

Studies in the East Palaearctic species of the genus *Agrilus* DAHL, 1823 (Coleoptera: Buprestidae) Part I.

Eduard JENDEK

State Forest Products Research Institute, Lamačská 1, 833 30 Bratislava, Slovakia

Abstract. This work represents the first of a series of papers about the East Palaearctic species of the genus *Agrilus* (Coleoptera, Buprestidae). One new subspecies *A. sibiricus fukushimensis* ssp. n. is described, *A. alutaceicollis* is recognized as a valid species, one subspecies is elevated to species level, twenty-four new synonymies are established, three species are recorded for the first time from new territory, and lectotypes are designated from study of type material. Nine species are illustrated.

Key words. Buprestidae, *Agrilus*, taxonomy, lectotype designations, East Palaearct, new records.

Introduction

Taxonomic study in the genus *Agrilus* DAHL, 1823 (see BURAKOWSKI, 1985:55) is changing from the previous period of describing new taxa to the current synthetic period of solving synonymical problems and creating natural species groups. This work is complicated by the enormous species diversity of this genus and the necessity of working with type material, which is diffused among numerous institutions. In the past, many entomologists ignored the study of type material, which caused them to describe new synonyms and created other taxonomic difficulties.

This work, the first in a series of taxonomic papers on East Palaearctic *Agrilus* species, is based exclusively on the study of type material; all additional and assumed sources are noted at the relevant places.

Material and Methods

This paper is a result of my study in museums in Basel, Budapest, Eberswalde, London, Moscow, Paris, St.Petersburg, Prague, Wien and some private collections (Alexeev, Baudon, Bílý, Kubáň, Niehuis).

During my study I have seen specimens designated as "type", which had never been described. Also, I saw material not belonging to a type series, eventually really "true types" without type designation or incorrectly designated. I frequently saw more than one species in a type series. All type specimens I studied, however, has been correctly designated. For material designated as "type" but never described, I left the original "type" label and attached my own label "unpublished name". These "nomina in collectio" are not listed in this work. In this paper I consistently designate lectotypes from syntype series to avoid possible confusions in the future. Poorly understood species are given short diagnosis.

My note "(teste AUTHOR, YEAR)" in the list of synonymies means that I have not studied type material of this taxon. Nomenclatural changes are listed in the form of the selected catalogue.

Abbreviations and Acknowledgements

I used the following abbreviations for lectotype designations: The slash mark \ is used to indicate data from separate labels and my notations are in parentheses with the abbreviation [h] = handwritten and [p] = printed.

The material used for this study came from the following institutions and private collections (abbreviations are used to refer to the collections in the text, no data means the author's collection):

BML	The Natural History Museum, London, (M. Kerley), England [formerly: British Museum (Natural History)]
CAO	Collectio A. V. Alexeev, Orekhovo-Zuyevo, Russia
CKA	Collectio M. Kalashian, Armenia
CNA	Collectio M. Niehuis, Albersweiler, Germany
DEI	Deutsches Entomologisches Institut, Eberswalde, Germany
MHNP	Muséum national d'Histoire Naturelle, Paris (J. Menier), France
NMB	Naturhistorisches Museum, Basel (M. Brancucci), Switzerland
NMP	Národní Museum Praha (S. Bílý), Czech Republic
NMW	Naturhistorisches Museum, Wien (H. Schönmann), Austria
TMB	Természettudományi Múzeum, Budapest (O. Merkl), Hungary
ZIL	Zoological Institute Academy of Sciences St. Petersburg [formerly Leningrad] (M. Volkovitsh), Russia

I want to thank all the persons mentioned above for allowing me to study the necessary material and for their help and cooperation.

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For colour photographs I thank to my friend R. Hergovitz.

***Agrilus betuleti* (RATZBURG, 1837)**

Buprestis betuleti RATZBURG, 1837: 57.

Agrilus betuleti ab. *cyaneoatratus* OBENBERGER, 1935: 169. (**syn. nov.**)

Agrilus betuleti cyaneoatratus OBENBERGER, 1936 a: 961.

Agrilus betuleti v. *saliceti* OBENBERGER, 1924: 42. (**syn. nov.**)

Agrilus betuleti saliceti OBENBERGER, 1936 a: 961.

Agrilus impressicollis MARSEUL, 1865: 454–455. (nec GORY, 1841)

Agrilus foveicollis MARSEUL, 1869: 122. (teste BÍLY, 1982)

Synonyms: Lectotype male of *A. betuleti* ab. *cyaneoatratus* here designated: "Don.R.m. [h] \ Mus. Nat. Pragae Inv. [p] 24275 [h] [orange label] \ *Agrilus betuleti* ab. *cyaneoatratus* m. Type [h] Det. Dr. Obenberger [p] \ LECTOTYPE [p] *Agrilus betuleti* a. *cyaneoatratus* Ob. [h] Ed. Jendek design. 1993 [p] [red label]" and three paralectotypes are preserved in NMP. Examined types differ only by the dark-blue tinge. The colour of this species varies locally but not geographically.

Lectotype of *A. betuleti* var. *saliceti* [NMP] here designated: "Kamenaja – ret. Semirjetschensk coll. Winkler [p] \ TYPUS [p] [red label] \ Mus. Nat. Pragae Inv. [p] 24255 [h] [orange label] \ *Agrilus betuleti* var. *saliceti* m. Type [h] Det. Dr. Obenberger [p] \ LECTOTYPE [p] *Agrilus betuleti* var. *saliceti* Ob.[h] Ed. Jendek design. 1993 [p] [red label]". The examined lectotype undoubtedly belongs to *Agrilus betuleti*.

***Agrilus pratensis pratensis* (RATZBURG, 1837)**

Buprestis pratensis RATZBURG, 1837: 56–57.

Agrilus pseudocoeruleus OBENBERGER, 1930: 112.

Synonyms: *A. pseudocoeruleus* was synonymized by ALEXEEV & VOLKOVITSH (1989). Here I give a lectotype designation:

Lectotype female of *A. pseudocoeruleus* [NMP] here designated: "Asia centr. Safid-rud [h] \ TYPUS [p] [red label] \ Agrilus pseudocoeruleus m. Type [h] Det. Dr. Obenberger [p] \ LECTOTYPE [p] Agrilus pseudocoeruleus Obnb. [h] Ed. Jendek design. 1994 [p] [red label]".

***Agrilus pratensis djukini* OBENBERGER, 1935**

Agrilus roberti djukini OBENBERGER, 1935: 169.

Agrilus betuleti chankae OBENBERGER, 1935: 169. (**syn. nov.**)

Type locality: "Primorje Ussuri" [OBENBERGER, 1935].

Type material: Lectotype male, here designated: "s. Trojckoe, oz. Chanka, Primors. Tscherskij [p] 4. VI. [h] 09 [p] [in Russian] \ TYPUS [p] [red label] \ Agrilus Roberti ssp. Djukini m. Type [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragae Inv. [p] 24791 [h] [orange label] \ LECTOTYPE [p] Agrilus roberti djukini Ob. [h] Ed. Jendek design. 1993 [p] [red label]" and one paralectotype are deposited in NMP. Another two specimens (which I have not studied) are housed in ZIL and will be considered also as paralectotypes.

Synonyms: Lectotype male of *A. betuleti chankae* here designated: "Chanka Ussuri [h] \ Kamen-Rybolov oz. Chanka, Yuzhnouss Djukin [p] 24 [h] V 08 [p] [in Russian] \ TYPUS [p] [red label] \ Mus. Nat. Pragae Inv. [p] 24270 [h] [orange label] \ Agrilus betuleti ssp. chankae m. Type [h] Det. Dr. Obenberger [p] \ LECTOTYPE [p] Agrilus betuleti ssp. chankae Ob. [h] Ed. Jendek design. 1993 [p] [red label]" and one paralectotype female are deposited in NMP.

Type specimens of *A. betuleti chankae* is identical with *A. pratensis djukini* and has been described from the same locality (Chanka lake) as the lectotype of that species.

Diagnosis: 4.5–5.3 mm long. Dorsal side slightly bicolorous, head and pronotum moderately golden-orange, elytra black with bluish tinge, often completely brownish-green to dark brown, with silky lustre. Lateral pronotal sides sometimes with golden-green tinge. Frons and vertex strongly vaulted, anterior part of frons and vertex with distinct medial groove; eyes small, clearly overreach outline of head, vertex broad, 2.9–3.3 times as wide as width of eye (dorsal aspect), structure of vertex finer than that of *A. nicolanus*, composed of prolonged punctures. Head and pronotum with distinct microsculpture. Pronotum transverse (length : width = 0.6–0.7), rather flat, with maximum width behind basal half, medial two depressions on pronotal disc shallow and vague. Prehumeral keels well-developed, rib-shaped, curved laterally but not S-shaped, sharp and elevated as those at *A. nicolanus*. Abdomen in male behind metacoxa with large, shallow medial depression.

A. pratensis djukini differs from the nominal form by lacking its bright bicourness.

Distribution: So far known only from Mongolia and Russian Far East.

Additional material examined:

MONGOLIA: MONGOLIA, East ajmak Numregin-Gol river 32 km SE SALCHIT town 8. VII. 1976.

***Agrilus sibiricus sibiricus* OBENBERGER, 1912**

(fig. 1)

Agrilus sibiricus OBENBERGER, 1912: 70.

Agrilus insuspectus OBENBERGER, 1924: 43. (**syn. nov.**)

Agrilus turdus THÉRY, 1942: 255–256. (teste OBENBERGER 1943: 9.)

Type locality: "Siberia" [OBENBERGER, 1912].

Type material: Holotype (by monotypy) male, preserved in NMP: "Siberia [h] \ TYPUS [p] [red label] \ Agrilus sibiricus m. Type [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragae Inv. [p] 24795 [h] [orange label] \ HOLOTYPE (BY MONOTYPY) [p] Agrilus sibiricus Obnb. [h] Ed. Jendek design. 1993 [p] [red label]".

Synonyms: Lectotype male of *A. insuspectus* (here designated) preserved in NMP: "Vladivostok Ussuri mer. Dr. Jureček 1919 [p] \ TYPUS [p] [red label] \ Mus. Nat. Pragae Inv. [p] 24256 [h] [orange label] \ Agrilus insuspectus m. Type [h] Det. Dr. Obenberger [p] \ LECTOTYPE [p] AGRILUS insuspectus Obnb. [h] Ed. Jendek design. 1993 [p] [red label]".

A. insuspectus has no essential difference and is a junior synonym of *A. sibiricus*.

Diagnosis: Superficially resembles *A. nicolanus* but body longer (6.1–8.1 mm); vertex distinctly flattened, 1.8–2.4 as wide as width of eye; elytral apices truncated, with lateral sides subparallel or obviously dilated.

Distribution: So far known only from Russian Far East.

Additional material examined:

R U S S I A : USSR, Primorsk. kraj ARSENEV env. VI.1991 44.11N 133.19E O. Šauša leg.; Rossia, Primorsk. prov. ARSENEV env. VII. 1992 B. Siska leg.; USSR, Ussuri prov. ARSENEV env. VII. 1990 leg. Siska & Cermak; SIB. or. PRIMORJE KOMAROVKA flum. KAMENUSHKA env. 300 m Vorisek lgt V. 1992; RUSSIA or. Primorsk. Reg. ARTYOM env. 5. VI.–21. VII. 1992 Plutenko leg.; Mandjourie [NMP]; Primorje [NMP]; Vladivostok; Prim. kraj 11. VI. – 68 smjeshannyj les.

***Agrilus sibiricus fukushimensis* ssp. n.**

(fig. 2)

Type locality: Eda, Fukushima Prefecture, Honshu, Japan.

Type material: Holotype male: "Eda Fukushima Pref. 19. V. 1981 S. Ohmomo leg.". Paratypes: 3 ex: labelled with the same data as holotype; 1 ex: "Eda Fukushima Pref. 21. VI. 1979 S. Ohmomo leg."; 1 ex: "Mts. Daibusatsu Yamanashi Pref. 21. VI. 1985 S. Ohmomo"; 3 ex: "Yunohana S. Aizu Japan 20. VII. 47" [NMP]; 1 ex: "Yunohana S. Aizu Japan 8. VIII. 49" [NMP]; 1 ex: "COLLECTOR H. NISHIJIMA \ Mt. Moswa Joussankei Hokkaido 20. aug. 1937" [NMP]; 1 ex: "Daisen, Japan 27, vi. 1944 coll. Y. Kuroda" [NMP]; 2 ex: "Akanerindou, Haronomachi City, Fukushima Pref. 18. VI. 1979 leg. Nishiyama" [CNA]; 1 ex: "(Hinoemata) Fukushima Pref. JAPAN 25. VII. 1977 A. Nishiyama leg." [CNA].

Diagnosis: 5.6–7.5 mm long. Bluish-green, brownish-green or golden-brown, silky lustre, sometimes slightly bicolorous. Frons flattened, vertex convex, both with obvious medial groove. Vertex with fine and sparse punctures, sometimes prolonged into short longitudinal grooves. Eyes medium-size, convex, slightly extend beyond outline of head, vertex 1.9–2.4 times as wide as width of eye (dorsal aspect). Pronotum transverse (length : width = 0.5–0.7), rather convex in transverse direction, with rounded, rarely with feebly angulated lateral sides, covered with dense transverse wrinkles. Maximum width of pronotum varies round middle. Anterior pronotal margin feebly lobate or almost straight. Pronotal disc with deep lateral depressions, medial pronotal depression present, separated into two independent, shallow but obvious parts. Pronotal keels S-shaped or almost straight, sharp and elevated along entire length, distally not approached to lateral pronotal margin. Marginal and submarginal pronotal carinae subparallel not joined proximally, submarginal carina in proximal fourth often indistinct or absent. Scutellum with distinct elevated transverse carina. Prosternal process subparallel, behind coxae obtusely projecting, in male with long, erect, white hairs. Elytra with scale-shaped structure, elytral index (length : width = 2.8–3.2), apical part with sparse, semierect, poorly visible, brownish pubescence; elytral humera prominent, without humeral carina. Lateral sides of elytra subparallel, in apical third moderately enlarged then rectilinearly narrowed to apex, never dilated in apical part. Elytral apices rounded separately, finely serrated. Abdomen in male behind metacoxa with distinct impression. Last abdominal sternite regularly rounded apically.

Differs from nominotypical subspecies *A. sibiricus sibiricus* in having lateral sides of elytra near to apex lineally narrowed (not subparallel or obviously dilated) and elytral apices rounded not truncated.

Distribution: Japan.

Etymology: Named in reference to the locality of holotype.

***Agrilus nicolanus* OBENBERGER, 1924 stat. nov.**

(fig. 3)

Agrilus foveicollis nicolanus OBENBERGER, 1924: 42.

Agrilus foveicollis sensu ALEXEEV, 1989: 487.

Agrilus piscatorius OBENBERGER, 1935: 169–170. (**syn. nov.**)

Agrilus ronino: auctorum nec OBENBERGER, 1935

This species was described as a subspecies of *Agrilus foveicollis* MARSEUL. BILÝ (1982) on the basis of study of the type of *A. foveicollis*, synonymized *A. foveicollis* as junior synonym of *A. betuleti*. *A. nicolanus* (sensu novo) is a good species easily distinguished from *A. betuleti*.

Previously, *A. nicolanus* was erroneously determined by Japanese entomologists (e. g. MIWA, CHUJO, KUROSAWA) and listed as *A. ronino* OBENBERGER. I have in my collection also specimens of *A. nicolanus* from Japan determined as *A. ronino*. I have studied the type of *A. ronino* (see *A. komareki* later in this work) which has nothing in common with *A. nicolanus*.

Type locality: "Ussuri (Nikolsk Ussurijsk)" [OBENBERGER, 1924].

Type material: Lectotype male, here designated [NMP]: "Nikolsk – Ussuri [h] \ TYPUS [p] [red label] \ foveicollis ssp. nicolanus m. Type [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragae Inv. [p] 24267 [h] [orange label] \ LECTOTYPE [p] AGRILUS foveicollis nicolanus Ob. [h] Ed. Jendek design. 1993 [p] [red label]". Paralectotypes [NMP]: two females with the same first three labels.

Synonyms: Lectotype female of *A. piscatorius* [NMP] here designated: "Kamen-Rybolov oz. Chanka, Juzhnouss. A. Tscherskij [p] 30. V. [h] 08 [p] [in Russian] \ TYPUS [p] [red label] \ Mus. Nat. Pragae Inv. [p] 24269 [h] [orange label] \ *Agrilus piscatorius* m. Type [h] Det. Dr. Obenberger [p] \ LECTOTYPE [p] AGRILUS piscatorius Ob. [h] Ed. Jendek design. 1993 [p] [red label]". The single specimen (which I have not studied) is deposited in the ZIL and will be also considered as a paralectotype.

Diagnosis: 3.8–5.5 mm long. Entire body bronze to dark green with silky-lustre, rarely slightly bicolorous, head and pronotum golden-bronze, elytra golden-green. Frons and vertex distinctly convex, vertex broad, 2.5–3 times as wide as width of eye (dorsal aspect), with longitudinal, dense grooves, composed of poorly marked punctures. Eyes slightly projecting beyond outline of head. Pronotum transverse (length: width = 0.6–0.7) obviously convex in transverse direction, lateral pronotal depressions deep. Medial pronotal depression disintegrate in two independent parts, basal part conspicuous, apical part sometimes strongly reduced. Pronotum widest in anterior third, with lateral sides nearly lineal before basal angles. Pronotal keels S-shaped, strongly elevated, sharp and bright along entire length.

Agrilus nicolanus belongs to the *A. betuleti* group and it can be distinguished by the form of prehumeral keels and by the obvious basal pronotal depression.

Distributions: Altai, Russian Far East, Japan.

Additional material examined:

R U S S I A : Altai m. Kuzneck [NMP]; Kamen-Rybolov oz Chanka, Yuzhnouss Tscherskij 18. VI. 08 [NMP]; Sib. or.-m., Primorje Sichote-Alin Mts. Sokolči 1.–15. 7. 1990 Kadlec + Voříšek lg.; Sib.or. Primorje KOMAROVKA flum. KAMENUSHKA env. 300 m Vorisek lgt. VI. 1992; Primorsk. obl. 31. V. 1915 SEDAVKA Rimskij Korsak leg.; Ussur GRIGORIEVKA 12. VII. 1937 Stepanov leg.; Primorskij kraj KRASNOARMIJSK 18. VI. 1951 V. N. Stepanov leg.; USSR, Primorskij kraj ARSENEEV env. VI. 1991 M. Štrba leg.; Primorie, Novickoe 15 km S of PARTIZANSK forest 24. VI. 1990 Belokobylskij leg.; Primorskij kraj SPASSK forest 13.–15. VI. 1990 Belokobylskij leg.; USSR, Primorsk. kraj ARSENEV env. VI. 1991 44.11N 133.19E O. Sausa leg; Prim. Chasan... Rjazanovka 5. 6. 91 Filimonov [CKA].

JAPAN: [all examined material from Japan was determined as *A. ronino*]: Mts. Daibosatsu Yamanashi Pref. 21. VI. 1985 S. Ohmomo; Tobira spa. Nagano Pref. 19. VI. 1974 H. Hayakawa; Tobira spa. Nagano Pref. 17. VII. 1974 H. Hayakawa; Japan Alp's de Sasaggo près Kôfu 27. 7. 08; Japan Kumanotaira pr. Kuruizawa 12. 7. 08.

***Agrilus adelphinus* KERREMANS, 1895**
(fig. 4)

Agrilus adelphinus KERREMANS, 1895: 222.

Agrilus nonfriedi OBENBERGER, 1914: 44, 49–50. (nec KERREMANS, 1900)

Agrilus nonfriedanus OBENBERGER, 1923: 64–65. (**syn. nov.**)

Agrilus nigrocoerulans OBENBERGER, 1924: 39. (**syn. nov.**)

Agrilus egorovi ALEXEEV, 1989: 480. (unavailable name) (**syn. nov.**)

Type locality: "Chine: Ho-Chan (R. P. X. Mouton) [sic!]" [KERREMANS, 1895].

Type material: Lectotype male [MHNP], here designated: "Chine Ho Chan R. P. Moulton [p] \ *adelphinus* Kerr. Type [h] \ Kerremans vidit 1895 [p] \ LECTOTYPE [p] AGRILUS *adelphinus* Kerr. 1895 [h] \ Ed. Jendek design. 1994 [p] [red label]". I have studied also further specimen, female from BML with label "Chine Ngan Hoei R. P. Mouton" which is designated as paralectotype.

Synonyms: Lectotype male of *A. nonfriedi* [NMP] here designated: "China ex Nonfried [h] \ *Agrilus Nonfriedanus* m. (= *Nonfriedi* m.) Type [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragae Inv. [p] 24887 [h] [orange label] \ LECTOTYPE [p] AGRILUS *nonfriedi* Obenb. 1914 [h] Ed. Jendek design. 1994 [p] [red label]".

Lectotype female of *A. nigrocoerulans* [NMP] here designated: "Kiautschou China [p] \ typus [p] [red label] \ *Agrilus nigrocoerulans* m. Type [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragae Inv. [p] 24883 [h] [orange label] \ LECTOTYPE [p] AGRILUS *nigrocoerulans* Ob. [h] Ed. Jendek design. 1994 [p] [red label]".

ALEXEEV (1989) in his key to Far East Buprestids fauna has included also his new but undescribed species *A. egorovi*. The manuscript with the description of this species is in press for many years and probably will never be published. I have seen in the ZIL collection 7 specimens labelled as types (holotype and 6 paratypes). These specimens are identical with *A. adelphinus*.

Diagnosis: 6.0–8.1 mm long, elytral index (long : width = 3.0–3.4) superficially resembles *A. tibialis corax*. The most obvious differences are in having more prolonged pronotum (length : width = 0.7–0.8) with deeper medial longitudinal depression, more parallel elytral apex and completely different aedeagus.

Distributions: Russian Far East, Korea, China.

Additional material examined:

R U S S I A : USSR, Primorskij kraj ARSENEEV env. VI. 1991 44.11 N 133.19 E M. Štrba leg.; USSR, Primorsk. kraj ARSENEEV env. VI. 1991 44.11 N 133.19 E O. Sausa leg; Rossia Primorsk. prov. ARSENEEV env. VII. 1992 B. Siska leg.; Rossia Primorsk. KRASKINO env. mer. 13.–16. VII. 1992 P. Smrš leg.; Prim. Lazovsk, Kievka 18. VI. 91; Prim. Khasansk. Rjazanovka, 5. VI. 91.

K O R E A : D. P. R. KOREA WONSAN botanic garden, lgt. M. Slovák 28. V. 1988.

C H I N A : Yünnan [NMP]; CH. Yünnan 22. V.–2. VI. 1993 100 km W of KUNMING, DIAOLIN Nat. Reservation E. Jendek & O. Šauša leg.

***Agrilus asiaticus* KERREMANS, 1898**

Agrilus asiaticus KERREMANS, 1898: 178.

Agrilus hauserellus OBENBERGER, 1935: 171. (**syn. nov.**)

Agrilus planefasciatus OBENBERGER, 1936 b: 115.

Agrilus panphilovi ALEXEEV, 1959: 28–30. (teste ALEXEEV 1989: 481.)

Agrilus planefasciatus igai KUROSAWA, 1963: 110–111.

Agrilus asiaticus igai KUROSAWA, 1976: 133. (**syn. nov.**)

Type locality: “Mandchourie” [KERREMANS, 1898].

Type material: Lectotype male [BML], here designated: “Holo-type [p] [round label with red border] \ Mandchourie Boucard [h] \ asiaticus Kerr. Type [h] \ Kerremans 1903 59 [p] \ LECTOTYPE [p] AGRILUS asiaticus Kerr. [h] Ed. Jendek design. 1993 [p] [red label]”.

Synonyms: Lectotype male of *A. hauserellus* [NMP] here designated: “Kiang-Si Chang-tsin-cheng [p] \ TYPUS [p] [red label] \ Agrilus hauserellus m. Type [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragae Inv. [p] 24942 [h] [orange label] \ LECTOTYPE [p] AGRILUS hauserellus Obnb. [h] Ed. Jendek design. 1994 [p] [red label]”.

Lectotype female of *A. planefasciatus* [NMP] here designated: “Trojckoje Primorje [h] \ TYPUS [p] [red label] \ Agrilus planefasciatus m. Type [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragae Inv. [p] 24333 [h] [orange label] \ LECTOTYPE [p] AGRILUS planefasciatus Obnb. [h] Ed. Jendek design. 1994 [p] [red label]”.

A. asiaticus was long regarded as a continental subspecies of *A. tibialis*. This mistake was first made by OBENBERGER (1924) who has in his collection the incorrectly determined “cotype” of that species. KUROSAWA (1976), on the basis of his study of types, correctly synonymized *A. planefasciatus* as junior synonym of *A. asiaticus* (which has nothing in common with *A. tibialis*) and for continental subspecies of *A. tibialis* he established its oldest synonym *A. tibialis corax*.

ALEXEEV (1979) studied another 2 specimens of *A. asiaticus* from TMB and ascertained that they were identical with the continental subspecies of *A. tibialis*. He revived again the name *A. tibialis asiaticus* for the continental subspecies of *A. tibialis*.

I have seen many types of Kerremans species. Kerremans has always written determination labels by his own hand and in the case of type material he has always added the word “Type” behind the name of the taxon. Specimens from TMB lack this data and the localities of these “types” do not agree with type locality of *A. asiaticus*. I am convinced that specimens in TMB are not types of Kerremans. In this museum I have seen more incorrectly labelled specimens. Obenberger’s original mistake potentially came also from this source.

Specimens of *A. asiaticus* from Japan do not differ from specimens from the continent. Characters given by KUROSAWA (1963) for *A. asiaticus igai* are insufficient for distinguishing either subspecies.

Diagnosis: See Alexeev (1989) under the name *A. hauserellus*.

Distributions: Russian Far East, North China, Korea, Japan.

Additional material examined:

R U S S I A : Sib. or. - m., Primorje Sichote-Alin Mts. Sokolči 1.–15. 7. 1990 Kadlec + Voříšek lg.; Rossija Primorsk KRASKINO env. 13.–16. VII. 1992 P. Smrš lgt.; USSR, Primorsk. kraj ARSENEV env. VI. 1991 44.11N 133.19E O. Sausa leg; Prim. Khasansk. Sukhanovskij per. 9. 8. 90.

J A P A N : 1986. 7. 19. Sasuna, Tsushima Is., Nagasaki Pref. Col. S. Urushibata; 1975 VI. Mt. Ohboshi Tsushima Is. Nagasaki Pref. col. H. Makihara.

***Agrilus rotundicollis* SAUNDERS, 1873**

(fig. 5)

Agrilus rotundicollis E. SAUNDERS, 1873: 517–518.

Agrilus mandjuricus OBENBERGER, 1922: 23–24. (**syn. nov.**)

Agrilus mandjuricus ab. *vladivostokanus* OBENBERGER, 1922: 24. (**syn. nov.**)

Agrilus marinus OBENBERGER, 1922: 24–25.

Agrilus vladivostokanus OBENBERGER, 1924: 46–47.

Agrilus paphius THÉRY, 1942: 268–270. (teste OBENBERGER, 1943: 10.)

Agrilus vladivostocanus [sic!] : ALEXEEV, 1979: 129.

Type locality: “Japan” [SAUNDERS, 1873].

Type material: Lectotype female [BML], here designated: "Type H. T. [p] [round label with red border] \ Japan. G. Lewis 1910–320 [p] \ Agr. rotundicollis ES Type [by Saunders hand] \ Agrilus rotundicollis ES Type [by Lewis hand] \ LECTOTYPE [p] AGRILUS rotundicollis Saund. [h] Ed. Jendek design. 1993 [p] [red label]". There is in BML another specimen (without head) labelled as paratype with yellow round label. It is concerning only about exemplar additionally designed by Lewis as "cotype".

Synonyms: Lectotype male of *A. mandjuricus* [NMP] here designated: "COLLECTIO Dr. OBENBERGER MUS. PRAGENSE [p] \ Vladivostok [h] \ TYPUS [p] [red label] \ Agrilus mandjuricus m. Type [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragmae Inv. [p] 24879[h] [orange label] \ LECTOTYPE [p] AGRILUS mandjuricus Obnb. [h] Ed. Jendek design. 1993 [p] [red label]".

Lectotype male of *A. vladivostokanus* [NMP] here designated: "COLLECTIO Dr. OBENBERGER MUS. PRAGENSE [p] \ Vladivostok [h] \ TYPUS [p] [red label] \ vladivostokanus m. Type [male symbol] [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragmae Inv. [p] 24804 [h] [orange label] \ LECTOTYPE [p] AGRILUS vladivostokanus Ob. [h] Ed. Jendek design. 1993 [p] [red label]" and three paralectotypes, two from Vladivostok, one from Nikolsk-Ussuri. There is the single specimen in NMB from "Ussuri, Sib." which I have not studied, but it will also be considered as a paralectotype.

Lectotype male of *A. marinus* [NMP] here designated: "COLLECTIO DR. OBENBERGER MUS. PRAGENSE [p] \ Vladivostok [h] \ TYPUS [p] [red label] \ marinus m. Type male symbol [h] Det. Dr. Obenberger [p] \ LECTOTYPE [p] AGRILUS marinus Ob. [h] Ed. Jendek design. 1993 [p] [red label]".

The lectotype of *Agrilus rotundicollis* is a large female with more convex vertex and pronotum, but I have not found any significant difference between types of *A. rotundicollis*, *A. mandjuricus* and *A. vladivostokanus*.

Diagnosis: 4–5.2 mm long, variable in colour (from unicolourous to distinctly bicolorous) and shape of pronotum and head; belonging to *A. betuleti* species group. Similar to *A. nicolanus* and *A. pratensis djukini*, but differs from them mainly by having different structure of pronotum, more shallow lateral pronotal depressions and different aedeagus. Medial depression behind metacoxa in male deep, similar to those of *A. pratensis djukini*.

Distributions: Russian Far East, Korea, China, Japan.

Additional material examined:

R U S S I A : USSR, Primorskij kraj Arsenyev env. 300–400 m 11.–19. VII. 1990 B. Šiška & R. Čermák leg.; USSR, Primorsk. kraj ARSENEV env. VI. 1991 44.11N 133.19E M. Štrba leg.; Sibir. or. Ussuri Vladivostok Dr. Jurecek 1919 [NMP]; USSR, Primorsk. kraj ARSENEV env. VI. 1991 44.11N 133.19E O. Sausa leg.; Primorje Novickoje 15 km IU Partizanska les 19. 06. 1990 Belokobylskij; Primorskij kraj Ljalitchi r. Ilistaja 4. 06. 1990 Belokobylskij; Primorsk. kraj 15–17 km NNO ct. Khasan Loginova 20. VI. 74; Vladivostok Morskoe Kladbyschce les 17. 06. 1990 Belokobylskij; Primorskij kraj Spassk forest 13.–15. VI. 1990 Belokobylskij; Sib. or.-m., Primorje Sichote-Alin Mts. Sokolči 1.–15. 7. 1990 Kadlec + Voříšek lg.

K O R E A : D. P. R. Korea RYONGAKSAN Mts. 10 km W of PYONGYANG lgt. M. Slovák, M. Kozánek, 14.–16. V. 1988; D. P. R. Korea OKRYU Valley KUMGANGSAN Mts. lgt. M. Slovák 19. V. 1988; Korea prov. Phondjang-Si, leg. M. Mroczkowski et A. Riedel Songmun-ri, distr. Samsok 22. V. 1965.

C H I N A : CHINA Beijing pr. Qinglongqiao 8.–9. 6. 1991; China, N-Sichuan 30 km W Nanping 11., 16. VI. 1992 JIUZHAIYOU, 2100 m, Jaroslav Turna leg.; China, Sichuan, 8.–13. 6. 91 Abazhou (102) 2000m Nanping-Jiuzhaigou 33.15 N / 104.15 E.

J A P A N : Tokyo Japan [NMP]; Japan [NMP]; Yoshise Tsuchiura C. Ibaraki Pref. 13. V. 1982 S. Ohmomo; Mt. Tsukubasan Ibaraki Pref. 16. V. 1982 S. Ohmomo; Japan Kumanotaira pr. Kuruizawa 12. 7. 08.

***Agrilus tibialis tibialis* Lewis, 1893**

Agrilus tibialis Lewis, 1893: 335.

Agrilus gracilipes Lewis, 1893: 335. (nec WATERHOUSE, 1889)

Agrilus lewisiellus Kerremans, 1903: 287.

Agrilus japonicus Kerremans, 1898: 178–179.

Agrilus iturupicus ALEXEEV, 1979: 133–134. (**syn. nov.**)

Type locality: “Yezo. Taken commonly at Junsai and Sapporo” [LEWIS, 1893].

Type material: I have seen in BML syntypes of *A. tibialis* but at present these types are not available to me and the lectotype will be designated in the next chapter of this work.

Synonyms: I am fully agreed with KUROSAWA (1976) toward the solving of synonymical problems in this nominotypical subspecies of *A. tibialis*.

Lectotype male of *A. gracilipes* [BML] here designated: “Type H.T. [p] [round label with red border] \ Japan. G. Lewis 1910-320 [p] \ Nikko. 3. VI.–21. VI. 80 [p] \ *Agrilus gracilipes* Lewis Type [male symbol] [by Lewis hand] \ LECTOTYPE [p] AGRILUS *gracilipes* Lewis [h] Ed. Jendek design. 1993 [p] [red label]”. There are another 9 specimens whose labels do not refer to type localities (“Nikko, Nara and Miyanoshita”); I do not consider them to be paralectotypes.

Lectotype male of *A. japonicus* here designated: “SYN-TYPE [p] [round label with blue border] \ Japan Staud [h] \ *japonicus* Kerr. Type [h] \ Kerremans 1903-59 [p] \ LECTOTYPE [p] AGRILUS *japonicus* Kerr. [h] Ed. Jendek design. 1993 [p] [red label]” and one paralectotype (withou head) preserved in BML. There is another single specimen deposited in MHNP, which I have studied and will also be considered as a paralectotype.

I have seen in CAO two specimens (types?) of *A. iturupicus* described by ALEXEEV (1979) from Island Iturup (Kuril Islands). *A. iturupicus* differs from *A. tibialis* mainly in the presence of two small knolls on the first visible sternite in male. I have found this character rarely in males of *A. tibialis* from the continent, Kuril Islands and also Japan. These small knolls are poorly developed and often very indistinct. I consider this character to be plesiomorphic and occasionally occurring in some populations. Other characters given by Alexeev are insufficient for keeping the species status of this taxon.

Distributions: Japan, Kuril Islands.

Additional material examined:

JAPAN: Jap. Shizuoka pref. Sumata 2. VI. 1984 A. Torikata leg.; Japon: Yumoto pres Nikko 3 Aout 1911 Edme Gallois; Asahi 1. VIII. 54 Hokkaido Jap.; Kiyomi, Gifu (VI–4–1949) K. Ohbayashi; Japan, Gunma pref. 24. 7. 1982 A. Torikata leg.; Japan 25. 5. 75 Takahachi City T. Aomo lgt.

KURIL ISLANDS: Kuril. ostr. 10. VII. 63 Kol. Krivolutskaja o.Iturup; Dubovoje bliz Golovnino Kunashir Kerzhner 22. VII. 973.

***Agrilus tibialis corax* OBENBERGER, 1917**

Agrilus corax OBENBERGER, 1917: 39–40.

Agrilus ingnoratus OBENBERGER, 1924: 44. (**syn. nov.**)

Agrilus taigicola OBENBERGER, 1924: 45–46. (**syn. nov.**)

Agrilus prinadai FISHER, 1925: 6. (teste KUROSAWA, 1976)

Agrilus bakinensis OBENBERGER, 1935: 168. (erroneous statement of a type locality) (**syn. nov.**)

Agrilus ignoratus OBENBERGER, 1936 a: 1000. (unjustified emendation)

Agrilus maderianus OBENBERGER, 1943: 10. (unavailable name) (**syn. nov.**)

Agrilus freyi THÉRY, 1939: 153–155. (teste OBENBERGER, 1943: 10.)

Agrilus asiaticus : auctorum nec KERREMANS, 1898

Agrilus tibialis asiaticus : auctorum nec KERREMANS, 1898

Type locality: “Ostsibirien: Kitajskaja Sterana” [OBENBERGER, 1917].

Type material: Lectotype female [NMP], here designated: “Kitajskaja Sterana Sib. or. [h] \ TYPUS [p] [red label] \ *Agrilus corax* m. Type [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragae Inv. [p] 24878 [h] [orange label] \ LECTOTYPE [p] AGRILUS *corax* Obnb. 1917 [h] Ed. Jendek design. 1994 [p] [red label]”.

Synonyms: The continental subspecies of *A. tibialis* was generally known under the name *A. tibialis asiaticus*. Kurosawa, based on the study of type material, found that *A. asiaticus* has nothing in common with *A. tibialis* and he established the name of the oldest synonym *A. corax* for the continental subspecies. See also *A. asiaticus asiaticus*.

Lectotype male of *A. ingnoratus* here designated: "Ussuri [h] \ TYPUS [p] [red label] \ Agrilus ingnoratus m. Type [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragmae Inv. [p] 24264 [h] [orange label] \ LECTOTYPE [p] AGRILUS ingnoratus Ob. 1917 [h] Ed. Jendek design. 1994 [p] [red label]" and two paralectotypes are deposited in NMP.

Lectotype female of *A. taigicola* [NMP] here designated: "COLLECTIO Dr. Obenberger MUS. PRAGENSE [p] \ Vladivostok [h] \ TYPUS [p] [red label] \ Agrilus taigicola m. Type [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragmae Inv. [p] 24262 [h] [orange label] \ LECTOTYPE [p] AGRILUS taigicola Obnb. 1924 [h] Ed. Jendek design. 1994 [p] [red label]"

Lectotype male of *A. bakinensis* [NMP] here designated: "Apšeron Bakinská g. \ TYPUS [p] [red label] \ Agrilus bakinensis m. Type [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragmae Inv. [p] 26833 [h] [orange label] \ LECTOTYPE [p] AGRILUS bakinensis Obnb. [h] Ed. Jendek design. 1993 [p] [red label]"

A. bakinensis has been described by Obenberger from "Caucasus: Bakinskaja Gubernia: Apšeron (Neumeyer)". The lectotype of that species is identical with *A. tibialis corax*. The locality label was written additionally by Obenberger, who in the same work, also described the species from the Far East. I suppose that the locality of *A. bakinensis* was changed by mistake.

A. ingnoratus [sic!] was described by OBENBERGER (1924) and additionally emended by him (1936a) as *A. ignoratus*. According to the International Code of Zoological Nomenclature (third edition) Art 32 and 33 it is an unjustified emendation.

OBENBERGER (1943) synonymized *A. freyi* as a junior synonym partially of *A. ignoratus* [sic!] and partially of *A. maderianus*. In NMP exists a single specimen of *A. maderianus* from Siberian, labelled by Obenberger as "type" which is identical with *A. tibialis corax*. I have failed to find the original description of *A. maderianus* OBENBERGER and I consider it to be a *nomen nudum*.

Diagnosis: Variable in size (4.7–7.0 mm) and form of body parts. Differs from the nominotypical subspecies only in coloration. I have not yet seen blue or cyaneous forms from the continent, which are common in Japan .

Specimens from Sichuan differ from *A. tibialis corax* by the more prolonged body shape, shallow impression behind metacoxa in male, subparallel prosternal process and aedeagus not so dilated in apical third. More material from other Chinese localities is needed to resolve if it is either species or clinal variability.

Distributions: Russian Far East, Korea, China.

Additional material examined:

RUSSIA: Russia or. Primorsk. Reg. ARTYOM env. 5. VI.–21. VI. 1992 Plutenko leg.; Simonovo Amur.obl. 75 km W Svobodnovo Zinovjev 18. VII. 959; Vladivostok Morskoje kladbyschce les 17. 06. 1990 Belokobylskij; Primorskij kraj 1951 Ussurij. okr. 23. VI. VOROSHILOV D. Kononov leg.; Klimoutsi Amur. obl. 40 km W Svobodnovo Zinovjev 2.–20. VI. 957–959; USSR, Primorskij kraj ARSENEEV env. VI. 1991 M. Štrba leg.; USSR Primorsk. kraj VLADIVOSTOK env. 22. VII. 1990 leg. Snížek; USSR Primorsk. kraj NOVOCUGUJEVKA env. 16.–18. VII. 1990 leg. Snížek; Sib. or. Primorje KOMAROVKA flum. KAMENUSHKA env. 300m Vorisek lgt. VI. 1992; Sib. or.-m., Primorje Sichote-Alin Mts. Sokolči 1.–15. 7. 1990 Kadlec + Voříšek lg.; USSR, Primorsk. kraj ARSENEV env. VI. 1991 44.11N 133.19E O. Sausa leg; Amurkaja obl. KUNDUR 4. V. 75 plk duba Danilevskij leg.; Chabarovskij rajon GUR 15. 9. 75 plk duba Danilevskij leg.; USSR – Siberia Primorje Ussurijskij rajon Kajmanovka 7.– 13. VII. 1988 S. Chvilja lgt.; USSR, Ussuri prov. Arsenev env. VII. 1990 leg. Šiška & Čermák; USSR – rez. Chingan VII. 1990 Ing. Lorenc; Prim. Lazov. Kijevka 18. 6. 91 Filimonov; Prim. Khasansk Riazanovka 5. 6. 91 Filimonov; Prim. Khasan Zamadvorovka 24. 8. 91 24. 8. 91 Namolov; Primorje Ussurijsk Kamanushka 2. VII. 90; Rossija, Primorsk Kraskino env. mer. P. Smrš lgt.; E. v. Bodemeyer Sibiria orient. Chitaizki – Sterani [NMP]; Amur Stjernkreutz [NMP]; v. Bodemayer Sibiria orient. Sotka Gora [NMP]; Romanovka 23 VI 27 distr. Vladivostok Kistiakovskij leg. [NMP].

KOREA: Hakugan. N.: Korea (Chosen) NIPPON June 1936 (F. Yano) [NMP].

CHINA: China, Sichuan 8.–13.VI. 91 Abazhou (102) 2000m Nanping Jiuzhaigou 33.15 N / 104.15 E.

***Agrilus komareki* OBENBERGER, 1926**

(fig. 6)

Agrilus komareki OBENBERGER, 1926b: 102–103.

Agrilus ronino OBENBERGER, 1935: 167. (**syn. nov.**)

Agrilus sapporoensis OBENBERGER, 1935: 168. (**syn. nov.**)

Type locality: “Japan: Nakano, Tokyo” [OBENBERGER, 1926 b].

Type material: Lectotype female [NMP] here designated: “Nakano, Tokyo Japan, 12. VI. 23 [h] \ TYPUS [p] [red label] \ *Agrilus Komareki* m type m. Type [h] Det. Dr. Obenberger [p] \ LECTOTYPE [p] AGRILUS komareki Ob. 1926 [h] Ed. Jendek design. 1994 [p] [red label]”.

Synonyms: Lectotype female of *A. ronino* [NMP] here designated: “Hitoyoshi Japan [h] \ TYPUS [p] [red label] \ *Agrilus Ronino* m. Type [h] Det. Dr. Obenberger [p] \ LECTOTYPE [p] AGRILUS ronino Obnb. [h] Ed. Jendek design. 1993 [p] [red label]”.

Lectotype female of *A. sapporoensis* [NMP] here designated: “Japan: Sapporo [h] \ TYPUS [p] [red label] \ *Agrilus sapporoensis* m. Type [h] Det. Dr. Obenberger [p] \ LECTOTYPE [p] AGRILUS sapporoensis Obnb. [h] Ed. Jendek design. 1993 [p] [red label]”.

Lectotypes of *A. ronino* and *A. sapporoensis* are dirty female specimens so that the typical pubescence and colour is indistinct, but there is no doubt about their identity as *A. komareki*. Specimens determined as *A. ronino* I have seen from Japan belong to *A. nicolanus*.

Diagnosis: 4.4–5.8 mm long, copper-bronze with silky lustre, elytra with short white pubescence sometimes visible only along sutural margin, vertex with characteristic very fine, prolonged punctuation and microsculpture, medial pronotal depression shallow but conspicuous and centrally narrowed or disrupted, prehumeral keels sharp, long and laterally curved, elytral apices broadly rounded separately. Last abdominal sternite rounded apically.

Distribution: Japan.

Additional material examined:

JAPAN: Sakuramura Ibaraki Pref. 19. V. 1984 S. Ohmomo; Henokara, Yamanashi Pref. 21. V. 81 leg. N. Kobayachi; Ishidojyuku Kitamoto City Saimata Pref., Japan 11.–13. V. 1986 K. Akiyama leg.; Ikutaryokuchi, Kawasaki City, Kanagawa Pref. 31. V. 79 leg. T. Horiguchi [CNA].

***Agrilus friebi* OBENBERGER, 1922**

Agrilus friebi OBENBERGER, 1922: 25–26.

Agrilus vodaki OBENBERGER, 1936 c: 141. (erroneous statement of a type locality)

Agrilus friebi kiangsuanus OBENBERGER, 1935: 171. (**syn. nov.**)

Agrilus ainu MIWA & CHUJO, 1940: 64–64. (**syn. nov.**)

Agrilus friebi ainu KUROSAWA, HISAMATSU, SASAJI, 1985: 26.

Agrilus friebi var. *kiangsuanus* OBENBERGER, 1943: 10.

Agrilus enisus THÉRY, 1942: 264–266. (teste OBENBERGER, 1943: 10)

Type locality: “Siberia orientalis, Vladivostok” [OBENBERGER, 1922].

Type material: Lectotype female [NMP], here designated: “COLLECTIO Dr. Obenberger MUS. PRAGENSE [p] \ Vladivostok [h] \ TYPUS [p] [red label] \ *Agrilus Friebi* m. Type [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragae Inv. [p] 24 881[h] [orange label] \ LECTOTYPE [p] AGRILUS friebi Ob. [h] Ed. Jendek design. 1993 [p] [red label]” and one paralectotype female from the same locality. There are other specimens in NMB (Vladivostok, Ussuri mer. Dr. Jureček) and NMW (Vladivostok, Ost Asien, Herm. Frieb) I have not studied, but they will be considered as paralectotypes.

Synonyms: Lectotype female of *A. vodaki* [NMP] here designated: “Ussuri [h] \ TYPUS [p] [red label] \ *Agrilus Vodaki* m. Type [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragae Inv. [p] 24 891 [h] [orange label] \ LECTOTYPE [p] AGRILUS vodaki Ob. [h] Ed. Jendek design. 1993 [p] [red label]”.

Obenberger (1936c) recorded "Japan" as the type locality for *A. vodaki* but the lectotype is labelled "Ussuri". I consider "Ussuri" to be the original type locality.

Lectotype female of *A. friebi kiangsuanus* [NMP] here designated: "China: Kiangsu [h] \ TYPUS [p] [red label] \ Mus. Nat. Pragae Inv. [p] 24 305 [h] [orange label] \ Agrilus Friebi ssp. Kiangsuanus m. Type [h] Det. Dr. Obenberger [p] \ LECTOTYPE [p] AGRILUS friebi kiangsuanus Ob. [h] Ed. Jendek design. 1993 [p] [red label]".

I have not found any significant difference between *A. friebi kiangsuanus* and *A. friebi friebi*.

The subspecies *Agrilus friebi ainu* was established from *A. ainu* for Japan. I have not found any essential difference from the nominotypical race.

Diagnosis: Closely similar to *A. nalaichanus* Cobos, 1968 from which it differs by medial pronotal depression deeper, tapering anteriorly and pronotum more convex in transverse direction.

Distributions: Russian Far East, Korea, North East China, Japan.

Additional material examined:

R U S S I A : USSR, Primorskij kraj Arseneev env. 300–400 m 11.–19. VII. 1990 B. Šiška & R. Čermák leg., Sib. or.-m., Primorje Sichote-Alin Mts. Sokolči 1.–15. 7. 1990 Kadlec + Voříšek lg.; Primorskij kraj 2. VI. Lazovskij rajon 1951 d. Tatchik-goze; Primorskij kraj Spassk. les 13. 06. 1990 Belokobylskij; Primorskij kr. g. Vladivostok, s. Novickoje 16-1-61 L. A. Anufriev; Vladivostok 27. VI. 1927 B. Bjelov; Primorsk. kraj ARSENEV env. VI. 1991 44.11N 133.19E O. Sausa leg; UdSSR, Primorskij kraj Vladivostok 26. VII. 1990 leg. A. Pütz; Prim. Khasansk Rjazanovka 5. 6. 91 Filimonov; SSSR Primorje Barabasch – Levada 7. VI. 1980 C. V. Konovalov lgt.

C H I N A : China, Gansu reg. XIA-HE 17.–18. 7. Hubička leg. 1990.

J A P A N : Tateiwamura Vill. Minami-Aizu Fukushima Pref. 27. VI. 1992 S. Ohmomo leg. [CNA].

***Agrilus soudeki* OBENBERGER, 1926**
(fig. 7)

Agrilus soudeki OBENBERGER, J., 1926 b: 103.

Agrilus sericeus THÉRY, 1942: 266–268. (teste OBENBERGER, 1943: 10.)

Type locality: "Ussuri" [OBENBERGER, 1926 b].

Type material: Lectotype male [NMP], here designated: "Ussuri [h] \ TYPUS [p] [red label] \ *A. Soudeki* m. Type [h] Det. Dr. Obenberger [p] \ Mus. Nat. Pragae Inv. [p] 24 809 [h] [orange label] \ LECTOTYPE [p] AGRILUS soudeki Obnb. [h] Ed. Jendek design. 1993 [p] [red label]".

Synonyms: ALEXEEV (1979) synonymized *A. alutaceicollis* as a junior synonym of *A. soudeki*. I consider *A. alutaceicollis* to be a good species (see *A. alutaceicollis* below).

Diagnosis: 3.4–5.6 mm long, gold-green or gold-brown with silky tinge, frons nearly flat, vertex distinctly convex, eyes small, not extending beyond the outline of frons (dorsal aspect), pronotum and head with obvious dominant microsculpture covering basal sculpture, prehumeral carina reduced, sometimes indicated in form of little knoll, lateral pronotal depressions present and rather deep, elytra without distinct pubescence, elytral apices truncate and finely serrate.

Distributions: Russian Far East, Korea.

Additional material examined:

R U S S I A : Nikolsk-Ussurijsk 1899 G. Suvorov; USSR, Primorsk. kraj ARSENEV env. VI. 1991 44.11N 133.19E O. Sausa leg.; USSR, Primorskij kraj ARSENEEV env. VI. 1991 44.11N 133.19E M. Štrba leg.; USSR, Primorskij kraj Arseneev env. 300–400 m 11.–19. VII. 1990 B. Šiška & R. Čermák leg.; Sib. or.-m., Primorje Sichote-Alin Mts. Sokolči 1.–15. 7. 1990 Kadlec + Voříšek lg.

K O R E A : D. P. R. KOREA RYONGAKSAN Mts. 100 km W of PYONGYANG lgt. M. Slovák.

***Agrilus alutaceicollis* OBENBERGER, 1930**
(fig. 8)

Agrilus alutaceicollis OBENBERGER, 1930: 110–111.

Type locality: “Siberia oa: Primorje” [OBENBERGER, 1930].

Type material: Lectotype female [NMP], here designated: “Primorje [h] \ TYPUS [p] [red label] \ *Agrilus alutaceicollis* m. Type [h] Det. Dr. Obenberger [p] \ LECTOTYPE [p] AGRILUS *alutaceicollis* Obnb. [h] Ed. Jendek design. 1993 [p] [red label]”.

Synonyms: ALEXEEV (1979) considers this species to be conspecific with *A. soudeki*. I have in my collection more specimens of both species and I regard them as two different species.

Diagnosis: Closely similar to *A. soudeki* from which it differs mainly by smaller body size (3.3–4.2 mm), vertex more convex and obviously elevated between eyes, (postero-dorsal aspect), pronotal microsculpture entirely covering up basal structure, elytral apices separately rounded and sutural margin in elytral apex distinctly elevated and prolonged apically, produced to sharp spine.

Distribution: So far known only from Russian Far East (Primorsk region).

Additional material examined:

R U S S I A : RUSSIA: USSR, Primorsk.kraj ARSENEV env. VI. 1991 44.11N 133.19E O. Sausa leg.; USSR, Primorskij kraj ARSENEEV env. VI. 1991 44.11N 133.19E M. Štrba leg.

***Agrilus planipennis* FAIRMAIRE, 1888**
(fig. 9)

Agrilus planipennis FAIRMAIRE, 1888: 121.

Agrilus marcopoli OBENBERGER, 1930: 108–109. (**syn. nov.**)

Agrilus molco-poli [sic!] : MIWA & CHUJO, 1930: 74.

Agrilus feretrius OBENBERGER, 1936d: 37–38. (**syn. nov.**)

Agrilus marcopoli ulmi KUROSAWA, 1956: 40–41. (**syn. nov.**)

Type locality: “Pékin A. David” [FAIRMAIRE, 1888].

Type material: Lectotype female [MHNP], here designated: “Chine A. David [p] \ *Agrilus planipennis* Fairm. [by Fairmaire’s hand] \ LECTOTYPE [p] AGRILUS *planipennis* Fairm. 1888 [h] Ed. Jendek design.1994 [p] [red label]”.

Synonyms: Lectotype male of *A. marcopoli* [NMP] here designated: “Mongol. or. Chan-heou [p] \ TYPUS [p] [red label] \ *Agrilus* Marco-Poli m. Type [h] Det. Dr. Obenberger [p] \ LECTOTYPE [p] AGRILUS *marcopoli* Obnb.1930 [h] Ed. Jendek design.1994 [p] [red label]”.

Lectotype female of *A. feretrius* [NMP] here designated: “Formosa H.Sauter, 1911 [p] \ TYPUS [p] [red label] \ *Agrilus* Teretrius [sic!] m. Type [h] Det. Dr. Obenberger [p] \ LECTOTYPE [p] AGRILUS *feretrius* [sic!] Obnb. 1936 [h] Ed. Jendek design. 1994 [p] [red label]”.

Specimens of *A. planipennis* from Japan do not significantly differ from continental specimens. Characters given by Kurosawa for subspecies *ulmi* correspond to species variability.

Distributions: Russian Far East, Mongolia, Japan, China, Taiwan. Newly recorded for Taiwan.

Additional material examined:

R U S S I A : SU Ussuri reg. Benevskoe 20. 7. 1989 M. Nikodým lgt.; Primorsk 13. 8. 35 Mai He.

C H I N A : Szechuan [NMP]; Tianjin; Chahar Yangkiaping 10. VII. 37.

J A P A N : Todai Nagano 16. VIII. 1972 S. Okuno [CNA]; Koganezawa, Ohtsuki City, Yamanashi Pref. 4. VIII. 81 leg. M. Horikawa [CNA]; Ogawadani Vall. Okutama Tokyo Met. 2. VI. 1964 J. Komiya; 1981. 8. 1. Koganezawa Yamanashi Pref. Col. B. Ikeda.

***Agrilus marginicollis* SAUNDERS, 1873**

Agrilus marginicollis SAUNDERS, 1873: 516.

Agrilus hastuliferoides GEBHARDT, 1929: 32–33. (**syn. nov.**)

Type locality: “Hiogo, April 1871” [SAUNDERS, 1873].

Type material: Lectotype male [BML] by present designation: “Type H. T. [p] [round label with red border] \ Hiogo 1871 [h] \ Japan. G. Lewis 1910–320 [p] \ Agr. marginicollis ES Type [by Saunders hand] \ LECTOTYPE [p] AGRILUS marginicollis Saund. [h] Ed. Jendek design. 1993 [p] [red label]”.

Saunders described this species from four specimens (“... in the four examples I have before me”) but in the BML there are only three specimens of *A. marginicollis* and only the designated lectotype belongs to the original type series. Remaining ones are only cotypes; one is even a different species!

Synonyms: Lectotype female of *A. hastuliferoides* [MHNP], here designated: “China Chekiang [p] \ Typus [p] [red label] \ *Agrilus hastuliferoides* Type [h] det. Dr. A. v. Gebhardt [p] \ MUSEUM PARIS 1936 coll. A. Thery [p] \ LECTOTYPE [p] AGRILUS hastuliferoides Gebh. [h] Ed. Jendek design. 1994 [p]”. There are other single syntypes in NMP and TMB (from the same locality as lectotype) which I have not studied but will be considered as paralectotypes.

Diagnosis: 4.2–5.7 mm long, characterized by shape of pronotum, with deep medial longitudinal depression enlarged basally, by conspicuous medial lobe on anterior pronotal margin and by sharp laterally curved prehumeral keels. Elytra with white wedge-shaped pubescence along sutural margin sometimes disrupted in apical third.

Distributions: Japan, China. Newly recorded for continent and China.

Additional material examined:

JAPAN: Sarushima Ja, Yokosuka City, Kanagawa Pref. 13.VII.80 leg. M. Horikawa; Kohoku Ku Yokohama City Kanagawa Pref. 5.VI.81 leg. V. Kusahabe; Kuro-dako Mts. Kujyusan Oita Pref. 27.VI.1982 N. Takei leg.

CHINA: China-Shaanxi pr. Hua Shan 17.–21. VI. 1991 R. Dunda & R. Sauer lgt.

***Agrilus cupes* LEWIS, 1893**

Agrilus cupes LEWIS, 1893: 336.

Type locality: “Numata, Chiuzenji” [LEWIS, 1893].

Type material: Lectotype male [BML], here designated: “Type H. T. [p] [round label with red border] \ Japan. G. Lewis 1910–320 [p] \ Numata 29. VIII. 81 [h] \ *Agrilus cupes* Lewis Type [by Lewis hand] \ LECTOTYPE [p] AGRILUS cupes Lewis [h] Ed. Jendek design. 1993 [p] [red label]”.

Lewis described *A. cupes* from two specimens “Numata and Chiuzenji, two examples”. There is also a second paralectotype, female in BML from locality Chiuzenji. This specimen was originally glued on the label, dorsal side up. After remounting I have found that this specimen is a different species.

Diagnosis: Similar to *A. cyanescens* RATZEBURG, 1837 in its body shape, colour and hairless surface, differs from it mainly by pronotum distinctly narrowed anteriorly and more narrow vertex with shallower carina.

Distributions: Japan, China – Shaanxi prov. Newly recorded for continent and China.

Additional material examined:

JAPAN: Iwate ogasawara Japan Y. Miwa.

CHINA: China, Shaanxi pr. Hua Shan 17.–21. 6. 1991 R. Dunda lgt.

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Figs 1–9. 1) *Agrilus sibiricus sibiricus*, 2) *A. sibiricus fukushimensis* ssp. nov. (paratype), 3) *A. nicolanus*, 4) *A. adelphinus* (lectotype), 5) *A. rotundicollis*, 6) *A. komareki* (lectotype), 7) *A. soudeki*, 8) *A. alutaceicollis*, 9) *A. planipennis* (lectotype).