

The Subgenus *Exosyntretus* Belokobylskij of the Genus *Syntretus* (Hymenoptera: Braconidae: Euphorinae) from Korea

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한국산 *Syntretus*속 *Exosyntretus* Belokobylskij아속 (벌목: 고치벌과: 잎벌레고치벌아과)에 대한 보고

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ABSTRACT: Two species of the subgenus *Exosyntretus* (Hymenoptera: Braconidae: Euphorinae) in the genus *Syntretus* are reported from Korea in this study. Among them, *Syntretus* (*Exosyntretus*) *nevelskoi* Belokobylskij is new to Korea. The world checklist, diagnosis and distribution data are included.

Key words: Braconidae, Euphorinae, *Exosyntretus*, Hymenoptera, Korea, New record, *Syntretus*

조 록: 본 연구를 통해 한국산 *Syntretus*속의 *Exosyntretus*아속(벌목, 고치벌과)에 속하는 2종을 보고한다. 그 중 *Syntretus* (*Exosyntretus*) *nevelskoi* Belokobylskij은 국내 미기록종으로 보고한다. 전세계 기록종 목록, 식별형질과 분포 등의 정보를 포함하였다.

검색어: *Exosyntretus*아속, 미기록종, 잎벌레고치벌아과, 고치벌과, 벌목, 한국

The genus *Syntretus* Foerster of the subfamily Euphorinae contains two subgenera *Exosyntretus* Belokobylskij, 1998 and *Syntretus* Foerster, 1862 (Achterberg and Haeselbarth, 2003). The subgenus *Exosyntretus* Belokobylskij is distributed in Palaearctic (Achterberg and Haeselbarth, 2003) and Oriental (Papp, 2006) regions. The species of the genus *Syntretus* are small parasitic wasps, which attack hymenopterous adults such as parasitoid wasps and bees. Their biology has been studied by Cole (1959) and Alford (1968).

The subgenus *Exosyntretus* are known as only five species

in the world (Yu et al., 2012 and Papp, 2006). The species in Korea was studied by Papp (1992) and Ku et al. (2001). *Syntretus* (*Exosyntretus*) *elabsus* (Papp) was described from North Korea by Papp (1992), and then reported from South Korea by Ku et al. (2001). Two species of this subgenus from Korea are recognized in this paper, and among them, *Syntretus* (*Exosyntretus*) *nevelskoi* Belokobylskij, is the first record in Korea.

In this study, we describe its diagnostic characters, and also provide world checklist, distribution and host information. All examined materials are deposited in the Science Museum of Natural Enemies (SMNE), Geochang, Republic of Korea. Terminology used in this paper follows van Achterberg (1993).

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Systematic accounts

Family Braconidae Nees, 1811

Subfamily Euphorinae Foerster, 1862

Genus *Syntretus* Foerster, 1862

Syntretus Foerster, 1862: 251. Type species: *Microctonus vernalis* Wesmael, 1835.

Falcosyntretus Tobias, 1965: 843. (Syn. by Achterberg et Haeselbarth, 2003).

Parasyntretus Belokobylskij, 1993: 60. (Syn. by Achterberg et Haeselbarth, 2003).

Exosyntretus Belokobylskij, 1998: 12. (Syn. by Achterberg et Haeselbarth, 2003).

Subgenus *Exosyntretus* Belokobylskij, 1998

Exosyntretus Belokobylskij, 1998: 12. (Stat. rev. by Achterberg et Haeselbarth, 2003).

Type species: *Syntretus nevelskoi* Belokobylskij, 1996: 283.

Syntretus (Exosyntretus) elabsus (Papp, 1992)

Falcosyntretus elabsus Papp, 1992: 69. TL: Gaeseong, North Korea.

Exosyntretus elabsus: Belokobylskij, 1998: 14; Belokobylskij, 2000: 391; Ku et al., 2001: 114, Taebaek, South Korea; Ku, 2010: 181.

Syntretus (Exosyntretus) elabsus: Belokobylskij et al., 2012: 364.

Diagnosis: ♀. Body length 2.3-3.0 mm, antenna with 18 segments; 3rd antennal segment equal to or slightly longer than 4th one, propodeum with pointed anteriorly pentagonal areola and one longitudinal carina before it; claws large, ovipositor more or less curved and with subapical tooth dorsally, body yellow, veins and pterostigma yellow.

Material examined: Korea, 2 ♀ (SMNE): 1 ♀, Suwon, Gyeonggi, 15. VI. 1994, Deok-Seo Ku; 1 ♀, Forestry research station, Hongneung, Seoul, 3. X. 1998 (LT), Seung-Ho Gang.

Distribution: Korea, Japan, Russia (Primorski krai).

Host: Unknown.

Remarks: This species was first described from North Korea

by Papp (1992).

Syntretus (Exosyntretus) nevelskoi Belokobylskij, 1996 (Fig. 1)

Syntretus nevelskoi Belokobylskij, 1996: 283.

Exosyntretus nevelskoi: Belokobylskij, 1998: 14; Belokobylskij, 2000: 391.

Syntretus (Exosyntretus) nevelskoi: Belokobylskij et al., 2012: 364.

Diagnosis: ♀. Body length 1.6-1.8 mm, antenna with 15-16 segments; 3rd antennal segment 0.9 times as long as 4th one; propodeum with obtuse anteriorly pentagonal areola and two longitudinal carinae before it; claws small; ovipositor straight and without subapical tooth dorsally; body reddish brown, pterostigma brown medially, yellow basally and apically.

Material examined: Korea, 3 ♀ (SMNE): 1 ♀, Pyongji, Dongbu, Geoje, Gyeongnam, 4-5. VI. 1997 (LT), Deok-Seo Ku; 1 ♀, Forestry experimental station, Gwangneung, Gyeonggi, 27. VII. 1998 (LT), Yeong-Mi Park; 1 ♀, Seokbyeongsa, Hwacheon, Imgye, Jeongseon, Gangwondo, 2. VIII. 2002 (LT), D-S Ku.

Distribution: Korea, Russia (Khabarovsk krai, Primorski krai).

Host: Unknown.



Fig. 1. Female specimen of *Syntretus (Exosyntretus) nevelskoi* Belokobylskij, 1996.

Remarks: This species is recorded for the first time from Korea.

World Checklist of the Subgenus *Exosyntretus*, Belokobylskij, 1998

Syntretus (Exosyntretus) choui (Papp, 2006): Taiwan.

Syntretus (Exosyntretus) elabsus (Papp, 1992): Korea, Japan, Russia (Primorski krai).

Syntretus (Exosyntretus) minimus Achterberg et Haeselbarth, 2003: Germany.

Syntretus (Exosyntretus) nevelskoi Belokobylskij, 1996: Korea (new record), Russia (RFE).

Syntretus (Exosyntretus) shawi Achterberg et Haeselbarth, 2003: France.

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