. G.T. Kuznetsov; 1♂ (Ta-4018), C-Kopetdagh, Firyuza Valley, 7-16.02.1979, coll. G.T. Kuznetsov; 21♂♂ and 3♀♀ (Ta-4019), C-Kopetdagh, Kurughaudan Valley, 19-26.03.1980, coll. G.T. Kuznetsov; 1♂ 1♀ (Ta-4020), SW-Kopetdagh, Aidere Valley, 04.1975; 7♂♂ 1♀ (Ta-4021), SW-Kopetdagh, Kara Kala, 25.01.1977, coll. K.Yu. Eskov; 1♂ (Ta-4022), NW-Turkmenistan, Tuarkyr Plateau, Kaligshem Mts., alt. 500 m, gypsum desert, 7.11.1982, coll. V.Fet.

**DIAGNOSIS.** *C. gennadii* belongs to a new subgenus (described below), and can be distinguished from the only known related species *C. ephthalitus* sp.n. by the shape of tibial palpal apophysis in the male (Fig. 2a-b), details of the structure of epigyne and vulva in the female (Fig. 2d-e), the abdominal pattern (Fig. 2c) and spination of legs. Also, these two species seem to be vicariant ecologically, with *C. gennadii* being confined to arid and semiarid habitats.

**DESCRIPTION. MALE.** Body length (without chelicerae) 6.90. Carapace length 3.15, width 2.20. Carapace brownish-yellow. Eyes: AME 0.07, ALE 0.14, PME 0.10, PLE 0.10, AME-AME 0.08, AME-ALE 0.10, PME-PME 0.18, PME-PLE 0.28, AME-PME 0.12, ALE-PLE 0.21. The length of the basal segment of chelicera 1.55. AEC with five teeth (the fourth from the apex is larger than others), PEC with three teeth. Legs brown. Spine positions: femur I, dorsal 1.1, anterolateral 1; femur II dorsal 1.1; femur III dorsal 1.1.2; femur IV dorsal 1.1; patella III, dorsal 1, anterolateral 1; patella IV dorsal 1; tibia I, ventral 1.2.2, tibia II, ventral 1.2.2, tibia III, dorsal 1.1, anterolateral 1.1, ventral 2.2.2, posterolateral 1.1; tibia IV, dorsal 1.1, anterolateral 1, posterolateral 1.1; metatarsus I, ventral 2.2.2; metatarsus II, anterolateral 1; metatarsus III, dorsal 1.2.2, anterolateral 1, ventral 2.2.2, posterolateral 1.1; metatarsus IV, dorsal 1.1, anterolateral 1.1, posterolateral 1.1, ventral 2.2.2; tarsus III, anterolateral 1, ventral 2.1, posterolateral 1.1; tarsus IV, anterolateral 1, posterolateral 1. Dorsal abdominal pattern as in Fig. 2c. Palpus as in Fig. 2a-b.

**FEMALE.** Body length 8.00. Carapace length 3.80, width 2.60. Differs from the male in cheliceral dentation: AEC with five, but PEC with four teeth (as in *C. ephthalitus*). Epigyne as in Fig. 2d, vulva as in Fig. 2e.

**DERIVATIO NOMINIS.** The specific epithet is a patronum derived from the first name of Dr. Gennady T. Kuznetsov (Ashkhabad, Turkmenistan), who is credited with collecting many interesting and new species of spiders from Kopetdagh Mountains.

**DISTRIBUTION.** Turkmenistan. *C. gennadii* is known from mountains and foothills of Kopetdagh, and also from Northwest Turkmenistan (Tuarkur). Probably, has a wider distribution and will be found in Kazakhstan.

**BIOLOGY.** Unlike morphologically similar *C. ephthalitus*, this species is found in a variety of arid and semiarid habitats and altitudes, from gypsum desert to foothills to high mountains. Adult

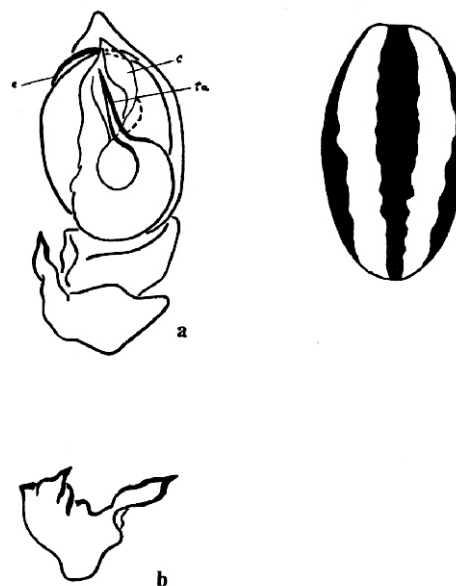


Fig. 3. *Cedicus simoni* Charitonov, 1946, male: a) palp; b) palpal tibia, dorsal view; c) abdomen, dorsal view. Abbreviations: ta - tegular apophysis of a bulb, others as in Fig. 1.

Рис. 3. *Cedicus simoni* Charitonov, 1946, самец: а) палец; б) голень пальца, дорсально; в) брюшко дорсально. Условные обозначения: та - тегулярный отросток бульбуса, прочие как на рис. 1.

males are recorded from November to May, therefore the mating period can be from fall to spring.

**REMARK.** This species was previously identified as *C. simoni* Charitonov 1946 [Fet and Kuznetsov 1982; Fet 1983]. Investigations of Charitonov's syntypes (Charitonov, 1946: 21, fig. 8-9; 1969: 86, fig.; deposited in Perm State University, Perm, Russia; 2♂ 1♀, Uzbekistan, Bukhara Region, Yakkabad District, Yangikishlak, 1800 m, October 17, 1941, coll. K.V. Arnoldi) demonstrated that *C. simoni* Charit. (Fig. 3a-c) is a separate species which is closer to a group that includes *C. maerens* Simon, *C. pavlovskyi* Spassky, and *C. parthus* sp.n.

*Cedicus parthus* Fet, sp.n.  
Fig. 4a-e.

*C. maerens* (nec Simon 1889): Fet 1983: 836.

**MATERIAL.** Holotype. 1♂ (ZMMU Ta-4023). Turkmenistan: C-Kopetdagh, Firyuza Valley, 16-23.10.1979, coll. G.T. Kuznetsov. Paratypes (11♂♂ and 1♀): 7♂♂ (Ta-4030), ibid.; 3♂♂ (Ta-4024), C-Kopetdagh, Katranki Valley, 9-16.09.1978, coll. G.T. Kuznetsov; 1♂ (Ta-4025), ibid., 8-15.04.1980,

coll. G.T. Kuznetsov; 1♀ (Ta-4026), SW-Kopetdagh, Aidere Valley, dry slope (Artemisieto-Festucetum), 8.05.1979, coll. V.Fet.

**DIAGNOSIS.** *C. parthus* belongs to the Middle Asian subgenus *Cedicoides* Charit. (see below), and can be distinguished from the related species *C. simoni* (Fig. 3a) from Uzbekistan, *C. maerens* (Fig. 5a) from Turkmenistan, and *C. pavlovskyi* [Spassky, 1941, Fig. 2] from Tadjikistan first of all by the shape of tibial palpal apophysis in the male (Fig. 4a-b), details of the structure of epigyne and vulva in the female (Fig. 4d-e), and abdominal pattern (Fig. 4c).

**DESCRIPTION. MALE.** Body length 8.00. Carapace length 3.75, width 2.90. Carapace brown. Eyes: AME 0.08, ALE 0.10, PME 0.09, PLE 0.10, AME-AME 0.06, AME-ALE 0.07, PME-PME 0.20, PME-PLE 0.17, AME-PME 0.11, ALE-PLE 0.11. The length of the basal segments of chelicera 1.90. AEC with six teeth (the fifth from the apex is larger than others), PEC with four teeth. Legs brown, femur with an unclear reticulate pattern of light and dark stripes. Spine positions: femur I-IV, dorsal 1.1, anterolateral 1; patella III-IV, posterolateral 1; tibia I, anterolateral 1, ventral 2.2.2.2; tibia II, ventral

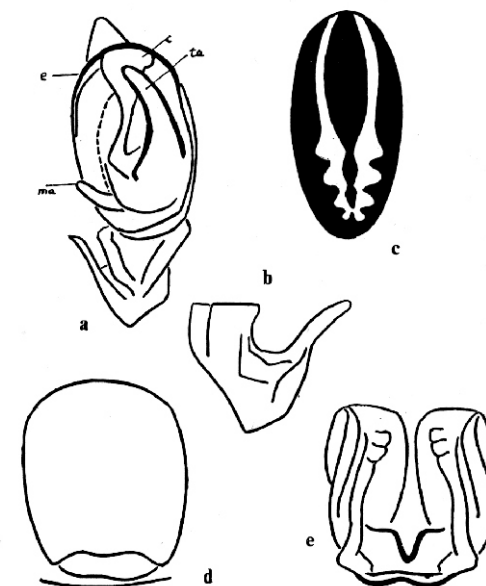


Fig. 4. *Cedicus parthus* Fet, sp.n.: a) male palp; b) male palp tibia, dorsal view; c) abdomen, dorsal view; d) female epigyne; e) endegyne. Abbreviations as in Figs. 1&3.

Рис. 4. *Cedicus parthus* Fet, sp.n.: а) палец самца; б) голень пальца самца, дорсально; в) брюшко дорсально; д) эпигина самки; е) эндегина. Условные обозначения как на рис. 1 и 3.

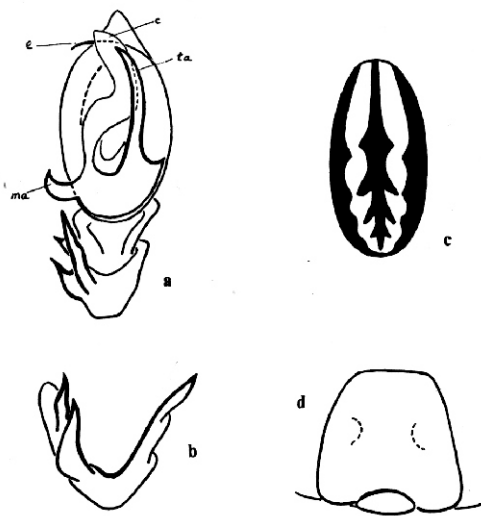


Fig. 5. *Cedicus maerens* Simon, 1889: a) male palp; b) male palp tibia, dorsal view; c) abdomen, dorsal view; d) female epigyne. Abbreviations as in Figs. 1 & 3.

Рис. 5. *Cedicus maerens* Simon, 1889: а) палтус самца; б) голень палтуса самца, дорсально; в) брюшко дорсально; д) эпигина самки. Условные обозначения как на рис. 1 и 3.

1.2.2.2; tibia III-IV, ventral 2.2.2, posterolateral 1.1; metatarsus I, ventral 2.2.2; metatarsus II, ventral 2.2.3, metatarsus III, anterolateral 1.1, ventral 2.2.2, posterolateral 2; metatarsus IV, anterolateral 1.1, ventral 2.2., posterolateral 1.2; tarsus III-IV, anterolateral 1.1, ventral 1, posterolateral 1. Dorsal abdominal pattern as in Fig. 4c. Palpus as in Fig. 4a-b.

**FEMALE.** Carapace length 4.00 (abdomen distored), width 2.70. Cheliceral dentation as in the male. Epigyne as on Fig. 4d, vulva as on Fig. 4e.

**DERIVATIO NOMINIS.** The specific epithet is derived from an ethnonym; the Parthians were a tribe who lived in Turkmenistan in ancient times.

**DISTRIBUTION.** Turkmenistan: mountains of Kopetdagh.

**BIOLOGY.** *C. parthus* is found in the middle mountain belt, alt. 800 to 1500 m. Adult males are recorded from September to April, therefore the mating period (as in *C. gennadii*) can be from fall to spring.

**REMARK.** This species was previously identified as *C. maerens* Simon 1889 [Fet 1983]. Analysis of type material (see below) demonstrated that these are two different species.

*Cedicus maerens* Simon 1889.

Fig. 5a-d.

Simon 1889: 378, 1899: 480 (*merensi*); Bonnet 1956: 977; Lehtinen 1967: 221.

**MATERIAL.** 1♀ (Georgian State Museum, Tbilisi, Georgia, Invertebrate Department, No. 2280, label: "*Caedicus* (sic!) *maerens* Sim., Transcaspien Region, 86R"; 1♂ (ZMMU Ta-4027), Turkmenistan: environs of Nebit Dag, 4.11.1982, coll. V. Fet.

**DESCRIPTION.** **MALE.** Body length 7.40. Carapace length 3.50, width 2.40. Carapace brownish-yellow, its central part brown. Eyes: AME 0.10, ALE 0.13, PME 0.10, PLE 0.12, AME-AME contiguous, AME-ALE 0.29, PME-PME 0.22, PME-PL 0.35, AME-PME 0.14, ALE-PL 0.15. The length of the basal segment of chelicera 1.80. AEC with six teeth (the fifth from the apex is larger than others), PEC with four teeth. Legs brown. Spine positions: femur I-II, dorsal 1.1, anterolateral 1; femur III, dorsal 1.1.2; femur IV, dorsal 1; patella III-IV, posterolateral 1; tibia I, anterolateral 1, ventral 2.2.2; tibia II, ventral 1.1.2; tibia III-IV, dorsal 1, ventral 2.2.2, anterolateral 1.1, posterolateral 1.1 (tibia III) and 1 (tibia IV); metatarsus I-II, ventral 2.2.2; metatarsus III-IV, dorsal 1.1, anterolateral 1.1, ventral 2.2.2, posterolateral 1.1; tarsus IV, anterolateral 1.1, ventral 1. Dorsal abdominal pattern as in Fig. 5c. Palpus as in Fig. 5a-b.

**FEMALE (holotype).** Body length 7.30. Carapace length 3.50, width 2.30, reddish-brown, with pattern faded from preservation. Eyes: AME 0.04, ALE 0.09, PME 0.06, PLE 0.04, AME-AME 0.06, AME-ALE 0.30, PME-PL 0.31, AME-PME 0.21, ALE-PL 0.30. Cheliceral dentation as in the male. Legs brown. Apical parts of maxillae and labium lightly colored. Epigyne as in Fig. 5d.

**DISTRIBUTION.** Turkmenistan. Foothills of Kopetdagh and Great Balkhan.

**BIOLOGY.** *C. maerens* is found in desert foothills, alt. 200 to 400 m. The only known adult male is found in November, and female in spring 1886. Thus, the mating period can be confined to fall.

**REMARKS.** The short Latin description (without drawings) of *C. maerens* by E. Simon was based on a single female from Khodzha Kala (now in Kizyl Arvat District) [Simon 1889]. This specimen was collected in 1886, during G.I. Radde's (Caucasian Museum, Tiflis) expedition to Transcaspien Region (now Turkmenistan). In the inventory of the collections of the Caucasian Museum which was published in 1899, this species is listed as "*C. merens*" from both Khodzha Kala and Ashkhabad [Simon 1899]. The record for Ashkhabad [Simon 1899] requires confirmation. Females of this species were never collected again. Lehtinen [1967] mentioned that the holotype female is deposited in E. Simon's collection

(Muséum National d'Histoire Naturelle, Paris, France). Unfortunately, no types of *C. maerens* could be located in this Museum (M. Hubert, pers. comm., 1984). It seemed that *C. maerens* was a likely candidate for a *nomen oblitum*.

However, in 1985 I discovered a female specimen (No. 2280) in the collections of the Georgian State Museum, Tbilisi, Georgia (former Caucasian Museum in Tiflis) which corresponds to the original description of Simon. The abbreviation "86R" on the label probably means 1886, Radde expedition. Therefore, it may be considered as the type specimen of *C. maerens* (and maybe it even is the holotype).

The male found in 1982 in the foothills of Great Balkhan (Nebit Dag) matches the female from Khodzha Kala in morphological characters, including cheliceral dentation. These two localities are close geographically and have similar habitats (sagebrush desert). Therefore (though still with some degree of uncertainty) I identify this specimen as a male of *C. maerens* Simon 1889, rather than describing it as another new species of *Cedicus*.

## Discussion

With three new species from Turkmenistan described above, a total of six species belonging to the genus *Cedicus* Sim. are found within Middle Asia. All these spiders are found in mountains or foothills, and only *C. gennadii* is also discovered in the desert of Northwest Turkmenistan (however, still within the elevated Tuarkyr Plateau). Interesting enough, *Cedicus* is completely absent from numerous collections from sand deserts of Middle Asia. Even in mountains, the spiders of this genus generally are not often found in collections which undoubtedly is a consequence of their specific biology. The majority of specimens in our analysis are males which were captured by pitfall traps being active on the soil surface (presumably during the mating period). Females are very rare. Spiders of the genus *Cedicus* are wandering predators, probably not building webs. Their mating period in Middle Asia is in spring or from fall to spring; probably they survive through the winter.

Taxonomy of the genus was never studied in detail. D.E. Kharitonov [1946] separated a species from Uzbekistan, *C. simoni* Charit., into a new subgenus, *Cedicoides*, and later [Kharitonov 1948] even used this name as a generic one, without any justification. The reason for establishing a separate subgenus was its difference in cheliceral dentation from the nominal species of this genus, *C. flavipes* Simon (Middle East).

These characters, along with the features of male

genitalia, allow us to classify all species known from Middle Asia into two groups which deserve subgeneric status (and may in the future even receive a generic one).

The first group (subgenus *Cedicoides* Charitonov 1946) is characterized by the well developed tegulum on the male palp bulbus. It also differs from two other subgenera by the dentation of chelicerae (both in male and female, AEC with six teeth, and PEC with four teeth), and includes: *C. simoni* Charitonov 1946 (Fig. 3a) from Uzbekistan, two species from Turkmenistan: *C. maerens* Simon 1889 (Fig. 5a), and *C. parthus* sp.n. (Fig. 4a); and *C. paulovskyi* Spassky 1941 (type in the Zoological Institute, St. Petersburg, seen; Spassky 1941, fig. 2) from Tajikistan.

The second group is characterized by the absence of a tegulum and by a different shape of the embolic conductor, and includes two new species from Turkmenistan: *C. ephthalitus* sp.n. (Fig. 1a), and *C. gennadii* sp.n. (Fig. 2a). Here we classify this group in a new subgenus, *Paracedicus* subgen. n.

## *Paracedicus* subgen. n.

Type species: *Cedicus ephthalitus* sp.n. (see the description above).

Terra typica: Turkmenistan, SW-Kopetdagh, Aidere Valley, alt. 800 m.

**DIAGNOSIS.** Differs from the nominal subgenus *Cedicus* Simon 1875 (see Lehtinen 1968, Figs. 138-139), and subgenus *Cedicoides* Charitonov 1946 by the absence of a tegulum and by a different shape of the embolic conductor in the male copulatory apparatus (Figs. 1a and 2a). Also differs from the related Middle Asian subgenus *Cedicoides* by cheliceral dentation: *Paracedicus* has, in the male, AEC with five teeth (the fourth from the apex is larger than others), PEC with three teeth; in female, AEC with five teeth and PEC with four teeth; *Cedicoides* has identical dentation in males and females: AEC with six teeth (the fifth from the apex is larger than others), PEC with four teeth.

The subgenus is known from Turkmenistan only and includes two species: *C. ephthalitus* sp.n. (humid valleys and mountaintops of the Southwest Kopetdagh), and *C. gennadii* sp.n. (arid and semiarid mountains and deserts of Turkmenistan).

Thus, none of the Middle Asian species is classified in the nominal subgenus *Cedicus* Simon 1875. The type species of the genus, *Cedicus flavipes* Simon 1875, which was recently redescribed [De Blauwe 1973, figs. 6-7]. The type locality of this species is not clear ("Corsica" - erroneously, should be Syria", presumably Israel or Lebanon;

Simon 1875; De Blauwe 1973). Later, this species was discovered on Cyprus [Kulczynski 1908]. Its record from Lapad Island off coast of Dalmatia (Slovenia; Nikolic, 1966) is dubious and requires confirmation. Judging from the drawings by De Blauwe [1973], the male genitalia of *C. flavipes* have a completely different structure from that of all Middle Asian species which therefore can be separated into two subgenera mentioned above.

Only two more species of *Cedicus* are known: *C. bucculentus* Simon 1889 from the Himalayas, and one more, undescribed species from India [Lehtinen 1967:221]. All other species previously classified in this genus were excluded from it by Lehtinen [1967]. Therefore, the genus *Cedicus* has eight described species, with a well-defined Ancient Mediterranean range (Cyprus, Middle East, Middle Asia, Himalayas). The center of its known diversity (four species) is located in Turkmeno-Khorassan Mountains (Kopetdagh is a part of this mountain range within Turkmenistan). Undoubtedly, the species of this genus will be found in Iran, Afghanistan, Azerbaijan and other adjacent areas.

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