

***Carilia virginea komensis* (Tamanuki, 1938), stat. nov. from Korea (Coleoptera: Cerambycidae: Lepturinae)**

MIKHAIL LEONTYEVICH DANILEVSKY¹ & SEUNG HWAN OH²

¹*A. N. Severtzov Institute of Ecology and Evolution, Russian Academy of Sciences, Leninsky prospect 33, Moscow, 119071, Russia; e-mail: danilevskym1@rambler.ru, danilevsky@cerambycidae.net*

²*101, Manseung Bldg., 149-49, Myeongseong-ro, Galmal-eup, Cheorwon-gun, Gangwon-do, 269-802, Republic of Korea; e-mail: clytoid@gmail.com*

Abstract

Carilia virginea komensis (Tamanuki, 1938), stat. nov. is accepted as a subspecies distributed in Korean Peninsula. It is characterized by usually totally black prothorax and black abdomen.

Key words: Coleoptera, Cerambycidae, taxonomy, upgrade, subspecies, Korea

Introduction

A separate taxonomical entity of Korean *Carilia virginea* (Linnaeus, 1758) was suspected long ago because of black abdomen in all known specimens, while in Russian South Primorye Region specimens with red abdomen are known from about all populations. Now the totally black prothorax was observed in the great majority of specimens from South Korea, while in Far East Russia all *C. virginea* are always with red pronotum. So, the separation of a Korean subspecies is necessary.

***Carilia virginea komensis* (Tamanuki, 1938), stat. nov.**

Gaurotes virginea kozhevnikovi, Tamanuki, 1933: 72 – “Doryokoku – Sohyo [Mt. So-Yo-San]”

Gaurotes virginea, Cho, 1934: 47 – “Mt. Gwan-Mo-bong”; Cho, 1961: 32 – “Ham-Gyeong-Buk-Do: Mt. Gwan-Mo-Bong, Tae-Su, Mt. Ma-I-San, Yeon-Am. Ham-Gyeong-Nam-Do: Yong-Am. Pyeong-An-Buk-Do: So-Hu-Ju, U-Hwa, Gang-Gye, Nam-Sa, Chil-Pyeong-Myeon Dae-Heung-Dong”.

Gaurotes (s. str.) *kozhevnikovi*, Plavilstshikov, 1936: 211, 519, part. – “Ostsibirien (Ussurigebiet), Mandschurien, Korea”; Tsherepanov, 1979: 144, part. – Ussuri Region, North-East China, North Korea.

Gaurotes kozhevnikovi f. *komensis* Tamanuki, 1938: 167, part. - «Korea (Mt. Baji)».

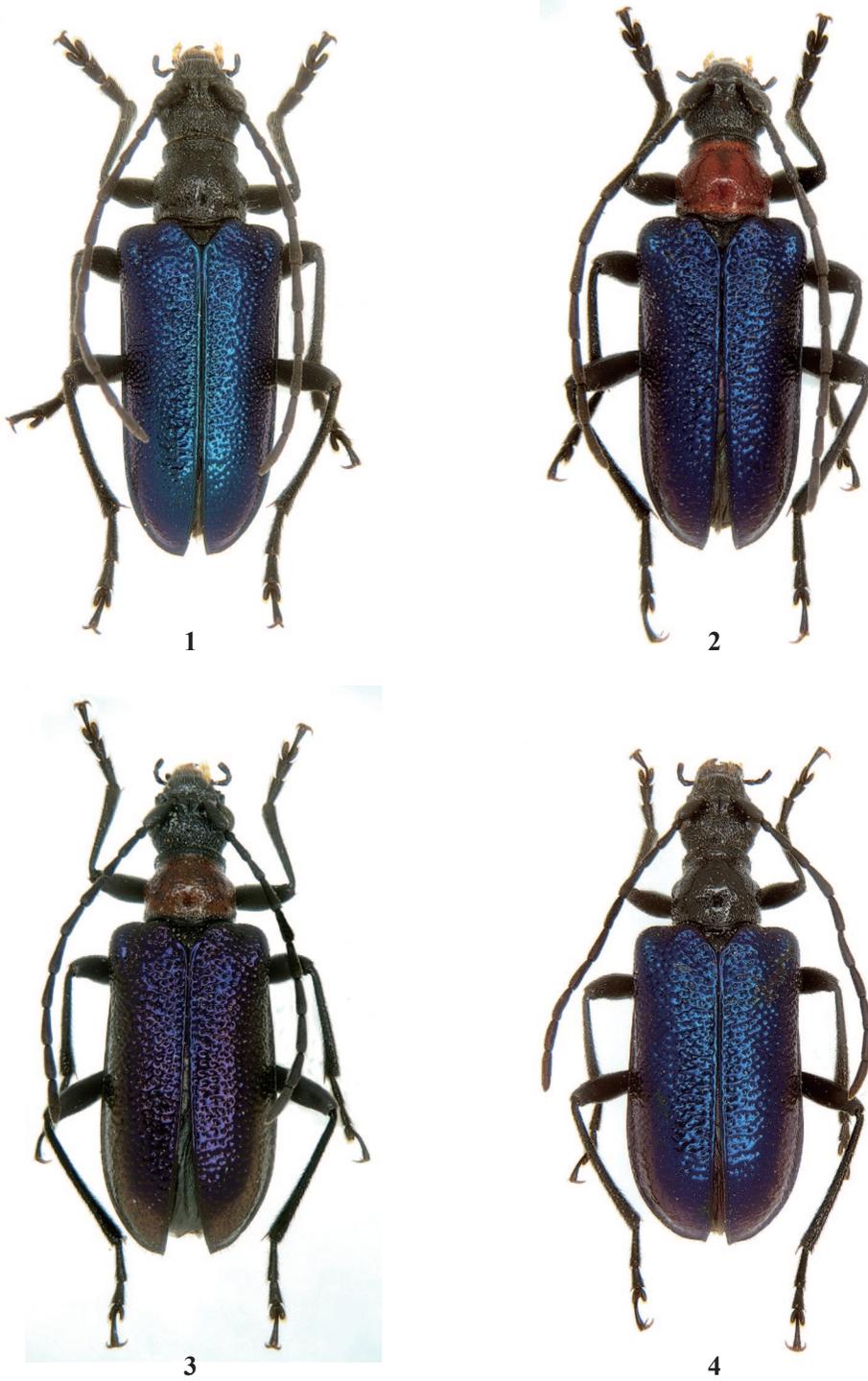
Gaurotes thalassina f. *nigriventris* Tamanuki, 1938: 167, part. «Korea (Mt. Kambo, Mt. Baji and

- Taitenpyo)» - [junior homonym – not *Gaurotes nigriventris* Jureček, 1921].
- Gaurotes* (s. str.) *kozhevnikovi* f. *coreana* Tamanuki, 1939: 101 – Korea (*G. kozhevnikovi* is supposed to be a subspecies of Siberian taxon).
- Gaurotes* (s. str.) *virginea thalassina*, Gressitt, 1951: 65, part. – “Siberia, N. China, Korea, Saghalien, Japan(Honshu)”.
- Gaurotes* (*Neogaurotes*) *kozhevnikovi*, Podaný, 1962: 231, part. - “Ostsibirien (Ussurigebiet), Mandshurien, Korea”.
- Gaurotes* (*Carilia*) *thalassina*, Lee, 1982: 11 – “GW: Mt. Seol-Ag-San. GG: Mt. Wang-Bang-San; Gwang-Neung. CB: Mt. Sog-Ni-San”.
- Carilia virginea*, Lee, 1987: 30, part. – “Gang-Weon-Do: Mt. Seol-Ag-San, Seo-San, Mt. Tae-Baeg-San. Gyeong-Gi-Do: Mt. Wang-Bang-San, Gwang-Neung, Mt. Bug-Han-San. Chung-Cheong-Bug-Do: Mt. Song-Ni-San.”
- Carilia kozhevnikovi*, Tsherepanov, 1996: 76 – Far Est Russia, Korean Peninsula, North-East China.
- Gaurotes* (*Carilia*) *virginea kozhevnikovi*, Smetana & Danilevsky, 2010: 126, part. – Far East Russia, North-East China, North and South Korea; Danilevsky, 2010: 226, part. - Far East Russia, North-East China, North and South Korea.

Type locality (Figure 6 - 1). «Korea (Mt. Baji)» Mt. Baji = Mt. Ma-Eui-San(Lee, 1982) near Mt. Kimbo(= Mt. Gwan-Mo-Bong; Lee, 1982) – according to the original description.

The subspecies is characterized by the presence of specimens with black pronotum (in males and in females, Figures 1, 4), which are not known in the nearest *Carilia virginea kozhevnikovi* (Plavilstshikov, 1915) from Far East Russia and North-East China. Besides abdomen in all known specimens of *Carilia virginea komensis* (Tamanuki, 1938), stat. nov. is always totally black, while about a half of all known specimens of *C. v. kozhevnikovi* from Russia have red abdomen and so are similar to *C. v. aemula* (Mannerheim, 1852) from Siberia. Among 23 specimens available from different localities of South Korea only 5 (males and females) have red pronotum (Figures 2, 3) and 5 specimens have transitional brownish pronotum. Other characters including size are variable, though in general *C. v. komensis* looks a little smaller than *C. v. kozhevnikovi*; prothorax in males from about as long as basal width to about 1.2 times shorter than basal width; in females – from 1.1 times shorter than basal width to 1.4 times shorter than basal width; pronotal punctation is more or less irregular from very dense (with partly conjugated dots) to rather sparse (with scattered dots); elytra in males about 2.0 times longer than wide, in females – from 1.8 to 2.0; usually blue, or sometimes green-blue, or violet; body length in available males: 7.0–10.0 mm; in available females: 7.2–11.2 mm; body width in males (at humeri): 2.3–3.3 mm; in females: 2.3–3.7mm

Biology. Adults are active from early May to middle June. Beetles assume to feed pollen of alive *Pinus* spp. during the daytime and crawl on felled tree in the late afternoon (4–6 pm). The felled trees (trunks and branches of *Pinus densiflora* S. et Z. and *Pinus koraiensis* S. et Z.) are fresh, that is not over one year after cut, and are over 20 mm diameter. Mating behavior takes place on



Figures 1-4. *Carilia virginea komensis* (Tamanuki, 1938), stat. nov., Republic of Korea, Cheorwon-gun, Mt. Myeongseong-san, 38.11°N, 127.35°E, S.H. Oh leg.: 1 - male 10.6.2012, 2 - male 15.5.2011, 3 – female 17.5.2012, 4 – female 10.6.2011.



Figure 5. Mating pair, Republic of Korea, Cheorwon-gun, Mt. Myeongseong-san, 38.11°N, 127.35°E, 3.6.2012, photo by S. H. Oh.

felled tree. Mating of two color forms was observed (Fig. 5).

Materials (all from Republic of Korea). 13 males (including 3 with red pronotum) and 6 females (including 1 with red pronotum and 3 with brownish pronotum): Gangwon-do, Cheorwon-gun, Mt. Myeongseong-san, 38.11°N, 127.35°E, 15.5.2011, 29.5.2011, 19.5.2012, 19.6.2011, 3.6.2012, 10.6.2012, 17.6.2012, S. H. Oh leg. – collections of S. H. Oh (16ex.) and M. L. Danilevsky (3ex.); 1 male (with brownish pronotum) and 1 female: Gangwon-do, Cheorwon-gun, Shincheorwon-ri, 38.14°N, 127.33°E, 10.6.2011, S. H. Oh leg. – collection of S. H. Oh; 1 female (with red pronotum): Gangwon-do, Cheorwon-gun, Mt. Bokgye-san, 38.19°N, 127.48°E, 17.5.2012, S. H. Oh – collection of S. H. Oh; 1 male (with brownish pronotum), Gyeongsangnam-do, Namhae-gun, Mt. Geum-san, 34.75°N, 128.02°E, 2.5.2012, S. H. Oh leg. – collection of S. H. Oh.

Distribution (Figure 6). About whole territory of Korean Peninsula. The taxon undoubtedly penetrates to Jilin and Liaoning provinces of China, because several localities are known from the border regions of North Korea.

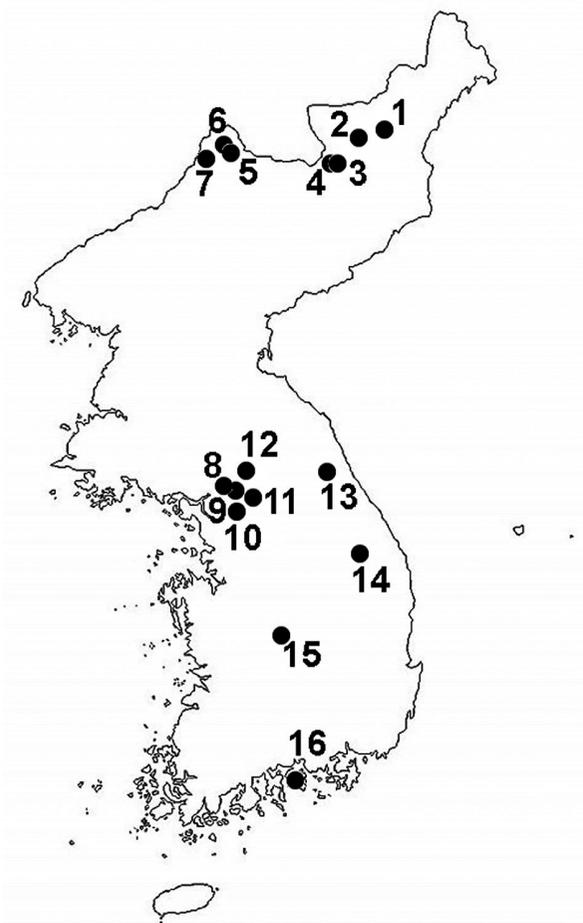


Figure 6. Map of localities.

1 - Mt. Kimbo (= Mt. Gwan-Mo-Bong = Mt. Baji= Mt. Ma-Eui-San = Mt. Ma-I-San) – type locality, 2 - Yeon-Am (= Baek-Am), 3 - Yong-Am, 4 - Taitenpyo (= Dae-Jeon-Pyong), 5 - So-Hu-Ju, Nam-Sa, 6 - Chil-Pyeng-Myeon Dae-Heung-Dong, 7 - Gang-Gye, 8 - Mt. Wang-Bang-san, 9 - Gang-Gye, 10 - Mt. Bug-Han-san (Mt. Bukhan-san), 11 - Gwang-Neung, 12 - Mt. Myeongseong-san, shincheorwon-ri, Mt. Bokgye-san, 13 - Mt. Seol-Ag-san (Mt. Seorak-san), 14 - Mt. Tae-Baeg-san (Mt. Taebaek-san), 15 - Mt. Song-Ni-San, 16 - Mt. Geum-san.

Acknowledgement

We are very grateful to Dr. Nobuo Ohbayashi for the translation of Japanese articles.

References

- Cho, P.-S. (1936) On Some Longicorn Beetles from Korea. *Journal of Chosen Natural History Society*, 17, 39–50.
- Cho, P.-S. (1961) A Taxonomical Study on the Longicorn Beetles in Korea (Ceramby. Col.). *Journal of the National Academy of Science, R.O.K.* 3, 1–171.
- Danilevsky, M. L. (2010) Additions and corrections to the new Catalogue of Palaearctic Cerambycidae (Coleoptera) edited by I. Löbl and A. Smetana, 2010. Part. I. *Russian Entomological Journal*, 19 (3), 215–239.
- Gressitt, J. L. (1951) *Longicorn beetles of China*. Paul Leehevalier, Paris, 667 pp., 22 pls.
- Lee, S.-M. (1982) *Longicorn beetles of Korea (Coleoptera, Cerambycidae)*. *Insecta Koreana*, 1, 101 pp.
- Lee, S.-M. (1987) *The longicorn beetles of Korean Peninsula*. Seoul. 287 pp. 26 pls.
- Mannerheim, C. G. von. (1852) Insectes coléoptères de la Sibérie orientale, nouveaux ou peu connus, décrits. Decades tertia, quarta et quinta. *Bulletin de la Société Impériale des Naturalistes de Moscou*, 25 (4), 273–309.
- Plavilstshikov, N. N. (1915) Zhuki-usachi sobrannye A. I. Aleksandrovym v Manchzhuria (Coleoptera, Cerambycidae). *Entomologicheskyy Vestnik, Kiev*, 2, 103–110.
- Plavilstshikov, N. N. (1936) *Fauna SSSR. Nasekomye zhestokrylye. T. XXI. Zhuki-drovoseki* (ch. 1). Moskva Leningrad: Izdatel'stvo Akademii Nauk SSSR, 612 + [1] pp.
- Podaný, Č. (1962) Monographie der Gattung *Gaurotes* J. Lec. (Coleoptera: Cerambycidae). *Mitteilungen der Münchener Entomologischen Gesellschaft*, 52, 219–252, pls. 4–5.
- Smetana, A. & Danilevsky, M. L. (2010) Cerambycidae taxa from Korea. In: I. Löbl & A. Smetana (eds.) *Catalogue of Palaearctic Coleoptera, Vol. 6*. Stenstrup: Apollo Books, 924 pp.
- Tamanuki, K. (1933) A list of the longicorn-beetle from Saghalien, with the descriptions of one new species, one new variety and one new aberrant form. *Insecta Matsumurana*, 8, 69–88.
- Tamanuki, K. (1938) New longicorn beetles occurring in Japan and Korea (Col., Cerambycidae). *Insecta Matsumurana*, 12, 166–168.
- Tamanuki, K. (1939) *Family Cerambycidae 1. Disteniinae, Lepturinae. Fauna niponica*, Vol. 10, Fasc. 8, N 14, 126 pp.
- Tsherepanov, A. I. (1979) *Usachi Severnoy Azii (Prioninae, Disteniinae, Lepturinae, Aseminae)*. Novosibirsk, Nauka, 471 pp.
- Tsherepanov, A. I. (1996) 104. Sem. Cerambycidae – Usachi ili drovoseki. In: “Opredelitel nasekomyh Dalnego Vostoka Rossii”, v. 3. Zhestkokrylye ili Zhuki, P.3. Vladivostok, Dalnauka, 56–140. [arranged by G. O. Krivolutzkaya & A. I. Lobanov on the base of a manuscript by Tsherepanov]