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New species and records of *Stenus (Nestus)* of the *cautus*-group (Insecta: Coleoptera: Staphylinidae: Steninae)

With 8 figures

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Abstract. Three new species closely related to *Stenus (Nestus) cautus* ERICHSON, 1839 are described: *S. (N.) subcautus* sp. n., *S. (N.) immodicus* sp. n., both from the Russian Far East, and *S. (N.) incautus* sp. n., from the Yenisey River basin, central Siberia. Some interesting records of *S. (N.) europaeus* PUTHZ, 1966 are made. A key to six *Stenus* species of the *cautus*-group known to occur in Siberia and the Far East of Russia is given.

Until recently, only three *Stenus (Nestus)* species of the *cautus*-group have been known from the entire Palaearctic. Those species, *S. (N.) cautus* ERICHSON, 1839, *S. (N.) macrocephalus* AUBÉ, 1863, and *S. (N.) europaeus* PUTHZ, 1966 have been revised, figured and keyed by PUTHZ (1966). However, some more, new species from this group have since been found in the northeastern Palaearctic, of which one is already described: *S. (N.) semiputatus* RYVKIN, 1995. Descriptions of further three new species are given below. In addition, I put on record some interesting findings of *S. (N.) europaeus* PUTHZ, 1966 and also provide a key to all known Siberian and Far Eastern species of this group.

I thank Dr. S. I. GOLOVATCH, Mr. V. B. SEMENOV and Mr. S. A. KURBATOV for putting at my disposal for study some of the material they took.

Stenus (Nestus) europaeus PUTHZ, 1966

europaeus PUTHZ, 1966, Entomologische Blätter Biol. Syst. Käfer, Krefeld, **62** (2): 113.
europaeus; PUTHZ, 1971, Entomologisk Tidskrift **92**, 3–4: 243.
vafellus; Auctt., non ERICHSON, 1839.

Material. 1 male (AR): Krasnoyarsk Territory, Turukhanskiy District, Central Siberian State Reserve, environs of Komsa, 40 m, swampy forest lake shore, mosses and Gramineae under *Betula*, etc., 19/06/88, leg. A. B. RYVKIN. – 4 females (AR): same locality, 40 m, Sedge-graminoid bog with *Comarum* and *Salix* spp. (He+Hm), 08/08/88, leg. A. B. RYVKIN. – 1 male (AR): Evenkia, Baykitskiy District, Podkamennaya Tunguska River basin, Velmo River, 173 km upstream off mouth, Tchapa River mouth, banks of rivers: *Carex*, Gramineae, *Salix*, shingles, mosses, etc., 08/08/90, leg. A. B. RYVKIN. – 24 males, 15 females (AR): Krasnoyarsk Territory, Turukhanskiy District, upper reaches of Nizhnyaya Lebedyanka River, river bank with forbs (*Urtica*, *Trollius*,

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Caltha, Filipendula): dead grass, mosses and birch-spruce litter, 18/06/92, leg. V. B. SEMENOV. – 3 males, 1 female (AR): same locality, at tussocks with last year's grass at swamp forest with *Betula*, *Abies*, young *Pinus sibirica*, *Picea* and *Larix*, 25/06/92, leg. V. B. SEMENOV. – 1 male (AR): same locality, mosses and litter at forest with *Pinus sibirica*, *Abies*, admixture of *Betula*, *Hylocomium*, *Pleurozium*, *Polytrichum commune*, 19/06/92, leg. V. B. SEMENOV.

Remarks PUTHZ (1971) records this species as represented in "Europa ausser iberischer Halbinsel und Balkan, in Italien südlich bis zur Toscana" The new data prove *S. europaeus* to be common in Middle Siberia as well.

Stenus (Nestus) immodicus sp. n. (Fig. 2)

Material. Holotype male (ZMMU): USSR, Khabarovsk Province, Bolshe-Khekhtsyrskiy Reserve, 6-10.VI.1990, 400-450 m, *Abies/Pinus/Betula* forest, leg. S. I. GOLOVATCH & W. SCHAWALLER.

Description Black, with anthracite shine, fairly coarsely and densely punctured, with short but fairly dense yellowish-silvery pubescence. Antennae with 1-2 basal segments brownish-black (antennomeres 3-11 of holotype removed); palpi brownish-black with segment 1 brownish-yellow; legs dark brown to brownish-black, knees blackened; labrum pitchy-black, densely pubescent with short golden hairs.

Length: 3.2 mm (with extended abdomen).

Head much broader than pronotum (54 42), distinctly broader than elytra between humeri (54 49) and a bit broader than those in their broadest part (54 53). Frontal longitudinal impressions not sharp but well-developed; median elevation broad but evident, more than twice as broad as each of lateral portions. Punctuation fairly dense, moderately coarse, irregular, in lateral impressions more close, partly confluent but not rugose; middle of front with interstices between punctures about as broad as half the average diameter of punctures which is nearly equal to $\frac{2}{3}$ of cross-section of antennal segment 2. (Remaining antennomeres of holotype broken off.)

Pronotum convex, hardly longer than broad (43 42), broadest near middle, narrowing feebly convexly toward anterior margin and nearly straight toward posterior one, with neither conspicuous furrows nor impressions, only vaguely depressed behind anterior margin and behind the middle of disk. Punctuation of disk evidently coarser and larger than that of head, irregular, partly confluent but not rugose, as a rule; average diameter of punctures nearly equal to cross-section of antennal segment 2; medioposterior depression with an impunctate spot somewhat larger than average diameter of surrounding punctures.

Elytra scarcely transverse (50 53), a little dilated behind rounded but evident humeri (49 53), by about $\frac{1}{6}$ longer than pronotum (50 43), suture a bit shorter than latter (42 43); humeral impressions very short but evident in basal part; sutural and lateral depressions very feeble, almost invisible. Punctuation coarse and dense, pits somewhat larger than those of pronotum, non-rugose, confluent mainly along suture and in humeral impressions.

Legs fairly long and slender; metatibia less than by $\frac{1}{2}$ longer than metatarsus (45 31); segment 1 of metatarsus much shorter than 5th (6 10).

Abdomen subcylindrical, in basal half nearly parallel-sided, following segments narrowed posteriorly; paratergites normally developed; anterior tergites with four well-developed longitudinal keels in their basal parts. Membranous fringe of 5th visible tergite very fine but visible throughout posterior margin. Punctuation of fore visible tergites nearly as large as that of head but sparser and more regular, still sparser medioposteriorly; punctures on tergites 6-8 evidently smaller, shallower and more regular.

Very fine and close mesh-like ground-sculpture well-developed on head and pronotum, irregular and sparse on elytra, visible mainly at base and in sutural area, on fore three visible tergites almost absent but evident on tergites 6-8.

Male Meso- and metatibiae without teeth; posterior margin of 8th abdominal sternite broadly rounded, without any emarginations; 7th sternite with a broad and not deep medial longitudinal impression, flanked by two fine keels each provided with a tuft of fairly long golden setae; 6th sternite medioposteriorly distinctly depressed; posterior margin of 9th abdominal sternite with a wide angular median prominence and two lateral teeth curved inwards; aedeagus as in Fig. 2.

Female Unknown.

Diagnosis This species can be distinguished from all known Palaearctic members of the *cautus*-group by the shape of the aedeagus, the structure of the male abdominal sternites 6–8, body proportions, the character of punctation and ground-sculpture, the greater body length; from *S. cautus* ERICHSON, 1839, *S. europaeus* PUTHZ, 1966, *S. subcautus* sp. n. and *S. macrocephalus* AUBÉ, 1863 by the colour of the extremities; from *S. subcautus* sp. n. by the normally developed paratergites of the abdomen; from *S. semiputatus* RYVKIN, 1995 by the normally developed membranous fringe of the 5th visible abdominal tergite.

Stenus (Nestus) incautus sp. n. (Figs. 5–8)

Material. Holotype male (ZMMU), paratype female (AR): Krasnoyarsk Territory, Severo-Yeniseyskiy District, Podkamennaya Tunguska River basin, Velmo River, 185 km up-stream off river mouth, near Trading Post Velmo-I, river bank: *Carex*, Gramineae, shingles, etc., 07/08/90, leg. A. B. RYVKIN.

Description Black, distinctly shining, fairly densely punctured, with short and dense silvery pubescence. Antennae dark brown, with segments 1–2 brownish-black; palpi with segment 1 brownish-yellow, 2nd dark brown with the very base yellowish, 3rd segment brownish-black; legs pitchy-black with tarsi and apical parts of tibiae brownish; labrum pitchy-black, finely and densely pubescent with short silvery hairs.

Length: 2.8–3.0 mm.

Head less than by $\frac{1}{4}$ broader than pronotum (44–36), nearly as broad as elytra between humeri (44–45) and somewhat narrower than those in their posterior part (44–50). Front with two shallow but evident lateral impressions; median elevation moderately developed, somewhat broader than lateral portions. Punctation dense but not very coarse, feebly confluent only in lateral impressions, non-rugose; middle of front with interstices sometimes exceeding the diameter of surrounding punctures; average diameter of punctures smaller than cross-section of the antennal segment 3. Length proportions of antennal segments 2–9 as 5 5 5 4 4 3.5 3 3. Antennae not reaching the posterior $\frac{1}{3}$ of pronotum.

Pronotum moderately convex, a little narrower than long (36–39), broadest a bit behind the middle, narrowing convexly anteriorly and concavely posteriorly; disk slightly flattened, with a short and feeble median longitudinal furrow (masked by punctation) in basal part, behind fore margin with a shallow transverse impression. Punctation of disk denser and somewhat greater than that of head, more regular, some punctures non-rugosely confluent mainly near anterior and posterior margins.

Elytra nearly square (49–50), somewhat dilated posteriorly (45–50), nearly by $\frac{1}{4}$ longer than pronotum (49–39), suture a little longer than latter (42–39); sutural impression in basal part extremely small and shallow, almost invisible; humeral impressions very short and feeble but evident; lateral depressions near midway very feeble and vague. Humeral angles shortly rounded but developed. Punctation moderately coarse and dense, evidently larger than that of head and pronotum, non-rugose, scarcely confluent mainly in humeral and sutural impressions; average diameter of punctures distinctly smaller than cross-section of antennal segment 2.

Legs fairly long and slender; metatibia by more than a half longer than metatarsus (39–25); segment 1 of metatarsus distinctly shorter than 5th (5–7).

Abdomen moderately subcylindrical, somewhat flattened dorsally, visible segments 1–2 nearly parallel-sided, following segments uniform narrowed posteriorly, with normally developed paratergites of visible segments 1–5; anterior tergites in their basal parts with four longitudinal, short but visible keels. 5th visible tergite with a normally developed membranous fringe. Punctuation of visible tergites 1–2 nearly as large as that of head but medially much sparser, most dense in lateral parts, on tergite 3 evidently denser, on following tergites much finer and smaller. Ground-sculpture between punctures in fore parts almost absent, very fine and irregular netting or cells visible only at margins of punctures; close and deep netting well-developed on 8th abdominal tergite and at posterior margins of two preceding tergites.

Male Meso- and metatibiae without any teeth; 8th abdominal sternite with a very broad and shallow emargination at posterior margin; 6th abdominal sternite with a medioposterior shallow depression, with neither any keels nor long setae; 9th abdominal sternite as in Fig. 8; aedeagus as in Figs. 5–7.

Female: 8th abdominal sternite with posterior margin broadly rounded; valvifera laterally dentate.

Diagnosis This species can be distinguished from other species of the *cautus*-group with darkened extremities by the shape of the aedeagus, the structure of the posterior abdominal sternites, the much greater elytra, the more regular punctuation of the fore body parts and by the character of ground-sculpture.

***Stenus (Nestus) subcautus* sp. n.** (Figs. 3–4)

Material Holotype male (ZMMU), paratype male (SMTD), paratype male (AR): Maritime Province, Khasan, Golubinyi Utyos, 30/V/1991, leg. S. A. KURBATOV. – Paratype male (AR), paratype male (ZMMU): same locality, 31/V/1991, leg. S. A. KURBATOV.

Description Pitchy-black, distinctly shining, moderately densely punctured, with not long but fairly dense yellowish-silvery pubescence. Antennae brown, with basal segment brownish-black, segments of club dark brown; palpi yellow with segment 3 yellowish-brown; legs brownish-yellow, knees slightly infuscate; labrum pitchy-black, finely pubescent with short yellowish-silvery hairs.

Length: 2.2–2.5 mm (with extended abdomen).

Head by a bit more than $\frac{1}{4}$ broader than pronotum (42–33), somewhat broader than elytra between humeri (42–39) and somewhat narrower than in their broadest part (42–44). Front with two not very deep but evident longitudinal impressions; medial elevation broad and prominent, posteriorly more than twice as broad as lateral portions. Punctuation moderately coarse and dense, irregular, partly confluent but not rugose; greatest punctures nearly as large as broadest cross-section of antennal segment 3; median elevation of front with a longitudinal impunctate strip distinctly broader than average diameter of punctures. Length proportions of antennal segments 2–9 as 5–5–4–4–3–3–2–3. Antennae not reaching the posterior quarter of pronotum.

Pronotum moderately convex, a little longer than broad (35–33), broadest near the middle, narrowed forwards convexly and backwards feebly concavely, with a very fine and short medio-basal longitudinal furrow masked by punctuation. Punctuation of disk somewhat smaller and more regular than that of head, much coarser and larger near posterior margin.

Elytra broader than long (44–38), somewhat dilated posteriorly (39–44), a little longer than pronotum (38–35), suture distinctly shorter than latter (30–35); humeri rounded but developed; sutural impression very feeble, humeral impressions absent, lateral depressions near midway almost invisible. Punctuation fairly coarse and dense, non-rugose, punctures evidently larger than those of head and somewhat larger than at base of pronotum, about as large as cross-section of antennal segment 2.

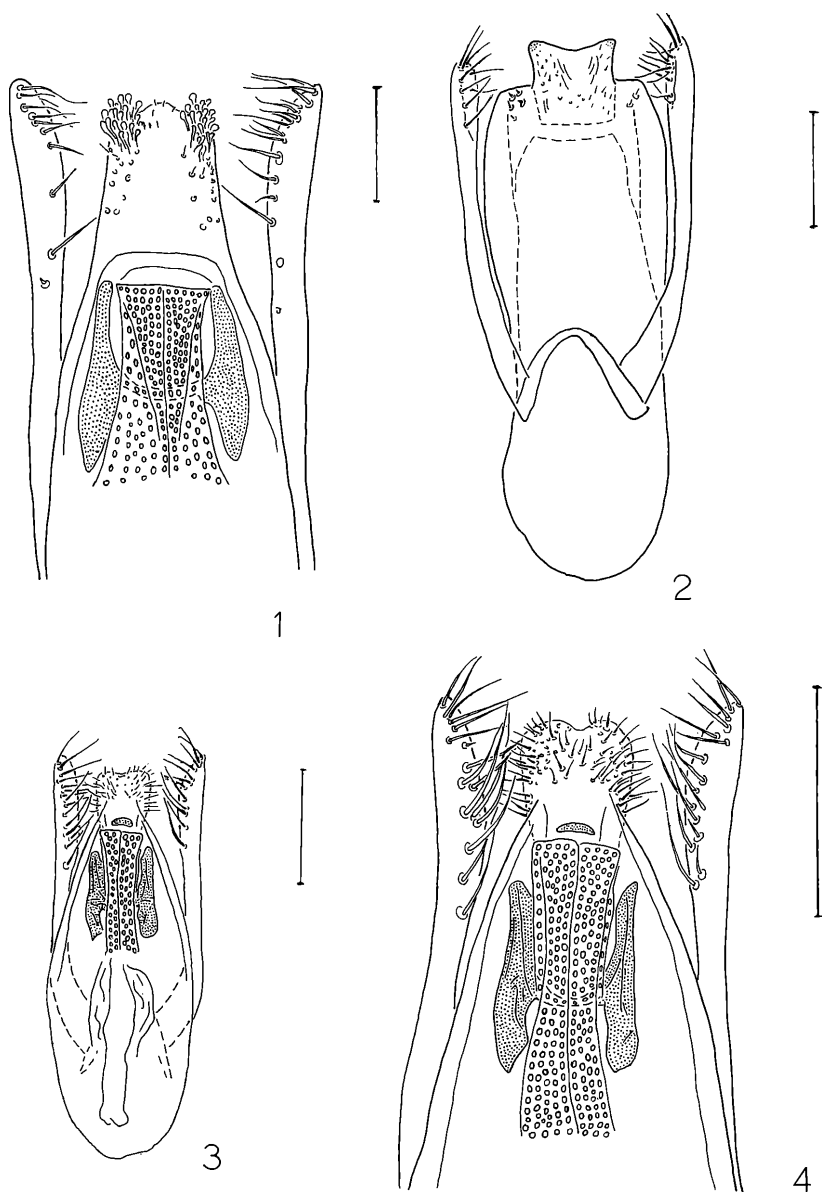
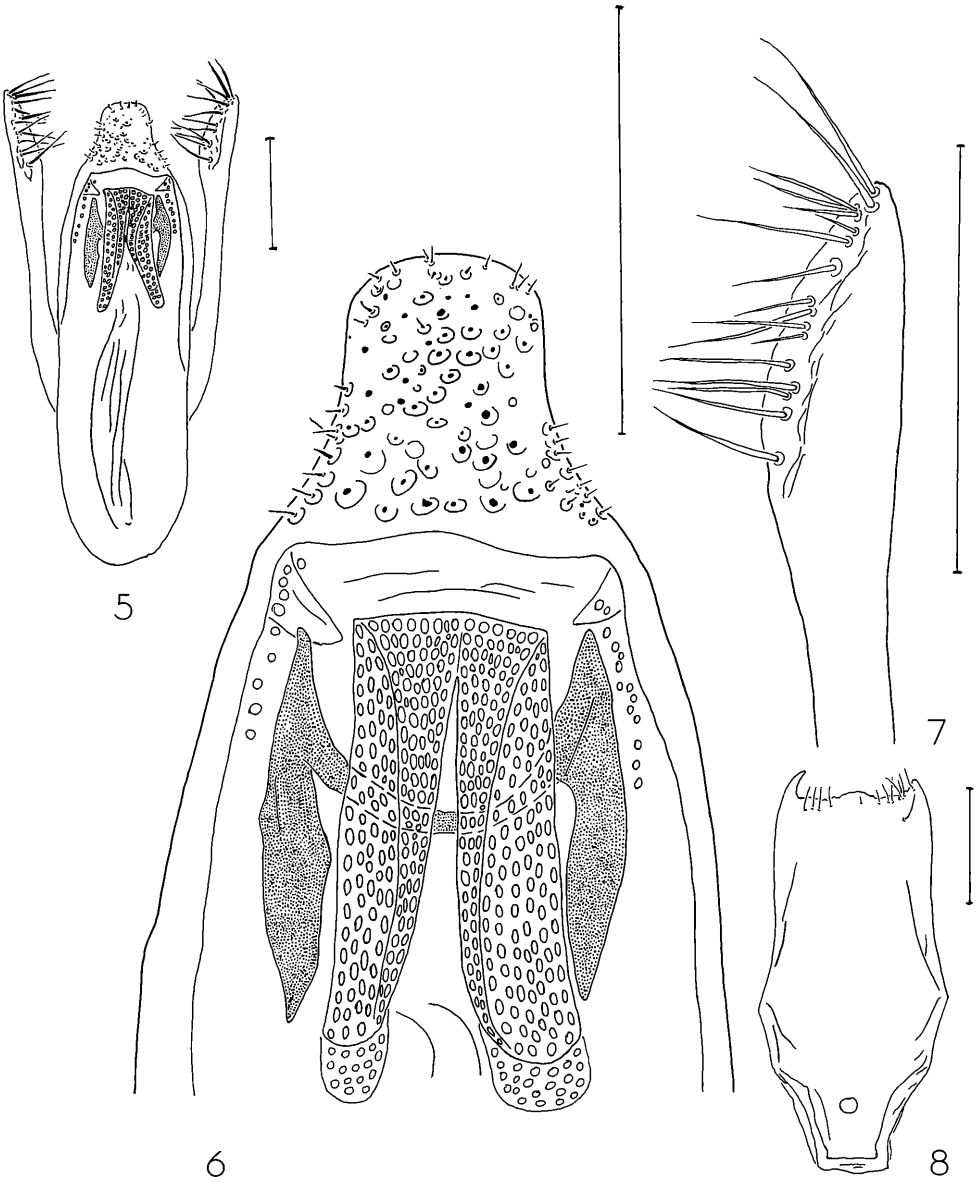


Fig. 1: *Stenus (Nestus) cautus* ERICHSON, 1839, male (Russia: Moscow Region): apical part of aedeagus ventrally. – Fig. 2: *Stenus (Nestus) immodicus* sp. n., holotype: aedeagus dorsally. – Figs. 3–4: *Stenus (Nestus) subcautus* sp. n., holotype. 3 – aedeagus ventrally; 4 – apical part of aedeagus ventrally.

Scales: 0.1 mm

Legs fairly slender; metatibia by $\frac{1}{2}$ longer than metatarsus (33–22); segment 1 of metatarsus somewhat shorter than 5th (5–6).

Abdomen subcylindrical, slightly narrowed posteriorly, with evident paratergites only on 1st visible segment and in basal part of 2nd (as in the subgenus *Tesnus*); anterior tergites with four short but developed longitudinal keels in their basal parts. Posterior margin of 5th visible tergite



Figs. 5–8: *Stenus (Nestus) incautus* sp. n., holotype. 5 – aedeagus ventrally; 6 – apical part of aedeagus ventrally; 7 – apical part of paramere; 8 – 9th abdominal sternite ventrally. Scales: 0.1 mm

with a well-developed membranous fringe. Punctuation of anterior visible tergites somewhat smaller and distinctly shallower than that of pronotum, most dense in lateral parts, medially more sparse; posterior margins of tergites with impunctate spots evidently larger than the diameter of punctures. Ground-sculpture between pits of punctuation almost absent, with feeble and irregular netting visible mainly at periphery of punctures and (much more strongly developed) on abdominal basitergites.

Male Meso- and metatibiae without any teeth; posterior margin of 8th abdominal sternite with a very broad and shallow emargination, nearly straight; 9th abdominal sternite as in *S. europaeus* PUTHZ, 1966; aedeagus as in Fig. 1.

Female Unknown.

Diagnosis This species can be distinguished from other species of the *cautus*-group by marked differences in the shape of the aedeagus, by the absence of the paratergites of visible abdominal segments 3–5. It differs from *S. semiputatus* RYVKIN, 1995, *S. immodicus* sp. n., *S. incautus* sp. n. by the smaller body length, body proportions, the colour of the extremities.

Key to the Siberian and Far Eastern species of the *cautus*-group:

1. Abdomen with evident paratergites only on 1st visible segment and in basal part of 2nd one (as in the subgenus *Tesnus*). Aedeagus as in Figs. 3–4. 2.2–2.5 mm. – Russian Far East: Maritime Prov. *subcautus* sp. n. 2
 – Paratergites normally developed on visible abdominal segments 1–5. 2
2. Legs lighter, brown to brownish-yellow. 3
 – Legs dark brown to pitchy-black. 4
3. Median lobe of aedeagus as in Fig. 1. Spermatheca not sclerotized, membranous. 2.4–3.2 mm. – W, C, E and NE Europe, N Caucasus, E Turkey, SW Siberia; the E Siberian record by PUTHZ (1966) is to be revised. *cautus* ERICHSON, 1839
 – Apex of median lobe of aedeagus broadly lanceolate. Spermatheca well-sclerotized. 2.2–3.0 mm. – Europe, except for SW and S parts, Siberia up to Yenisey River basin. *europaeus* PUTHZ, 1966
 4. Elytra greater, nearly by $\frac{1}{4}$ longer than pronotum. Aedeagus as in Figs. 5–7. 3.2 mm. – Yenisey River basin: Velmo River. *incautus* sp. n. 5
 – Elytra shorter and narrower, not more than by $\frac{1}{4}$ longer than pronotum. 5
5. Smaller. Elytra much broader than long. Aedeagus as depicted in RYVKIN (1995). 2.6–2.8 mm. – S Siberia: W-Sayan Mts. *semiputatus* RYVKIN, 1995
 – Greater. Elytra a little broader than long. Aedeagus as in Fig. 2. 3.2 mm. – Russian Far East: Khabarovsk Prov. *immodicus* sp. n.

Abbreviations

AR: Collection of A. B. RYVKIN
 SMTD: Staatliches Museum für Tierkunde, Dresden
 ZMMU: Zoological Museum of Moscow University

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