

Far Eastern Entomologist

Дальневосточный энтомолог

Journal published by Far East Branch
of the Russian Entomological Society
and Laboratory of Entomology,
Institute of Biology and Soil Sciences,
Vladivostok

Number 91: 1-5

ISSN 1026-051X

August 2000

NEW SUBGENUS AND SPECIES OF THE GENUS *SCYMNUS* KUGELANN (COLEOPTERA: COCCINELLIDAE) FROM KURIL ISLANDS

G. Sh. Lafer

Institute of Biology and Soil Sciences, Vladivostok-22, 690022, Russia

A new species of ladybird beetle *Scymnus kunashirensis* **sp. n.** is described from Kunashir Island and a new subgenus *Canalipullus* **subgen. n.** of the genus *Scymnus* Kugelann is erected for this species.

KEY WORDS: Coleoptera, Kuril Islands, Russia, new taxa.

Г. Ш. Лафер. Новый подрод и вид рода *Scymnus* Kugelann (Coleoptera: Coccinellidae) с Курильских островов // Дальневосточный энтомолог. 2000. N 91. С. 1-5.

С острова Кунашир описан новый вид *Scymnus kunashirensis* **sp. n.**, для которого в роде *Scymnus* Kugelann установлен новый подрод *Canalipullus* **subgen. n.**

Биолого-почвенный институт, Дальневосточное отделение Российской Академии Наук, Владивосток-22, 690022, Россия.

INTRODUCTION

In July – August 1998 Drs. A.S. Lelej and S.Yu. Storozhenko (Institute of Biology and Soil Sciences, Vladivostok) visited 4 spots in Kunashir Island. Twice, July 26 and August 22 they explored a deep canyon at the north-western slope of

Mendeleyev Volcano, 17 km southward of Yuzhno-Kurilsk along the road Yuzhno-Kurilsk – Mendeleyevo. This canyon with unnamed mountain stream oriented to the west and touch Okhotsk Sea coast 2 km southward of Stolbchaty Cape. There are several small hot springs with a few sulphur gases along this stream approximately 1.5 km from sea shore. Several bathes have been made by the people in this area also. The canyon valley in the low part covered by nemoral broad-leaved forest with *Acer* spp., *Phellodendron sachalinense*, *Magnolia hypoleuca*, *Alnus* spp. with tall grasses and Kuril bamboo (*Sasa* spp.) at the glades and meadows. The slopes in the upper part of canyon valley covered by mixed forest with numerous *Taxus cuspidatus*. A few beetles have been collected around these hot springs with a single unusual ladybird beetle among them (Lafer, 1999). The description of a new subgenus of the genus *Scymnus* Kugelann, 1794 and new species are given below.

DESCRIPTION OF NEW TAXA

Subgenus *Canalipullus* Lafer, subgen. n.

TYPE SPECIES. *Scymnus* (*Canalipullus*) *kunashirensis* Lafer, sp. n., designated here.

SPECIES INCLUDED. Type species only.

DIAGNOSIS. The main subgeneric feature of *Canalipullus* subgen. n. is the remarkable macrosculpture of pronotum. All other features of new subgenus coincide with characters of the subgenus *Pullus* Mulsant, 1846 of the genus *Scymnus* (Sasaji, 1971; Ren, 1990; Kuznetzov, 1992, 1993).

Scymnus (*Canalipullus*) *kunashirensis* Lafer, sp. n.

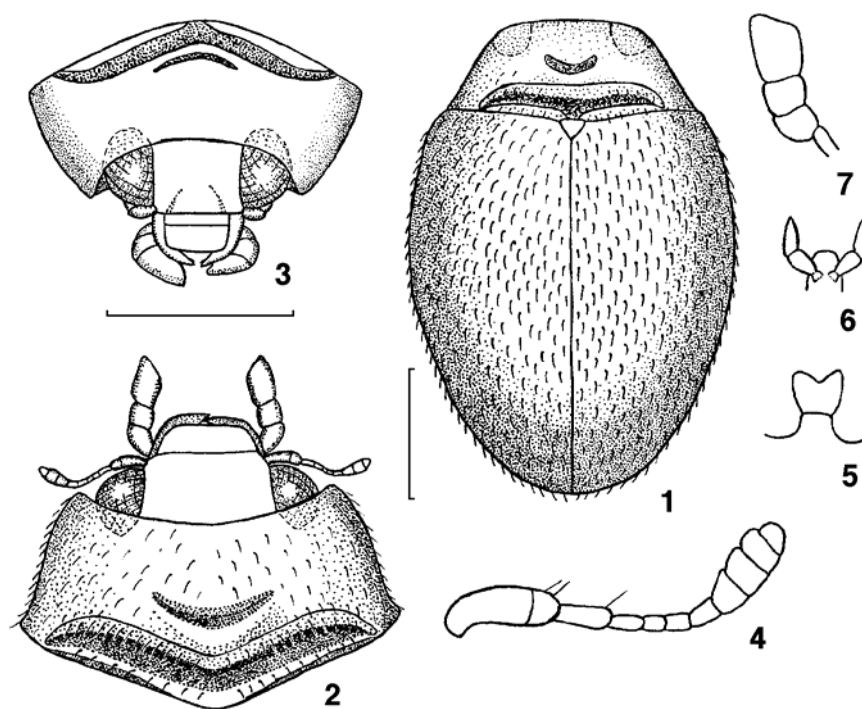
Figs 1-13

MATERIAL. Holotype - 1 ♀: "KU-98-ASL-001, Kunashir, 17 km S Yuzhno-Kurilsk, A. Lelej. 26. 07.98". Holotype is deposited in the Institute of Biology and Soil Sciences, Vladivostok.

TYPE LOCALITY. The north-western slopes of Mendeleyev Volcano, Kunashir I.

DESCRIPTION. Colour. Elytra and ventral side of body brownish, pronotum, head and appendages brownish yellow. Pubescence. Elytra with moderately dense semidecumbent grey hairs. Head and pronotum with sparse almost decumbent grey hairs. Lustre. Head and pronotum weakly shiny, elytra nearly dull. Shape of body in dorsal aspect elongate-oval, widest before the middle. Head is not visible in dorsal aspect. Shoulders prominent, pronotal base is a little narrower than width of elytra at shoulders. In lateral aspect upper side of body moderately convex, ventrum is weakly juts out from under elytra.

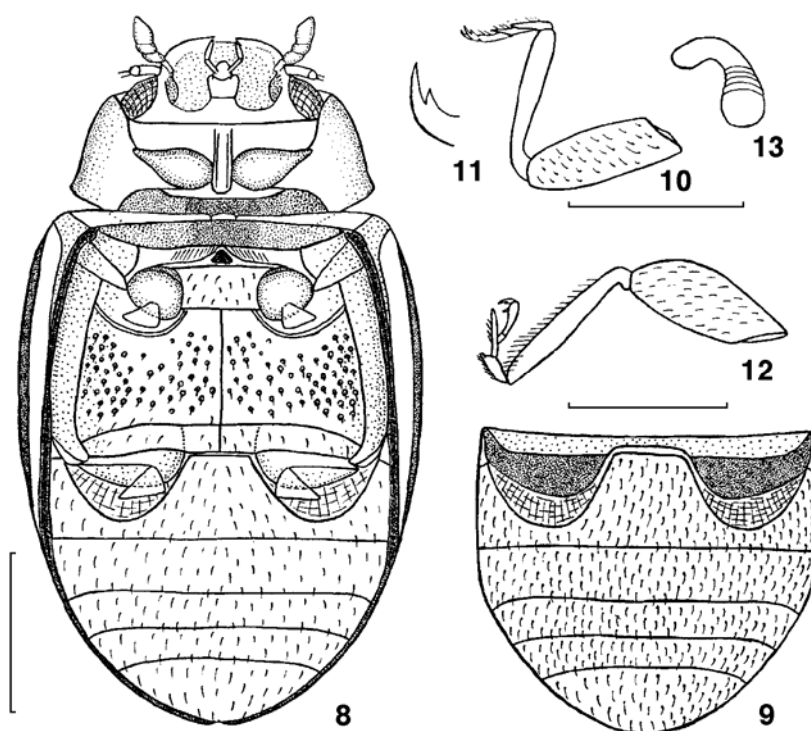
Size (mm). Length of body 1.90 (from pronotal apex to apices of elytra), maximal width of elytra 1.25, width of head with eyes 0.58, width of frons 0.28, width of pronotal apex 0.65, width of pronotal base 0.98, length of pronotum along median line 0.50.



Figs 1-7. *Scymnus (Canalipullus) kunashirensis* sp. n., holotype: 1) adult, dorsal view; 2) pronotum and head, dorsal view; 3) head and pronotum, front view; 4) right antennae, ventral view; 5) submentum and mentum; 6) ligula and labial palpi; 7) maxillar palpus. Scale 0.5 mm.

Head is drawn into prothorax about to the middle of eyes. Frons nearly flat, wide, with weak oblique impression on each side. Fronto-clypeal suture weak, transverse. Clypeus is as wide as width of frons between eyes, transverse. Labrum transverse with straight apex and rounded anterior angles. Eyes large with moderately big facets, without emargination at anterior margin. Antennae 11-segmented, fine and short (hardly longer than a half of width of head), with 2 dilated basal segments (scape and pedicel) and with 4-segmented elongate-oval club, in resting condition is putting under eye, folding in two; inserted on lateral surface of head between eye and base of mandible in very feeble emargination; segment 3 elongate, segments 4 to 6 nearly square, segment 7 weakly dilated towards apex.

Mandibles short with strongly rounded external margin, with bifid apex. Maxillar palpi large and stout, its apical segment is largest, weakly elongate and nearly parallel-sided, with apex oblique truncated. Ligula rounded at apex. Labial palpi short with apical segment conical, pointed at apex. Area of articulation of mentum and submentum moderately narrow. Mentum with triangle emargination at apex.



Figs 8-13. *Scymnus (Canalipullus) kunashirensis* sp. n., holotype: 8) adult, ventral view; 9) abdomen, ventral view; 10) fore leg; 11) claw of fore leg; 12) hind leg; 13) spermatheca. Scale 0.5 mm.

Pronotum transverse, subtrapezoidal with greatest width at base, thence lateral sides almost straight narrowed towards apical angles though with feeble sinuation before hind angles. Pronotal apex weak and widely emarginate, apical angles nearly rectangular, prominent. Lateral sides feebly notched, with hairs. Hind margin convex, hind angles obtuse, distinct. Surface of pronotum in transverse direction rather fairly convex, with deep and wide transverse impression along hind margin, whose tips pointed and curved posteriorly and not reach to lateral margins of pronotum. Just before this impression there is next one moon-shaped impression in the middle of pronotum whose tips curved anteriorly. Area between both impressions tumid. Surface of pronotum in the middle nearly smooth and almost lack of hairs, with dense fine punctures and decumbent hairs along lateral margins. Scutellum small, triangle.

Elytra with dense irregular punctures and hemidecumbent short hairs. Elytral epipleura narrow and disappeared opposite abdominal sternite 1, with oblique keel at epipleural base and with shallow impression behind it; the latter at its hind margin limited by fine arcuate keel. Hind wings twice longer than elytra.

Prosternum T-shaped with transverse apical margin. Prosternal intercoxal process rather narrow with obvious longitudinal carinae which nearly parallel-sided and reach to apical margin. Front coxal cavities transverse oval, closed. Apical margin of mesosternum transverse, in the middle with triangle impression, keel-shaped bordered at all sides. Mesosternum between middle coxae wide and transverse. Cavities of middle coxae almost circular, unclosed outwardly: mesepimeron reaches the cavity of middle coxa. Metasternum large with big shallow punctures at sides and with more little, deep and sparse ones in the middle. Metepisterna narrow, long, at its hind tip curved inward. Metepimeron at hind tip of metepisterna obvious. Hind coxal cavities strongly transverse oval, separated as wide as the middle cavities. Abdomen 5-segmented, segment 1 with complete femoral lines; area surrounded by femoral line chagrined and sparsely punctate.

Legs short: apices of femora hardly exposed from under outline of elytra. Front coxae transverse oval, middle coxae nearly circular, hind coxae strongly transverse oval. Trochanters triangle. Femora rather broad. Tibiae fine. Tarsi pseudo-3-segmented (pseudotrimer). Segment 2 strongly lobed, coalescent segments 3 and 4 inserted at impression on dorsal side near its base. Claws beneath with dent at the middle.

Female genitalia. Spermatheca strongly curved and tumid at both tips.

DISTRIBUTION. Russia: Kunashir Island.

ACKNOWLEDGEMENTS

Author wish to express sincere gratitude to Dr. A.S. Lelej for collected material and to Dr. V.N. Kuznetsov for the discussion of the taxonomy of this unusual species and other help.

REFERENCES

- Kuznetsov, V.N. 1992. [77. Fam. *Coccinellidae* - Ladybird beetles.] - In: Opredeletel' nasekomykh Dal'nego Vostoka Rossii. Vol. 3. Zhestkokrylye, ili Zhuki. Pt. 2. St-Peterburg: 333-376. (In Russian).
- Kuznetsov, V.N. 1993. Coccinellid beetles (Coleoptera, Coccinellidae) of Russian Far East. Vladivostok. 336 p. (In Russian).
- Lafer, G.Sh. 1999. Contributions to the knowledge of Coleoptera fauna (Insecta) of Kunashir, Kuril Islands. - Far Eastern entomologist 77: 1-16.
- Ren, Sh. 1990. Studies on taxonomy of *Scymnini* in China. Doctoral Dissertation. South China Agricultural University. 182 p.
- Sasaji, H. 1971. *Coccinellidae* (Insecta: Coleoptera). Fauna Japonica. Tokyo. 340 p. 16 pls.