

ZOOSYSTEMATICA ROSSICA

Zoological Institute, Russian Academy of Sciences, St Petersburg • https://www.zin.ru/journals/zsr/ Vol. 29(2): 284–295 • Published online 27 November 2020 • DOI 10.31610/zsr/2020.29.2.284

RESEARCH ARTICLE

Two new species of the genus *Leluthia* (Hymenoptera: Braconidae: Doryctinae) from Yemen

Два новых вида рода *Leluthia* (Hymenoptera: Braconidae: Doryctinae) из Йемена

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Abstract. Two new species of the genus *Leluthia* (*Leluthia*) from Yemen, *L*. (*L*.) *abnormis* **sp. nov.** and *L*. (*L*.) *brevitergum* **sp. nov.**, are described and illustrated. This is the first record of the genus *Leluthia* Cameron, 1887 in the Afrotropical Region.

Резюме. Из Йемена описываются и иллюстрируются два новых вида рода *Leluthia* (*Leluthia*) – *L*. (*L*.) *abnormis* **sp. nov.** и *L*. (*L*.) *brevitergum* **sp. nov.** Это первое указание рода *Leluthia* Cameron, 1887 для Афротропической области.

Key words: entomophages, ectoparasitoids of beetle larvae, short second metasomal tergite, Arabian Peninsula, Doryctinae, Hecabolini, *Leluthia, Euhecabolodes*, new species

Ключевые слова: энтомофаги, эктопаразитоиды личинок жуков, короткий второй тергит метасомы, Аравийский полуостров, Doryctinae, Hecabolini, *Leluthia, Euhecabolodes*, новые виды

Zoobank Article LSID: urn:lsid:zoobank.org:pub:A7EB63A8-C313-4FEC-957F-871674CC13D8

Introduction

The doryctine genus *Leluthia* Cameron, 1887 from the tribe Hecabolini (Hymenoptera: Braconidae: Doryctinae) having two subgenera, *Leluthia* s. str. and *Euhecabalodes* Tobias, 1962 (Belokobylskij & Maetô, 2009; Belokobylskij et al., 2019), was originally described from the New World (Cameron, 1887). Additional species of this genus were later found to be recorded already in Eurasia under the synonymised generic names *Doryctosoma* Picard, 1938 and *Euhecabolodes* Tobias, 1962 (Belokobylskij & Tobias, 1986; Belokobylskij, 1992; Belokobylskij et al., 2004b). In the Palaearctic Region, this genus is already known from five species of subgenus *Leluthia* s.str. and four species of *Euhecabolodes*, but the genus should be revised here and its composition will be more diverse. A single species of this genus was also described from Australia (Belokobylskij et al., 2004a). Until now the members of the genus *Leluthia* have not been recorded from the Afrotropical as well as Oriental Region.

The recorded hosts of *Leluthia* belong predominantly to the family Buprestidae (basically from the genus *Agrilus* Curtis, 1825) and to bark beetle larvae mainly from the genus *Scolytus* Geoffroy, 1762 (Coleoptera: Curculionidae: Scolytinae) (Yu et al., 2016).

In the current paper, two new species of the genus *Leluthia* (*Leluthia*) are described and illustrated from Yemen. This is first record of the genus *Leluthia* in the Arabian Peninsula, as well as in the Afrotropical Region in which the south of Arabian Peninsula is included.

Materials and methods

The studied material was collected by Antonius van Harten mainly by light trap in Yemen. Specimens were examined using an Olympus SZ51 stereomicroscope. Photographs were obtained using a Canon EOS 70D digital camera mounted on an Olympus SZX10 microscope (Zoological Institute RAS, St. Petersburg). Image stacking was performed using Helicon Focus 5.0. Final plates were prepared in Adobe Photoshop[™] CS6.

The terminology employed for morphological features, sculpture and body measurements follows Belokobylskij and Maetô (2009). Wing venation nomenclature follows Belokobylskij and Maetô (2009), with the terminology of van Achterberg (1993) shown in parentheses.

The holotypes of the new species are deposited in the Naturalis Biodiversity Center, Leiden, the Netherland (RMNH); paratypes in RMNH and the Zoological Institute of the Russian Academy of Sciences, St Petersburg, Russia (ZISP).

Taxonomic part

Family Braconidae

Subfamily Doryctinae

Tribe Hecabolini

Genus Leluthia Cameron, 1887

- Cameron, 1887: 392; Marsh, 1967: 360; 2002: 119; Zaldívar-Riverón et al, 2008: 347; Belokobylskij & Maetô, 2009: 293; Yu et al. 2016.
- Synonyms: Doryctosoma Picard, 1938; Russellia Muesebeck, 1950; Russellella Musebeck et Walkley, 1951; Euhecabolodes Tobias, 1962.

Type species: *Leluthia mexicana* Cameron, 1887, designated by Viereck, 1914.

Distribution. Australasian, Nearctic, Neotropical and Palaearctic Regions.

Remarks. The Neotropical genus *Panama* Marsh, 1993, which was previously synonymised with *Leluthia* on the base of morphological characters (Belokobylskij et al., 2004b), was very recently re-established with generic status on the basis of a molecular-phylogenetic analysis (de Souza Gadelha et al., 2020).

The genus is here recorded from the Afrotropical Region for the first time.

Taxonomic synopsis of Leluthia species

Leluthia (Euhecabolodes) asiatica (Tobias, 1980) – Palaearctic Region;

Leluthia (Euhecabolodes) postfurcalis Belokobylskij et Maeto, 2006 – Eastern Palaearctic Region;

- Leluthia (Euhecabolodes) ruguloscolyti (Fischer, 1962) Palaearctic Region;
- Leluthia (Euhecabolodes) transcaucasica (Tobias, 1976) Palaearctic Region;
- *Leluthia (Leluthia) abnormis* **sp. nov.** Afrotropical Region;
- *Leluthia (Leluthia) accepta* (Belokobylskij, 1986) Western Palaearctic Region;
- Leluthia (Leluthia) astigma (Ashmead, 1896) Nearctic and Neotropical Regions;
- *Leluthia (Leluthia) australica* Belokobylskij, Iqbal et Austin, 2004 Australasian Region;
- *Leluthia* (*Leluthia*) *brevitergum* **sp. nov.** Afrotropical Region;
- *Leluthia (Leluthia) careovena* Marsh, 2002 Neotropical Region;
- Leluthia (Leluthia) costaricensis Marsh, 2002 Neotropical Region;
- *Leluthia (Leluthia) danielensis* López et Figueroa, 2010 Neotropical Region;
- *Leluthia* (*Leluthia*) *disrupta* (Belokobylskij, 1994) Palaearctic Region;
- Leluthia (Leluthia) flavocoxalis Marsh, 2002 Neotropical Region;
- *Leluthia (Leluthia) floridensis* Marsh, 1967 Neotropical Region;
- Leluthia (Leluthia) honshuensis Belokobylskij et Maeto, 2006 – Palaearctic Region;
- Leluthia (Leluthia) mexicana Cameron, 1887 Nearctic and Neotropical Regions;
- *Leluthia (Leluthia) nagoyae* Belokobylskij et Maeto, 2006 – Eastern Palaearctic Region;
- Leluthia (Leluthia) paradoxa (Picard, 1938) Western Palaearctic Region.

Description of new species

Leluthia (Leluthia) abnormis sp. nov. (Figs 1, 2)

Holotype. Female, **Yemen**, "Yemen (4055), Al Kowd, ix 1999, light-trap, A.v. Harten & S. Al Haruri, RMNH'00" (RMNH).

Paratypes. 1 female, 4 males, with label as in holotype (RMNH, ZISP); 3 females, 5 males, "Yemen (4054), Al Kowd, viii 1999, light-trap, A.v. Harten & S. Al Haruri, RMNH'00" (RMNH, ZISP); 3 females, 1 male, "Yemen (3901), Al Kowd, vii 1999, light-trap, A. v. Harten & S. Al Haruri. RMNH'00" (RMNH); 1 female, "Yemen (6141), Al Kowd, 16-20.viii.2001, light trap, A. v. Harten & S. Al Haruri. RMNH'02" (RMNH); 1 female, "Yemen (8136), Al Kowd, ix.2003, light trap, A. v. Harten, S. Al Haruri, RMNH'03" (RMNH); 7 females, 1 male, "Yemen (5404), Hammam 'Ali, from coffee-berries (with Ceratitis capitata ?), 14.iii.2001, A.v. Harten, RMNH'02" (RMNH, ZISP); 5 females "Yemen, Al Kowd, v-vi.2000, light-tr., no 4719, A.v. Harten & S. Al Haruri, RMNH'01" (RMNH, ZISP); 1 female, "Yemen, Al Kowd, vii.2000, light tr., no 4820, A. v. Harten & S. Al Haruri, RMNH'01" (RMNH); 1 female, "Yemen (5750), Al Kowd, 8-12.vii.2001, light trap, A. v. Harten & S. Al Haruri. RMNH'02" (RMNH); 2 males, "Yemen (8136), Al Kowd, ix.2003, light trap; A. v. Harten & S. Al Haruri. RMNH'02" (RMNH); 1 male, "Yemen, Al Kowd, viii.2000, light-tr., no 4952, A.v. Harten & S. Al Haruri, RMNH'01" (RMNH); 2 males, "Yemen, Al Kowd, v-vi.2000, light-tr., no 4719, A.v. Harten & S. Al Haruri, RMNH'01" (RMNH); 1 male, "Yemen, Ta'izz, viii.1999, light tr., A. v. Harten & A Awad, RMNH'01" (RMNH).

Description. Female. Body length 2.7–3.1 mm; fore wing length 1.6–1.8 mm.

Head distinctly or rather strongly depressed dorsoventrally, its width (dorsal view) 1.6-1.7 times median length, equal to width of mesoscutum. Occiput distinctly concave. Head behind eyes (dorsal view) distinctly roundly narrowed. Transverse diameter of eye 2.0-2.2 times longer than temple. Ocelli arranged in very obtuse triangle with base 1.6-1.7 times its side; POL 2.4-2.9 times OD, 1.5–1.8 times OOL. Eye large, oblique, glabrous, 1.15–1.25 times as high as broad, very weakly concave opposite antennal socket. Malar space 0.20-0.25 times eye height, 0.6-0.7 times basal width of mandible. Face width 0.8-0.9 times eye height and 1.5-1.7 times height of face and clypeus combined. Malar suture absent. Clypeus rather narrow and high. Hypoclypeal depression subcircular, its width 1.0–1.3 times distance from edge of depression to eye, 0.35-0.40 times width of face. Occipital carina not joined with hypostomal carina, being obliterated ventrally a short distance above base of mandible. Hypostomal flange very narrow.

Antennae rather thick, filiform, 17-20-segmented, 0.6-0.7 times as long as body. Scape 1.5-1.6 times longer than maximum width, 1.5-1.7times longer than pedicel. First flagellar segment 4.4-4.6 times longer than its apical width, 1.1-1.2times longer than second segment. Penultimate segment 2.0-2.2 times longer than its width, 0.5-0.6 times as long as first segment, 0.85-0.90 times as long as apical segment; the latter acuminate apically and with short spine.

Mesosoma distinctly or sometimes strongly dorsoventrally depressed, it length 3.2-4.0 times its height. Neck of prothorax weakly elongate, distinctly convex dorsally (lateral view), with distinct pronotal keel in anterior 0.3. Mesoscutum (lateral view) weakly and curvingly elevated above pronotum; its width (dorsal view) 1.15-1.20 times median length. Notauli shallow to very shallow, almost complete, narrow, subparallel (not or weakly convergent posteriorly) on dorsal surface, finely rugulose-reticulate. Median lobe of mesoscutum (dorsal view) weakly convex anteriorly. with distinct but shallow median furrow in anterior 0.5-0.6. Prescutellar depression (scutal sulcus) shallow, with seven-nine short carinae, finely rugulose between carinae, 0.30-0.35 times as long as scutellum. Scutellum flat, transverse, with distinct short carinae laterally, 2.0-2.2 times wider anteriorly than its median length. Subalar depression shallow, narrow, reticulate-coriaceous. Sternaulus rather shallow, almost straight, finely reticulate-coriaceous, running along entire length of lower part of mesopleuron. Metapleural flange rather narrow, short and rounded apically. Propodeum without lateral tubercles.

Wings. Length of fore wing 3.0–3.4 times its width. Metacarp (1-R1) 1.2–1.3 times longer than pterostigma. Radial (marginal) cell 3.0–3.3 times longer than maximum width. Radial vein (r) arising weakly before middle of pterostigma, from its basal 0.45. First radial abscissa (r) 0.2 times as long as weakly and evenly curved second abscissa (3-SR + SR1), 0.8–1.0 times as long as first radiomedial vein (2-SR). Second radiomedial vein (r-m) always absent. First medial abscissa (1-SR+M) weakly sinuate. Recurrent vein (m-cu) antefurcal, 1.8–2.8 times longer than second abscissa of medial vein (2-SR+M). Distance from nervulus (cu-a) to basal vein (1-M) 1.2–1.3 times



Fig. 1. *Leluthia abnormis* **sp. nov.**, holotype, female (A–H) and paratype, male (I). **A**, habitus, lateral view; **B**, head, front view; **C**, head, dorsal view; **D**, basal segments of antenna; **E**, apical segments of antenna; **F**, head and mesosoma, lateral view; **G**, metasoma and first to second metasomal tergites, dorsal view; **H**, hind leg; **I**, hind wing. Scale bar: 1 mm (A); 0.5 mm (B–I).



Fig. 2. *Leluthia abnormis* sp. nov., holotype, female. A, fore wing; B, hind wing; C, metasoma, dorsal view; D, metasoma, lateral view. Scale bar: 0.5 mm.

nervulus (cu-a) length. Hind wing 4.4–4.6 times longer than wide. First abscissa of costal vein (C+SC+R) 0.7–1.0 times as long as second abscissa (1-SC+R). Basal vein (1r-m) 1.0–1.3 times as long as third costal abscissa (2-SC+R). Medial (basal) cell narrow, weakly widened posteriorly, 8.0–9.0 times longer than wide. First abscissa of mediocubital vein (M+CU) 1.5–2.0 times longer than second and third abscissae combined (1-M). Recurrent vein (m-cu) almost straight, distinctly oblique towards base of wing, antefurcal, unsclerotised.

Legs. Hind femur 3.0-3.2 times longer than wide. Hind tibia distinctly widened. Hind tarsus 1.1 times longer than hind tibia. Hind basitarsus weakly thickened, 0.45-0.50 times as long as second-fifth segments combined. Second segment of hind tarsus 0.50-0.55 times as long as basitarsus, about 1.3 times as long as fifth segment (without pretarsus).

Metasoma 1.2–1.4 times longer than mesosoma and head combined. First metasomal tergite short and wide, with small spiracular protuberances in anterior third, distinctly and almost linearly widened from base to subapex, then weakly narrowed towards apex. Length of first tergite 0.85-0.90 times its maximum subapical width; apical width 0.90-0.95 times its subapical width, 2.5-3.0 times its minimum anterior width. Second tergite very short medially and rather long laterally, practically without visible oblique sublateral depressions. Median length of second tergite 0.25-0.30times its maximum lateral length, 0.10-0.15 times its basal width, 0.15-0.20 times length of third tergite. Second suture distinct, but narrow, deeply curved, not sinuate and without sublateral breaks. Third tergite without additional transverse furrow. Ovipositor sheath 0.30–0.35 times as long as metasoma, 0.55–0.60 times as long as mesosoma, 0.35-0.40 times as long as fore wing.

Sculpture and pubescence. Vertex and frons entirely densely and finely reticulate-coriaceous, sculpture on frons arranged in transverse lines; face mainly smooth with sparse and fine to very fine setose punctuation; temple almost entirely smooth. Mesoscutum densely and rather finely granulate-coriaceous, only coriaceous anteriorly, densely rugulose-reticulate in wide area in medioposterior 0.7–0.8. Scutellum rather distinctly densely granulate. Mesopleuron almost entirely densely reticulate-coriaceous, fine below. Metapleuron entirely densely rugose-reticulate. Propodeum without areas delineated by carinae, entirely and densely rugose-reticulate, partly smooth posteriorly. Hind coxa mainly reticulate-coriaceous, dorsally additionally finely striate. Hind femur densely and finely reticulate-coriaceous. First metasomal tergite entirely and rather distinctly longitudinally striate, with very dense reticulation between striae, with two distinct and subparallel dorsal carinae in anterior half. Second and third tergites almost entirely and rather densely striate and with dense and fine rugulosity between striae, striae laterally curved towards sides of tergites; third tergite smooth at distal margin. Fourth to sixth tergites mainly densely and finely reticulate-coriaceous, smooth at distal margins. Vertex mainly glabrous medially in wide area, with sparse, short and semi-erect pale setae laterally and posteriorly. Mesoscutum partly glabrous, with sparse, long and semi-erect white setae in medio-posterior area, with dense pale setae anteriorly along notauli, with rather sparse and semi-erect pale setae arranged in single line laterally. Mesopleuron medially widely glabrous. Hind tibia dorsally with medium length and rather sparse semi-erect pale setae, their length about 0.5 times maximum width of tibia.

Colour. Body mainly yellowish brown, faintly infuscate dorsally. Antenna basally yellow to brownish yellow, brown to dark brown in distal quarter or fifth. Palpi pale yellow. Legs mainly pale yellow. Ovipositor sheath almost black, brown anteriorly. Fore wing hyaline. Pterostigma pale brown, yellow basally and apically.

Male. Body length 1.6–2.6 mm; fore wing length 1.1–1.7 mm. Antenna 15–19-segmented. Mesosoma 2.1–4.0 times longer than its maximum width. Hind wing with large sclerotised brown stigma-like enlargement, its length 1.2–1.4 times distance from base of wing to base of enlargement. First metasomal tergite usually narrower than in female, its length 1.0–1.1 times its maximum width. Median length of second tergite about 0.4 times its maximum lateral length, 0.30–0.35 times its basal width, 0.2–0.3 times length of third tergite. Metasomal sculpture sometimes finer. Otherwise similar to female.

Etymology. Named from Latin "abnormis" (anomalous) because the structure of its second metasomal tergite is unusual for the genus.

Comparative diagnosis. The new species distinctly differs from all the known species of *Leluthia* (*Leluthia*) in the Old Word fauna by its subparallel notauli on the dorsal part of mesoscutum, its strongly curved and without sublateral breaks second metasomal suture, and the second metasomal tergite being very short medially but rather long laterally and without sublateral longitudinal furrows.

Distribution. Yemen.

Leluthia (Leluthia) brevitergum sp. nov. (Figs 3, 4)

Holotype. Female, **Yemen**, "Yemen (3901), Al Kowd, vii 1999, light-trap, A. v. Harten & S. Al Haruri. RMNH'00" (RMNH).

Paratypes. 2 males, "Yemen (3901), Al Kowd, VII 1999, light-trap, A. v. Harten & S. Al Haruri. RMNH'00" (RMNH, ZISP); 2 females, "Yemen (4054), Al Kowd, viii 1999, light-trap, A.v. Harten & S. Al Haruri, RMNH'00" (RMNH, ZISP); 1 male, "Yemen, Al Kowd, ii.2000, light tr., no 4431, A. v. Harten & S. Al Haruri. RMNH'01" (RMNH); 2 females, 1 male, "Yemen, Al Kowd, v-vi.2000, light tr., no. 4719, A.v. Harten & S. Al Haruri. RMNH'01" (RMNH); 1 male, "Yemen (8136), Al Kowd, ix.2003, light trap, A. v. Harten, S. Al Haruri, RMNH'03" (RMNH); 1 female, 1 male, "Yemen (5404), Hammam 'Ali, from coffee-berries (with Ceratitis capitata ?), 14.iii.2001, A.v. Harten, RMNH'02" (RMNH).

Description. Female. Body length 2.5–3.2 mm; fore wing length 1.5–2.0 mm.

Head width (dorsal view) 1.6-1.8 times its median length, 1.1 times width of mesoscutum. Head behind eyes (dorsal view) distinctly roundly narrowed. Transverse diameter of eye 2.7-2.9 times longer than temple. Ocelli arranged in triangle with base 1.15-1.25 times its side; POL 1.3-1.6times OD, 0.8-1.0 times OOL. Eye large, glabrous, 1.1-1.2 times as high as broad, almost not concave opposite antennal socket. Malar space 0.20-0.25 times eye height, 0.6-0.8 times basal width of mandible. Face width 0.6-0.8 times eye height and 1.0-1.1 times height of face and clypeus combined. Malar suture absent. Clypeus rather narrow and high. Hypoclypeal depression subcircular, its width 0.9-1.0 times distance from edge of depression to eye, 0.4 times width of face. Occipital carina not joining hypostomal carina, being obliterated ventrally a short distance above base of mandible. Hypostomal flange very narrow.

Antennae rather thick, filiform, 20-23-segmented, 0.8-0.9 times as long as body. Scape 1.3-1.5 times longer than maximum width, 1.5-1.8 times longer than pedicel. First flagellar segment 3.3-3.8 times longer than its apical width, 1.00-1.05 times longer than second segment. Penultimate segment about 2.0 times longer than its width, 0.6-0.7 times as long as first segment, 0.80-0.85 times as long as apical segment; the latter acuminate apically and with short spine.

Mesosoma almost not depressed dorsoventrally, it length 2.0–2.1 times maximum height. Neck of prothorax elongate, with distinct pronotal keel in anterior 0.3. Mesoscutum (lateral view) distinctly and curvingly elevated above pronotum; its width (dorsal view) 1.10-1.15 times median length. Notauli complete, shallow to very shallow in posterior third, rather wide, crenulate-rugose. Median lobe of mesoscutum (dorsal view) distinctly convex anteriorly, without median longitudinal furrow. Prescutellar depression (scutal sulcus) rather shallow, with five-seven curved carinae, very finely rugulose to almost smooth between carinae, 0.3–0.4 times as long as scutellum. Scutellum with distinct carinae laterally, 1.2-1.3 times wider anteriorly than its median length. Subalar depression rather shallow and rather wide, crenulate-striate with fine reticulation. Sternaulus shallow, straight, finely reticulate, sometimes with fine crenulation, running along anterior 0.7 of lower part of mesopleuron. Metapleural flange narrow, rather short and rounded apically. Propodeum without lateral tubercles.

Wings. Length of fore wing 3.0–3.1 times its width. Metacarp (1-R1) 1.0–1.1 times as long as pterostigma. Radial vein (r) arising before middle of pterostigma, from its basal 0.35–0.40. First radial abscissa (r) 0.20–0.25 times as long as the weakly evenly curved second abscissa (3-SR + SR1), 0.7–0.8 times as long as first radiomedial vein (2-SR). Second radiomedial vein (r-m) always absent. First medial abscissa (1-SR+M) distinctly sinuate. Recurrent vein (m-cu) weakly antefurcal, 3.5–4.5 times longer than second abscissa of medial vein (2-SR+M). Distance from nervulus



Fig. 3. *Leluthia brevitergum* **sp. nov.**, holotype, female. **A**, habitus, lateral view; **B**, head and mesoscutum, dorsal view; **C**, head, front view; **D**, basal segments of antenna; **E**, apical segments of antenna; **F**, head and mesosoma, dorsal view; **G**, head and mesosoma, lateral view; **H**, hind leg. Scale bar: 1 mm (A); 0.5 mm (B–H).



Fig. 4. *Leluthia brevitergum* **sp. nov.**, holotype, female. **A**, fore wing; **B**, hind wing; **C**, metasoma, dorsal view; **D**, metasoma, lateral view; **E**, first to fourth metasomal tergites, dorsal view. Scale bar: 0.5 mm.

(cu-a) to basal vein (1-M) 1.3-1.5 times nervulus (cu-a) length. Hind wing 4.0-4.5 times longer than wide. First abscissa of costal vein (C+SC+R) 0.8-1.0 times as long as second abscissa (1-SC+R). Basal vein (1r-m) 1.1-1.4 times longer than third costal abscissa (2-SC+R). Medial (basal) cell narrow, weakly widened posteriorly, 7.0-9.0 times longer than wide. First abscissa of mediocubital vein (M+CU) 2.0-2.3 times longer than second and third abscissae combined (1-M). Recurrent vein (m-cu) weakly and evenly curved towards base of wing, interstitial or weakly postfurcal, unsclerotised.

Legs. Hind femur 2.8-3.0 times longer than wide. Hind tibia distinctly thickened. Hind tarsus 0.9 times as long as hind tibia. Hind basitarsus weakly thickened, 0.45-0.50 times as long as second-fifth segments combined. Second segment of hind tarsus 0.6-0.7 times as long as basitarsus, almost as long as fifth segment (without pretarsus).

Metasoma 1.2-1.3 times longer than mesosoma and head combined. First metasomal tergite short and wide, without spiracular protuberances, distinctly and almost linearly widened from base to subapex and then weakly narrowed towards apex. Length of first tergite 0.75–0.80 times its maximum subapical width; apical width 0.90-0.95 times its subapical width, 1.8-2.0 times its minimum anterior width. Second tergite short, with shallow and strongly oblique sublateral depressions. Median length of second tergite 3.0-5.0 times its minimum sublateral length, 0.2–0.3 times its basal width, 0.5-0.9 times length of third tergite. Second suture distinct, distinctly sinuate and with deep sublateral breaks. Third tergite with very shallow and weakly curved submedian transverse furrow. Ovipositor sheath 0.4–0.5 times as long as metasoma, 0.75-0.85 times as long as mesosoma, 0.45-0.50 times as long as fore wing.

Sculpture and pubescence. Vertex and frons entirely densely granulate; face almost entirely finely transverse and sinuate striate with dense rugulosity between striae, laterally almost smooth below; temple finely coriaceous to smooth below. Mesoscutum distinctly densely granulate, rugulose and undulately striate in a rather wide area in medio-posterior third or half. Scutellum distinctly densely granulate. Mesopleuron mostly densely granulate with reticulation, becoming finer below. Metapleuron entirely densely rugose-reticulate with fine granulation. Propodeum without areas delineated by carinae, entirely rugose-reticulate. Hind coxa mainly reticulate-coriaceous, dorsally rather distinctly rugose-striate. Hind femur distinctly reticulate-coriaceous. First metasomal tergite entirely distinctly undulatingly striate, with dense rugulosity between striae, and with two distinct, complete and subparallel dorsal carinae. Second tergite entirely and third tergite mainly (except smooth narrow posterior strip) densely striate and with dense and fine rugulosity between striae. Fourth to sixth tergites mainly densely and finely reticulate-areolate, smooth at distal margins, fourth tergite additionally striate basally. Vertex with sparse, short and semi-erect whitish setae. Mesoscutum widely glabrous, with sparse, medium length and semi-erect white setae arranged rather widely along notauli and narrowly laterally. Mesopleuron medially widely glabrous. Hind tibia dorsally with medium length and rather sparse semi-erect pale setae, their length 0.6-0.7 times maximum width of tibia.

Colour. Body light reddish brown to partly yellowish brown, partly faintly infuscate dorsally. Antenna dark brown to black in distal half, scapus reddish brown, five-ten basal segments yellow to brownish yellow. Palpi pale yellow. Legs mainly yellow to pale yellow. Ovipositor sheath black. Fore wing hyaline. Pterostigma pale brown, sometimes weakly infuscate medially.

Male. Body length 1.7-2.8 mm; fore wing length 1.1–1.7 mm. Transverse diameter of eye sometimes up to 3.5 times longer than temple. Antenna weakly thickened, 17-23-segmented. Mesosoma sometimes weakly depressed dorsoventrally, it length only 2.1–2.2 times height. Hind wing with large sclerotised brown stigma-like enlargement, its length 1.4–1.6 times distance from base of wing to base of enlargement. First metasomal tergite usually narrow, its length 0.8-1.0 times maximum width. Second tergite without oblique lateral furrows, long, 0.5–0.6 times as long as basal width, 0.8–0.9 times as long as third tergite. Second suture almost straight or weakly curved, without or with weak sublateral breaks. Third tergite without transverse furrow. Otherwise similar to female.

Comparative diagnosis. The new species is similar to the Palaearctic L. (L.) disrupta (Belokobylskij, 1994), but differs in having the first and second metasomal tergites and ovipositor short (vs distinctly longer), sublateral furrows on second tergite strongly oblique (vs weakly oblique to subparallel), pterostigma mainly pale brown (vs entirely dark brown) and legs pale reddish brown to reddish brown (vs mainly yellow).

Etymology. Named from Latin "brevis" (short) and "tergum" (tergite) because its second metasomal tergite is very short.

Distribution. Yemen.

Key to Arabian species of the genus *Leluthia*

- - \dots L. (L.) abnormis sp. nov.

Acknowledgements

The author is very thankful to Dr Mark R. Shaw (Edinburg, UK) and Dr Konstantin G. Samartsev (St Petersburg, Russia) for their very useful comments on the first version of the manuscript. The work was partially funded by the Russian Foundation for Basic Research (grant No. 19-04-00027) and performed in the framework of the Russian State Research Project No. AAAA-A19-119020690101-6.

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Received 20 October 2020 / Accepted 24 November 2020. Editorial responsibility: E.V. Tselikh