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A NEW SPECIES OF THE GENUS *AEGOSOMA* AUDINET-SERVILLE, 1832 (COLEOPTERA, CERAMBYCIDAE) FROM THE RUSSIAN FAR EAST WITH THE NOTES ON ALLIED SPECIES

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Aegosoma ivanovi sp. n. is described and illustrated from Primorskii krai (Russia). The lectotype of *Ae. amplicolle* Motschulsky, 1854 is designated. The synonymy of *Ae. sinicum* White, 1853 = *Ae. amplicolle* Motschulsky, 1854 is confirmed. A new data on the distribution of *Ae. sinicum* in Russia are given. The study of holotypes of *Ae. hainanensis* Gahan, 1900 and *Ae. ornaticolle* White, 1853, which were traditionally accepted as subspecies of *Ae. sinicum*, show that both are good species.

KEY WORDS: Coleoptera, Cerambycidae, *Aegosoma*, taxonomy, new species, Russia, East Asia.

М. Л. Данилевский. Новый вид рода *Aegosoma* Audinet-Serville, 1832 (Coleoptera, Cerambycidae) с Дальнего Востока России с замечаниями по близким видам // Дальневосточный энтомолог. 2011. N 238. С. 1-10.

Из Приморского края описан *Aegosoma ivanovi* sp. n. Обозначен лектотип *Ae. amplicolle* Motschulsky, 1854. Подтверждена синонимия *Ae. sinicum* White, 1853 = *Ae. amplicolle* Motschulsky, 1854. Указаны новые находки *Ae. sinicum* в

России. На основе изучения голотипов *Ae. hainanensis* Gahan, 1900 и *Ae. ornaticolle* White, 1853, традиционно принимаемые в качестве подвидов *Ae. sinicum*, рассматриваются как хорошие виды.

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INTRODUCTION

The first record of the genus *Aegosoma* Audinet-Serville, 1832 and species *Ae. sinicum* White, 1853 from the Russian Far East was published by Lobanov et al. (1981) without any comments as "*Megopis (Aegosoma) sinica*". Later the species has been included in the key of Cerambycidae of Russian Far East by G.O. Krivolutzkaya and A.L. Lobanov (Tsherepanov, 1996). The first available materials of *Ae. sinicum* were recorded by G. Lafer (personal communication, 2006) from the south of Primorskii krai (Siniy Ridge, southwards Spassk-Dalnyi): ♂ – Chernigovka distr., Merkushevka, 19.VII 2006, S.N. Ivanov leg.; ♀ – Spassk distr., Kalinovka, 20.VII 2006, S.N. Ivanov leg. (www.cerambycidae.net).

The recent discover of a new species from the genus *Aegosoma* in the same area was quite unexpected.

The holotype and a part of paratypes of new species are deposited in the collection of A.N. Severtzov Institute of Ecology and Evolution of Russian Academy of Sciences, Moscow (IPEE), other paratypes – in the collections of Institute of Biology and Soil Science, Vladivostok (IBSS) and S. Ivanov, Vladivostok (SI). The holotypes from Natural History Museum, London (NHML) and materials from Zoological Museum of Moscow State University (ZMMU) were studied also.

TAXONOMY

Aegosoma ivanovi Danilevsky, sp. n.

Figs 1, 2, 9, 10

MATERIAL. Holotype – ♂, **Russia:** Primorskii krai, Chernigovka district, about 3 km eastwards Merkushevka, 44°22'23.12"N, 132°50'33.83"E, 29-30.VII 2011, S. Ivanov leg. (IPEE). Paratypes (25 ♂ and 14 ♀): 4 ♂, 3 ♀ with the same label as holotype (IPEE); 15 ♂, 11 ♀ with the same label (IBSS, SI); 1 ♂ from the same locality, collected 28.VII 2011 (SI); 1 ♂ from the same locality, but collected on 28.VII 2009, S. Ivanov leg. (SI); 1 ♂, Primorskii krai, Spassk district, about 4 km south-eastwards Kalinovka, 44°26'55.75"N, 132°59'19.21"E, 29.VII 2009, S. Ivanov leg. (SI); 3 ♂, same locality, 21.VII 2011, S. Veriga leg. (IPEE); 1 ♀, the same locality, 4.VIII 2011, S. Veriga leg. (IPEE).

DESCRIPTION. The new species resembles *Ae. sinicum*. Body large, dark-brown, about the same size and color as in *Ae. sinicum*, but body dorsally distinctly shiny, head relatively longer. Antennae in males a little bit longer or a little bit shorter



Figs. 1, 2. *Aegosoma ivanovi* sp. n. 1 – ♂, holotype; 2 – ♀, paratype from Primorskii krai (Merkushevka).

than body length, in females – surpassing elytral middle; relative length of antennal joint about the same as in *Ae. sinicum*; sculpture of antennal surface in males much rougher than in *Ae. sinicum* (Figs 9 vs 11), joint 1 with rough irregular rugae, joints 3 and 4 with distinct transverse carinae and long internal spines; in females joint 1 with dense regular punctation (rugosely punctate in *Ae. sinicum* (Figs 10 vs 12), joints 3-5 sparsely punctate, shiny (densely irregularly punctate, dull in *Ae. sinicum*). Prothorax strongly transverse, strongly widened posteriorly, usually much wider than in *Ae. sinicum* (in some specimens less wider than in *Ae. sinicum*), in males from 1.7 to about 2.3 times shorter than basal width; in females from 2.2 to about 2.5 times shorter than basal width; lateral roughly sculptured pronotal area in male and in female much wider than in *Ae. sinicum*; orange setal pronotal areas (typical for *Ae. sinicum*) indistinct. Elytra with very fine indistinct pubescence, distinctly shiny, with small shining areas among fine punctation (absent in *Ae. sinicum*), shiny



3



4

Figs. 3, 4. *Aegosoma sinicum*. 3 – ♀, holotype, 4 – holotype labels.

longitudinal costae better pronounced; widest before middle in males or near middle in females; about 2.2 times longer than wide in males, about 2.3 times longer than wide in females. Legs relatively longer, especially fore tibia in males which about 1.1 times shorter than antennal joint 3 (about 1.2-1.3 times in *Ae. sinicum*). All tarsi (especially anterior) very narrow both in males and in females. Last abdominal tergite angulate in males, widely rounded in females. Last abdominal sternite emarginate in males and in females.

MEASUREMENTS (in mm). Body length: male 35.5-46.0; female 38.0-45; body width: male 8.8-11.6; female 10.0-12.4.

ETYMOLOGY. The new species is dedicated to Sergey Ivanov (Vladivostok), who collected the most part of the type series and a lot of *Ae. sinicum* in the Russian Far East.



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Figs. 5-8. *Aegosoma sinicum*. 5 – ♂ from vicinity of Shanghai; 6 – ♀ from vicinity of Shanghai, 7 – ♂ from Primorskii krai (Nakhimovka); 8 – ♀ from Primorskii krai (Merkushevka).

***Aegosoma sinicum* White, 1853**

Figs 3–8, 11, 12

MATERIAL. Holotype of *Aegosoma sinicum* – ♀ with five labels: Holotype [printed inside red circle] // N China [white circle] // *Aegosoma / sinicum* / Whyte / type // *Aegosoma / sinicum* n. s. / N. China // Type specimen reset by A. Drumont in 2003 [yellow] (NHML), examined (Fig. 4).

Lectotype of *Aegosoma amplicolle* Motschulsky, 1854 (designated here) – specimen in very bad condition (only anterior part of prothorax and metathorax saved) with three labels: small yellow circle // type // [yellow] *Aegosoma / amplicollis* / Motsch. / *sinicum?* White / China Bor. (ZMMU); paralectotype of *Ae. amplicolle* – specimen in a little bit better condition (right elytrum almost totally saved, as well as anterior part of left elytrum, metathorax, middle and hind femora and tibiae) with two labels: China Bor. // *Aegosoma / amplicollis* / Motsch. / China bor. (ZMMU).

ADDITIONAL MATERIAL. **Russia:** Primorskii krai: 1 ♂, Spassk district, Nakhimovka env., 12.VII 2010, V. Vasilenko leg. (IPEE); 1 ♀ with the same label (in collection of V. Vasilenko, Moscow); 4 ♂, 2 ♀, Chernigovka district, about 5 km SE Merkushevka, 29-30.VII 2011, S. Ivanov leg. (IPEE); 1 ♀, Spassk district, about 4 km SE Kalinovka, 44°26'55.75"N, 132°59'19.21"E, 4.VIII 2011, S. Veriga leg. (IPEE); **China:** 1 ♂, 1 ♀ [topotypes], “Changhai, 5.VII 1936, E. Suenson” (ZMMU); 4 ♂, 4 ♀, “Chine, prov. Tshili, Hsiung, Clermont” (ZMMU); **Korea:** 1 ♂, N Korea, Sinho, 15.VII 1990, S. Murzin leg. (IPEE); 1 ♂, N Korea, Mt. Myohyang San, 17-18.VII 1994, Lee J. Kha leg. (IPEE); **Japan:** 2 ♂, 1 ♀, Kanagawa pref., Miura, 23.VII 1974, VII 1978, N. Ohbayashi leg. (IPEE); 1 ♀, Gifu pref., Idani, 9.VIII 1955, N. Ohbayashi leg. (IPEE); **Thailand:** 3 ♂, 1 ♀, Chiangmai, V 1990 (IPEE); **Malaysia:** 1 ♀, West Malaysia, Cameron Highland, Pahang, 4.V 1990, Sh. Nagai leg. (IPEE).

NOTES. The holotype of *Ae. sinicum* (Fig. 3) examined, as well as male and female from the type locality, vicinity of Shanghai (Figs. 5-6). All three specimens are quite conspecific to all available specimens traditionally accepted as *Ae. sinicum sinicum* from Russia and Japan to Oriental Region because of the same character of antennal, pronotal and elytral sculpture, and presence of four orange pronotal areas. There are not significant differences between the specimens of *Ae. sinicum* from Russian Far East (Figs. 7-8) and those from Japan, China and Oriental Region.

The lectotype and paralectotype of *Aegosoma amplicolle* Motschulsky, 1854, described from “environs de Pékin” are conspecific with *Ae. sinicum*, as it was traditionally accepted (both available specimens are in very bad condition, so only elytral sculpture could be used for study).

MEASUREMENTS (in mm). The body length of available specimens of *Ae. sinicum* from Primorskii krai: ♂ 36.0-48.0; ♀ 38.5-46.2.



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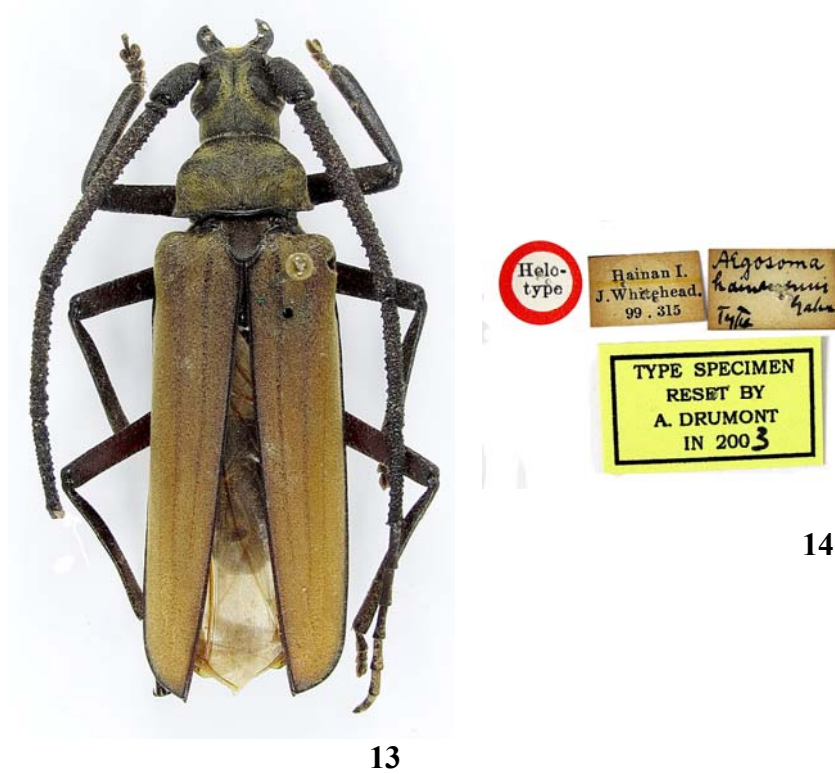
12

Figs. 9-12. First three antennal joints and right side of pronotum of *Aegosoma* spp. 9, 10 – *Ae. ivanovi* sp. n.: 9 – ♂, holotype; 10 – ♀, paratype; 11, 12 – *Ae. sinicum* from Primorskii krai (Merkushevka): 11 – ♂; 12 – ♀.

***Aegosoma hainanensis* Gahan, 1900, stat. ressur.**

Figs 13, 14

MATERIAL. Holotype – male with four labels (Fig. 14): Holotype [printed inside red circle] // Hainan I. / J. Whithead / 99. 315 // *Aegosoma hainanensis* / Gahan / Type // Type specimen reset by A. Drumont in 2003 [yellow] (NHML), examined.



Figs. 13-14. *Aegosoma hainanensis*. 13 – ♂, holotype, 14 – holotype labels.

NOTES. The holotype of *Aegosoma hainanensis* Gahan, 1900 described from Hainan Island (China) represents a very distinct species (regarded previously as *Aegosoma sinicum hainanensis* Gahan, 1900) with very rough sculpture of antennal joint 3 (but without transverse carinae which are typical for *Ae. ivanovi* sp. n.); pronotum regularly covered with dense recumbent yellow pubescence partly hiding sculpture, without four distinct orange areas which are typical for *Ae. sinicum*; elytra with very fine indistinct sculpture and with very distinct yellow recumbent pubescence, which is about invisible in *Ae. sinicum* or *Ae. ivanovi* sp. n.

Aegosoma ornaticolle White, 1853, stat. ressur.
Figs 15, 16

MATERIAL. Holotype – ♂ with four labels (Fig. 16): Holotype [printed inside red circle] // 52/109 [white circle] // *Aegosoma / ornaticolle / White / Type* // *Aegosoma / ornaticolle* n. s. (NHML), examined.



15



16

Figs. 15-16. *Aegosoma ornaticolle*. 15 – ♂, holotype, 16 – holotype labels.

NOTES. The holotype of *Aegosoma ornaticolle* White, 1853 described from “E. Indies” represents a very distinct another species (regarded previously as *Aegosoma sinicum ornaticolle* White, 1853) with antennae much longer than body length and very bright and dense four pronotal setal areas, while most part of pronotal surface is about glabrous, strongly granulated; elytra totally glabrous, red-brown, with very specific microgranulation.

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