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TO THE KNOWLEGDE OF THE GENUS *CALIDIOPSIS* HELLER, 1913 (COLEOPTERA: CURCULIONIDAE: CELEUTHETINI), WITH DESCRIPTION OF TWO NEW SPECIES FROM MINDANAO ISLAND (PHILIPPINES)

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Two new *Calidiopsis* species of the tribe Celeuthetini are described from Mindanao Island, Philippines: *C. bilineatus* sp. nov. and *C. waoensis* sp. nov.. Description, photos of habitus, as well as male genitalia are included. New distribution records for old species is compiled.

Key words: *Calidiopsis,* Celeuthetini, Mindanao Island, Philippines, taxonomy.

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INTRODUCTION

In original paper, Heller classified genus *Calidiopsis* Heller, 1913 (Coleoptera: Celeuthetini)*,* together with three more genres: *Polycatus* Heller, 1913*, Neopyrgops* Heller, 1913*, Pyrgops* Schoenherr, 1842 placing them in family Celeuthetidae, tribe Celeutheidarum (valid name Celeuthetini Lacordaire, 1863) (Heller 1913). Altrought in modern classification system tribe Celeuthetini is revised and contains 76 valid genus excluding *Polycatus* Heller, 1913 (Curculionidae: Polycatini), there hasn't been any intergeneric changes for nearly a century (Alonso-Zarazaga, Lyal 1999). The genus *Calidiopsis* Heller, 1913 currently contains four species: type species *C. speciosa* Heller, 1913 (Mindanao, Zamboanga), *C. lineatus* Schultze, 1918 (Mindanao, Kolambugan), *C. affinis* Schultze, 1920 (Mindanao, Zamboanga) and *C. granosa* Heller, 1923 (Basilan Island), three from Western Mindanao, and one from Basilan Island. After careful examination of type material available in MTD (Dresden, Germany), beetle material of the current genus was revised in DUBC (Daugavpils, Latvia). Study revealed new data on species distribution, additionally, two new species were identified. Results of the current research, including faunistic data and species descriptions are included herein.

MATERIAL AND METHODS

The study was based on specimens deposited in the following collections:
DUBC – Daugavpils University Beetle Collection (Daugavpils, Latvia);
MTD – Senckenberg Natural History Collections (Dresden, Germany).
The laboratory research and measurements has been carried out using Nikon SMZ 745T and

NIS – Elements 6D software. The illustrations were made using digital camera Canon EOS 6D with Canon MP-E 65mm macro lens, using stack shot system and Helicon Focus auto montage, subsequently was edited using Photoshop.
Label data are cited *verbatim*. Following symbols and abbreviations are used:
/ = different lines
// = different labels
Number of specimens examined is written in brackets after citation of the label.

RESULTS

***Calidiopsis affinis* Schultze, 1920**
(Fig. 1.1).

Type in MTD, examined: Mindanao, / Zamboanga // Coll. W. Schultze / Ankauf 1942 // *Calidiopsis* / *affinis* ♂/ Det. W. Schultze *Schultze* / Type // Staatl. Museum fur / Tierkunde Dresden
Distribution: Western Mindanao, Zamboanga Province

***Calidiopsis granosa* Heller, 1923**
(Fig. 1.2).

Type in MTD, examined: 1922 / 6 // Island of / Basilan / Baker // 7314 // *S. granosa* / Typus H. // Staatl. Museum fur / Tierkunde. Dresden

Distribution: Basilan Island

***Calidiopsis lineatus* Schultze, 1918**
(Fig. 1.3; 2.3 – 2.4).

Type in MTD, examined: Kolambugan, / Mindanao, P. I / 1914, BANKS. // Acc. No. 18363 / Coll. Of Agr. / Univ., P. I // Coll. W. Schultze / Ankauf 1942 // *Calidiopsis* / *lineatus* / Det. W. Schultze. *Schultze* / Type // Staatl. Museum fur / Tierkunde Dresden

Distribution: Western Mindanao, Zamboanga - Kolambugan

Material examined: PHILIPPINES / Mindanao, Zamboanga, Gutallac / X. 2015 / local collector leg. (3) // PHILIPPINES / Mindanao, Zamboanga, Gutallac / III. 2016 / local collector leg. (1).

***Calidiopsis speciosa* Heller, 1913**
(Fig. 1.4; 2.1 – 2.2).

Type in MTD, examined: Acc. No. 8695 / Lot / Bu. Of Sci., P. I. // Typus / speciose / Heller // 1911 / 7 // Staatl. Museum fur / Tierkunde. Dresden
Distribution: Western Mindanao, Zamboanga Province

Material examined: PHILIPPINES / Mindanao, Zamboanga / III. 2011 / local collector leg. (3) // PHILIPPINES / Mindanao, Zamboanga, Gutallac / VI. 2014 / local collector leg. (3) // PHILIPPINES / Mindanao, Zamboanga, Gutallac / IX. 2014 / local collector leg. (3) // PHILIPPINES / Mindanao, Zamboanga, Gutallac / VI. 2015 / local collector leg. (1) // PHILIPPINES / Mindanao, Zamboanga, Gutallac / X. 2015 / local collector leg. (10) // PHILIPPINES / Mindanao, Zamboanga, Gutallac / VII. 2016 / local collector leg. (4) // PHILIPPINES / Mindanao, Zamboanga, Gutallac / VIII. 2018 / local collector leg. (6) // PHILIPPINES / Mindanao, Zamboanga, Gutallac / IX. 2019 / local collector leg. (3)

***Calidiopsis bilineatus* sp. nov.**
(Fig. 3.1 – 3.5; 5.1 – 3)

Type material. Holotype. Male: PHILIPPINES / Mindanao, Sarrangani / Kiamba / III. 2016 / local collector leg. (white rectangular card) // HOLOTYPE / *Calidiopsis bilineatus* Rukmane-Barbale, 2020 / det. Rukmane-Barbale 2020 (red rectangular label)

Paratypes (14 males, 18 females): PHILIPPINES / Mindanao, Sarrangani / Kiamba / X. 2015 / local collector leg. (1) // PHILIPPINES / Mindanao, Sarrangani / Kiamba / I. 2016 / local collector leg. (5) // PHILIPPINES / Mindanao, Sarrangani / Kiamba / III. 2016 / local collector leg. (8) // PHILIPPINES / Mindanao, Sarrangani / Kiamba / VII. 2016 / local collector leg. (1) // PHILIPPINES / Mindanao, Sarrangani, Malungon / IX. 2015 / local collector leg.

(1) // PHILIPPINES / Mindanao, Sarrangani, Malungon / XI. 2015 / local collector leg. (5) // PHILIPPINES / Mindanao, Bukidnon, Cabanglasan / X. 2015 / local collector leg. (4) // PHILIPPINES / Mindanao, Davao, Kapatagan / III. 2016 / local collector leg. (1) // PHILIPPINES / Mindanao, Agusan, Sibagat / VI. 2015 / local collector leg. (1) // PHILIPPINES / Mindanao, Cotabato, T'Boli / X. 2015 / local collector leg. (3) // PHILIPPINES / Mindanao, Cotabato, T'Boli / XI. 2015 / local collector leg. (2). All with additional red label: PARATYPE / *Calidiopsis mindanaoensis* / Rukmane-barbale, 2020 / det. Rukmane-Barbale 2020.

Distribution. Central Mindanao Island.

Fig. 1. 1 – *Calidiopsis afinnis* Schultze, 1920, type (MTD); 2 – *Calidiopsis granosa* Heller, 1923, type (MTD); 3 – *Calidiopsis lineatus* Schultze, 1918, type (MTD); 4 – *Calidiopsis speciose* Heller, 1913, type (MTD).

Fig. 2. 1 – 2 *Calidiopsis speciosa* Heller, 1913; 1 – male; 2 – female; 3 – 4 *Calidiopsis lineatus* Schultze, 1918; 3 –male; 4 – female.

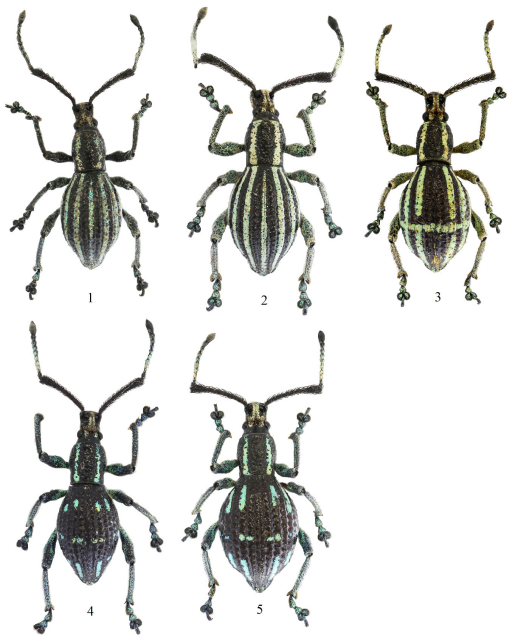

Fig. 3. Different variations of *Calidiopsis bilineatus* sp. nov.; 1 – male, holotype; 2, 3, 5 – females; 4 – male.

Description. Male. Dorsal habitus as shown in Fig. 3. Length 6.9 – 7.6 (holotype 7.2; mean 7.4); width 2.6 – 3.1 (holotype 2.8; mean 2.9) (n=5). Body black, with markings of glossy green round to recumbent scales with golden tingle.

Head punctured, pubescent; forehead flat, with thick brownish hairs between eyes; eyes small, three times as wide as forehead, prominent from the outline of the head, peak just in the middle. Rostrum divided from forehead by fine transverse groove; dorsally with general scales and thick brownish hairs, longitudinal medial groove from apex to basal ½; strongly raised dorsally, medial portion impressed from both sides. Antennal scrobe with long dark hairs, extended to apex, proximately same length as rest of the antennomers.

Prothorax longer than wide (LP/WP 1.11), strongly punctured, rugose, strongly pubescent; with the following markings: 1) two longitudinal lines on dorsum in all leangth, each slightly redirected laterally from the midline; 2) longitudinal band on each lateroventral part of the prothorax; in dorsal contour nearly straight, slightly widened from the base, widest just before the middle, then decreased to apical ½, impressed, then widened to apical margin.

Elytra sub-ovate, rugose, with clearly expressed intervals of deep puncture rows, nearly furrows; short brownish hairs that correspond each dot; each elytron with four longitudinal lines in all length and additional line on suture; in dorsal contour widest just at the middle, gradually decreased to apical 1/3, then more strongly decreased to extended apex. Tarsi, tibia and femur marked with single scales, mingled with shorter to longer light to golden hairs.

Male genitalia as illustrated in Fig. 5.1 – 5.3.

Female. Slightly bigger, elytra wider, apex of elytra more strongly expressed. Antennal scrobe thicker. Otherwise essentially as in males.

Notes on variability. After examination of series of current species, I concluded, that species is very variable in terms of markings on elytra (Fig. 3). There are at least three variants of scally markings: 1) four longitudinal lines on each elytron and one additional line along suture; 2) four longitudinal lines on each elytron without line on suture and additional transverse medial line, that slightly interrupts longitudinal lines medially; 3) four interrupted longitudinal lines, each line from base to basal ½ and from apical ½ to apex, additional interrupted transverse

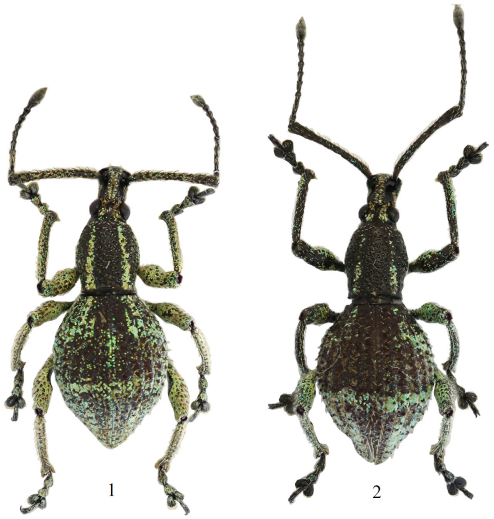

Fig. 4. Dorsal habitus of *Calidiopsis waoensis* sp. nov.; 1 – male, Holotype; 2 – female, paratype.

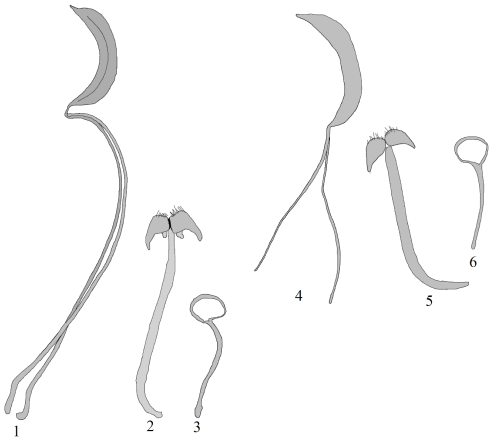

Fig. 5. 1 – 3 Male genitalia of *Calidiopsis bilineatus* sp. nov.; 4 – 6 Male genitalia of *Calidiopsis waoensis* sp. nov.; 1, 4 – aedeagus in lateral view; 2, 5 – sternite XI; 3, 6 – tegmen.

medial line.

Differential analyses. Thus previously genus *Calidiopsis* was distributed only on Western part of Mindanao and Basilan Island, study revealed, that distribution range of current genus is wider. New species is found on central part of Mindanao, and can be easily distinguished from rest of the species by unique markings on prothorax.

Etymology. The new species is named according to its markings on prothorax: two longitudinal scale lines. Name is Latinised adjective of two lines – *bilineata*.

***Calidiopsis waoensis* sp. nov.**
(Fig. 4; 5.4 – 5.6)

Type material. Holotype. Male: PHILIPPINES / Mindanao, Lanao, Wao / VII. 2016 / local collector leg. (white rectangular label) // HOLOTYPE / *Calidiopsis waoensis* / Rukmane-Barbale, 2020 / det. Rukmane-Barbale 2020 (red rectangular label).

Paratypes (5 males, 4 females): PHILIPPINES / Mindanao, Lanao, Wao / VI. 2016 / local collector leg. (8) // PHILIPPINES / Mindanao, Lanao, Wao / VII. 2016 / local collector leg. (1). All with additional red label: PARATYPE / *Calidiopsis waoensis* / Rukmane-Barbale, 2020 / det. Rukmane-Barbale 2020.

Distribution. Mindanao Island, Wao.

Description. Male. Dorsal habitus as shown in Fig. 4. Length 6.4 – 6.7 (holotype 6.6; mean 6.5); width 3.6 – 3.8 (holotype 3.7; mean 3.7) (n=5). Body black, with markings of glossy green round to recumbent scales with golden tingle.

Head punctured, pubescent; forehead dorsally raised, with general scales and thick brownish hairs between eyes; eyes big, 1.5 times as wide as forehead, strongly prominent from the outline of the head, peak just in the middle. Rostrum divided from forehead by fine transverse groove; dorsally with general scales and thick brownish hairs, longitudinal medial groove from apex to middle, in dorsal contour straight. Antennal scrobe with long light hairs, widened from narrow base, then nearly equal in all length.

Prothorax same length and width (LP/WP 1), strongly punctured, rugose, with short light hairs; with the following markings: 1) two longitudinal lines on dorsum in all leangth, each slightly redirected laterally from the midline; 2) longitudinal band on each lateroventral part of the prothorax; in dorsal contour widened from the base, widest along basal 2/3, then decreased to apical ½, then widened to apical margin.

Elytra sub-globular, rugose, puncture intervals arranged in furrows; with long brown hairs; each elytron with irregularly dispersed scally patches and one more or less clear transverse medial line; in dorsal contour widest just at the middle, then gradually decreased to apex. Tarsi, tibia and femur densely marked with single scales, mingled with long golden hairs.

Male genitalia as illustrated in Fig. 5.4 – 5.6.
Female. Same size as male, elytra slightly wider, apical 1/3 in dorsal contour impressed, apices more strongly rounded. Otherwise essentially as in males.

Differential analyses. *Calidiopsis waoensis* sp. nov. is similar to *Calidiopsis bilineata* sp. nov. by it's markings on prothorax, but can be easily distinguished by the following features: 1) elytra of *C. waoensis* sp. nov. very short, strongly convex; 2) bigger eyes in *C. waoensis* sp. nov..

Etymology. Species name is Latinised adjective of place where current species is distributed.

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