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***Polyrhachis (Myrmhopla) kubani* nov.sp. (Hymenoptera, Formicidae) from Laos**

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A b s t r a c t : A new ant species is described from Laos: *Polyrhachis (Myrmhopla) kubani* nov.sp. belongs to the *Polyrhachis flavoflagellata* species group sensu DOROW.

K e y w o r d s : *Polyrhachis*, ants, Southeast Asia, taxonomy, new species.

Introduction

Here we report on a distinct ant specimen from the Collection of the Biologiezentrum in Linz, Upper Austria. It represents the fifth species of the *Polyrhachis flavoflagellata* species group that is presently assigned to the subgenus *Myrmhopla* FOREL, 1915 (DOROW 1995, KOHOUT 2009). KARAVAIEV (1935) erected the subgenus *Cephalomyrma* for *Polyrhachis stylifera* KARAVAIEV, 1935, but without including *Polyrhachis flavoflagellata* KARAVAIEV, 1927. HUNG (1970) synonymized *Cephalomyrma* with *Myrmhopla*; both neither the new subgenus nor the synonymy were properly discussed.

Species of the *Polyrhachis flavoflagellata* group are distributed from Southeast Asia (Cambodia) eastwards to Sulawesi and generally rarely collected. Within the megadiverse genus *Polyrhachis* SMITH, 1857 they are easily recognizable by their unproportionally large head in combination with subgeneric characteristics like the not marginate dorsum of the mesosoma.

Chronological list of species of the *P. flavoflagellata* group

(distributional data from KOHOUT 2008, 2009, YAMANE et al. 2021)

Polyrhachis flavoflagellata KARAVAIEV, 1927 (West Malaysia, Java, Krakatau, Borneo)

Polyrhachis stylifera KARAVAIEV, 1935 (Cambodia)

Polyrhachis storki KOHOUT, 2008 (West Malaysia, Borneo, Sulawesi)

Polyrhachis muara KOHOUT, 2009 (West Malaysia, Borneo)

Polyrhachis kubani ZETTEL & OCKERMÜLLER nov.sp.

Material and methods

One specimen from the Biologiezentrum in Linz, the holotype of the new species, was examined. The specimen was compared with illustrations and literature provided by ANTWEB (2022) and ANTWIKI (2022).

Measurements were taken with a Wild M7 binocular microscope at 50-80× magnification.

Acronyms of measurements and indices:

TL.....Total length of specimen. The added lengths of head (including mandibles), mesosoma, petiole, and gaster.

HWHead width. Maximum width of head in full-face view.

HL.....Head length. Maximum length of head in full-face view, excluding mandibles, measured from anterior-most point of clypeus to posterior-most point of head vertex, parallel to midline.

ELEye length. Maximum diameter of compound eye.

SLScape length. Maximum length of antennal scape in dorsal view excluding basal neck and condyle.

MSL.....Mesosoma length; measured laterally from anterior surface of pronotum proper (excluding collar) to posterior extension of propodeal lobes.

PNWPronotum width. Maximum width between apices of spines / corners.

PNLPronotum length. Measured along midline, excluding collar.

PSD.....Propodeum spine distance, measured between apices.

MTL.....Middle tibial length. Maximum length of second tibia, measured at extensor side.

PEL.....Petiole length. Maximum length of main petiolar body (excluding spines) measured laterally, perpendicular to posterior face.

PEW.....Petiole width. Maximum width of petiolar body, measured at spiracles.

SPD.....Spine Distance. Distance of distal tips of petiolar spines, measured dorsally.

GL.....Gaster length. Maximum length from anterior end of gaster tergite 1 to apex of abdomen.

GWGaster width. Maximum width at gaster tergite 1.

CI.....Cephalic index. $HW / HL \times 100$

SIScape index. $SL / HW \times 100$

EIEye index. $EL / HW \times 100$

SPDISpine distance index. $SPD / PEW \times 100$

Photographs were created using a Nikon AZ100M camera. Images were processed using NIS-Elements Microscope Imaging.



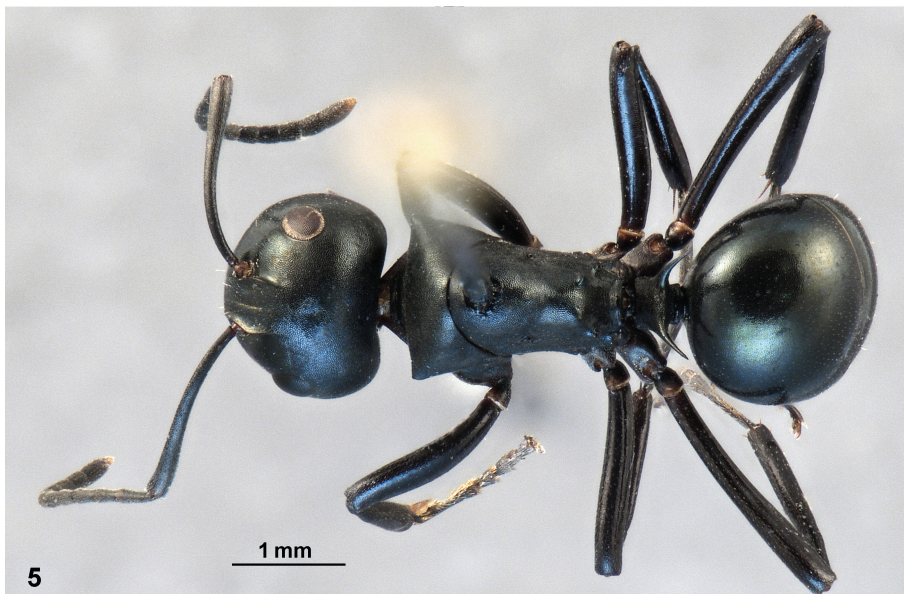
Figs 1-3: *Polyrhachis (Myrmhopla) kubani* nov.sp., holotype. (1) Head in frontal view; (2) labels; (3) mesosoma and petiole in dorsal view. © E. Ockermüller.

***Polyrhachis (Myrmhopla) kubani* nov.sp. (Figs 1-5)**

H o l o t y p e (worker): Laos, Luang Namtha Province, from Nam Tha to Muang Sing, N 27°09', E 101°19', 900-1200 m a.s.l., 5-31.V.1997, leg. V. Kubáň, deposited in Biologiezentrum Linz, Upper Austria (labels in Fig. 2).

D i a g n o s i s: Small, black species with faint greenish shimmer. Surface with fine, close reticulation. Almost without setae and pilosity. Head unproportionally large, broader than long. Eyes situate posterodorsally, not breaking outline of head in full-face view (Fig. 1). Clypeus margin convex, medially slightly emarginate. Mesosoma not marginate. Pronotum broad, with acute, but not spine-like anterolateral corners. Propodeal teeth small. Petiolar spines thin and strongly diverging.

D e s c r i p t i o n: Measurements of holotype. TL ca. 6.3; HW 1.76; HL 1.63; EL 0.51; SL 1.68; MSL 1.96; PRNW 1.41; PNL 0.84; PSD 0.42; MTL 1.57; PEL 0.42; PEW 0.45; SPD 0.94; GL 1.88; GW 1.83. Indices: CI 103; EI 27; SI 89; SpDI 2.09.



Figs 4-5: *Polyrhachis (Myrmhopla) kubani* nov.sp., holotype. (4) Habitus in lateral view; (5) habitus in dorsal view. © E. Ockermüller.

Structures (Figs 1, 3-5). Head, mesosoma, petiole, and gaster finely and densely reticulate; gaster with weaker sculpture and more shiny. Head unproportionally large (Figs 4, 5), broader than long, sides rounded, occiput weakly convex in frontal view, strongly rounded in lateral aspect. Eyes moderately large, flat (Fig. 5), situated posterodorsally, not breaking outline of head in full-face view (Fig. 1). Clypeus (Fig. 1) without median carina; anterior clypeal margin rounded, in middle hardly emarginate. Frontal triangle indistinct. Frontal carinae weakly raised, between antennal fossae narrower than dorsally. Ocelli lacking. Mandibles hardly longitudinally striate and with small piliferous pits.

Mesosoma with hardly defined, blunt, lateral margins, with strongly convex outline in lateral aspect (Fig. 4), especially on posterior part of propodeum and mesonotum. Pronotum moderately convex, evenly declivitous towards the very short collar. In dorsal aspect (Fig. 3), pronotal humeri strongly expanded, terminating in acute corners, but without distinct spines. Promesonotal suture distinct, but flat. Metanotal groove indistinct. Propodeum armed with pair of short, dorsally directed spines (Fig. 4). Petiole armed with pair of slender, slightly curved, dorsolaterally directed spines (Figs 3, 4); dorsal crest of petiole between spines without teeth. Gaster roundish.

Pilosity. Entire body with reduced pilosity, mostly bare. Clypeus with a few short standing setae and slightly longer setae along margin. Mandible distally with short setae. Mesosoma and petiole entirely bare of macrosetae. Legs with a few single pale setae on coxae, trochanters, and bases of femora. Tibia with scattered minute setae on extensor side. Tarsi with numerous brown setae ventrally. Gaster with rows of short pale setae on tergites 3-5 and on all sterna.

Colour. Entirely black, with a very faint greenish shimmer except on appendages. Palpi brown.

Comparative notes: The new species differs from all other species of the *P. flavoflagellata* group by the broad head ($CI > 1$), the eyes that do not break the lateral margin of head, the short scapes ($SI < 0.9$), the short propodeal spines, and the structure of the petiole. The petiolar spines are slender and long, and the crest between them has no additional teeth.

Distribution: Luang Namtha Province in Northern Laos.

Etymology: Named to honour the collector, the Czech coleopterist Vítězslav Kubán.

Zusammenfassung

Eine neue Ameisenart wird aus Laos beschrieben und illustriert: *Polyrhachis (Myrmhopla) kubani* nov.sp. gehört in die *Polyrhachis flavoflagellata*-Artengruppe nach der Definition von Dorow.

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