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# Two new species of the genus *Megalopinus* EICHELBAUM, 1915 from Vietnam and the Philippines (Coleoptera, Staphylinidae, Megalopsidiinae)

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A b s t r a c t : Two new species of *Megalopinus* EICHELBAUM, 1915 are described: *Megalopinus seideli* nov.sp. (Vietnam) and *Megalopinus hamiguitanensis* nov.sp. (Mindanao, Philippines). The new species are illustrated and compared with similar Oriental species.

K e y w o r d s : Coleoptera, new species, entomology, Oriental region, rove beetle.

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# Introduction

The fauna of the rove beetle genus *Megalopinus* EICHELBAUM, 1915 has not yet been fully researched. To date, only 74 species are known from the Oriental region (MAINDA 2024). In recent years, newly collected material has led to new insights into the distribution of species and the discovery of further new species (PUTHZ 2012, 2013, 2021; MAINDA 2022, 2024). We are only slowly getting an idea of the diversity of the genus *Megalopinus* in the Oriental region. This also seems to be due to the fact that these beetles are difficult to collect, resulting in only a few specimens known per species from the Oriental region (PUTHZ 2012). Therefore, each additional specimen can improve our knowledge not only about the distribution but also about the ecology of *Megalopinus*. In this paper, two additional new species from the Philippines and Vietnam are described. The locus typicus of *M. seideli* nov.sp. is illustrated, which gives us an idea of the habitat of *Megalopinus* 

# Material and methods

The material mentioned below is deposited in the following collections:

NHMW ......Naturhistorisches Museum Wien, Vienna, Austria

NMPC.....National Museum Natural History, Prague, Czech Republic.

The morphological studies were carried out using a stereoscopic microscope (Euromex DZ 1105) and a compound microscope (Euromex BB.1153.PLI). Habitus images were obtained using a ToupCam 20MP Touptec Photonics microscope camera. Two SN-1 LED segments from Stonemaster were used for illumination (www.stonemaster-onlineshop.de).

The images of the aedeagi were obtained using a ToupCam 14MP Touptec Photonics microscope camera. Image stacks were captured with ToupView Lite (MacOS) and processed using Zerene Stacker. The Distribution of the elytral puncture-rows follows MAINDA (2022). Only the existing rows are indicated with puncture numbers and no mention is made of the non-existing rows.

The following acronyms are used: BL – length of body (except mandibles); DE – average distance between eyes (in middle of eye length); dsr – dorsal row; EL – maximal length of elytra; EW – maximal width of elytra; FBL – length of forebody (head, pronotum, elytra); HW – head width; PL – pronotal length; PW – pronotal width; shr – subhumeral row; SL – sutural length of elytra; slr – sublateral row; ssr-c – subsutural-complex; str – sutural row.

#### Results

# Megalopinus seideli nov.sp.

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T y p e m a t e r i a 1 : ♂ Holotype: two white labels "VIETNAM: Cao Bằng Pro., Phia Oac Nat. Park, main road below "Salmon Station", 22°35'43"N 105°52'52"E, ca. 1270 m, 02.vi.2024, M. Seidel leg., loc. 41" / "small hillock at road side, secondary forest, fogging of decaying tree" / red label "♂ HOLOTYPE, *Megalopinus seideli* nov. sp., design. Mainda, 2025" (NHMW).

D e s c r i p t i o n : Measurements of the holotype: BL: 2.75 mm, DE: 0.48 mm, EL: 0.78 mm, EW: 0.93 mm, FBL: 1.68 mm, HW: 0.90 mm, PL: 0.60 mm, PW: 0.70 mm, SL: 0.58 mm.

Habitus as in Fig. 1. Dark brown to orange brownish, without microsculpture; head and pronotum brown; elytra brown with orange brownish crossband in anterior third (Fig. 3), three rows of punctures on each elytron; tergites VII-VII of abdomen lighter brown in posterior half; antennae and legs orange-brownish.

Head almost as broad as elytra, frons coarsely and densely punctured.

Pronotum 1.17 times as broad as long, broadest in anterior third; with four transverse rows of coarse and deep punctures, first row divided medially by planar area of eight punctures in anterior half (Fig. 1), between third and fourth row with medially impunctate Y-shaped area; punctures always separate; one large puncture in posteriolateral third on both sides. Each side of pronotum with four distinct denticles.

Elytra 1.19 times as broad as long; humeral calli prominent. Scutellum with a few deep, irregular punctures; each elytron with deep, narrow longitudinal impression along entire length next to suture. Punctures on left elytron: slr (6), shr (6), dsr (6); punctures on right elytron: slr (4), shr (5), dsr (5). Broadest in middle; lateral margins convexly rounded anteriorly and posteriorly.

Abdomen narrower than head, shiny, with distinct paratergites. Basolateral striae of tergite V in anterior third of tergite, not extending to middle; tergite VII with membranous fringe at posterior margin (metathoric wings fully developed).

Male: Antennomere XI 2.50 times as long and 1.23 times as wide as antennomere X. Sternite VIII shallowly impressed at posterior margin; tergite VIII without special features; sternite IX spatula-shaped; tergite X shiny, widely punctured. Aedeagus (Fig. 5) slender,

with two strong apically thickened bean-shaped brownish internal sclerites and two proximal blackish fields of denticles; parameres with 4-6 apical setae.

# Female: Unknown.

Differential diagnosis: *Megalopinus seideli* nov.sp. is related to some smaller species of the *M. acutangulus* group with impunctate sutural third of elytra, relatively broad head and short lateral striae on tergite V. The species is distinguished from *M. nepalensis* PUTHZ, 2012 and *M. hirashimai* NAOMI, 1986 by shorter lateral striae of tergite V and by the inner structure of aedeagus. It is separated from the very similar *M. brancuccii* PUTHZ, 2021 by presence of a planar area of punctures in anterior half of pronotum; scutellum with irregular punctures, in contrast to two longitudinal impressions in *M. brancuccii*; dark posterior sutural third of elytra; denser punctate tergite X; distinctly broader median lobe and thicker, more compact internal sclerites of aedeagus (compare Figs 5 and 6).

D i s t r i b u t i o n : So far, *M. seideli* nov.sp. is only known from the Phia Oac National Park in northern Vietnam.

Habitat and collecting method: The only known specimen of *M. seideli* nov.sp. was captured by fogging a decaying tree in a secondary forest of the Phia Oac National Park at 1,270 m (Fig. 8).

E t y m o l o g y : With the choice of the species epithet "*seideli*" (derived from the German surname Seidel, noun), I dedicate this new species to its collector and my friend Dr. Matthias Seidel (Naturhistorisches Museum Wien, Vienna, Austria), who kindly supports me in my taxonomic work since years with interesting material.

#### Megalopinus hamiguitanensis nov.sp.

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T y p e m a t e r i a l : ♂ Holotype: white label "PHILIPPINES, Mindanao Isl., Davao Oriental prov., Mt. Hamiguitan, Research Base, 390-440 m, sifting sekond. (sic!) forest, N6°44'07,44" E°12608'30;14", 16-17.ii.2017. A. Damaška" / red label "♂ HOLOTYPE, *Megalopinus hamiguitanensis* nov. sp., design. Mainda, 2025" (NMPC).

D e s c r i p t i o n : Measurements of the holotype: BL: 2.17 mm, DE: 0.45 mm, EL: 0.60 mm, EW: 0.85 mm, FBL: 1.40 mm, HW: 0.78 mm, PL: 0.50 mm, PW: 0.65 mm, SL: 0.47 mm.

Habitus as in Fig. 2. Dark brown, without microsculpture; elytra with four rows of punctures and a few punctures in sutural third; antennae and legs orange-brownish, metafemora indistinctly bicolored.

Head 0.92 times as broad as elytra, frons coarsely punctured, shiny.

Pronotum 1.3 times as broad as long, broadest in anterior third; with four transverse rows of coarse and deep punctures; one large puncture in posteriolateral third on both sides. Each side of pronotum with four small denticles.

Elytra (Fig. 4) 1.42 times as broad as long; humeral calli prominent. Deep, narrow punctate (str) longitudinal impression on both sides of suture. Punctures on left elytron: slr (4), shr (7), dsr (4), ssr-c (4), str (10); punctures on right elytron: slr (5), shr (7), dsr (5), ssr-c (6), str (10). Broadest in middle; lateral margins convexly rounded anteriorly and posteriorly.

Abdomen narrower than head, shiny, with distinct paratergites. Basolateral striae of tergite

V extending to middle of tergite; tergite VII with membranous fringe at posterior margin (metathoric wings fully developed).

Male: Antennomere XI 3.00 times as long and the same width as antennomere X. Sternite and tergite VIII shallowly impressed at posterior margin; sternite IX spatula-shaped; tergite X shiny, very sparse and widely punctured. Aedeagus (Fig. 7) slender, with two falcate internal sclerites and two proximal fields of indistinct denticles; parameres with six apical setae.

Female: Unknown.

D i f f e r e n t i a l d i a g n o s i s : *Megalopinus hamiguitanensis* nov.sp. is related to some smaller, unicolored brown species of the *M. acutangulus* group with a punctate sutural third of elytra and relatively short lateral lines on tergite V. The species is distinguished from *M. malayanus* PUTHZ, 2012 and *M. zwicki* PUTHZ, 2012 by the unicolorous elytra, presence of a sutural row on each elytron and by the inner structure of the aedeagus. It is separated from *M. ingeae* MAINDA, 2022 by less distinctly bicolored metafemora; unicolorous elytra; antennomere XI only 3 times instead of 5 times as long and the same length instead of 1.4 times as broad as antennomere X and by a thinner median lobe and slightly different internal structure of aedeagus. From *M. rafflesi* PUTHZ, 2012, the new species is directly separated by a punctate sutural third of elytra.

D i s t r i b u t i o n : So far, *M. hamiguitanensis* nov.sp. is only known from the foothills of the UNESCO World Heritage Site Mount Hamiguitan Range Wildlife Sanctuary on Mindanao Island in the southern Philippines.

E t y m o l o g y : The species epithet is a toponym referring to the type locality, Mt. Hamiguitan on Mindanao Island, Philippines.



**Figs 1-8**: (1) *M. seideli* nov.sp., holotype, scale = 1 mm; (2) *M. hamiguitanensis* nov.sp., holotype, scale = 1 mm; (3) *M. seideli* nov.sp., elytra, scale = 0.5 mm; (4) *M. hamiguitanensis* nov.sp., elytra, scale = 0.5 mm; (5) *M. seideli* nov.sp., aedeagus, scale = 0.25 mm; (6) *M. brancuccii*, holotype, aedeagus, scale = 0.25 mm; (7) *M. hamiguitanensis* nov.sp., aedeagus, scale = 0.25 mm; (8) locus typicus of *M. seideli* nov.sp., photo: M. Seidel.

#### Acknowledgement

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#### Zusammenfassung

Zwei neue Arten der Gattung *Megalopinus* EICHELBAUM, 1915 aus Vietnam und von den Philippinen (Coleoptera, Staphylinidae, Megalopsidiinae). Zwei neue Arten der Gattung *Megalopinus* EICHELBAUM, 1915 werden beschrieben: *Megalopinus seideli* nov.sp. (Vietnam) und *Megalopinus hamiguitanensis* nov.sp. (Mindanao, Philippinen). Die neuen Arten werden abgebildet und mit ähnlichen orientalischen Arten verglichen.

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