

**Contribution to the northern Asian fauna of the crab spider genus *Xysticus***  
**C. L. Koch, 1835 (Aranei Thomisidae).**

**К познанию пауков-крабов рода *Xysticus* C. L. Koch, 1835 фауны  
Северной Азии (Aranei Thomisidae).**

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**KEY WORDS:** *Xysticus*, new species, synonymies, faunistics, Russian Far East, North Mongolia.

**КЛЮЧЕВЫЕ СЛОВА:** *Xysticus*, новые виды, синонимия, фаунистика, Дальний Восток России, Северная Монголия.

**ABSTRACT.** Three new thomisid species from the genus *Xysticus* are described: *X. idolothythus* sp.n. from northern Mongolia, *X. illaudatus* sp.n. and *X. latitabundus* sp.n., both latter species from the Maritime Prov., Russian Far East. A new synonym is established: *X. piceanus* Hu & Wu, 1989 = *X. dzhungaricus* Tystschenko, 1965, syn.n. Distributions of *X. hedini* Schenkel, 1936, and *X. dzhungaricus* Tystschenko, 1965, are refined partly based on new faunistic data. One more species, *X. coreanus* (Paik, 1974), is recorded in the Russian Far East for the first time.

**РЕЗЮМЕ.** Описано три новых вида томизид: *X. idolothythus* sp.n. из Северной Монголии, *X. illaudatus* sp.n. и *X. latitabundus* sp.n., оба последних вида из Приморья (Дальний Восток России). Установлен новый синоним: *X. piceanus* Hu & Wu, 1989 = *X. dzhungaricus* Tystschenko, 1965, syn.n. Уточнены ареалы видов *X. hedini* Schenkel, 1936, и *X. dzhungaricus* Tystschenko, 1965, отчасти на основе новых фаунистических данных. Еще один вид, *X. coreanus* (Paik, 1974), впервые отмечается для фауны Дальнего Востока России.

### Introduction.

With regard to the Thomisidae as well as to most other spider families, various regions of northern Asia are currently explored to a very different extent. Thus, although the crab spider fauna of the Russian Far East is relatively well-documented [Utotchkin, 1968; Ono et al., 1990; Logunov, 1990, 1992a, b; Kurenshchikov, 1993; etc.], our knowledge of the Far Eastern (s.l.) Thomisidae cannot be

considered comprehensive, especially due to the adjacent regions of China and North Korea representing vast lacunae. As for the Mongolian thomisids, the only scanty faunistic data listing solely 11 species (without new ones among them) are those by Loksa [1965]. It is therefore not too surprising that recently further three new species have been found in that general area, one in Mongolia, and two more in the Russian Far East. These taxa are described here.

In addition, a poorly-known species, *Xysticus hedini* Schenkel, 1936, has been discovered both in South Siberia and the Russian Far East for the first time, thus providing a nice opportunity to review its distribution.

A new synonym is here proposed as well: *X. piceanus* Hu & Wu, 1989 = *X. dzhungaricus* Tystschenko, 1965. This also allows redefinition to be made of the distribution pattern of the species concerned.

One more congener, *X. coreanus* (Paik, 1974), has hitherto been known only from Korea and China (Hubei Prov.) [Paik, 1974: as *Oxyptila* c.; Zhang, 1987]. Thus, the first record in the Maritime Province (Primorie), Russian Far East, provides a third locality for this species.

### Material and methods.

Specimens have been borrowed from or housed in the following museums:

ZMMU, the Zoological Museum of the Moscow State University, Moscow, Russia (Dr. K.G. Mikhailov);

BI, the Zoological Museum of the Institute of Animal Systematics and Ecology (former Biological

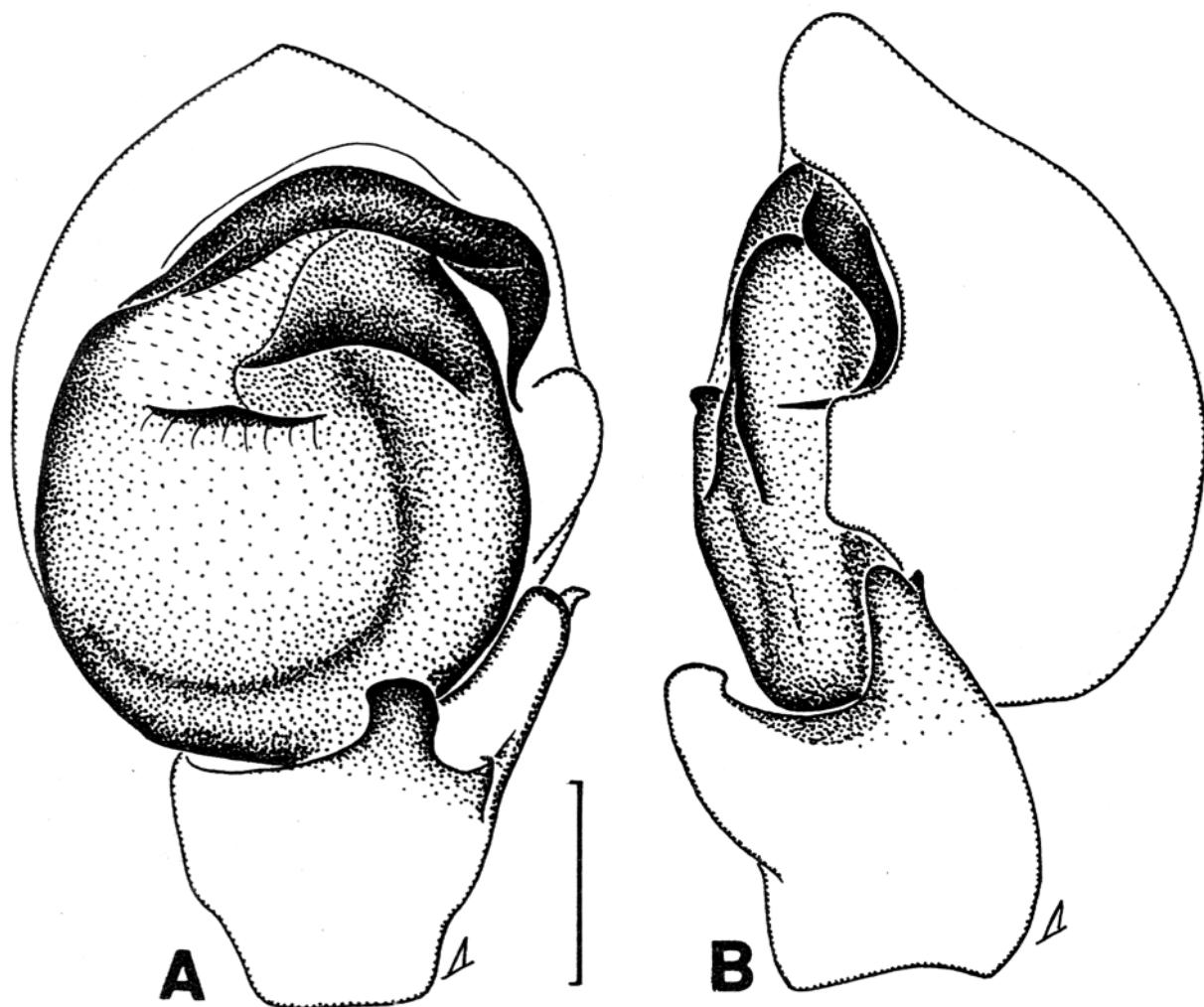


Fig. 1. Male palp of *Xysticus idolothytus* sp.n.: A — ventral; B — lateral. Scale 0.25 mm.

Рис. 1. Пальп самца *Xysticus idolothytus* sp.n.: А — вид снизу; В — вид латерально. Масштаб 0,25 мм.

Institute), Novosibirsk, Russia (Dr. D. V. Logunov).

The following abbreviations have been accepted in the text: d. — dorsally, v. — ventrally, pr. — prolaterally, rt. — retrolaterally, ap. — apically. The sequence of leg segments in measurement data is the following: femur + patella + tibia + metatarsus + tarsus. The terminology used for the genitalia and the system adopted for leg spination are those after Ono [1988]. All measurements are in mm.

### Descriptions

#### *Xysticus idolothytus* sp.n.

Fig. 1.

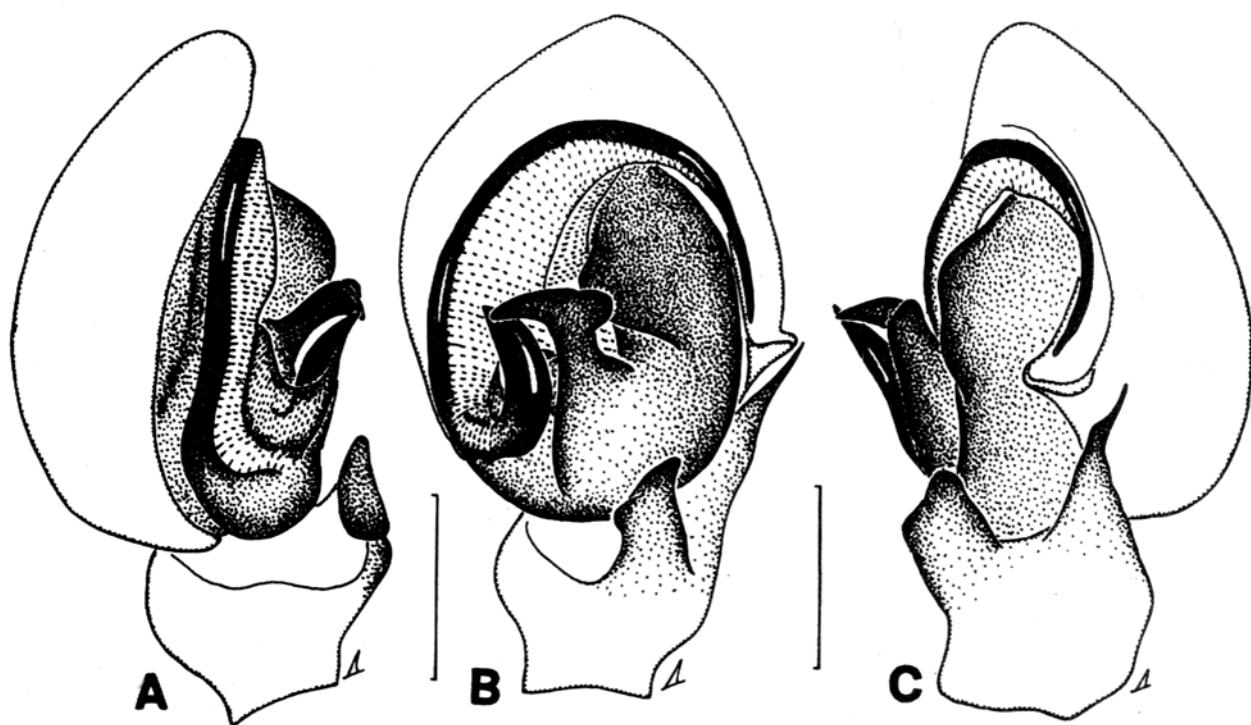
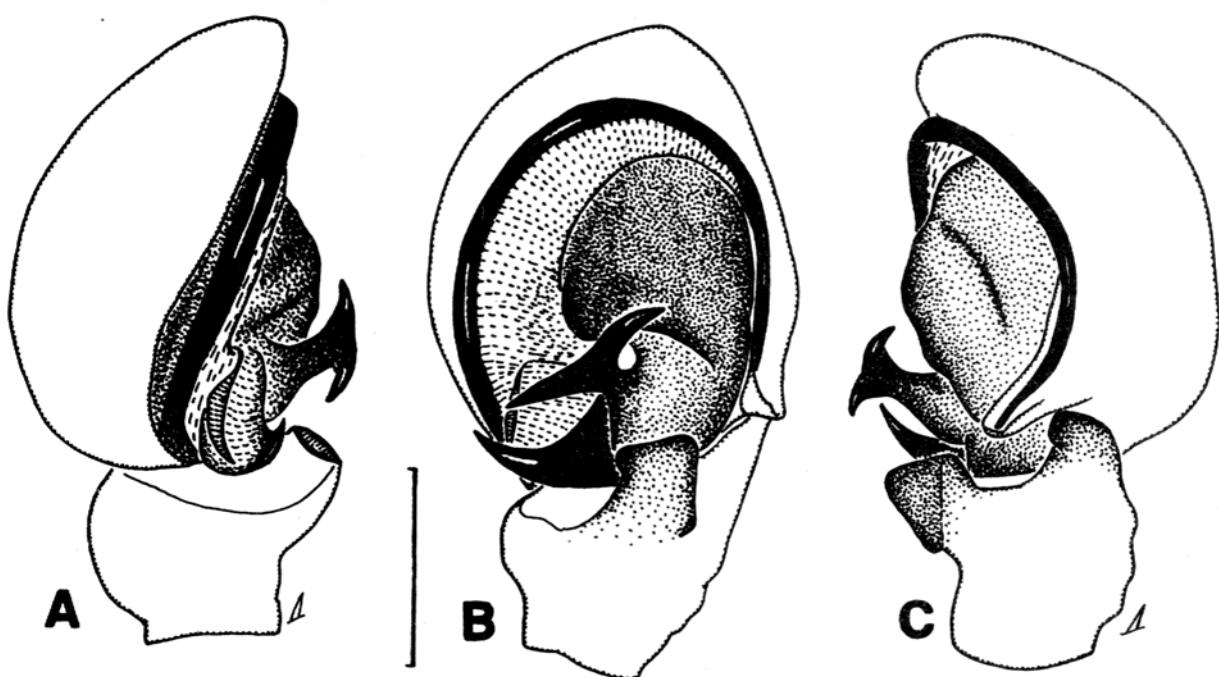
*X. albomaculatus*: Utotchkin, 1968: 18, 22, figs 102, 103; 1988: 14.

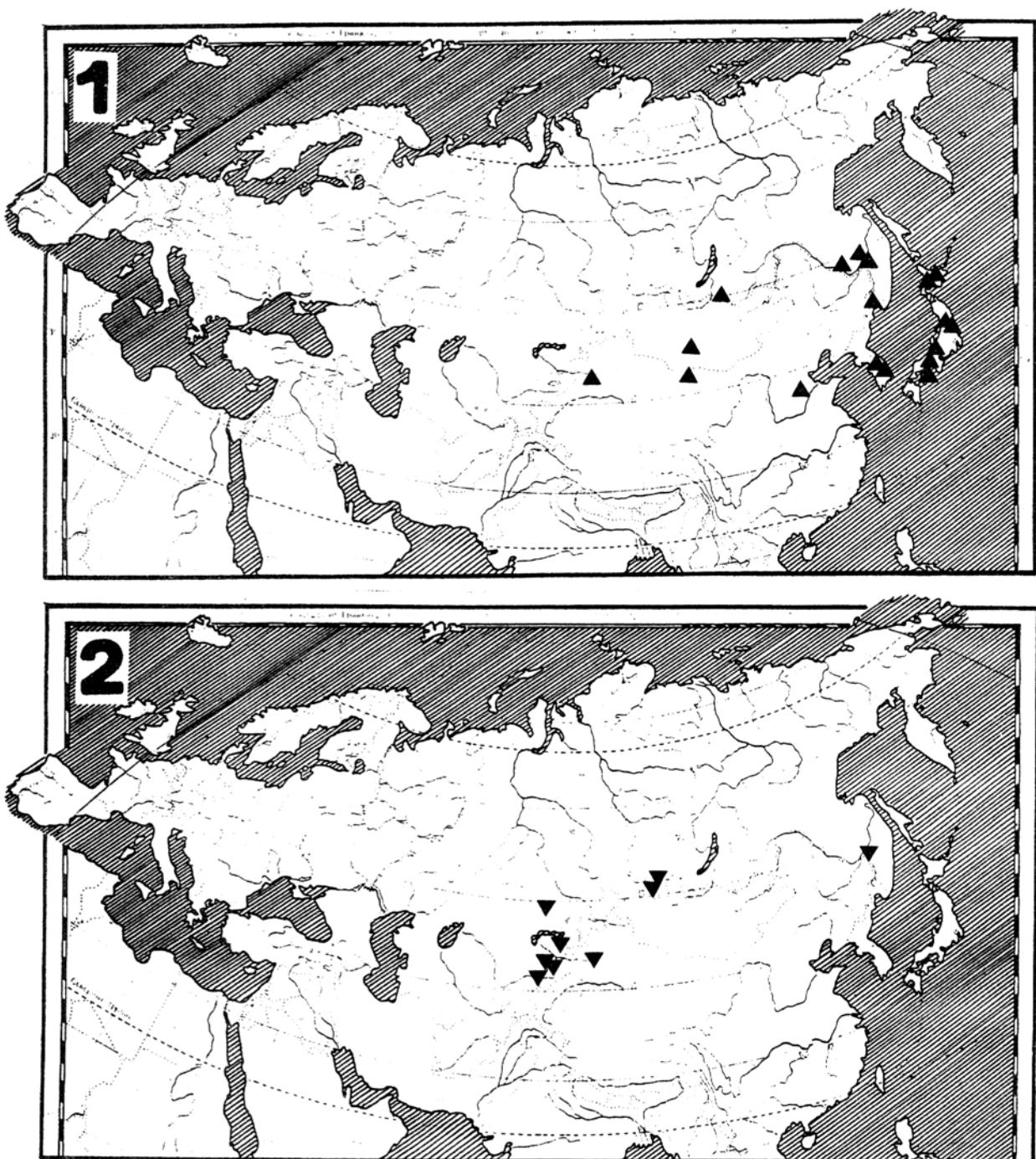
MATERIAL EXAMINED: Holotype: 1 ♂ (ZMMU, Ta-4795), Mongolia, Khubsugul Aimak, Ekhiiyn-Gol River, 18.07.1981, Coll. ?.

DIAGNOSIS: The new species is closely related both to *X. striatipes* L. Koch, 1870 and *X. mongolicus* Schenkel, 1963, but differs in the curved and sharpened embolus and the bifurcated tibial apophysis (Fig. 1, B).

DISTRIBUTION: North Mongolia (present data) and North Kazakhstan [Utochkin, 1988: as *X. albomaculatus*]. Beyond doubt, it occurs also in Tuva and Transbaikalia.

DESCRIPTION: Measurements. Carapace: length 2.75, width 2.83. Abdomen: length 3.40, width 2.60. Eye field: MOA-WA 0.53, MOA-WP 0.50, MOA-L 0.51. Eyes: AME 0.10, ALE 0.35, PME 0.09, PLE 0.13, AME-AME 0.36, AME-ALE 0.18, PME-PME 0.33, PME-PLE 0.43. Cheliceral length 1.05. Length of leg segments: leg I - 3.15 + 1.40 + 2.55 + 2.50 + 1.20; leg II - 3.20 + 1.45 + 2.55 + 2.40 + 1.15; leg III - 2.10 + 1.00 + 1.35 + 1.40 + 0.80; leg IV - 2.10 + 0.90 + 1.45 + 1.65 + 0.95. Spination of leg I: femur d.0-1-1-1-0, pr. 0-1-1-1-0; tibia pr. and rt. 1-1-1, v. 2-2-2-2ap.; metatarsus pr. 1-1-1-1ap., rt. 1-1 v. 2-2-2-2-2ap. Coloration. Carapace sandy-coloured, on sides with a network of brown veins. Yellow around eyes.

Fig. 2. Male palp of *Xysticus illaudatus* sp.n.: A — mesal; B — ventral; C — lateral. Scale 0.2 mm.Рис. 2. Пальп самца *Xysticus illaudatus* sp.n.: А — вид медиально; В — вид вентрально; С — вид латерально. Масштаб 0,2 мм.Fig. 3. Male palp of *Xysticus bedini* Schenkel, 1936: A — mesal; B — ventral; C — lateral. Scale 0.2 mm.Рис. 3. Пальп самца *Xysticus bedini* Schenkel, 1936: А — вид медиально; В — вид вентрально; С — вид латерально. Масштаб 0,2 мм.



Maps 1 & 2. Distributions of *Xysticus hedini* Schenkel, 1936 (1) and *X. dzhungaricus* Tystschenko, 1965 (2).  
 Карты 1 и 2. Места находок *Xysticus hedini* Schenkel, 1936 (1) и *X. dzhungaricus* Tystschenko, 1965 (2).

Median wide band of carapace with a V-shaped white line. Sternum cream. Maxillae, labium, chelicerae and legs sandy. Abdomen cream-sandy-coloured, with white thin lines. Palp structure as in Fig. 1.

**REMARKS:** This species has been misidentified by Utotchkin [1968, 1988] as *X. albomaculatus* Kulczynski, 1891. When examining the original description of the latter species [Chyzer & Kulczyński, 1891: tab.III, fig. 33a, b], I have arrived to the conclusion that Utotchkin

[1968] erroneously applied the name *X. albomaculatus* to an unknown species. The above is its redescription.

**NAME:** The specific epithet is derived from the Latin "idolothytus" meaning "dedicated to idols".

#### *Xysticus illaudatus* sp.n.

Fig. 2.

**MATERIAL EXAMINED:** Holotype: 1 ♂ (BI-777),

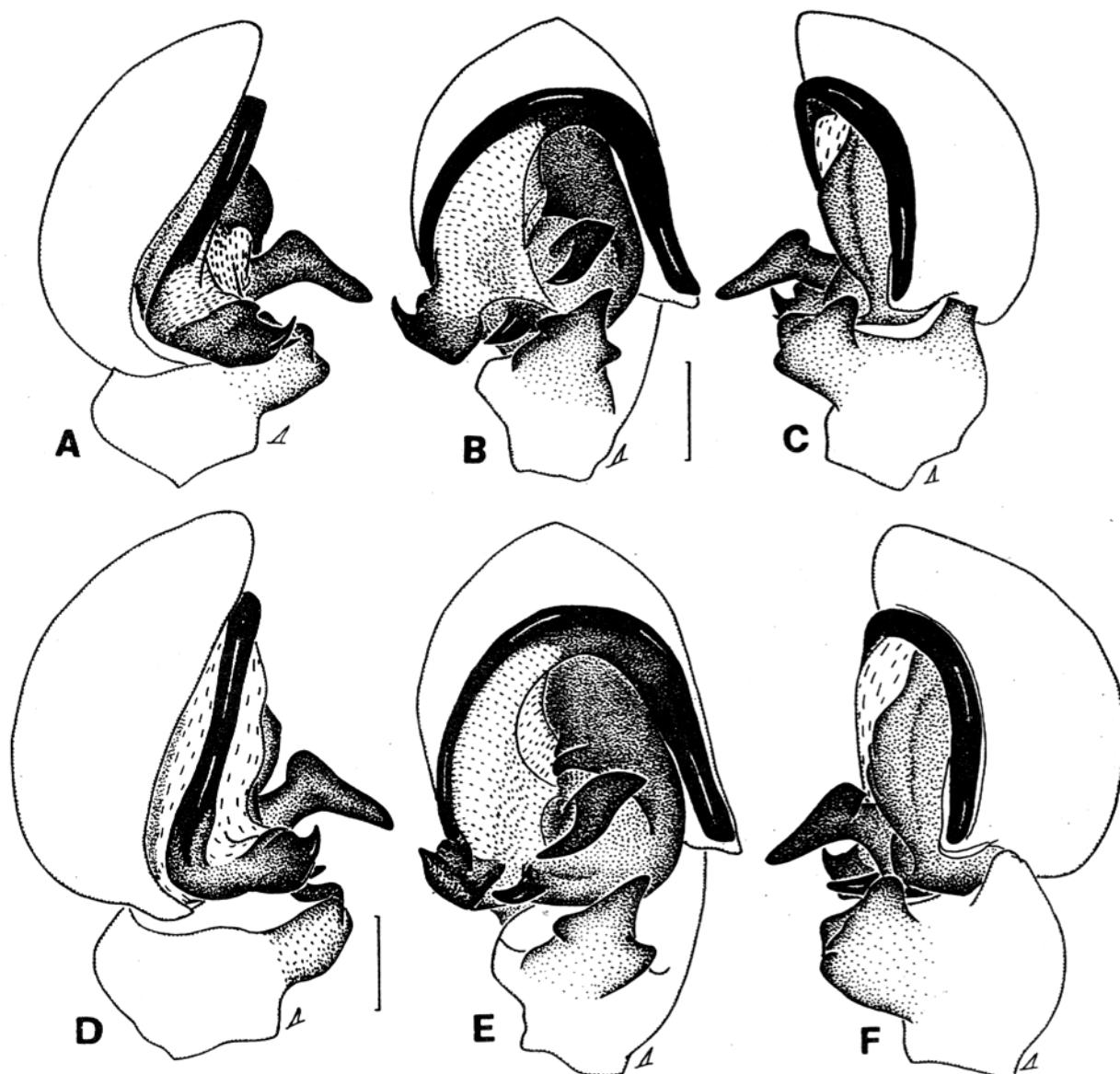


Fig. 4. Male palps of *Xysticus latitabundus* sp.n. (A-C, holotype; D-F, paratype): A,D — mesal; B,E — ventral; C,F — lateral. Scale 0.2 mm.

Рис. 4. Пальпсы самцов *Xysticus latitabundus* sp.n. (A-C, голотип; D-F, параптип): А,Д — вид медиально; В,Е — вид вентрально; С,Ф — вид латерально. Масштаб 0.2 мм.

Maritime Prov. (Primorie), middle flow of Bikin River, 1-5.06.1977, leg. Y. B. Shibnev.

**DIAGNOSIS:** The species belongs to the *luctans*-group sensu Ono [1988], being closely related to *X. concretus* Utotchkina, 1968. However, it can be easily separated by the sharpened RTA and also by the shape of the median tegular apophysis.

**DISTRIBUTION:** The type locality only.

**DESCRIPTION:** Measurements. Carapace: length 1.77, width 1.77. Eye field: MOA-WA 0.36, MOA-WP 0.41, MOA-L 0.43. Eyes: AME 0.09, ALE 0.14, PME 0.09, PLE 0.11, AME-AME 0.23, AME-ALE 0.16, PME-PME 0.25, PME-PLE 0.33. Clypeal height 0.20. Cheliceral length 0.63. Length of leg segments: leg I - 1.80 + 0.76 + 1.35 + 1.33

+ 0.85; leg II - 1.83 + 0.73 + 1.30 + 1.28 + 0.83; leg III - 1.28 + 0.54 + 0.85 + 0.58 + 0.50; leg IV - 1.38 + 0.55 + 0.93 + 0.75 + 0.58. Spination of leg I: femur d.0-0-1-1-1, pr. 1-1-1; tibia pr. 1-1-1, rt. 0-1-1, v. 1-1-1-1; metatarsus pr. and rt. 0-1-1ap., v. 2-2-2ap. Coloration. Carapace brown, with a median, V-shaped, yellow spot. Front part of eye field yellow. Dorsum of abdomen brown with thin, white, transverse lines. Remaining parts of body, including all legs, yellowish-brownish. Palp structure as in Fig. 2.

**NAME:** The specific epithet is derived from the Latin “*illaudatus*” meaning “unknown, unfamiliar”.

*Xysticus hedini* Schenkel, 1936.

Fig. 3, Map. 1.

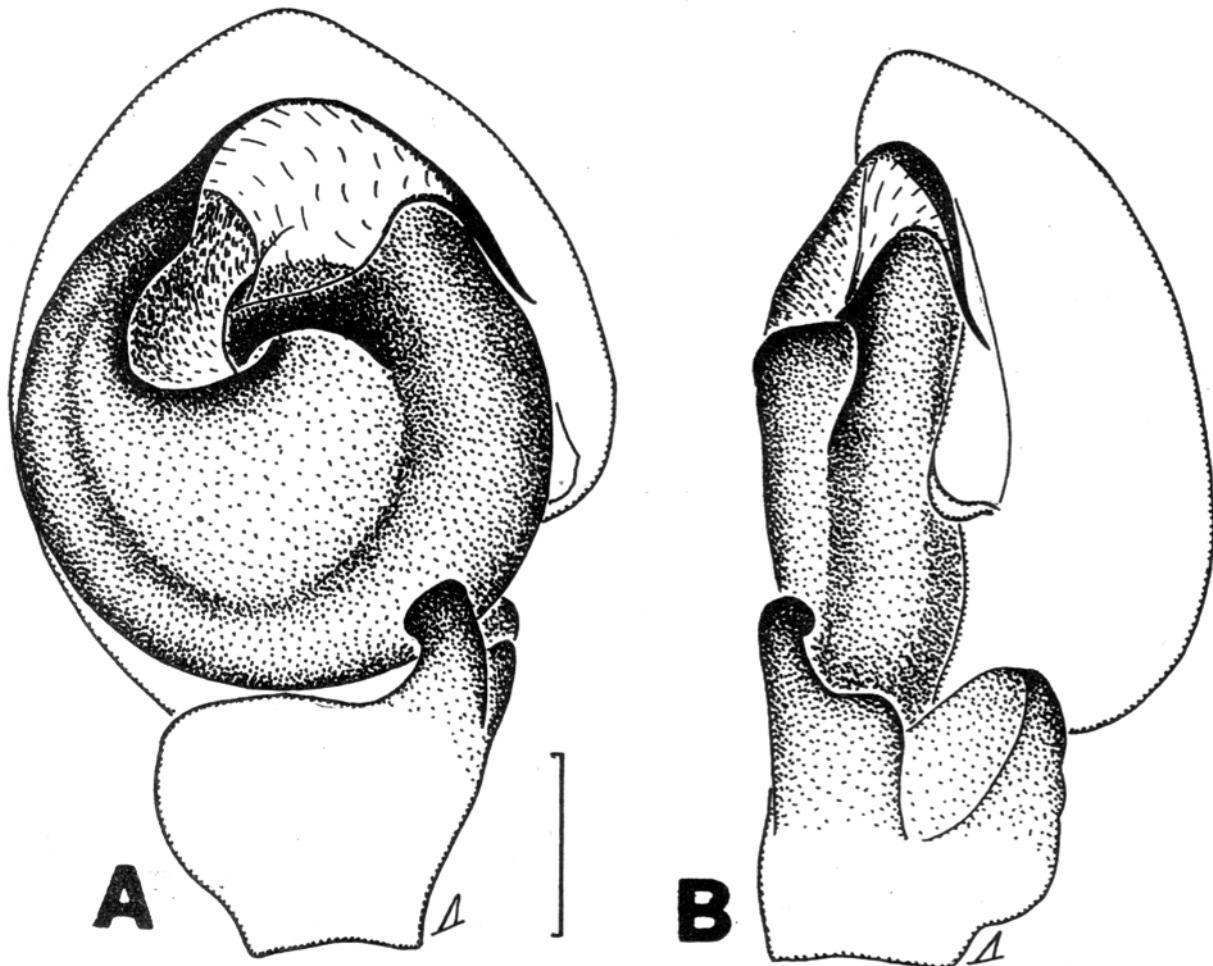


Fig. 5. Male palp of *Xysticus coreanus* (Paik, 1974): A — ventral; B — lateral. Scale 0.25 mm.

Рис. 5. Пальп самца *Xysticus coreanus* (Paik, 1974): А — вид вентрально; В — вид латерально. Масштаб 0.25 мм.

MATERIAL EXAMINED: Khabarovsk Prov.: 1 ♂ (BI), 20-25 km SE of Khabarovsk, Bolshekhekhtsyrskiy Reserve, 250-300 m alt., 13-15.06.1987, leg. D.V. Logunov; 3 ♂♂ (BI), 1 ♂ (ZMMU), Jewish Autonomous Region, Amur valley, Nizhnespasskoye, *Calamagrostis* meadow, 15.06.1988, leg. D. K. Kurenschikov; 2 ♂♂ (ZMMU), Amursk Distr., Lake Evoron, 20.08. 1988, leg. D.K. Kurenschikov. - Maritime Prov.: 1 ♂ (BI), Khasan, Lake Talmi, 7.06.1976, leg. B.P. Zakharov. - Chita Area: 2 ♀♀ (BI), 60-65 km SW of Kyra, Sokhondo Reserve, 1000-1100 m alt., 16.06.1991, leg. D.V. Logunov; 1 ♀ (BI), 3 km W of Kyra, moist meadow, 800-850 m alt., 30.05.1991, leg. D.V. Logunov.

DIAGNOSIS: The species belongs to the *cristatus*-group and is closely related to *X. kurilensis* Strand, 1907 and *X. audax* (Schrantz, 1803). From the former it can be separated by the shape of the median tegular apophysis (larger lateral branch, cf. Fig. 3), and from the latter by the absence of a small tooth on the apical tegular apophysis. ♀ genitalia of this species have been well restudied by Ono [1985: figs 48-51].

DISTRIBUTION: The species has a Dahurio-Far Eastern subboreal distribution pattern (Map 1). It had been described and then repeatedly recorded under the name of *X. bifidus* [Paik, 1973; Ono, 1985, 1988; Ono et al., 1991; Ono & Yasuda, 1992] until its identity with *X. hedini* Schenkel, 1936, was established by Marusik [1989].

#### *Xysticus latitabundus* sp.n.

Fig. 4.

MATERIAL EXAMINED. Holotype: 1 ♂ (BI-778), Maritime Prov., Khasan Distr., Kedrovaya Pad Reserve, 28.05.1976, leg. B.P. Zakharov. - Paratype: 1 ♂ (ZMMU, Ta-4794), Maritime Prov., middle flow of Bikin River, 1-5.06.1977, leg. Y.B. Shibnev.

DIAGNOSIS: This species can be arbitrarily assigned to the *cristatus*-group. From the latter's members, the new species can be easily distinguished by the strong and prominent apical apophysis possessing an additional strong tooth (Fig. 4) like in representatives of the *luctans*-group.

DISTRIBUTION: Russian Far East.

DESCRIPTION. Measurements. Carapace: length 2.13-2.60, width 2.13-2.50. Eye field: MOA-WA 0.44-0.54, MOA-WP 0.47-0.56, MOA-L 0.46-0.56. Eyes: AME 0.09-0.10, ALE 0.16-0.17, PME 0.09-0.11, PLE 0.12-0.13, AME-AME 0.28-0.43, AME-ALE 0.16-0.19, PME-PME 0.29-0.34, PME-PLE 0.34-0.40. Clypeal height 0.22-0.26. Cheliceral length 0.80-0.90. Length of leg segments: leg I - 2.33-2.68 + 0.93-1.20 + 1.85-2.13 + 1.88-2.20 + 1.05-1.25; leg II - 2.25-2.55 + 0.90-1.15 + 1.75-2.08 + 1.80-2.13 + 1.01-1.23; leg III - 1.63-2.05 + 0.63-0.88 + 1.13-1.38 + 0.98-1.20 + 0.70-0.83; leg IV - 1.665-2.10 + 0.63-0.85 + 1.25-1.43 + 1.13-1.38 + 0.73-0.83. Spination of leg I: femur d. 0-0-1-1-1, pr. 1-1-1 or 1-1-1-2; patella pr. and rt. 0-1-0; tibia pr. and rt. 1-1-1, v. 2-2-2-2ap.; metatarsus pr. 1-1-1, rt. 1-1-0, v. 1-2-2-2ap. Coloration. Carapace red-brown to brown, with a V-shaped yellow pattern. Front part of eye field and tubercles of ALE and PLE yellow. Abdomen: dorsum with a median, herring-bone, yellow pattern; venter yellow-brownish with brown spots. Remaining body parts orange. Legs: femora and patellae brown with white patches; remaining segments orange-yellow. Palp structure as shown in Fig. 2.

NAME: The specific epithet is derived from the Latin "latitabundus" meaning "hiding".

#### *Xysticus coreanus* (Paik, 1974)

Fig. 5.

MATERIAL EXAMINED: 1 ♂ (BI), Maritime Prov., Bay "Vityaz", 22-25.07.1993, leg. V.K. Zinchenko.

DIAGNOSIS: The species is closely related to *X. vachoni* Schenkel, 1963, but differs in having the deeper pocket on the tegulum and also in the shape of the tibial apophysis.

DISTRIBUTION: Korea, China (Hubei Prov.) and the Maritime Prov. of Russia.

DESCRIPTION: Measurements. Carapace: length 2.90, width 2.80. Abdomen: length 2.95, width 2.80. Eye field: MOA-WA 0.64, MOA-WP 0.65, MOA-L 0.60. Eyes: AME 0.10, ALE 0.20, PME 0.10, PLE 0.12, AME-AME 0.43, AME-ALE 0.23, PME-PME 0.44, PME-PLE 0.43. Clypeal height 0.20. Cheliceral length 0.93. Length of leg segments: leg I - 3.20 + 1.45 + 2.45 + 2.70 + 1.30; leg II - 3.05 + 1.45 + 2.30 + 2.55 + 1.25; leg III - 2.30 + 1.00 + 1.45 + 1.45 + 0.90; leg IV - 2.35 + 0.95 + 1.45 + 1.75 + 0.90. Spination of leg I: femur d. 0-1-1-0, pr. 0-1-1-1-0; tibia v. 2-2-2-2ap.; metatarsus pr. and rt. 1-1-1ap., v. 2-2-2-2-2ap. Coloration. Carapace pimply, black and shining, with a V-shaped, red, thin line. Red-orange around eyes. Sternum, maxillae, labium and chelicerae dark brown. Abdomen grey-brown, with white folds on sides. Spinnerets and book-lung covers brown. Legs I and II: femora, patellae and tibiae dark brown; metatarsi and tarsi yellow-brown. Legs III and IV: femora dark brown; patellae and tibiae dark brown with longitudinal white lines; metatarsi and tarsi yellow-brown. Palp dark brown. Its structure as in Fig. 5.

#### *Xysticus dzhungaricus* Tystschenko, 1965

Map 2.

*X. piceanus* Hu & Wu, 1989, syn.n.!

REMARKS: This species has been redescribed as *X. piceana* (sic!) (correct spelling: *X. piceanus*, cf. Platnick [1993: 728]) by Hu & Wu [1989: 351, 152, figs 278, 280] from China (Xinjiang). Judged from the original drawings alone, this taxon is undoubtedly identical to *X. dzhungaricus* (= *X. kiritschenkoi* Utotchkin, 1968), a species ranging from Kazakhstan and Kirghizstan in the west throughout southern Siberia to the Khabarovsk Province in the east [Tystschenko, 1965; Utotchkin, 1968, 1988; Marusik & Logunov, 1990; Logunov, 1992b]. The currently known distribution of this species is shown in Map 2.

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