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A New Subspecies of *Carabus* (*Apotomopterus*) *vitalisi* (Coleoptera, Carabidae) from Northeast Laos

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Abstract A new subspecies of *Carabus* (*Apotomopterus*) *vitalisi* is described from Northeast Laos under the name of *C.* (*A.*) *v. phoopanensis* nov.

Carabus vitalisi was described by LAPOUGE (1916, pp. 85–87) from "Xieng Khouang, au sommet du col en allant à Ban-Ninh" of centro-northern part of Laos, and is known to be a sole component of the subtribe Carabina occurring in that country, though not strictly endemic but also recorded from the northwestern part of North Vietnam. The Vietnamese race is represented by subsp. *mourzinei* DEUVE et IMURA, 1993.

At the beginning of 2000, Mr. Satoshi KOIWAYA made an investigation mainly for the thecrine butterflies on the northern slope of Mt. Phoo-Pan in Xam-Nua (=Sam-Neua) Province of Northeast Laos and succeeded in collecting a series of LAPOUGE's species. The Phoo-Pan form differs in details from both of the two known races, and I am going to describe it as a new subspecies in the following lines.

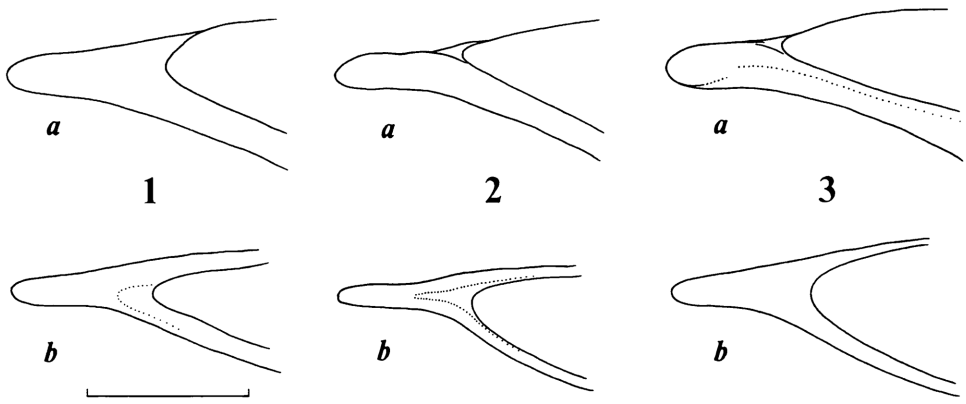
I am grateful to Mr. Satoshi KOIWAYA who kindly submitted all the specimens to me for study, and to Mr. Hiroyuki WAKAHARA who supported KOIWAYA's work in the field. My special thanks are due to Dr. Shun-Ichi UÉNO of the National Science Museum, Tokyo, for kindly reading the manuscript of this paper.

Carabus* (*Apotomopterus*) *vitalisi phoopanensis IMURA, subsp. nov.

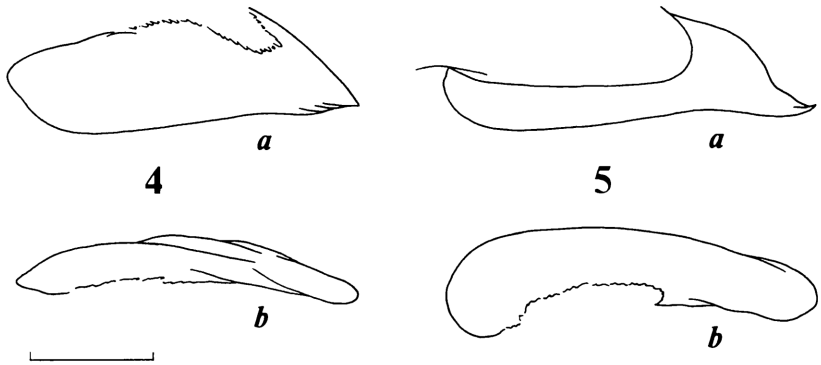
(Figs. 2, 4)

Length: 30.0–34.5 mm (including mandibles).

This new subspecies is most closely allied to the nominotypical form, but is distinguishable from the latter by the following points: 1) a little smaller in size and slenderer in proportion; 2) pronotum a little narrower and more strongly contracted towards hind angles which are a little more strongly protrudent posteriad and more sharply pointed at tips; 3) elevated parts of elytral intervals a little less prominently raised; 4) apical part of aedeagus apparently narrower and slenderer, weakly but obviously constricted at basal third in dorsal view, and triangularly depressed on the dorsal



Figs. 1–3. Apical part of aedeagus of *Carabus* (*Apotomopterus*) *vitalisi* subspp. —— 1, Subsp. *vitalisi* from Xieng Khouang (lectotype); 2, subsp. *phoopanensis* nov. from Mt. Phoo-Pan (holotype); 3, subsp. *mourzinei* from Shonla (holotype); a, right lateral view; b, dorsal view. Scale: 1 mm.



Figs. 4–5. Spinula of *Carabus* (*Apotomopterus*) *vitalisi* subspp. —— 4, Subsp. *phoopanensis* nov. from Mt. Phoo-Pan (holotype); 5, subsp. *mourzinei* from Shonla (holotype); a, dorsal view; b, basal lateral view. Scale: 0.5 mm.

surface near the base. From subsp. *mourzinei*, this new subspecies is readily discriminated by more shiny body, much narrower and less transversely wrinkled pronotal disc, slenderer elytra with the tertiary intervals not forming interrupted carinae, and differently shaped aedeagal apex and spinula as shown in Figs. 2–5.

Type series. Holotype: ♂, northern slope of Mt. Phoo-Pan, 1,500–2,000 m in alt., in Xam-Nua (=Sam-Neua) Prov., Northeast Laos, 18~25–I–2000, S. KOIWAYA leg., in coll. Department of Zoology, National Science Museum (Nat. Hist.), Tokyo. Paratypes (including allotype): 20♂♂, 19♀♀, same data as for the holotype, in coll. Y. IMURA.

Specimens examined for comparative study. Nominotypical subspecies: ♂,

Fig. 6. The habitat of *Carabus* (*Apotomopterus*) *vitalisi phoopanensis* nov. on the northern slope of Mt. Phoo-Pan in Northeast Laos, at an elevation of 1,700 m (photograph by S. KOIWAYA on 20–I–2000).

LECTOTYPE // *Laocarabus vitalisi* // *Laocarabus salvazae* mihi un des types // Laos, Xieng Khouang / le 29, VI, 1917, R. VITALIS DE SALVAZA // in coll. Musém National d'Histoire Naturelle, Paris; 1♀, Xieng Khouang / Laos / 17–VI–1995 / T. MIYASHITA leg. // in coll. K. MIZUSAWA. Subsp. *mourzinei*: ♂, HOLOTYPE // *Carabus* (*Apotomopterus*) *vitalisi mourzinei* / Y. IMURA det., 1992 // Viet-nam, near Shonla / 15–V–1991 / S. MURZIN leg. // "339" // in coll. Department of Zoology, National Science Museum (Nat. Hist.), Tokyo; 1♀, N. Vietnam / Moktjau distr. / 1–VI–1993 // in coll. K. MIZUSAWA.

Notes. All the specimens of the type series of the present new subspecies were collected from along the path between the village of Selui and the summit of Mt. Phoo-Pan. They were under hibernation and dug out either from the soil or from decayed trunks lying on the floor of the virgin forest consisting of evergreen broadleaved trees partly mixed with certain kind of cypress.

要　　約

井村有希：ラオス北東部におけるヴィタリストゲオサムシの1新亜種. —— ラオス北東部サ

ムネワ（サムヌーア）省のPhoo-Pan山北麓から採集されたヴィタリストゲオサムシを新亜種と認め，subsp. *phoopanensis* nov.として記載した．既知の2亜種からは，体形や上翅彫刻，♂交尾器形態の違いにより識別される．

References

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DEUVE, Th., & Y. IMURA, 1993. Descriptions de quelques nouveaux *Carabus* (*Apotomopterus*, *Pagocarabus*, *Eocechenus*, *Calocarabus*) et *Cychrus* (Coleoptera, Carabidae) des montagnes du sud-est de l'Asie (Chine, Viêt-Nam). *Elytra*, *Tokyo*, **21**: 187–197.

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Additions to the Edible Beetles (Coleoptera) from Northern Thailand

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We have been studying edible beetles from northern Thailand and published our papers in the Elytra, Tokyo (1998, **26**: 443–445; 1999, **27**: 191–198). In addition, we have collected and determined some more species as given blow:

Family Scarabaeidae

Laparosticiti

Onthophagus (*Serrophorus*) *seniculus* (FABRICIUS)

Pleurosticti

Anomala parallera BENDERITTER
A. cantori HOPE
A. rugosa ARROW
A. punctulicollis FAIRMAIRE
A. blaisei OHAUS
A. fusikibia LIN
Mimela ignistriata LIN
Empectida tonkinensis MOSER

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