

Resources, Environment and Regional Sustainable Development in Northeast Asia

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Cockchafer of the Subfamilies Valginae Mulsant, 1842 (Coleoptera, Scarabaeidae) of the Far East of Russia

V.G. Bezborodov

Amur Branch of Botanical Garden, Institute of the Far Eastern Branch of the Russian Academy of Sciences, 675000 Russia, Blagoveshchensk, Amurskaya Oblast', Ignatevskoye Rd. 2nd km.

Key words: Valginae Mulsant, 1842, Scarabaeidae, *Valgus* Scriba, 1790, cockchafers, Far East of Russia.

Abstract. The species structure of the species of cockchafers of the subfamily Valginae (Scarabaeidae) found in the Russian Far East is considered. The data on distribution *Valgus hemipterus* (Linnaeus, 1758), which is a rare and little-known species in the region, are presented. The species is first reported for the Khabarovsk Krai. Detection of *Valgus koreanus*, Sawada, 1944 in fauna of Russia and the region is confirmed by a new finding of a male and a female.

Cockchafers of the subfamily Valginae Mulsant, 1842 are a widespread scarab beetle group that inhabits all ecozones but the Neotropical one. There are over 200 species in the world fauna [7]; 60 species belonging to 11 genera have been found in the Palearctic ecozone [8].

Until recently, a single Valginae species, *Valgus hemipterus* (Linnaeus, 1758), was found in Russia. *V. hemipterus* commonly occurs in the western part of the Transpalearctic ecozone but is rare or exceptionally rare in the central and eastern parts, respectively. In the Russian Far East, this species has been reported according to single findings in the Primorsky Krai and the Amurskaya Oblast' [3; 4]. These findings remained unconfirmed for a long time [2]. The author of the report has acquired the data on *V. hemipterus*, which allowed him to confirm its taxonomic position in the fauna of the region (in particular, in the Primorsky Krai) and to report it for the first time for the Khabarovsk Krai. For the Amurskaya Oblast', the species has been reported according to a single finding made by O.V. Kabakov in the Skovorodino district in June 1960 [4].

Material studied:

Superfamily Scarabaeoidea Latreille, 1804

Family Scarabaeidae Latreille, 1802

Subfamily Valginae Mulsant, 1842

Tribe Valgini Mulsant, 1842

Genus *Valgus* Scriba, 1790

Valgus hemipterus (Linnaeus, 1758)

Diagnosis. Body length is 5-11 mm. The lateral edges of the pronotum are lifted and are most prominent in a female. Central longitudinal grooves on the pronotum are well defined both in males and females. The front tibia is wider than the femur. Elytra cover the abdomen by 2/3. Male pygidium is rounded posteriorly; in females, it is extended to form a narrow ovipositor with jagged margins. The color is varied (a combination of black and brown with gray scales).

Material. 2 ♂♂ - Khabarovsk Krai, Khabarovsk district, Bychikha village, May 19, 2009, P.S. Pronin; 2 ♂♂ 1 ♀ - Primorsky Krai, Ussuri district, Kamenushka village, hunting farm "Vepr", June 9, 2013, V.G. Bezborodov.

Distribution. Northern Africa, Europe (except for the northern part), Western Asia, Trans-Caucasian region, Central Asia, Afghanistan, Iran, South Korea?, Russia: European part of the country, Amurskaya Oblast', Primorsky Krai [1, 3, 4, 6, 7-9], Khabarovsk Krai.

Note. The beetles were collected from *Viburnum sargentii* Koehne flowers. Imagoes are active in May and June.

Another interesting finding was made by the author in the vicinity of the Ussuri Nature Reserve in the Primorsky Krai. A pair of *Valgus koreanus* Sawada, 1944 was collected from Umbelliferae flowers; 1 ♂ was collected approximately the same time in the Chernigovka district of the Primorsky Krai and reported for the Russian fauna for the first time [12].

Valgus koreanus Sawada, 1944

Diagnosis. Body length is 5-9 mm. The lateral edges of the pronotum have a weakly pronounced margin both in males and females. In males, the edges are jagged. Central longitudinal grooves on the pronotum are smoothed and less defined compared to those in *V. hemipterus*. The front tibia and femur are of equal length. In males, elytra cover the abdomen by 4/5. Male pygidium is rounded posteriorly and has two clearly defined scaly processes in the central part. In females (identically to *V. hemipterus*), the pygidium is extended to form a narrow jagged process. The color is also varied, with gray color predominating.

Material. 1 ♂, 1 ♀ - Primorsky Krai, Ussuri district, Kamenushka village, hunting farm "Vepr", June 9, 2013, V.G. Bezborodov.

Distribution. Korean Peninsula, Russia: Primorsky Krai [8, 11, 12].

Note. The beetles were collected from *Spiraea media* Franz Schmidt flowers. Imagoes are active in May and June.

Taking into account the distribution of *Valgus hemipterus* in the Eastern Palearctic ecozone and penetration of this species to the southern Primorsky Krai (Russia), we can predict that it can be found in the trans-border regions of China and Democratic People's Republic of Korea, where this taxon has not been reported thus far [10, 13]. A recent study focused on *V. koreanus* [12] has cast some doubts on the occurrence of *V. hemipterus* in the southern part of the Russian Far East. Contrariwise, our data confirm the occurrence of both species in this region. The finding of this species in South Korea was probably a mistake, and the taxon reported is actually *V. koreanus* [9]. The fact of co-occurrence of *V. hemipterus* and *V. koreanus* in the same habitat is rather interesting. Both species were found on flowering plants at a margin of a country road in a cedar-broad-leaved forest. Until recently, *V. koreanus* has not been found outside the Korean Peninsula [8]. The southern part of the Primorsky Krai in Russia is now the most northern distribution point of this taxon in the Western Asia. Thus, only two Valginae subfamily belonging to a single genus *Valgus* have been reliably reported in the fauna of the Russian Far East and Russia in general.

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