TO THE KNOWLEDGE OF THE GENUS TEMNOCERUS THUNBERG, 1815 (COLEOPTERA: RHYNCHITIDAE)

A. A. Legalov

Institute of Systematic and Ecology of Animals, Siberian Branch of the Russian Academy of Sciences, Novosibirsk, 630091, Russia

Two new species are described: T. (Temnocerus) dundai Legalov, sp. n. from China and T. (Pseudotemnocerus) cubensis Legalov, sp. n. from Cuba. A key to the Palaearctic species of the nominotypical subgenus is given and distribution of these species are clarified.

KEY WORDS: Coleoptera, Rhynchitidae, Temnocerus, key, new species.

INTRODUCTION

The species of the genus Temnocerus are distributed mainly in Northern Hemisphere, but T. yunnanicus is found in South Asia (China: Yunnan) and T. bolivicus is described from South America (Bolivia). Three species, T. coeruleus, T. longiceps,

The main purposes of present paper are to describe two new species, to give a key to the Palaearctic species of the nominotypical subgenus, and to clarify the distribution of these species based on the examined material.

The following abbreviations are used in the text for the of museums, institutions and private collections as depositaries for types and other material examined:

DEI – Deutsches Entomologisches Institut (Munchenberg, Germany);
HNHM – Hungarian Natural History Museum (Budapest, Hungary);
IBSS – Institute of Biology and Soil Science, Far East Branch of the Russian Academy of Sciences (Vladivostok, Russia);
ISEA – Institute of Systematic and Ecology of Animals, Siberian Branch of the Russian Academy of Sciences (Novosibirsk, Russia);
MZLU – Lund University (Lund, Sweden);
NMPC – National Museum of Natural History (Prague, Czech Republic);
RDP – Radek Dunda collection (Prague, Czech Republic);
VKM – Vladimir Korasev collection (Minsk, Belarus);
VSM – Vladimir Savitsky collection (Moscow, Russia);
ZISP – Institute of Zoology, Russian Academy of Sciences (St-Petersburg, Russia).

Present study have been supported by the grant of the RFBR No 06-04-90816-Mol_a.

**Genus Temnocerus Thunberg, 1815**

*Tennocerus* Thunberg, 1815: 110. [Type species – *Attelabus planirostris* Fabricius, 1801 (= *Curculio nanus* Paykull, 1792)].

Subgenus *Paratemnocerus* Legalov, 2003 [type species – *Rhynchites subglaber* Desbrochers des Loges, 1897] includes the type species known from Kazakhstan, Mongolia and Russia, *T. (P.) terminassiae* Legalov, 2003 from Japan, *T. (P.) fossifrons* (LeConte, 1876), and *T. (P.) naso* (Casey, 1885) from USA.


**Key to the subgenera of the genus Temnocerus**

1. Elytra strongly widened back. Apex of the aedeagus elongated. Eyes weakly convex or nearly not convex. North Asia, Japan, North America 

   Paratemnocerus Legalov, 2003

   – Elytra weakly or not widened back (figs. 17-18, 21-22). Apex of the aedeagus not elongated. Eyes strongly or often weakly convex (fig. 4) 

2. Head and rostrum from the base to antennae matte (figs. 23-24). Humeri smoothed (figs. 21-22). Sides of the elytra more rounded (figs. 21-22). South America, Central and southern part of North America

   Pseudotemnocerus Legalov, 2003

   – Head and rostrum not matte, shining, largely enough punctuate (fig. 3-4). Humeri usually not smoothed (figs. 17-18). Elytra almost rectangular (figs. 17-18). Palaearctic, North America, North Africa

   Temnocerus s. str.

**Subgenus Temnocerus Thunberg, 1815**

A key to the nine Palaearctic species of nominotypical subgenus is given below.

**Key to the Palaearctic species of the subgenus Temnocerus s. str.**

1. Protibiae with mucro. Macrosetae at apex of the tegmen always long (as in fig. 16) 

   – Protibiae without mucro. Macrosetae at apex of the tegmen usually short (fig. 16), only in *T. longiceps* long (fig. 16)

2. Head and pronotum bronze. Aedeagus slightly narrowed to apex (fig. 7) .
   - Body bronze. Aedeagus more strongly narrowed to apex (fig. 8) .

3. Tarsi narrow (fig. 1) .
   - Tarsi wider (fig. 2) .

   - Head and pronotum bronze. Elytra dark blue. Rostrum longer. Aedeagus more strongly narrowed to apex (fig. 9). .

5. Forehead densely rugosity-punctate (fig. 3). Female rostrum longer (figs. 5, 6).
   - Forehead punctuate (fig. 4). Female rostrum shorter (fig. 18).

6. Length of body 2.2-3.7 mm. Apex of the tegmen with long macrosetae (fig. 16).
   - Clava narrower. Rostrum weakly bent in place of the attachment of the antennae (fig. 6). Aedeagus (fig. 10). .
     - Length of body 1.9-2.3 mm. Apex of the tegmen with short macrosetae. Clava wider. Rostrum regular intervals curved (fig. 5). Aedeagus (fig. 11). .

7. Protibiae longer and thin, weakly curved. 1st segment of tarsi longer. Aedeagus longer (fig. 12) .

4
– Protibiae shorter and wide, almost direct. 1st segment of tarsi shorter. Aedeagus shorter (figs. 13-14) ................................................................. 8
8. Forehead more densely punctate. Aedeagus narrower, more narrowed to apex (fig. 13). Macrostae at apex of the tegmen shorter .................. 8. _T. nanus_
– Forehead more spaciously punctate. Aedeagus wider, more strongly narrowed to apex (fig. 14). Macrostae at apex of the tegmen longer ....... 9. _T. sibiricus_

1. _Temnocerus_ (Temnocerus) _semicyaneus_ (Bedel, 1884)
Fig. 7

DISTRIBUTION. Algeria.

2. _Temnocerus_ (Temnocerus) _coeruleus_ (Fabricius, 1798)
Fig. 8

TURKEY: Samsun, 15 km W of Kaak, 4.VII 1993, 1 ex. (RDP).

DISTRIBUTION. Algeria, Austria, Azerbaijan, Bosnia-Herzegovina, Bulgaria, Belarus, Croatia, Czechia, Denmark, Finland, Georgia, Germany, Great Britain, Greece, Hungary, Ireland, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Norway, Poland, Russia, Slovakia, Slovenia, Sweden, Switzerland, Netherlands, Turkey, Ukraine.

3. Temnocerus (Temnocerus) dundai Legalov, sp. n.
Figs 1, 17-20

MATERIAL. Holotype – ♂ (NMPC), CHINA: Yunnan, Weishan st., 25.10° N, 100.21° E, 1000-2500 m, 22-25.VI 1992 (leg. Vit Kuban). Paratypes: 1 ♂ (ISEA), 3 ♂ (RDP), 1 ♀ (ISEA), 2 ♀ (RDP), all with the same label.

Fig. 17-20. *Temnocerus dundai* sp. n.: 17) body of male dorsally; 18) body of female dorsally; 19) aedeagus dorsally; 20) tegmen dorsally.

Segment triangular. 3rd segment bilobed. 5th segment elongated. Claws with long teeth. Length of body: 2.1-2.3 mm. FEMALE: Similar with male, but rostrum longer, 4.33-4.67 times longer than wide. Antennae attached in the middle of the rostrum. Eyes more finely, weaker convex. Pronotum 1.0-1.05 times longer than wide. Elytra 1.5-1.58 times longer than wide. Abdomen stronger convex. Length of body: 2.1-2.7 mm.

**DIAGNOSIS.** The differences of a new species from other Palaearctic species are given in the key above.

**ETYMOLOGY.** New species is named to Radek Dunda (Prague).

**DISTRIBUTION.** China (Yunnan).
4. Temnocerus (Temnocerus) yunnanicus Legalov, 2003
Fig. 9


DISTRIBUTION. China (Yunnan).

5. Temnocerus (Temnocerus) longiceps (C. G. Thomson, 1888)
Figs 3, 6, 10, 16


DISTRIBUTION. Austria, Belgium, Czechia, Denmark, Finland, France, Germany, Great Britain, Italy, Kazakhstan, Latvia, Lithuania, Norway, Poland, Russia, Slovakia, Sweden, Switzerland, Netherlands, Ukraine.

6. Temnocerus (Temnocerus) rubripes (Reitter, 1916)
Figs 5, 11


DISTRIBUTION. China, Mongolia, Russia.
7. *Temnocerus (Temnocerus) japonicus* (Morimoto, 1958)

Figs 12, 15


DISTRIBUTION. Japan, China (first record), Russia (East Siberia – first record, south part of the Russian Far East).

8. *Temnocerus (Temnocerus) nanus* (Paykull, 1792)

Figs 2, 13


DISTRIBUTION. Algeria, Austria, Belgium, Bosnia-Herzegovina, Belarus, Croatia, Czechia, Denmark, Estonia, Finland, France, Germany, Great Britain, Hungary, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Norway, Poland, Romania, Russia, Spain, Sweden, Switzerland, Netherlands, Turkey, Turkmenistan, Ukraine, former Yugoslavia.

9. Temnocerus (Temnocerus) sibiricus Legalov, 2006

Figs 4, 14


DISTRIBUTION. Russia.

Subgenus Pseudotemnocerus Legalov, 2003

Temnocerus (Pseudotemnocerus) cubensis Legalov, sp. n.

Figs 21-26


DESCRIPTION. Body dark, with dark bronze lustre, with sparsely, short setae. MALE: Rostrum short, 3.2 times longer than wide, weakly curved, weakly toward apex. Topmost third smooth. Other part of the rostrum finely and densely punctate. Antennae located on the middle of the rostrum. Forehead wide, convex, matte, sparsely and finely punctate. Eyes large, convex, more strongly convex, closer to temples. Temples short, smooth. Antennae long, reaching the middle of the pronotum. Scapus and 1st segment of the funicle long oval. 2-4th segments narrow, almost equal length.
Figs 21-26. Temnocerus cubensis sp. n.: 21) body of male dorsally; 22) body of female dorsally; 23) head and rostrum of male dorsally; 24) head and rostrum of female dorsally; 25) apex of aedeagus dorsally; 26) aedeagus dorsally.

**DIAGNOSIS.** New species is very similar to *T. (P.) regularis* (Sharp, 1889), but distinguished by the antennae attached more close to the basis of the rostrum, by narrower pronotum, by more strongly widened elytra, and by hardly stronger the narrowed apex of the aedeagus.

**DISTRIBUTION.** Cuba.

**ACKNOWLEDGMENTS**

I wish to thank N. Azarova (Vladivostok), L. Behne (Munchenberg), S. Chernyeshev (Novosibirsk), R. Danielson (Lund), G. Davidian (St-Petersburg), R. Dunda (Prague), A. Ermakov (Ekaterinburg), L. Gus’kova (Cheljabinsk), V. Korasev (Minsk), B. Korotyaev (St-Petersburg), O. Korsun (Chita), A. Lelej (Vladivostok), O. Merkl (Budapest), V. Savitsky (Moscow), S. Krivets (Tomsk), V. Sorokina (Novosibirsk), P. Sitnikov (Tyumen’), S. Strorozhenko (Vladivostok) and V. Zinchenko (Novosibirsk) for help in the work.

**REFERENCES**


