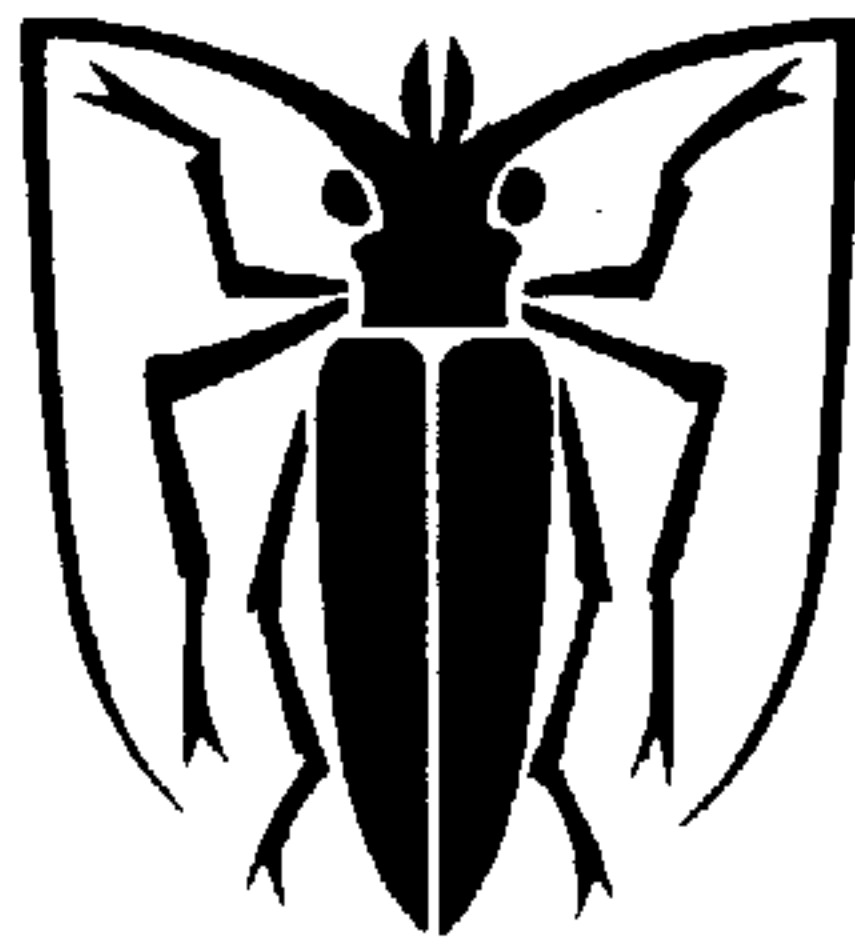


# **COLEOPTERA**

## **Schwanfelder Coleopterologische Mitteilungen**



Herausgeber und Schriftleiter  
HEINZ PEKS

Heft 21 Seite 1 - 19  
Schwanfeld, 1. September 1996

ISSN 0945-1889

# COLEOPTERA

Schwanfelder Coleopterologische Mitteilungen

ISSN 0945-1889

Schriftleiter	HEINZ PEKS
Satz und Druck	Delta-Druck Peks, Schwanfeld
Verlag	Delta-Druck+Verlag, Inh. Heinz Peks, Hauptstraße 12, D-97523 Schwanfeld, Germany
Abonnement	Anforderung schriftlich bei Delta-Druck+Verlag Heinz Peks, Hauptstraße 12, D-97523 Schwanfeld. Die Preise der Einzelhefte richten sich nach Umfang und Ausstattung, Jahresabonnement zu ermäßigten Preisen. Lieferung erfolgt mit Rechnung.
© Copyright	Alle Rechte, auch die des auszugsweisen Nachdrucks, der elektronischen und fototechnischen Wiedergabe und der Übersetzung, liegen beim Verlag.

## Hinweise für Autoren

In Coleoptera werden in zwangloser Reihenfolge neue taxonomische, systematische, biologisch-faunistische und ökologische Erkenntnisse veröffentlicht. Die Publikations-sprache ist Deutsch oder Englisch. Eine Zusammenfassung in beiden Sprachen ist erwünscht. Die Autoren werden gebeten, sich an die äußere Form bereits erschienener Hefte zu halten. Manuskripte können entweder im Papierformat DIN A4 oder als Textdatei auf 3,5°- Disketten (ASCII, Word, PageMaker u.a.) zusammen mit dem Originaltext eingereicht werden. Umfang des Manuskriptes mindestens 9 Seiten incl. Abbildungen, diese können als Foto oder Strichzeichnung mit eindeutig zugeordneter Bildunterschrift beigelegt werden. Die Autoren sind für den Inhalt ihrer Beiträge allein verantwortlich. Publikationen geben nicht immer die Meinung der Herausgeber oder der Redaktion wieder. Darüber hinaus dient Coleoptera international als Kommunikationsorgan allen Koleopterologen.

**New Longicorn beetle of the genus *Gaurotina* Ganglbauer, 1889  
(Coleoptera, Cerambycidae) from Central China with a review of  
all previously known species**

Mikhail L. DANILEVSKY, Pier Paolo RAPUZZI

Russian Academy of Science, A.N. Severtzov Institute of Evolutionary Animal  
Morphology and Ecology, Leninsky prospect, 33, Moscow, 117071, Russia

Via Cialla, 47, I-33040 Prepotto (UD) Italy

**Key Words**

Coleoptera: Cerambycidae; *Gaurotina*; China; Russia; discriptions; key for  
determination; new species; new combinations.

**Leitworte**

Coleoptera: Cerambycidae; *Gaurotina*; China; Rußland; Beschreibung; Bestimmungstabelle; neue Art; neue Kombinationen.

**Abstract**

*Gaurotina labrangica* sp. n. is described from high mountains of South Gansu (China). Morphological diagnosis, distinguishing characters, maps of distribution and a key for determination are given for all 6 species of the genus. *G. piligera* (Pu), comb. n. and *G. flavimarginata* (Pu), comb. n. are regarded as members of the genus *Gaurotina*. Four species, including new, are illustrated by colour photographs.

**Kurzfassung**

*Gaurotina labrangica* sp. n. wird aus Hochgebirge Süd-Gansu (China) beschrieben. Morphologische Diagnosen, Unterscheidungsmerkmale, Verbreitungskarten und Bestimmungstabelle für alle 6 Arten der Gattung werden angeführt. *G. piligera* (Pu), comb. n. und *G. flavimarginata* (Pu), comb. n. werden als der Gattung *Gaurotina* angehörige Arten betrachtet. Vier Arten mit Einschluß von neuer Art werden mit Farbefotos veranschaulicht.

*Gaurotina labrangica* sp. n. (Fig. 1-2,7)**Description**

Head covered with small, very dense, contiguous punctures; black with yellow-orange ventral areas, interantennal tubercles, genae, margins of clypeus and labrum (pale areas in female wider); vertex nearly flat, interantennal tubercles moderately prominent; mandibles of male black with dark-orange bases and apices, in female - orange with dark apices; male palpi orange with black apical joints, female palpi much darker.

Antennae long and slender; in male nearly attaining elytral apices, in female attaining apical elytral third; in male 1st, 3d and 4th joints about equal in length, 5th joint about 1.5 times longer; in female 3d joint a little shorter than 1st and longer than 4th, 5th joint about 1.5 times longer than 4th; 1st-4th and most part of 5th joint orange-yellow, apex of 5th joint and 6th-11th joints black; all antennal joints without apical swellings.

Prothorax in male about 1.25 times shorter than basal width, in female - about 1.26; with large postero-lateral tubercles; lateral tubercles very small, invisible from above; yellow-orange ventrally and black dorsally, anterior and posterior pronotal margins also yellow-orange; in female black prothorax area much smaller; basal and apical transverse pronotal furrows moderately deep; pronotum with small irregular contiguous punctures, covered with long erect orange pubescence; posteromedial longitudinal smooth line in male short, in female nearly indistinct.

Scutellum elongate, triangular, in male black with pale base and apex, in female yellow-orange with small basal dark spot.

Elytrae metallic blue, slightly greenish in female; in both sexes about 2.0 times longer than wide, but in male less converging posteriorly; moderately rough, rugosely sculptured with contiguous punctures; covered with pale short semierect hairs.

Male mesothoracic areas black with pale margins, metasternum mostly yellow-orange with narrow black transverse hind stripe, metathoracic epimeron and episternum black with orange-yellow margins; in females ventral portions of meso- and metathorax entirely yellow-orange.

Legs relatively slender, orange-yellow; in male femora apices widely black as well as apical halves of 4th tarsal joints; in female 4th tarsal joints also with black apical halves, but all femora totally yellow-orange; hind tibiae of one male with distinct lateral spines at the end of basal third.

Abdomen yellow-orange with rounded apical segments.

Body length in males: 14.0-16.0mm, in female: 16.0mm; width in males: 5.0-6.0mm; in female: 6.3mm.

## Material

Holotype: male, China, Gansu, Xiahe (Labrang), 3200m, 6.7.1993 (collection of M. Danilevsky); paratypes: 2 males and a female with same labels (collection of P. Rapuzzi), a male with same label (collection of Mr. A. Francotte, Ayvaille, Belgium).

## Discussion

The new species is mostly close to *G. superba* Ganglbauer, 1889 (Fig. 3-4), not far from *G. pulchra* Holzschuh, 1991 (Fig. 5) and less close to *G. sichotensis* Plavilstshikov, 1958 (Danilevsky, 1988) (Fig. 6). *G. nitida* Gressitt, 1951, described from Shensi, must belong to another genus because of different structure of prothorax and elytrae.

All previously described *Gaurotina* have black head and antennae, hind tibia spines absent. *G. sichotensis* differs by very rough elytral sculpture, much more rugose than in other species; posterolateral tubercles feebly developed, about same size as lateral tubercles, so prothorax relatively longer, its basal transverse furrow less pronounced, pronotal swellings small; vertex flat; antennae relatively shorter, with 4th joint a little longer than 3d; vertex with sparse punctures, pronotal punctuation larger and also sparser. In *G. superba* and *G. pulchra* vertex slightly depressed with a distinct middle elevation in female of *G. superba*; in both species pronotal transverse furrows much deeper, pronotal swellings and posterolateral tubercles well developed; all tibiae with black bases, tarsi black or with black apices of all joints; only in *G. pulchra* lateral prothorax tubercles indistinct; in *G. superba* scutellum very narrow, apical elytral fourth with longer and denser pubescence.

Morphological diagnosis of all species, mentioned above, look like follows:

***G. superba*** Ganglbauer, 1889 (Fig. 3-4,7) was described from Gansu province, „Dorf U-pin“, China.

Head and antennae black; in male meso- and metathorax black with yellow anterior margin of metepisternum; in female pro-, meso- and metathorax yellow with black scutellum and three black spots on pronotum: two large lateral spots and a small one on the central callosity near base; abdomen yellow in female, or yellow with large central black spots on first two sternites in male; in female all legs yellow with tarsi joints darkened distally, with small black spots on the femora apices and tibiae bases; in male all tarsi black, femora yellow with black apical portions, tibiae largely black with yellow apical halves. Frons and vertex with very dense small but coarse punctuation; interantennal tubercles strong (specially in female) with a deep furrow in between, vertex slightly depressed, with a narrow longitudinal elevation in the middle (in male shining); 3d antennal joint much longer than 4th; 3d and 4th joints with distinct apical swellings. Prothorax about 1.3 times wider than long in male and about 1.2 times in female; lateral tubercles distinct; posterolateral tubercles very long; pronotum with well developed swellings and deep anterior and posterior transverse furrows; with small shining elongate callosity in the middle near base;

with small irregular dense contiguous punctures. Scutellum elongate, triangular. Elytrae blue-green, about 2.1 times longer than wide in male and in about 1.95 in female, with moderately large and rough contiguous punctures, which are much smaller posteriorly; with short, hardly visible pale pubescence in male or moderately long and dense pubescence in female. Apices of last abdominal segments rounded. Body length in male: 14.0 mm, width: 5.0 mm; body length in female: 15.9mm, width: 6.0mm.

### Material

Holotype, female, China, Gansu prov., U-pin, 5.7.1885, G. Patanin leg. (Museum of Zoological Institute, Sanct-Petersberg); male (type of morpha *obscurithorax* Plavilstshikov, 1958), China, Gansu prov., Ta-Tzhao-Pin, 28.7-7.8.1893, Berezovsky leg. (Zoological Museum of Moscow University).

*Gaurotina pulchra* Holzschuh, 1991 (Fig. 5,7) was described from high mountains in North Sychuan province (China).

Male. Head, antennae, pro-, meso- and metathorax black; abdomen yellow with slightly darkened 1st sternite; all legs yellow with black tarsi, black apical portions of femora and black basal portions of tibiae. Frons and vertex with very dense small but coarse punctuation; interantennal tubercles strong with a deep furrow in between, vertex slightly depressed, with a small shining tubercle in the middle; 3d antennal joint a little longer than 4th, both segments without apical swellings. Prothorax about 1.35 times wider than long; lateral tubercles indistinct; posterolateral tubercles very long; pronotum with well developed swellings and deep anterior and posterior transverse furrows; with small shining elongate callosity in the middle near base; with small irregular dense contiguous punctures. Scutellum elongate, triangular. Elytrae green, about 1.9 times longer than wide, with moderately large and rough contiguous punctuation, which are much smaller posteriorly; with short, hardly visible pale pubescence. Apices of last abdominal segments rounded. Female unknown. Body length: 14.0 mm, width: 5.4 mm.

### Material

Holotype, male, China, N Sychuan prov., Sanggarpar env., 4200m, 1.7.1991, (C. Holzschuh's collection, Vienna).

*Gaurotina sichotensis* Plavilstshikov, 1958 (Fig. 6,8) was described as a morpha of *G. superba* from Sichote-Alin mountain ridge (Far East Russia) and raised to a species rank by M. Danilevsky (1988).

Male. Head, antennae, pro- and mesothorax black; metathorax yellow with black hind and lateral margins and black median line; abdomen yellow; all legs yellow with black tarsi and small black spots on the femora apices and tibiae bases. Frons with several large dots, shining; interantennal tubercles small with a shallow furrow

in between, vertex flat with large irregular punctures and wide shining irregular median line; 4th antennal joint a little longer than 3d. Prothorax about 1.2 times wider than long; lateral and posterolateral tubercles small, of about same size; pronotum relatively flat with poorly developed swellings and shallow anterior and posterior transverse furrows; with large irregular punctures become less dense along median line, specially posteriorly where some small shining areas present. Scutellum elongate, with nearly parallel sides in the middle. Elytrae light-blue, about 2.3 times longer than wide, with very large and rough contiguous punctuation, forming irregular furrows, which are a little smaller posteriorly; with short, hardly visible pale pubescence. Apices of last abdominal segments rounded. Female unknown. Body length: 14.0 mm, width: 5.0 mm.

### Material

Holotype, male, Far East Russia, Sichote-Alin natural reserve (West slope of Sichote-Alin mountain ridge), 2.7.1937, K. Grunin leg. (Zoological Museum of Moscow University).

In A.I. Tcherepanov's monograph (1979: 148-149) the species was put under the name „*Gaurotes superba*“. Its picture seems to be prepared on the base of Plavilstshikov's holotype - the only specimen of *G. sichotensis* known to Tcherepanov.

I've seen one more male, but now it is not in my disposal: Far East Russia, Khasan region, env. of Andreevka, 10.6.1975, S. Nikireev leg. (S. Nikireev's collection, Moscow).

The genus *Gaurotina* seems to include two more species recently described from China as members of genus *Gaurotes* (subgen. *Neogaurotes* Podany, 1962) by Dr. Pu Fuji (1992). *Neogaurotes* is a synonym of *Carilia* Mulsant, 1863 because of same type species: *Leptura virginea* Linnaeus, 1758.

*Gaurotina piligera* (Pu, 1992) comb. n. is a real *Gaurotina* without any doubt, though it is compared in the description with *Gaurotes (Neogaurotes) tibetana* Podany, 1962, which belongs to genus *Carilia*. Black and white photo of unique male, accompanied description, shows the characteristic *Gaurotina* habitus, with special prothoracic structures. The short English translation of China description mostly concerns colour characters and testifies the very close affinities between *G. piligera* and *G. labrangica* sp. n. Body size (15 mm), colour of antennae, legs, elytrae and abdomen are about same. The only distinctions, we see after description, are: in *G. piligera* head and thorax are black, while in *G. labrangica* sp. n. - partly yellow-orange; in *G. piligera* all tibiae with black bases, while in *G. labrangica* tibiae totally yellow; in *G. piligera* body seems to be a little shorter: in 2,5 times longer than wide; while in male of *G. labrangica* sp. n. - in about 2.8 times; antennae on the photo of *G. piligera* seem to be considerably shorter. The type locality of *G. piligera* (Xiangcheng in Hengduan Mts.,

3800m, South Sychuan - Fig. 7) is very far from locality of *G. labrangica* sp. n. in Gansu.

*Gaurotina flavimarginata* (Pu, 1992) comb. n. is less evident as *Gaurotina*, because of smaller size (10 - 11.5 mm) and hardly visible prothoracic structures on the photo. Still, general habitus and very rough elytral sculpture allow us to attribute this species to *Gaurotina* too. Coloure patterns of *G. flavimarginata* are rather exceptional: antennae are yellowish with black scape, legs black „with a slightly cupreous-purple sheen“ (excluding tarsi). The species was described from Wenchuan (1200m) - type-locality and Wolong (2500m) environs, Central Sychuan (Fig. 7).

### Key for the determination of *Gaurotina* species

- 1(2) Antennae yellow with black scape; tibiae and femora black .....  
 ..... *G. flavimarginata* (Pu), comb. n.
- 2(1) Distal part of antennae always black; tibiae and femora never completely black.
- 3(6) Antennae bicolored: four basal joints and basal part of 5th joint yellow, distal antennal joints black.
- 4(5) Head with yellow-orange areas on frons, gena and ventral surface; prothorax with ventral portions, anterior and posterior pronotal margins yellow-orange; tibiae completely yellow.
- Prothorax with distinct lateral tubercles; posterolateral tubercles much longer than lateral tubercles; elytrae in male not less than 2 times longer than wide; 3d antennal joint longer than 4th; pronotum with well developed swellings; head, pronotal and elytral punctuation moderately rough ..... *G. labrangica* sp. n.
- 5(4) Head, prothorax and bases of tibiae black .....  
 ..... *G. piligera* (Pu), comb.n.
- 6(3) Antennae totally black.
- 7(10) Prothorax with distinct lateral tubercles; elytrae relatively longer, in male not less than 2 times longer than wide.
- 8(9) Prothorax with posterolateral tubercles much longer than lateral tubercles; 3d antennal joint longer than 4th; pronotum with well developed swellings; head pronotal and elytral punctuation moderately rough; all tibiae with black basal portions .....  
 ..... *G. superba* Ganglb.
- 9(8) Prothorax with posterolateral and lateral tubercles of about same size; 3d antennal joint a little shorter than 4th; pronotum relatively flat; head, pronotal and elytral punctures very rough; all tibiae bases with small black spots .....*G. sichotensis* Play.
- 10(7) Prothorax with lateral tubercles indistinct; elytrae relatively shorter, in male less than 2 times longer than wide ..... *G. pulchra* Holz.



### Acknowledgements

We wish to express our deep gratitude to the staff of Moscow and Saint Petersburg Zoological museums, to Mr. A. Francotte and to Dr. C. Holzschuh for providing us with the materials for study.

### References

- DANILEVSKY M.L.** 1988. New and little-known species of longicorn beetles (Coleoptera, Cerambycidae) from the Far East.- Zool. J., 67, 3: 367-374. [in Russian]
- GANGLBAUER L.** 1889. Insecta. A cl. G.N. Potanin in China et in Mongolia novissime lecta. VII. Buprestidae, Oedemeridae, Cerambycidae.- Horae Soc. Ent. Ross., 24: 21-85.
- GRESSITT J.L.** 1951. Longicorn beetles of China.- Longicornia, v.2, Paris: 1-667.
- HOLZSCHUH C.** 1991. 63 neue Bockkafer aus Asien, vorwiegend aus China und Thailand (Coleoptera: Disteniidae und Cerambycidae). Neue Bockkafer aus Asien II.- FBVA Berichte, Schriftenreihe der Forstlichen Bundesversuchsanstalt, Wien, 60: 1-71.
- PLAVILSTSHIKOV N.N.** 1958. A new species of the genus Gaurotes J.Lec. (Coleoptera, Cerambycidae) from the far eastern area of the USSR.- Revue d'Entomol. de l'URSS, 37, 3: 720-723. [in Russian]
- PODANY C.** 1962. Monographie des Genus Gaurotes J. Lec. (Coleoptera, Cerambycidae).- Mitt. Munch. ent. Ges., 52: 219-252.
- PU FUJI.** 1992. Coleoptera: Disteniidae and Cerambycidae.- Insects of the Hengduan Mountains Region. Vol.1, No. 5: 588-623.
- TCHEREPANOV A.I.**, 1979. [Longicorn beetles of North Asia (Prioninae, Disteniinae, Lepturinae, Aseminae)]. Novosibirsk, „Nauka“, 472 pp. [in Russian]



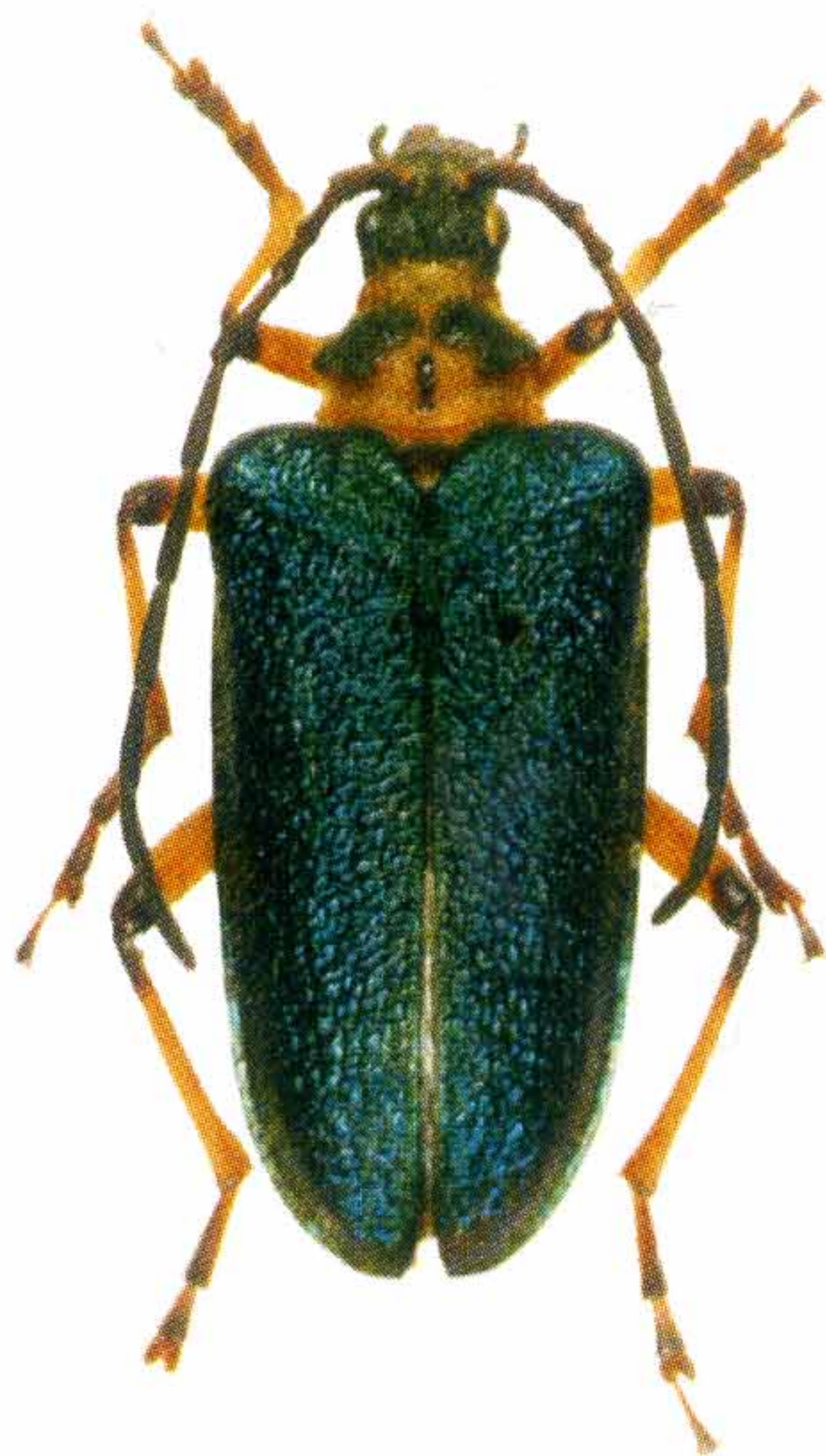
1



2



3



4



5



6

Figs 1-2. *Gaurotina labrangica* sp. n.: 1 - male, holotype; 2 - female, paratype.  
 Figs 3-4. *Gaurotina superba* Ganglb.: 1- male; 2 - female, holotype.  
 Fig. 5. *Gaurotina pulchra* Holz., male, holotype.  
 Fig. 6. *Gaurotina sichotensis* Plav., male, holotype.



Fig. 7. Map 1. Gansu and Sychuan. 1 - Xiahe (Labrang) - type locality of *G. labrangica* sp.n.; 2 - U-pin - type locality of *G. superba* Ganglb.; 3 - Sanggarpar - type locality of *G. pulchra* Holz.; 4 - Xiangcheng - *G. piligera* (Pu); 5 - Wenchuan (type locality) and Wolong - localities of *G. flavimarginata* (Pu).



Fig 8. Map 2. South of Far East Russia. 1(type locality) - 2(Andreevka) - localities of *G. sichotensis* Plav.