TWO NEW *CICINDELA* L., 1758 FROM TUVA REPUBLIC (Coleoptera, Cicindelidae)

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Key words: Coleoptera, Cicindelidae, Russia, Tuva, new subspecies.
Abstract: *C. kozhantshikovi* Lutshnik, 1924 is regarded as a species. *C. kozhantshikovi vaschenkoi* ssp. n. and *C. restricta tuvensis* ssp. n. are described from Tuva Republic.
Résumé: *C. kozhantshikovi* Lutshnik, 1924 est considéré comme une espèce. *C. kozhantshikovi vaschenkoi* ssp. n. et *C. restricta tuvensis* ssp.n. sont décrites de la République de Tuva.

Introduction. Several investigations on *Cicindela* species close to *C. hybrida* L., 1758 were recently published (WERNER, 1991; GEBERT, 1995; MATALIN, 1999). Still the taxonomic situation arround *C. hybrida* rests uncertain.

C. kozhantshikovi Lutshnik, 1924, described as a subspecies of *C. sahlbergi* Fischer von Waldheim, 1824 (and kept in this position by J. Gebert, 1995) was regarded as a subspecies of *C. hybrida* by WERNER (1991) and MATALIN (1999). In reality *C. kozhantshikovi* is a separate species.

I have got a series of specimens of *C. kozhantshikovi* from Tagar Island (18.7.1993, A.Chuvilin leg.) near Minusinsk (Figs. 1-2).

All specimens from Tagar Island are colored absolutely same as it was described for type series (green elytrae with wide pale pattern, green-blue pronotum with red-gold sides). The specimens from other known localities: Kaptyrevo (type locality - Matalin designation, 1999) and Tiberkul Lake are, according to the original description, similarly colored. The only character, which must be specially mentioned here for the population of Tagar Island is the cream-yellow colour of pale elytral pattern. This colour did not appear posteriorly due to the bad conservation of the specimens, but was observed by the collector (A.Chuvilin) in nature.

The form of the aedeagus of *C. kozhantshikovi* from Tagar Island is just same as it was figured by MATALIN (1999: 36, Figs 166-167) for the lectotype. It has gradually narrowed apex, without preapical enlargement which presents in *C. maritima* Dejean, 1822 (see GEBERT, 1995: 25, Abb. 6.1) and much more pronounced in *C. restricta* Fischer von Waldheim, 1825 (see Gebert, 1995: 25, Abb. 5.1). It considerably differs from the aedeagus of *C. hybrida* with strongly curved apex (see GEBERT, 1995: 25, Abb. 1.1).

The taxon can not be a subspecies of *C. hybrida*, as the local forms of true *C. hybrida* are also distributed in the region, as it was mentioned by Lutshnik (1924). I have got *C. hybrida* (Fig. 3) from the closest Minusinsk environs (two males, Abakan, 14-26.5.1975, V. Semenov leg.). As it was mentioned by Lutshnik, the local *C. hybrida* is characterized by brownish elytrae with narrow pale pattern. Both males from Abakan have typically for *C. hybrida* apically curved adeagus.

Siberian *C. hybrida* is represented in my materials by a very big series from near Zyrianovsk (North-East Kazakhstan, 8.6.1994, M. Danilevsky leg.), a male and a female from Altai (Chemal, 27.6.1987, A. Gorodinsky leg.), two males from near Krasnoiarsk (Otdykh Isl., 9.1952).

C. sahlbergi sahlbergi (type locality - "Siberia"), differs first of all by very special tuberculate aedeagus apex, very clearly shown by A. Matalin (1999: 24, Fig 68) for the lectotype (Gebert designation, 1995). I have collected a lot of *C. sahlbergi sahlbergi* with such aedeagus structure from South Russia (Khoper River and Volgograd environs) to North Kazakhstan (Aktiubinsk Region).

Remark. A. MATALIN (1999) used the generally accepted name *C. sahbergi* in form of "*sahlbergii*" as it was firstly published in the original description (FISCHER VON

WALDHEIM, 1824: 15). But it was evident "lapsus calami", as in the same publication the name of the taxon was used by the author in the right, generally accepted form "*C. sahlbergi*" (FISCHER VON WALDHEIM, 1824: 263).

***Cicindela kozhantshikovi* vaschenkoi ssp. n.** (Figs. 4-7)

Description. The taxon is characterized first of all by very intensive blue colour of majority of specimens (Figs. 4,7) both in males and in females. Several specimens are blue-green (Fig. 5) and only a few are brown (Fig. 6).

Elytrae distinctly narrower than in *C. k. kozhantshikovi* from Tagar Island, with absolutely white pale pattern, which can be very wide or rather narrow.

Aedeagus is rather special, with attenuated apex, though without apical tubercle as in *C. sahlbergi sahlbergi*, and not curved apically as in *C. hybrida*.

Body length in males: 14.7-17.0mm, width: 4.7-5.3mm; body length in females: 14.9-18.2mm, width: 5.2-6.4mm.

Materials. Holotype, ♂, Russia, Tuva Republic, Khadyn Lake environs, 23-25.5.1998, A.Vaschenko leg. (author's collection); paratypes: 11 ♂♂ and 17 ♀♀ with same labels (author's collection).

Remarks. *C. kozhantshikovi* can not be regarded as well investigated. I do not know populations of the species along more than 300km from Minusinsk to Kadyn Lake in Tuva. If transitional forms absent between nominative populations and *C. k. vaschenkoi* ssp. n., the latter taxon can be regarded as a separate species, because of rather different aedeagus structure.

C. kozhantshikovi seems to be not far from *C. sahlbergi*, replacing the former in the region. Aedeagus of one specimen of *C. k. vaschenkoi* has a very small indistinct tubercle near apex, which is a little similar to tubercle of *C. s. sahlbergi*.

***Cicindela restricta* tuvensis ssp. n.** (Figs. 8-11)

Description. The taxon is characterized first of all by very intensive blue colour of majority of females (Fig. 10), several females are green (Fig. 11) and only a few are brown. Majority of males are brown (Fig. 8), sometimes male elytrae are greenish-brown (Fig. 9). White elytral pattern in males and in females can be narrow or moderately wide.

The populations of *C. restricta restricta* (described from Riddar, now Leninogorsk in North-East Kazakhstan) are distributed in Siberia eastwards to Khabarovsk and Primorsky regions, in North Mongolia, in North China and are usually consist of brown specimens, though greenish or blueish and even black specimens are also known.

Aedeagus structure of *C. restricta tuvensis* ssp. n. is typical for the species with strong preapical enlargement.

Body length in males: 15.7-18.0mm, width: 5.1-5.8mm; body length in females: 16.0-18.0mm; width: 5.4-6.2mm.

Materials. Holotype, ♂, Russia, Tuva Republic, Kaa-Khem District, Hadek River, 850m, 22-27.6.1998, A. Vaschenko leg. (author's collection); paratypes: 10 ♂♂ and 15 ♀♀ with same labels (author's collection).

Remark. The further investigation of *C. restricta* populations from various parts of its vast area will undoubtedly lead to the descriptions of several new subspecies.

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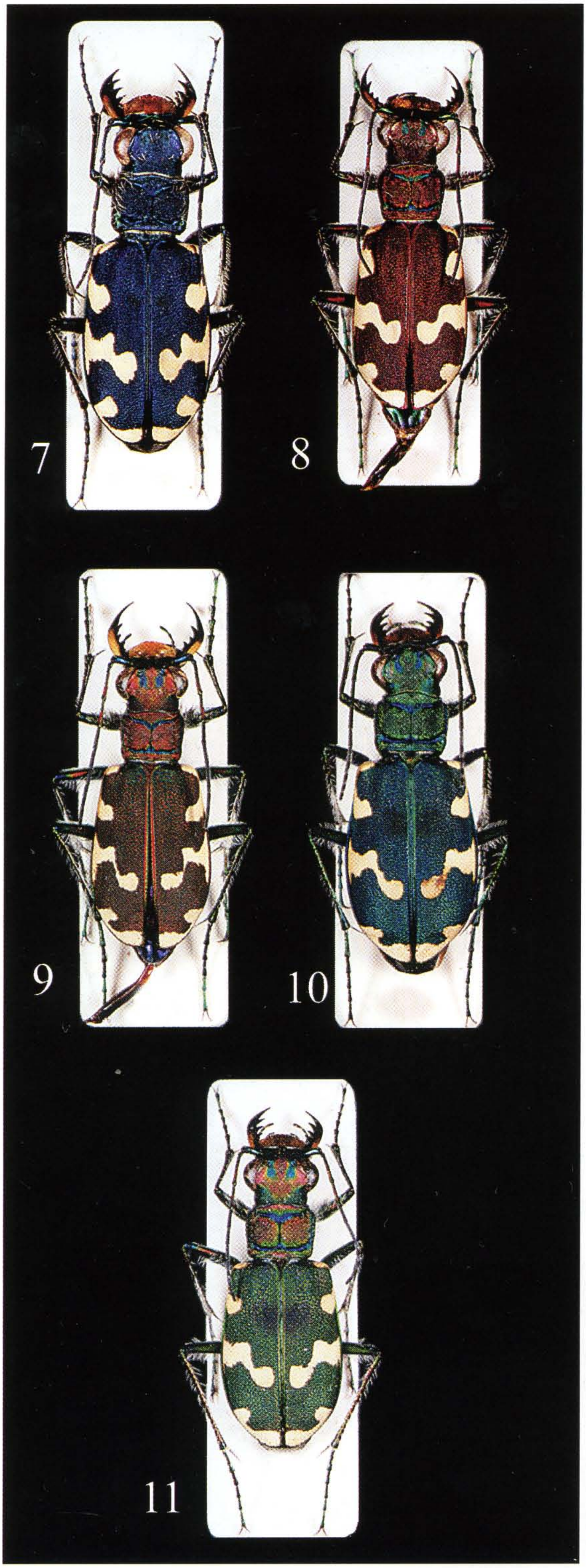
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Descriptions for figures:

Figs. 1-2. *C. kozhantshikovi kozhantshikovi* from Tagar Island: 1 - ♂; 2 - ♀.
Fig. 3. *C. hybrida*, ♂ from near Abakan.
Figs. 4-7. *C. kozhantshikovi vaschenkoi* ssp. n. from Tuva: 4 - ♂, holotype; 5-6 - ♂♂, paratypes; 7 - ♀, paratype.
Figs. 8-11. *C. restricta tuvensis* ssp. n. from Tuva: 8 - ♂, holotype; 9 - ♂, paratype; 10-11 - ♀, paratypes.