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## A NEW SPECIES OF THE GENUS *APATROBUS* (COLEOPTERA: CARABIDAE: PATROBINAЕ) FROM KURIL ISLANDS

**G. Sh. Lafer**

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

Genus *Apatrobus* firstly recorded from Russia. *A. iturupensis* Lafer, **sp. n.** is described from Iturup Island.

KEY WORDS: Carabidae, new species, Russia.

**Г. Ш. Лафер. Новый вид рода *Apatrobus* (Coleoptera: Carabidae: Patrobinae) с Курильских островов // Дальневосточный энтомолог. 2001. N 101. С. 1-4.**

Род *Apatrobus* впервые приводится для фауны России. С острова Итуруп описан *A. iturupensis* Lafer, **sp. n.**

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

### INTRODUCTION

Up to now the genus *Apatrobus* Habu et Baba, 1960 (s. lat.) was known from Japan and China (Zamotajlov, 1992). Twenty one species were described from Japan (14 species from Honshu, 5 from Shikoku and 2 from Kyushu). A new species has been collected by participants of International Kuril Island Project in 1998. The holotype of new species is deposited in the Institute of Biology and Soil Sciences, Vladivostok. The abbreviations used herein are the same as those in my previous papers.

***Apatrobus iturupensis* Lafer, sp. n.**

Figs 1, 2

MATERIAL. Holotype - ♀, It-98-ASL-010, Iturup, Medvezhya Bay, 5.VIII 1998 (A. Lelej, S. Storozhenko).

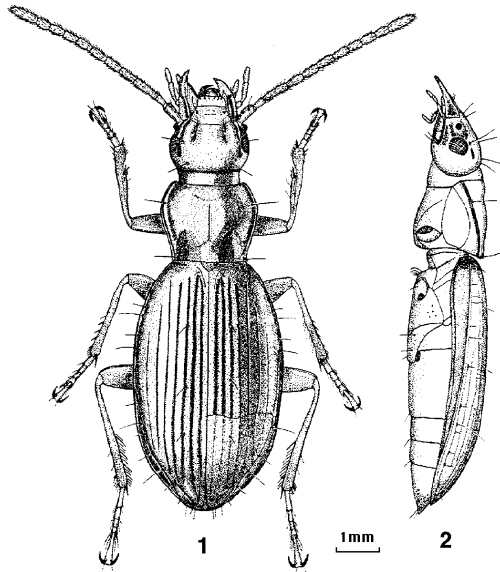
DESCRIPTION. FEMALE. Dorsum of body reddish brown, venter, legs, antennae and palpi lighter, brownish red. Head moderately shiny, pronotum and elytra feebly shiny. Labrum, clypeus and neck with distinct isodiametric meshes, on frons reticulation is vague entirely. Pronotum on the disk with obvious reticulation of feebly transverse meshes, close to isodiametric, on lateral sides meshes isodiametric. Elytra with reticulation of feebly transverse meshes forming transverse rows in some places.

Measurements (in mm). L 9.6, EW 3.50, HL 1.50, HW 1.81, PA 1.55, PW 2.20, PB 1.63, PLt 1.80, PLm 1.75, EL 5.55, Ls 8.85.

Body rather strongly flattened. Head rather large (PW/HW 1.22) with not large convex eyes and with long convex temporae, behind them rather abruptly constricted both on sides and on dorsum to broad neck, smooth and embossed on dorsal surface. Tempora longer than eye. Dorsum of head at the level hind margins of temporae with transverse groove between tumid hind part of frons and neck. Supraorbital grooves noticeably exceed the length of eye. Hind supraorbital setae strongly removed from hind margins of eyes and inserted close to neck constriction. Frontal furrows long, deep and broad, weakly divergent posteriad and weakly curved, reached to the level of front supraorbital setae and not penetrate into clypeus, with a few wrinkles. Frons between them longitudinally convex. Areas between frontal furrows and lateral bead longitudinally convex, smooth. Mandibles rather long and slender. Lateral scrobe of mandibles deep and with carinate margins except near its base, where a seta inserted. Antennae moderately long (about 4.5 mm), filiform, pubescent starting the base of segment 3. Mentum with very deep oblique grooves, restricting carinate middle part; these grooves deeply foveate impressed at hind third of mentum length and with a pore of labial organ at bottom. Tooth of mentum bifid, mentum with 2 fine setiferous pores behind tooth at convex middle part. Epilobes rather broad. Submentum almost flat, with 2 setae on each sides.

Pronotum not large, more or less cordate, transverse (PW/PLt 1.22, PW/PLm 1.26), widest at  $\frac{2}{5}$  from apical angles, noticeably stronger constricted anteriad than posteriad (PW/PA 1.42, PW/PB 1.35); lateral sides rather weakly and irregular arcuate at front half (nearly angulate rounded at right side), almost rectilinear narrowed towards front angles, before hind angles with faintly long emargination (almost rectilinear). Hind margin nearly straight, only a little wider than apex (PB/PA 1.05), hind angles weakly obtuse with pointed tip as a tiny denticle. Pronotal apex moderately and widely emarginate, front angles prominent, narrowly rounded. Disk weakly convex and smooth, median line fine and visible from very feeble front transverse impression to hind margin, stronger impressed in middle of disk, very weak behind hind transverse impression. Disk along median line widely flattened.

Lateral sides flattened and weakly reflexed up, a little stronger and wider at hind angles, lateral bead fine. Lateral grooves fine, striate. Base with one basal fovea



Figs. 1, 2. *Apatrobis iturupensis* Lafer, sp. n.: 1) dorsal view, 2) lateral view.

(internal) on each side, basal foveae rather vast and deep, with longitudinal stripe at bottom; latero-basal carina at hind angles lack. Prostrnum without punctures, intercoxal process not bordered, rounded at tip in profile. Pronotal epipleura rather steep. Scutellum triangle with a transverse impression.

Elytra weakly convex, oblong-oval (EL/EW 1.68), more than 3 times longer than pronotum (EL/PLt 3.08) and noticeably wider the latter (EW/PW 1.50), with greatest width about at middle, with rounded lateral margins and obliterated shoulders, without apical sinuation. Base of elytra without basal border but with

transverse impression, humeral tooth faintly visible. Elytral striae well impressed, regular, impunctate. Inner striae moderately deep, stria 7 weak, stria 8 fused with stria 9 (lateral reflection) at basal third. Sutural striae in front joint with their outer branches and inner branches located close to outer branches and form rather long but weak scutellar striole at interval 1 at each elytron; the outer branch by elytral base joint with base of stria 2 and nearly a basal setiferous pore is located. Striae 6 and 7 obliterated at elytral base and behind disappeared about 4/5 from elytral base. Inner intervals moderately convex, outer ones almost flat. Discal setiferous pores are only at interval 3, there are three ones, all adjoining stria 3 and located nearly symmetrical: anterior one at 0.25, median at 0.49 and posterior at 0.65 from elytral base. Stria 5 at its tip with two setae: preapical and apical. Marginal series includes 12 pores and practically not space near middle, pores fine and located irregular. Inner plica reaches to lateral margin and formed narrow groove with epipleuron's tip. Apical third of the right elytron is lack. Apterous.

Mesosternum faintly punctate in grooves, with 4 curved setae at hind process between middle coxa; process emarginate at tip. Metepisterna longer than wide. Sides of metasternum and metepisterna with a few punctures and wrinkles. Abdominal sternites glabrous, convex, with isodiametric reticulation, anal sternite with 4 setae (distance between inner setae wider than between inner and outer setae, inner and

outer setae inserted about at the same level) its apical half weakly impressed. Metacoxa with 3 setae. Legs elongate, especially femora, which strongly prominent beyond outlines of elytra and pronotum. Metatrochanters with 1 seta. Mid and hind femora with 2 setae along hind margin. Front tibiae with a sulcus at inner lateral side. Metatibiae with sparse brush of seta-shaped hairs at inner margin in apical half besides some longer fine setae. Terminal segments of tarsi glabrous underneath. Segments 4 of front and mid tarsi belobed.

Genitalia. Stylus triangle, almost straight with narrow rounded apex, without spines on both margins, furrow complex of sensills long, almost from middle to tip. Coxites and hemisternites without setae.

MALE unknown.

DISCUSSION. All species of the genus *Apatrobus* are apterous, characterised by usually narrow allopatric ranges, and differs one from another by male genitalia. Until the male is found, the taxonomic position of new species is uncertain. Also, *A. iturupensis* sp. n. is similar to *Chaetopatrobus valentinae* Lafer (Lafer, 1996), but differs by the absence of discal setiferous pores at elytral interval 7, by a little more elongate pronotum with almost not sinuate lateral margins before obtuse hind angles, by obviously flattened pronotal disk at median line (in *Ch. valentinae* disk widely grooved along median line), by less convex and broader elytra with distinctly arcuate lateral margins, by elytral striae 3 and 4 not fussed together near elytral base.

REMARKS. New species was collected in the dry bed of Medvezhya River about 2-3 km from sea shore together with hydrophilous carabid beetles *Nebria ochotica* Sahlberg, 1844 and *Bembidion pohlai* Kirschenhofer, 1984. Perhaps new species is more common near streams at the higher mountain zones. Probably *A. iturupensis* sp. n. is the relict of ancient Okhotia Land fauna, which united in the past the Central and Southern Kuril Islands and Hokkaido.

## REFERENCES

- Lafer G. Sh. 1996. [4. Fam. *Carabidae* - Ground beetles. Addition 3]. – In: Opredeletel' nasekomykh Dal'nego Vostoka Rossii. Vol. 3. Pt. 3. Vladivostok: Dal'nauka: 396-408. (In Russian).
- Zamotajlov A. S. 1992. Notes on classification of the subfamily Patrobinae (Coleoptera, Carabidae) of the Palaearctic Region with description of new taxa. – Mitt. Schweiz. ent. Ges., 65: 251-281.

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Address: Institute of Biology and Soil Sciences, Far East Branch of Russian Academy of Sciences, 690022, Vladivostok-22, Russia.

FAX: (4232) 310 193

E-mail: entomol@online.marine.su