

The braconid parasitoids of the subfamily Rogadinae (Hymenoptera: Braconidae) new to science and to the fauna of the Korean Peninsula

Наездники-бракониды подсемейства Rogadinae (Hymenoptera: Braconidae) новые для науки и фауны Корейского полуострова

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КЛЮЧЕВЫЕ СЛОВА: Ichneumonoidea, *Darnilia*, *Macrostomion*, паразитоиды, описания, новые виды, новые указания.

ABSTRACT. Two species new for sciences from the subfamily Rogadinae, *Clinocentrus austrokoreanus* **sp.n.** (Clinocentrini) and *Darnilia gimyonkwoni* **sp.n.** (Rogadini), are described and illustrated from the South Korea. Six species from this subfamily, namely *Clinocentrus rhysipoloides* Belokobylskij, 1995, *Heterogamus excavatus* Telenga, 1941, *H. fasciatipennis* Ashmead, 1906, *H. tatarianae* Telenga, 1941, *Macrostomion sumatranum* (Enderlein, 1920), and *Yelicones glabromaculatus* Belokobylskij, 1993 are recorded in the fauna of Korean Peninsula for the first time. Genera *Darnilia* van Achterberg, 1989 and *Macrostomion* Szépligeti, 1900 are firstly found in the this peninsula.

РЕЗЮМЕ. Из Южной Кореи описаны и проиллюстрированы два новых для науки вида из подсемейства Rogadinae — *Clinocentrus austrokoreanus* **sp.n.** (Clinocentrini) и *Darnilia gimyonkwoni* **sp.n.** (Rogadini). Шесть видов этого подсемейства впервые указываются для фауны Корейского полуострова — *Clinocentrus rhysipoloides* Belokobylskij, 1995, *Heterogamus excavatus* Telenga, 1941, *H. fasciatipennis* Ashmead, 1906, *H. tatarianae* Telenga, 1941, *Macrostomion sumatranum* (Enderlein, 1920) и *Yelicones glabromaculatus* Belokobylskij, 1993. Роды *Darnilia* van Achterberg, 1989 и *Macrostomion* Szépligeti, 1900 впервые обнаружены на этом полуострове.

Introduction

The cyclostome subfamily Rogadinae of the family Braconidae (Hymenoptera) is a cosmopolitan group of parasitoid with a very peculiar mode of life. They are exclusively koinobiont parasitoids characterised by the mummification of their host larvae, micro- or macrolepidopteran caterpillars. Interestingly, only this character of biology is the main one for substantiating the monophyly of subfamily [Zaldivar-Riverón *et al.*, 2008; Jasso-Martínez *et al.*, 2021].

Subfamily Rogadinae consists currently of eight tribes, Aleiodini, Betylobraconini, Clinocentrini, Facitorini, Gondwanocentrini, Rogadini, Stiropiini and Yeliconini, and 66 genera [Yu *et al.*, 2016; Quicke *et al.*, 2021; Jasso-Martínez *et al.*, 2021; Ranjith *et al.*, 2022; Shimbori *et al.*, 2024]. The rogadine fauna of the Oriental region (tropical Asia) is very reach and diverse [Butcher *et al.*, 2012; Yu *et al.*, 2016; Quicke *et al.*, 2021], but from other side the information about this parasitoids in the East Palaearctic is incomplete and relatively sparse. Currently, only data with a key to the genera and species of the China (including its Oriental component: Chen, He, 1997) and the Russian Far East [Belokobylskij, 2000] are more or less detailed investigated and relatively abundant. However, the Korean Peninsula and Japan have not been the subject of the special study of this group.

In this paper, two species from the rogadine genera *Darnilia* van Achterberg, 1989 and *Clinocentrus* Hali-

day, 1833 are described from South Korea as a new for science, and six species from the genera *Clinocentrus*, *Heterogamus* Wesmael, 1838, *Macrostomion* Szépligeti, 1900, and *Yelicones* Cameron, 1997 are recorded on the Korean Peninsula for the first time.

Material and methods

The terminology employed for the morphological features, sculpture, and body measurements follow Belokobylskij & Maetô [2009] and Belokobylskij *et al.* [2024]. The wing venation nomenclature follows Belokobylskij & Maetô [2009] and Belokobylskij *et al.* [2024], with the terminology of van Achterberg [1993] shown in parentheses. The new distribution records presented in this paper are marked with an asterisk (*).

The specimens were examined using an Olympus SZ51 stereomicroscope. Photographs were taken with an Olympus OM-D E-M1 digital camera mounted on an Olympus SZX10 microscope (Zoological Institute of the Russian Academy of Sciences, St Petersburg, Russia). Image stacking was performed using Helicon Focus 8.0. The figures were produced using the Adobe Photoshop CS6 program.

The specimens (including types) examined in this study were deposited in the collections of the National Institute of Biological Resources (Incheon, Republic of Korea; NIBR), the Science Museum of Natural History (Gyeongju, Republic of Korea; SMNE), and the Zoological Institute of the Russian Academy of Sciences (St Petersburg, Russia; ZISP). Abbreviation of the traps: MT — Malaise trap; LT — light trap. Abbreviations of the Korean provinces used in this paper as follows: GB — Gyeongsangbuk-do, GN — Gyeongsangnam-do, GW — Gangwon-do, JB — Jeollabuk-do, JJ — Jeju-do.

Taxonomy

Order Hymenoptera Linnaeus, 1758

Family Braconidae Nees, 1811

Subfamily Rogadinae Foerster, 1863

Genus *Clinocentrus* Haliday, 1833

Clinocentrus Haliday, 1833: 266; Shenefelt, 1975: 1187; Belokobylskij, Tobias, 1986: 71; Belokobylskij, 1995: 8706; Belokobylskij, 1998: 126; Yu *et al.*, 2016.

Camptocentrus Kriechbaumer, 1894: 61 (type species: *C. testaceus* Kriechbaumer, 1894); Achterberg, 1991: 21.

Microthogas Cameron, 1910: 96 (type species: *M. foveatus* Cameron, 1910); Shenefelt, 1975: 1204; Achterberg, 1991: 21.

Neorhyssalus Baker, 1917: 286 (type species: *N. compositus* Baker, 1917); Shenefelt, 1975: 1188; Achterberg, 1991: 21.

TYPE SPECIES. *Clinocentrus umbratilis* Haliday, 1833.

NOTES. The genus *Clinocentrus* Haliday has already been recorded in the fauna of Korean Peninsula with six found here species, *C. caucasicus* Tobias, 1976, *C. cunctator* (Haliday, 1836), *C. excubitor* (Haliday, 1836), *C. exsertor* (Nees, 1811), *C. orientalis* Belokobylskij, 1995, and *C. umbratilis* Haliday, 1833 [Papp, 1992, 2003; Belokobylskij, 1998; Ku *et al.*, 2001]. Additional two species of this genus (including a new for science) are recorded for this territory in this paper.

Clinocentrus austrokoreanus Belokobylskij *et* Ku, sp.n.

Figs 1, 2.

TYPE MATERIAL. Holotype: ♀, “Korea: (GN) [= Gyeongsangnam-do], Doksan-ri, Naedong-myeon, Jinju-si, VI.4.2017 (sweeping), An Taeho” (NIBR). Paratypes: South Korea, [GN] same label as in holotype, 1 ♀, (SMNE); Gyeongsangnam-do [GN], Sancheong-gun, 30 km NNW Jinju (Chahwang-myeon, Mt. Hwangmae), forest, meadow, h = 800 m, 16.VI.2002 (S. Belokobylskij), 1 ♀ (ZISP).

DESCRIPTION. *Female*. Body length 2.5–2.8 mm; fore wing length 2.3–2.5 mm.

Head width (dorsal view) 1.7–1.8 times its median length, 1.3–1.4 times width of mesoscutum. Occipital carina dorsally complete and weakly curved forwards. Head behind eye (dorsal view) distinctly and weakly and curvedly narrowed; transverse diameter of eye 2.3–2.6 times length of temple. Ocelli weakly enlarged, arranged in triangle with base 1.0–1.1 times its sides; POL 0.7–1.0 times Od, 0.4–0.6 times OOL; Od 0.6–0.7 times OOL. Eye large, about 1.2 times higher than broad. Face weakly convex, its width 1.0–1.1 times height of face and clypeus combined, 0.6 times height of eye. Hypoclypeal depression enlarged, weakly oval, its width 2.0–2.2 times distance from edge of depression to eye, 0.6 times minimum width of face. Malar space usually less than 0.1 times height of eye, 0.2–0.3 times basal width of mandible. Head below eyes (front view) distinctly and almost linearly narrowed.

Antenna slender, filiform, 26-segmented. Scape relatively wide, 1.5 times longer than its maximum width, 1.3–1.4 times longer than pedicel. First flagellar segment 3.3–3.6 times longer than its apical width, 1.0–1.1 times longer than second flagellar segment. Penultimate segment 2.5–3.0 times longer than wide. Apical flagellomere acuminate.

Mesosoma 1.9–2.0 times longer than high. Neck of prothorax relatively long. Mesoscutum highly and subperpendicularly elevated above pronotum (lateral view), 0.9–1.0 times wider than its medial length (dorsal view). Prescutellar depression (scutal sulcus) relatively long (especially laterally), medially 0.25–0.30 times as long as scutellum, with only medial high carina, rugulose on remaining area. Scutellum flat. Precoxal sulcus distinct, relatively deep, narrow, crenulate, running along lower anterior 0.6 of mesopleuron. Metanotum without dorsal tooth (lateral view). Propodeum evenly convexly curved dorsally (lateral view), without lateral tubercles.

Wings. Fore wing 3.0–3.2 times longer than its maximum width. Radial vein (r) arising weakly before middle of pterostigma. Radial (marginal) cell not shortened; metacarp (1-R1) about 1.1 times longer than pterostigma. First radial abscissa (r) 0.7–1.0 times as long as maximum width of pterostigma. Second radial abscissa (3-SR) 2.3–2.8 times longer than first abscissa (r) and formed obtuse angle with it, 0.5–0.6 times as long as third radial abscissa (SR1), 1.5–1.9 times longer than first radiomedial vein (2-SR). Second radiomedial (submarginal) cell elongate, 2.5–2.7 times longer than its maximum width, 1.4–1.5 times as long as brachial (subdiscal) cell; brachial (subdiscal) cell distinctly widened distally. Recurrent vein (m-cu) almost straight, almost as long as first radiomedial vein (2-SR), 1.5–2.3 times longer than second abscissa of medial vein (2-SR+M). Nervulus (cu-a) straight, oblique, distinctly postfurcal, distance (1-CU1) between basal vein (1-M) and nervulus (cu-a) 2.0–2.2 times longer than nervulus (cu-a); first abscissa of cubital vein (1-CU1) 0.30–0.35 times its curved second abscissa (2-CU1). In hind wing, radial (marginal) cell subparallel in basal half and weakly widened in apical half. Radial vein (SR) arising from costal vein (2-SC+R) closely to



Fig. 1. *Clinocentrus austrokoreanus* sp.n., ♀, holotype. 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 — mesosoma and first tergite of metasoma, dorsal view; H — hind leg; I — propodeum and first tergite of metasoma, dorsal view.

Рис. 1. *Clinocentrus austrokoreanus* sp.n., ♀, голотип. А — общий вид сбоку; В — голова, вид спереди; С — голова, вид сверху; D — базальные сегменты антенны; Е — апикальные сегменты антенны; F — голова и мезосомы, вид сбоку; G — мезосомы и первый тергит метасомы, вид сверху; H — задняя нога; I — проподеум и первый тергит метасомы, вид сверху.



Fig. 2. *Clinocentrus austrokoreanus* sp.n., ♀, holotype. A — wings; B — hind wing; C — first tergite of metasoma, dorsal view; D — metasoma, dorsal view; E — metasoma, lateral view.

Рис. 2. *Clinocentrus austrokoreanus* sp.n., ♀, голотип. А — крылья; В — заднее крыло; С — первый тергит метасомы, вид сверху; D — метасома, вид сверху; E — метасома, вид сбоку.

basal vein (r-m). First abscissa of mediocubital vein (M+CU) 1.1–1.3 times longer than second abscissa (1-M). Recurrent vein (m-cu) present, short, antefurcal, strongly desclerotised.

Legs. Hind femur 6.0–6.8 times longer than wide. Hind tarsus slender, about as long as hind tibia. Hind basitarsus 0.7 times as long as second to fifth segments combined. Second segment of hind tarsus 0.45–0.50 times as long as basitarsus, 1.2–1.4 times longer than fifth segment (without pretarsus). Claw simple and small.

Metasoma. First tergite distinctly and weakly-curvedly widened towards apex, more distinctly widened basally; length of tergite 1.2–1.3 times its posterior width; posterior width 1.7–1.8 times its minimum anterior (basal) width. Basal area of first tergite rather wide and elongate, with single pointed break in medio-posteriorly 0.3. Medial length of second tergite almost equal to its basal width; 1.2–1.4 times length of third tergite. Suture between second and third tergites deep, curved or almost straight, crenulate. Ovipositor sheath 1.6–1.7 times longer than first tergite, about as long as second and third tergites combined, 0.7 times as long as hind tibia, about 0.25 times as long as fore wing.

Sculpture and pubescence. Head (including face) smooth. Mesoscutum mostly smooth, with reticulate-rugose narrow area on medio-posterior 0.4–0.5. Scutellum and mesopleuron smooth. Propodeum almost entirely rugulose-reticulate, fine reticulate anteriorly, with areas delineated by distinct carinae, with medial carina in basal 0.3; areola irregular shape, long and narrow. First and second metasomal tergites entirely densely striate with fine rugulosity between striae; third tergite in anterior 0.8 densely and curvedly striate with reticulation, its posterior 0.2–0.3 weakly coriaceous to smooth. Mesoscutum mostly glabrous, with dense and rather short pale setae along notauli, marginally and on medio-posterior area. Hind tibia in inner posterior margin with fringe of dense and long white setae; on dorsal margin with rather dense, semi-erect and medium length pale setae, length of setae 0.6–0.9 times maximum width of tibia.

Colour. Body mostly brownish yellow; first to third metasomal tergites faintly darker, with dark brown to almost black narrow margins on first and second tergites. Antenna mostly dark brown, its two basal antennomeres reddish brown. Palpi pale yellow. Legs yellow or brownish yellow, with pale trochanter and trochantellus. Wing hyaline; pterostigma yellow or pale yellow.

Male. Unknown.

ETYMOLOGY. Named from combination of Latin words: “austus” (south) and the country in which the species was collected (Korea).

HOST. Unknown.

COMPARATIVE DIAGNOSIS. This new species is very similar to Chinese *Clinocentrus pallidistigmus* Chen et He, 1997 from Fujian, Guangxi and Yunnan Provinces (Chen, He, 1997), but differs from latter in having the body size small, 2.5–2.8 mm, and pale brown or yellowish brown coloration (body larger, 4.5–5.2 mm, mostly dark brown, but head and mesosoma with yellow or reddish yellow areas in *C. pallidistigmus*), antenna 26-segmented (38–41-segmented in *C. pallidistigmus*), OD distinctly shorter than OOL (larger in *C. pallidistigmus*), precoxal sulcus running along lower anterior 0.6 of mesopleuron (present only medially in *C. pallidistigmus*), areola of propodeum present and delineated by carinae (absent, not delineated by carinae in *C. pallidistigmus*), brachial (subdiscal) cell of fore wing distinctly widened distally (not widened in *C. pallidistigmus*), and third metasomal tergite almost smooth in posterior 0.2 (with few fine transverse striae in *C. pallidistigmus*).

Genus *Darnilia* van Achterberg, 1989

Darnilia van Achterberg, 1989: 88; Chen, He, 1997: 67; Belokobylskij, 2000: 100; Yu *et al.*, 2016; Long, van Achterberg, 2018: 456.

TYPE SPECIES. *Darnilia flagellaris* van Achterberg, 1989.

NOTES. The genus *Darnilia* was firstly described from Indonesia (Sumatra) (van Achterberg, 1989). Second species, *D. chinensis* Chen et He, 1997, was already recorded from the Palaearctic China (Jiangsu Province) (Chen, He 1997). In the last review of Vietnamese species of this genus (Long, van Achterberg 2018) three new species of *Darnilia*, *D. granulata* Long et van Achterberg, 2018, *D. intermedia* Long et van Achterberg, 2018, and *D. vietnamica* Long et van Achterberg, 2018, were described from the fauna of Vietnam and a key to the five known species of this genus was provided.

The genus *Darnilia* with a new species is recorded in the fauna of the Korean Peninsula for the first time here.

Darnilia gimyonkwoni Belokobylskij et Ku, sp.n.

Figs 3, 4.

TYPE MATERIAL. Holotype: ♀, South Korea: “Korea (GB) Daehyeon-ri, Bukhu-myeon, Andong-si, VIII.17. 2015 (Light Trap), Kwon Gimyon” (NIBR).

DESCRIPTION. *Female.* Body length 7.5 mm; fore wing length 6.3 mm.

Head width (dorsal view) 2.2 times its median length. Occipital carina strong dorsally. Head behind eye (dorsal view) distinctly, curvedly anteriorly and linearly posteriorly, narrowed; transverse diameter of eye 2.3 times length of temple. Ocelli large, arranged in triangle with base 1.1 times its sides; POL about 0.5 times Od, 0.9–1.0 times OOL; Od 1.5 times OOL. Eye high, bean-shaped, 1.8 times higher than broad. Face weakly convex, its width 1.2 times height of face and clypeus combined, 0.6 times height of eye. Hypoclypeal depression circular, its width 1.5–1.6 times distance from edge of depression to eye, about 0.5 times minimum width of face. Malar space 0.15 times height of eye, 0.5 times basal width of mandible. Head below eyes (front view) distinctly linearly narrowed. Third and fourth segments of female maxillary palpus distinctly widened.

Antenna relatively slender, setiform, 68-segmented. Scape relatively short, 1.7 times longer than its maximum width. First flagellar segment 1.8 times longer than its apical width, 1.2 times longer than second flagellar segment. Penultimate segment about 1.5 times longer than wide. Apical segment acuminate and with distinct spine.

Mesosoma 1.5 times longer than high. Mesoscutum highly and curvedly elevated above pronotum (lateral view), about 0.9 times wider than its medial length (dorsal view). Prescutellar depression (scutal sulcus) long, about 0.4 times as long as scutellum, with three high carinae, partly almost smooth between carinae, but anteriorly weakly reticulate. Precoxal sulcus rather deep, relatively wide, short, oblique, narrowly crenulate. Metanotum without dorsal tooth (lateral view). Propodeum distinctly curvedly oblique posteriorly.

Wings. Fore wing 3.0 times longer than its maximum width. Radial vein (r) arising distinctly before middle of pterostigma. Radial (marginal) cell not shortened; metacarp (1-R1) 1.3 times longer than pterostigma. First radial abscissa (r) about as long as maximum width of pterostigma. Second radial abscissa (3-SR) 2.2 times longer than first abscissa (r) and formed obtuse angle with it, about 0.5 times as long as third radial abscissa (SR1), 1.5 times longer than first radio-

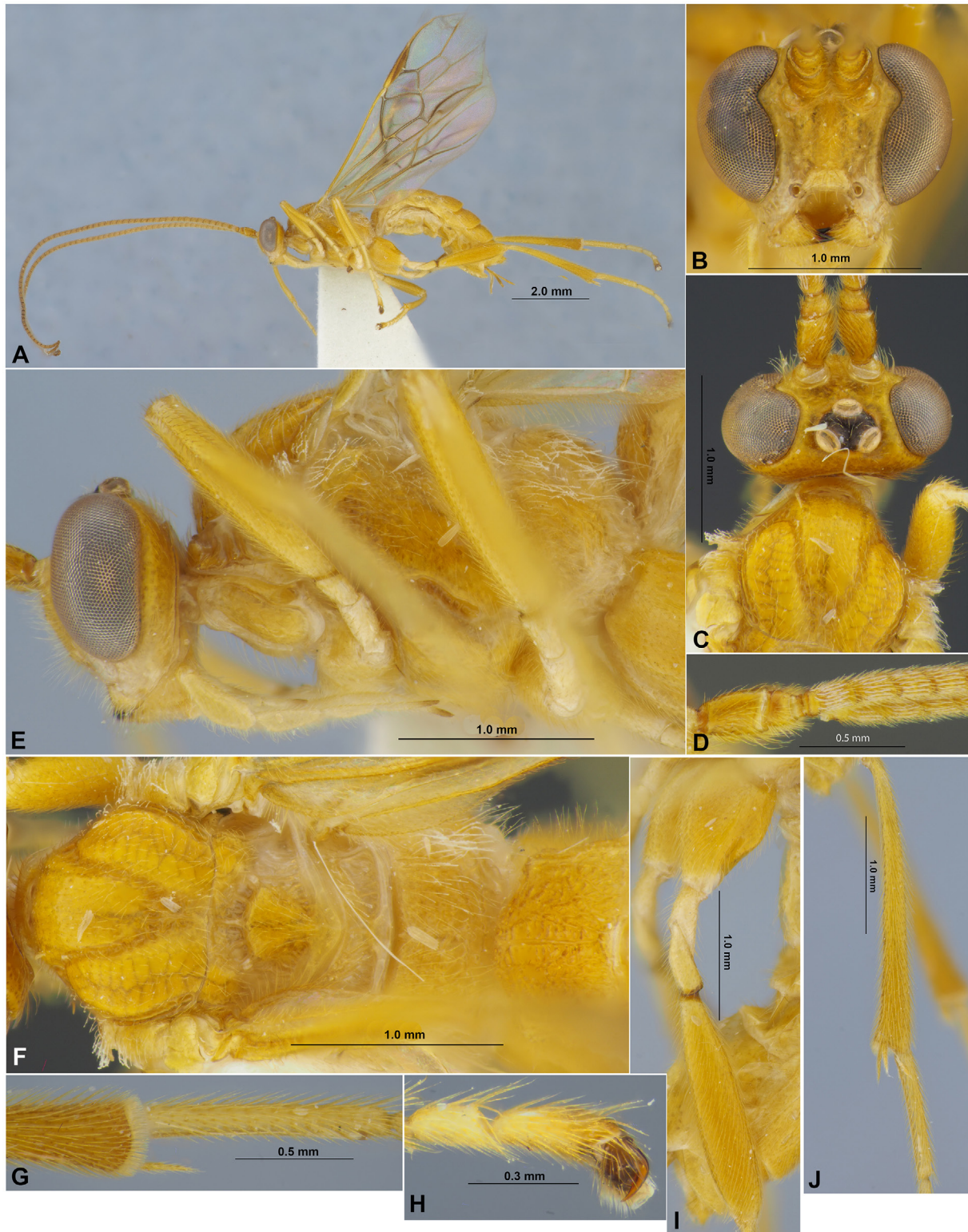


Fig. 3. *Darnilia gimyonkwoni* sp.n., ♀, holotype. A — habitus, lateral view; B — head, front view; C — head and mesoscutum, dorsal view; D — basal segments of antenna; E — head and mesosoma, lateral view; F — mesosoma, dorsal view; G — apical inner side of hind tibia and basitarsus; H — claw of hind leg; I — hind coxa and femur; J — hind tibia and basitarsus.

Рис. 3. *Darnilia gimyonkwoni* sp.n., ♀, голотип. А — общий вид сбоку; В — голова, вид спереди; С — голова и мезоскутум, вид сверху; D — базальные сегменты антенны; Е — голова и мезосома, вид сбоку; F — мезосома, вид сверху; G — вершинная внутренняя стороны задней голени и базитарсус; H — коготок задней ноги; I — задние тазик и бедро; J — задние голень и базитарсус.



Fig. 4. *Darnilia gimyonkwoni* sp.n., ♀, holotype. A — wings; B — metasoma, dorsal view; C — metasoma and ovipositor, lateral view.

Рис. 4. *Darnilia gimyonkwoni* sp.n., ♀, голотип. А — крылья; В — метасома, вид сверху; С — метасома и яйцеклад, вид сбоку.

medial vein (2-SR). Second radiomedial (submarginal) cell medium size, 2.4–2.5 times longer than its maximum width, 1.2–1.3 times longer than relatively narrow brachial (subdiscal) cell. Recurrent vein (m-cu) distinctly curved, 5.0 times longer than second abscissa of medial vein (2-SR+M). Nervulus (cu-a) almost straight, oblique, strongly postfurcal, distance (1-CU1) between basal vein (1-M) and nervulus (cu-a) almost equal to nervulus (cu-a) length; first abscissa of cubital vein (1-CU1) 0.3 times its second abscissa (2-CU1). In hind wing, radial (marginal) cell not or only weakly widened distally. Radial vein (SR) arising from costal vein (2-SC+R) very closely to basal vein (r-m); third abscissa of costal vein (2-SC+R) very short, subsquare. Nervulus (cu-a) distinctly curved in posterior half.

Legs. Hind femur 4.8 times longer than wide. Longest inner spur of hind tibia 0.3 times as long as hind basitarsus. Hind tarsus as long as hind tibia. Hind basitarsus 0.7 times as long as second to fifth segments combined. Second segment of hind tarsus 0.6 times as long as basitarsus, 1.5 times longer than fifth segment (without pretarsus).

Metasoma. First tergite distinctly widened in anterior quarter, then weakly and linearly widened towards apex; length of tergite equal to its posterior width. Basal area of first tergite narrow and rather long, with single pointed break medio-posteriorly. Medial length of second tergite 0.9 times its anterior width; 1.6 times medial length of third tergite; basal area of second tergite distinctly rugulose. Suture between second and third tergites deep and crenulate. Ovipositor sheath 0.8 times as long as hind basitarsus, 0.7 times as long as first tergite.

Sculpture and pubescence. Vertex smooth; frons distinctly reticulate; temple smooth; face distinctly and almost entirely rugose-reticulate. Mesoscutum, scutellum and mesopleuron smooth. Propodeum entirely distinctly rugulose-reticulate, without carinae and areas. First metasomal tergite entirely striate with additional dense rugosity; second to fourth tergites entirely densely striate with reticulation between striae; fifth tergites almost entirely densely punctate, with short basal striation.

Colour. Body entirely yellow. Antenna brown. Palpi pale yellow. Legs entirely brownish yellow. Wing hyaline; pterostigma brown to dark brown, pale basally; costal vein (C+SC+R) yellow.

Male. Unknown.

HOST. Unknown.

DISTRIBUTION. Korean Peninsula.

ETYMOLOGY. This species is named after the collector of the holotype of this species, Dr Gimyon Kwon.

COMPARATIVE DIAGNOSIS. This new species is most similar to *D. chinensis* Chen et al., 1997 from China (Jiangsu Province) [Chen, He, 1997; Belokobylskij, 2000; Long, van Achterberg, 2018], but distinctly differs from latter in having the vertex entirely smooth (weakly and transversely rugulose in *D. chinensis*), face entirely irregularly rugulose (only laterally transversely rugose in *D. chinensis*), malar space 0.5 times basal width of mandible and 0.15 times height of eye, (1.3 times basal width of mandibles and 0.35 times height of eye in *D. chinensis*), antenna with 68 segments (with 54 segments in *D. chinensis*), first flagellar segment 1.8 times longer than its apical width and penultimate segment about 1.5 times longer than wide (2.7 and 3.4 times respectively in *D. chinensis*), propodeum entirely distinctly rugulose-reticulate and without carinae (largely granulate with fine and weak median carina, posteriorly with some rugae in *D. chinensis*), second tergite of metasoma with narrow and rugulose basal area (without basal area in *D. chinensis*), and body large size, 7.5 mm (small size, 4.5 mm in *D. chinensis*).

New records of the braconid species in the fauna of the Korean Peninsula

Genus *Clinocentrus* Haliday, 1833

**Clinocentrus rhysipoloides* Belokobylskij, 1995

Clinocentrus rhysipoloides Belokobylskij, 1995: 826; 1998: 128; Yu et al., 2016; Belokobylskij et al., 2019: 327.

MATERIAL EXAMINED. South Korea: [JJ] Jeju-do, Jocheon-eup, Namjo-ro 2023, Gyorae Natural Recreation Forest, sweeping, 13.VII.2023 (S. Belokobylskij), 1 ♀ (NIBR).

HOST. Unknown.

DISTRIBUTION. *Korean Peninsula; Russia (south of Far East).

Genus *Heterogamus* Wesm. 1838

**Heterogamus excavatus* Telenga, 1941

Heterogamus excavatus Telenga, 1941: 132; Shenefelt, 1975: 1201; Tobias, 1986: 85; Chen, He, 1997: 51 (as *Aleiodes*); Belokobylskij, 2000: 23 (as subgenus of *Aleiodes*); Yu et al., 2016; Belokobylskij et al., 2019: 327.

Heterogamus (Jirunia) farmakena Maláč, 1941: 137; van Achterberg, 1985: 184.

MATERIAL EXAMINED. South Korea: [GB] Uljin-gun, Geumgangsong-myeon, Wangpi-ri, MT, 36°54'51.15" N, 129°14'32.79" E, 20.VI–18.VII.2017 (Hyung-Keun Lee), 1 ♂ (NIBR); Yeongcheon-si, Hwabuk-myeon, Jeonggak-ri, Bohyeonsan-Observatory, LT, 10–11.VII.1998 (Juhwan Son), 2 ♂♂ (SMNE, ZISP); same location and data, but (Sohyeon Kim), 1 ♂ (SMNE).

HOST. Unknown.

DISTRIBUTION. *Korean Peninsula; Europe, Georgia, Kazakhstan, Kyrgyzstan, Russia (European part, Far East), China, Vietnam.

**Heterogamus fasciatipennis* Ashmead, 1906

Heterogamus fasciatipennis Ashmead, 1906: 198; Shenefelt, 1975: 1201 (as synonym of *H. dispar*); van Achterberg, 1985: 186 (as valid name), Tenma, 1997: 810; Belokobylskij, 2000: 23; Yu et al., 2016; Belokobylskij et al., 2019: 327.

MATERIAL EXAMINED. South Korea: [GW] Gangwon-do, Taebaek-si, Taebaesan, MT, 11.VIII–15.X.1999 (Deokseo Ku), 2 ♀♀ (NIBR, SMNE).

HOST. Unknown.

DISTRIBUTION. *Korean Peninsula; Russia (south of Far East), Japan.

**Heterogamus tatianae* Telenga, 1941

Heterogamus tatianae Telenga, 1941: 135; Yu et al., 2016; Belokobylskij et al., 2019: 327.

Aleiodes (Heterogamus) tatianae: Belokobylskij, 2000: 23.

MATERIAL EXAMINED. South Korea: [CN] Gongju-si, Banpo-myeon, Hakbong-ri, Nature Learning Center, Mt. Gyeoryongsan, LT, 10–11.VII.1995 (Jungsuk Park), 1 ♀ (SMNE); [JB] Jeonbuk, Jinan, Jucheon, Mt. Unjang, LT, 12.VII.1998 (Deokseo Ku), 2 ♀♀ (NIBR, SMNE).

HOST. Unknown.

DISTRIBUTION. *Korean Peninsula; Russia (south of Far East).

Genus *Macrostomion* Szépligeti, 1900

**Macrostomion sumatranum* (Enderlein, 1920)

Pelecystoma sumatranum Enderlein, 1920: 147.

Macrostomion sumatranum: Watanabe, 1937: 47; Shenefelt, 1975: 1204; Belokobylskij, 2000: 100, Yu *et al.*, 2016.

MATERIAL EXAMINED. South Korea: [JJ] Jeju-si, Sanbuk-ro 593-40, near Temple Gwaneum, rest area (Livestock Research Institute), MT, 5.X–7.XII.2022 (Deokseo Ku, Jeongjun Ahn), 1 ♀, 1 ♂ (NIBR, ZISP); same label, but 1–24.IX.2022, 1 ♂ (SMNE); Jeju-si, Dongbok-ri, Gujoa-up, MT, 30.VII–12.VIII.2017, 1 ♀ (ZISP); Seongwipo-si, Daepo-dong, San2-1, Georinsaseum observatory, LT, 3.VIII.2022 (Deokseo Ku), 1 ♂ (SMNE); Gotjawal San 1, Mureung-ri, Daejeong-eup, Seogwipo-si, MT no 09, 1–15.X.2023 (Deokseo Ku, Muncheol Kwon), 6 ♀♀ (SMNE, ZISP); Sanghyo-dong 1479, Seogwipo-si, MT no 06, 15–30.IX.2023 (Deokseo Ku, Muncheol Kwon), 1 ♀ (SMNE); Woldeok-ro 291 – Wolhaengnamgil 175, Gujwa-eup, around a ranch forest, MT no 12, 15–30.IX.2023 (Deokseo Ku, Muncheol Kwon), 1 ♀, 1 ♂ (SMNE, ZISP); Gyorae Natural Recreation forest, Gyorae-ri, Joceneon-eup, MT no 11, 1–15.XI.2023 (Deokseo Ku, Muncheol Kwon), 1 ♂ (SMNE).

HOST. *Theretra silhetensis* (Walker, 1856) (Lepidoptera: Sphingidae).

DISTRIBUTION. *Korean Peninsula; China, Japan, Vietnam, Indonesia.

Genus *Yelicones* Cameron, 1887

**Yelicones glabromaculatus* Belokobylskij, 1993

Yelicones glabromaculatus Belokobylskij, 1993: 44; Quicke *et al.*, 1997: 791; Belokobylskij, 2000: 106; Yu *et al.*, 2016.

MATERIAL EXAMINED. South Korea: [GN] Sancheong-gun, Samjang-myeon, Daewonsa-gil (Yupyeong-ri), Daehosnang, LT, 25.VIII.2016 (Deokseo Ku), 1 ♀ (NIBR).

HOST. Unknown.

DISTRIBUTION. *Korean Peninsula; Japan, China (Taiwan), Vietnam.

Conclusion

According to previous published data, the following genera from the subfamily Rogadinae were already recorded in the fauna of the Korean Peninsula [Papp, 1985, 1989, 1992; Belokobylskij, 1998; Ku *et al.*, 2001; Yu *et al.*, 2016; Belokobylskij, Ku, 2023, 2025]: *Aleiodes* Wesmael, 1838, *Clinocentrus* Haliday, 1833, *Conobregma* van Achterberg, 1995, *Heterogamus* Wesmael, 1838, *Rogas* Nees, 1819, *Tebennotoma* Enderlein, 1912, *Triraphis* Ruthe, 1855, and *Yelicones* Cameron, 1887.

In this paper, two new rogadoine species, *Clinocentrus austrokoreanus* sp.n. (Clinocentrini) and *Darnilia gimyonkwoni* sp.n. (Rogadini), are described and illustrated as a new for science. In addition, the following species are recorded in the fauna of South Korea for the first time: *Clinocentrus rhytipoloides* Belokobylskij, *Heterogamus excavatus* Telenga, *H. fasciatipennis* Ashmead, *H. tatarianae* Telenga, *Macrostomion sumatranum* (Enderlein), and *Yelicones glabromaculatus* Belokobylskij. The genera *Darnilia* van Achterberg, 1989 and

Macrostomion Szépligeti, 1900 are found in the Korean Peninsula for the first time also.

Compliance with ethical standards

CONFLICT OF INTEREST: The authors declare that they have no conflict of interest.

Ethical approval: No ethical issues were raised during our research.

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