# Revisiting Korean spider wasps (Hymenoptera: Pompilidae) recorded in Kim (1970)

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Kim (1970) was an early, comprehensive foundation for the taxonomy of Korean spider wasps. All the species therein are reviewed, and an annotated checklist comprising 21 species is presented. Species names are corrected in terms of current taxonomy. Based on the re-examination of voucher specimens, five misidentifications are rectified, of which two species rectified as *Priocnemis* (*Leptopriocnemis*) cyphonota and *P*. (*Umbripennis*) pseudojaponica are new to Korea. Also, occurrences of two species (*Anoplius eous* and *An. viaticus*) in Korea, which was doubted by Lelej et al. (1994), are confirmed. On the other hand, exclusions of two species (*Irenangelus perinx* and *Priocnemis mitakensis*) from the Korean fauna are proposed. However, the need for further study on six species (*Anoplius reflexus*, *An. infuscatus*, *Arachnospila eisukei* or *Ar. fumipennis eisukei*, *Auplopus obtusus*, *Priocnemis irritablis*) historically mentioned for the Korean fauna is newly recognized. The current taxonomic status of those species is briefly discussed.

Keywords: Ceropalinae, New record, Pepsinae, Pompilinae, rectification

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# INTRODUCTION

Kim (1970) was the first comprehensive taxonomic treatment of the Korean spider wasps (Hymenoptera: Pompilidae). It comprised 28 species belonging to 16 genera under 3 subfamilies, of which 11 species were explained with descriptions, and 17 species with both descriptions and illustrations based on voucher specimens. Particularly, Kim (1970) included five species that were recorded in Korea for the first time. Thus, his work should be considered an early foundation of the Pompilidae taxonomy in Korea, although subsequent researchers have paid little attention to it.

Herein, species in Kim (1970) are taxonomically reviewed, including re-examinations of the vouchers indicated by him. Almost all the names, except for two species, are corrected in terms of current taxonomy, and five misidentifications are rectified. Two species rectified as *Priocnemis* (*Leptopriocnemis*) cyphonota and *P*. (*Umbripennis*) pseudojaponica are added to the Korean fauna for the first time. Occurrences of the two species (*Anoplius eous* and *An. viaticus*) in Korea, which was doubted by Lelej *et al.* (1994), are confirmed. However, exclusions of the two species (*Irenangelus perinx* and *Priocnemis mitakensis*) from the Korean fauna are proposed. As a result, an annotated checklist comprising 21 species is presented.

On the other hand, the need for further study on the six species (*Anoplius reflexus*, *An. infuscatus*, *Arachnospila eisukei* or *Ar. fumipennis eisukei*, *Auplopus obtusus*, *Priocnemis irritablis*) historically mentioned for the Korean fauna is newly recognized. Current taxonomic states of those species are discussed for future researchers.

# **MATERIALS AND METHODS**

**Voucher specimens indicated by Kim (1970).** Each voucher specimen usually has three labels (upper three labels in Fig. 2C). The first label is for collecting information (collecting locality, date, and collector); second label is composed of two parts, "Hy. 44" representing Pompilidae in Kim (1970, p. 555) first appeared in all vouchers, and two numbers connected by a hyphen (the first number corresponding to the head number of species list appeared in Kim (1970, p. 555); probably second one the serial number of specimen sorted as being conspecific; it is interesting that the voucher specimens did not always receive the first number); third label, that are lost in some species, with both a hand drawn red dot or bar and hand written number probably indicating

voucher status of specimen. To clarify the voucher status, a white printed label stated as for example "in Kim (1970)/ *Dipogon secundus* Dalla Torre" is added to each of voucher specimens by the author (bottom label in Fig. 2C).

**Checklist format.** Valid name of each species is first appeared, and the name adopted by Kim (1970) is followed. If necessary, taxonomic notes are given. All taxa are alphabetically ordered.

Abbreviations. Korean provincial names are abbreviated as follows. CN - Chungcheongnam-do; CB - Chungcheongbuk-do; GB - Gyeongsangbuk-do; GG - Gyeonggi-do; GN - Gyeongsangnam-do; GW - Gangwon-do; JN - Jeollanamdo; JJ - Jeju-do; PN - Pyeongannam-do.

## RESULTS

### **Annotated Checklist**

Family Pompilidae Latreille, 1804 대모벌과 Subfamily Ceropalinae Radoszkowski, 1888 홈타기눈대모벌아과 Genus *Ceropales* Latreille, 1796 무늬대모벌속

# 1. Ceropales maculata maculata Fabricius, 1775 무늬대모벌

Ceropales maculatus Fabricius: Kim, 1970: 558, 806.

**Distribution.** Broadly distributed in Palearctic region; in the Far East, North Korea (PN), Russian Far East (Primorsky Territory, Khabarovsk Territory, Amur Region, Sakhalin, Kuril Islands: Iturup, Kunashir, Magadan Region, Chukotka, Yakutia, Trans-Baikal Territory, Buryatia, Irkutsk Region) and China (Heilongjiang, Jiangxi, Gansu, Sichuan).

**Notes.** Although a voucher specimen was not designated, the description in Kim (1970) matched well with this species. After Yasumatsu (1939) first recorded a female of this species in the North Korea (PN: Horangryeong), no additional specimen has been formally found from the Korean Peninsula.

Genus Irenangelus Schultz, 1906 가는배대모벌속(신칭)

2. Irenangelus hikosanus Wahis, 2007 노랑대모벌 Xanthampulex perinx Bingham: Kim, 1970: 568, Pl. 50, Fig. 664(우, Korea: JJ), 807, as new to Korea.

**Voucher specimen.** 2, Hy. 44, 28–3. Label for collecting data lost.

**Distribution.** Korea (CN, GN, JN, JJ), China (Sichuan), Japan (Honshu, Shikoku, Kyushu), and Taiwan.

**Notes.** Shimizu and Wahis (2007) corrected the earlier Far Eastern records of *Xanthampulex perinx*, and established *Irenangelus hikosana* including Korean materials. Unlike in KSAE and ESK (2021), it is likely that *Irenangelus pernix* is no longer an element of Korean fauna.

Subfamily Pepsinae Lepeletier de Saint Fargeau, 1845 배고랑대모벌아과

Genus Caliadurgus Pate, 1946 북방대모벌속 (신칭)

# 3. Caliadurgus ussuriensis (Gussakovskij, 1932) 북방대모벌

Priocnemis mitakensis Ishikawa: Kim, 1970: Pl. 55, Fig. 656 (♀, Korea: GN: Gayasan), 806, as new to Korea. Misidentification.

**Voucher specimen.** ♀, Mt. Gayasan, 1960.v.8/ Hy. 44, 27–6.

**Distribution.** Korea (GG, GN, JJ), China (Henan, Jiangxi, Zhejiang), Russian Far East (Primorsky Territory, Khabarovsk Territory, Amur Region, South Sakhalin, Kuril Islands: Kunashir), Japan (from Hokkaido in the north to Yakushima in the south), and Taiwan.

**Notes.** Kim (1970) was the only record for *Priocnemis mitakensis* in Korea, because later records of this species for the Korean fauna by Lelej *et al.* (1994) and Loktionov and Lelej (2014) were the mere citations of him. As this species is a misidentification of *Caliadurgus ussuriensis* as mentioned above, there has been no formally recognized Korean material of *P. mitakensis*. At present, it is reasonable that *P. matakensis* should be excluded from the Korean fauna although it is broadly found in surrounding areas of the Korean Peninsula.

*Caliadurgus ussuriensis* was first recorded in Korea by Lelej *et al.* (1994). In the Far East, the genus *Caliadurgus* are easily separated from the other Pepsinae genera by the following combination of characteristics. In both sexes, vertical anterior face of pronotum that are well demarcated from horizontal face (Fig. 1A, red arrow); in females, a long triangular rigid spine at the dorsoapical margin of fore tibia medially (Fig. 1B, black arrow); in males, whitish meso- and metatibial spurs. Females of this species is entirely black, with long and slender flagellomere 1 (5.2–6.3 × as long as broad).

Genus Cryptocheilus Panzer, 1806 다색무늬대모벌속(신칭)

# 4. Cryptocheilus (Adonta) manchurianus Yasumatsu, 1935 만주대모벌

*Cryptocheilus variegatus manchurianus* Yasumatsu: Kim, 1970: Pl. 91, Fig. 639, 805.



Fig. 1. Caliadurgus ussuriensis, Q. A, General habitus, in lateral view. B, Fore tibia. Scale bars: 1 mm.

**Distribution.** Korea (GG), Mongolia, China (Jiling), eastern Russia (Primorsky Territory, Amur Region, Trans-Baikal Territory, Irkutsk Region).

**Notes.** This species was established originally as a subspecies of *C. variegatus*, and elevated to species by Lelej (1986). Kim (1970) did not designate a Korean voucher of this species, but provided a redrawn line drawing of habitus identical to original one in Yasumatsu (1935a). Original description of this species was based on sole Manchurian specimen, thus the inclusion of this species in Kim (1970) was curious. The occurrence of this species in Korea was first reported by Lelej *et al.* (1994).

Genus *Eopompilus* Gussakovskij, 1932 빌로오드대모벌속

### 5. Eopompilus internalis (Matsumura, 1911) 빌로오드대모벌

- *Eopompilus internalis* Matsumura: Kim, 1970: Pl. 54, Fig. 649 (♀, Korea: GN: Gayasan), 808, as new to Korea.
- *Priocnemis bizonatus* Matsumura: Kim, 1970: Pl. 55, Fig. 661 (♀, Korea: GN: Gayasan), 806. Corrected by Kim, 2022.

**Voucher specimen.** ♀, Mt. Gayasan, 1960.viii.5, CW Kim/ Hy. 44, 13-2 (for *Eopompilus internalis*); ♀, Mt. Gayasan, 1960.viii.5, CW Kim / Hy. 44, 25-2 (for *Priocnemis bizonatus*).

**Distribution.** Korea (GW, GG, Incheon, CB, CN, GB, GN, Ulsan, JN), Russian Far East (Amur Region, Primorsky Territory, Khabarovsk Territory, Sakhalin, Kurils), Japan (from Hokkaido in the north to Tanegashima and Kuroshima in the south).

### 6. Eopompilus luteus Lelej, 1986 호랑대모벌

*Cryptocheilus nicevilli* Bingham: Kim, 1970: 557, Pl. 53, Fig. 638 (♀, Korea: Gyeonggi-do: Gwangleung), 806, as new to Korea. Corrected by Kim, 2022.

**Voucher specimen.** ♀, Gwangleung, Kim Won Jae (in Korean)/ Hy. 44, 2–1.

**Distribution.** Korea (Seoul, GG, Daegu, GN), China (Heilongjiang, Ningxia, Hebei, Henan), Russian Far East (Primorsky Territory).

Genus *Platydialepsis* Haupt, 1941 암수다른대모벌속(신칭)

### 7. Platydialepsis ryoheii (Ishikawa, 1957) 료헤이대모벌

Malloscelis ryoheii Ishikawa: Kim, 1970: 564, Pl. 55, Fig. 655 (♀, Korea: GN: Gayasan), 807, as new to Korea.

**Voucher specimen.** ♀, Mt. Gayasan, 1960.viii.5, CW Kim/ Hy. 44, 19–3.

**Distribution.** Korea (GN), Japan (Honshu, Kyushu, Shi-koku).

Notes. Shimizu (1994) was combined *Malloscelis ryoheii* to the genus *Platydialepsis*.

Genus Priocnemis Schiødte, 1837 먹대모벌속(신칭)

8. Priocnemis (Leptopriocnemis) cyphonota Pèrez, 1905 배꼭지먹대모벌(신칭)

*Dipogon secumdus* [!] Dalla Torre: Kim, 1970: 563, Pl. 54, Fig. 652 (♀, Korea: Mangwoldae), 806. Misidentification.

Voucher specimen. ♀, Mangwoldae [provincial name



**Fig. 2.** Priocnemis (Leptopriocnemis) cyphonota,  $\mathcal{P}(A-C)$  and *P.* (Umbripennis) pseudojaponica,  $\mathcal{P}(D, E)$ . A, General habitus, in dorsal view. B, Forewing. C, Labels (refer to materials and methods herein). D, General habitus, in lateral view. E, Head, in frontal view. Scale bars: 1 mm.

uncertain], 1956.x.7, Lee Gyeong No (in Korean)/ Hy. 44, 16-3.

**Distribution.** South Korea (new record), Russian Far East (Primorsky Territory, Kuril Islands: Kunashir), Japan (Hokkaido, Honshu, Kyushu).

**Notes.** This species is new to Korea. It is easily separated from other congeneric species in the Far East by the following combination of characteristics. In females, body length 7–12 mm, completely black; metasomal segment 1 shortly pedunculated (subgenus *Leptopriocnemis*) (Fig. 2A); hind tibia with setae in faces between protruding scale-like teeth; fore wing with two vertical dark bands (linear one along anterior veins of discoidal

cell 1and subdiscoidal cell; larger spot occupying marginal, submarginal cell 1, submarginal cell 2, and apical half of discoidal cell 2 and its outside) and round milkywhite preapical spot (Fig. 2B). In males, body length 6-10 mm, elongated, with long legs; metasomal tergum 1 1.4 × as long as broad, shortly pedunculated, with felt of dense light bristles; propodeum with dense, short recumbent pale setae; forewings slightly darkened, with one small dark spot at the base of the median vein, one large dark spot occupying the subapical part, and one faint preapical milky white spot; nervulus postfurcal.

Although this species is represented by above one female specimen from North Korea herein, of which multiple specimens in South Korea has been recognized (Kim, 2023, unpublished manuscript).

Currently accepted name of *Dipogon secundus* Dalla Torre stated by Kim (1970) is *Priocnemis* (*Umbripennis*) *atrophus* known to be endemic to Japan (Honshu, Shikoku, Kyushu).

### 9. Priocnemis (Umbripennis) pseudojaponica Lelej, 1988 긴더듬이먹대모벌(신칭)

Priocnemis irritabilis Smith: Kim, 1970: Pl. 55, Fig. 662 (♀, Korea: GG: Cheonmasan), 806. Misidentification.

**Voucher specimen.** ♀, Cheonmasan, 1962.v.25, Kim Won Jae (in Korean)/ second label lost.

**Distribution.** Korea (GG; new record), Russian Far East (Primorsky territory).

**Notes.** The voucher of *Priocnemis irritabilis* in Kim (1970) is *P.* (*Umbripennis*) *pseudojaponica* in that it has upper frons with distinct thyridii (Fig. 2E, red arrows), forewing medial vein faintly spotted, and long (longer than scape and pedicel combined) and slender flagellomere 1 (ca.  $5.0 \times$ as long as broad at base) (Fig. 2E).

The occurrence of P.(U.) irritablis in Korea is currently uncertain because the identity of Salius irritabilis in Okamoto (1924) and Uchida (1925) that was likely to be the base of *P. irritabilis* in Kim (1970) is still masked (also refer to Lelej *et al.*, 1994). At present, *P.*(*U.*) irritablis is known to be endemic to Japan (Shimizu and Terayama, 2016).

Subfamily Pompilinae Latreille, 1804 대모벌아과 Genus Agenoideus Ashmead, 1902 긴연문대모벌(신칭)

### **10.** Agenioideus (Agenoideus) ishikawai Shimizu, 1989 기이마조각대모벌

Dipogon constructor Smith: Kim, 1970: 562, Pl. 54, Fig. 651 (♂, Korea: GN: Gayasan), 806. Misidentification.

**Voucher specimen.** ♀, Gayasan, 1960.v.8/ Hy. 44, 15–2. **Distribution.** Korea (GG, GN, CN), China (Fujian), Japan (Honshu, Shikoku, Kyushu).

**Notes.** According to rectification above, the mere citation of "Kim, 1963: 353 (Korea); 1970: 806" in synonym list of Lelej *et al.* (1994) under the name of *Auplopus (Conagenia) constructor* was invalid. Instead, they discovered *A. (C.) constructor* for the first time in Korea (Lelej *et al.*, 1994, p. 140). Shimizu and Wahis (2009) first recorded *A. (A.) ishikawai* in Korea.

Genus Anoplius Dufour, 1834 배끝센털대모벌속(신칭)

## 11. Anoplius (Anoplius) eous Yasumatsu, 1936 별대모벌

Anoplius eous Yasumatsu: Kim, 1970: 559, Pl. 53, Fig.

644 (♀, Korea: GG: Icheon), 807.

**Voucher specimen.** ♀, Icheon, 1955.viii.15, CW Kim/ Hy. 44, 8–1.

**Distribution.** Korea (GG), Japan (Honshu, Kyushu), and Europe (France).

**Notes.** The occurrence of this species in Korea was doubted by Lelej *et al.* (1994), but confirmed herein. Therefore, Kim (1970) is the first record of this species in Korea, although not being stated.

In females, this species can be separated from congeners by the following combination of characteristics. Medium-sized species, body length 12.0–19.0 mm; fore tarsus without comb (subgenus *Anoplius* Dufour); pterostigma not enlarged, ca. half as high as r-rs, and slightly longer than r-rs; submarginal cell 3 trapezoidal in shape, its anterior veinlet (Rs4) at least  $0.3 \times as$  long as posterior one (Fig. 3B); flagellomere 1 lengthened,  $5.4–5.7 \times as$ long as broad (Fig. 3A); frons, vertex, propleuron, anterior coxa, mesopleuron, and metasomal tergum 1 anteriorly with comparatively dense setae.

### 12. Anoplius (Anoplius) pacificus Yasumatsu, 1943 대양주대모벌

Paracyphononyx alienus Smith: Kim, 1970: 560, Pl. 55, Fig. 656 (♀, Korea: GN: Gayasan), 807. Misidentification.

Anoplius pacificus Yasumatsu: Kim, 1970: 560, 808.

**Voucher specimen.** ♀, Gayasan, 1960.viii.5, CH Kim (second label lost).

**Distribution.** Korea (GG, GN), Japan (Hokkaido, Honshu, Kyushu).

**Notes.** *Paracyphonix alienus* is also a valid species. In Korea, it was known from Jeju-do (Lelej *et al.*, 1995).

Kim (1970) did not designate a voucher for *A. pacificus* above mentioned. Probably he cited Yasumatsu (1943) in which a paratype from Mt. Geumgang in North Korea was included.

# 13. Anoplius (Arachnophroctonus) reflexus (Smith, 1827) 홍허리대모벌

*Pompilus reflexus* Smith: Kim, 1970, 566, Pl. 55, Fig. 660 (♀, Korea: Incheon: Mueuido), 808 (as *A. reflectus* [!]).

**Voucher specimen.** ♀, Mueuido, 1957.vi.2, CW Kim/ Hy. 44, 24–3.

**Distribution.** Transpalearctic: North Africa, Europe to the Far East.

**Notes.** Uchida (1925) reported *Pompilus ruflexus* [!] in Korea. *P. reflexus* (=*A. reflexus*) was synonymized with *A. infuscatus* by Shimizu (1996). However, Shimizu and Terayama (2016) considered Japanese populations of *A.* 



**Fig. 3.** Anoplius (A.) eous,  $\mathfrak{P}(A, B)$  and A. (Arachnophroctonus) viaticus,  $\mathfrak{P}(C, D)$ . A. General habitus, in lateral view. B, Forewing. C, General habitus, in dorsal view. D, Fore tarsomere 1 with comb, in dorsal view. Scale bars: 1 mm.

*reflexus* was another valid species. Further examination of male genitalia and hypopygium is needed for definite identification of Korean population (the voucher herein is female). Thus, the adoption of the name of *A*.(*A*.) *reflexus* herein is tentative. In the latest checklist of Korean insects (KSAE and ESK, 2021), only *A*.(*A*.) *infuscatus* was included.

# 14. Anoplius (Arachnophroctonus) viaticus (Linnaeus, 1758) 노란배무늬대모벌(신칭)

Anoplius propinquus Smith: Kim, 1970: 560, Pl. 54, Fig. 647 (♀ [not ♂], Korea: Seoul: Gyonae), 808 (under a synonym of *A. fuscus*).

**Voucher specimen.** ♀, Gyonae (in Chinese character, maybe Korea University), 1956.iv.29, CW Kim/ Hy. 44. 11–7.

**Distribution.** Transpalearctic: North Africa, Europe to the Far East.

**Notes.** Voucher of Kim (1970) is female (not male), and of which left posterior half of mesosoma was seriously damaged as in Fig. 3C. Okamoto (1924) first recorded a female of *Pompilus propinquus* (=*A. viaticus*) in Korea (Jeju-do). The occurrence of this species in Korea was doubted by Lelej *et al.* (1994) and Loktionov and Lelej (2014), but confirmed herein.

In females, this species can be separated from congeners by the following combination of characteristics. Medium-sized species, body length 9.0–15.0 mm; fore tarsus with comb (subgenus *Arachnophroctonus* Howard) (Fig. 3D); posterior margin of pronotum low arcuate, not angulate medially; lager basal parts of metasomal terga 1–3 deep yellow (narrower posterior marginal part of each tergum not maculated as shown in Fig. 3C); often apical half of hind femur deep yellow (Fig. 3C).

Genus Cyphononyx Dahlbom, 1845 대모벌속

#### 15. Cyphononyx fulvognathus (Rohwer, 1911) 대모벌

*Cyphononyx dorsalis* Lepeletier: Kim, 1970: 562, Pl. 54, Fig. 650 (♀, Korea: GN: Gayasan), 807.

Crytocheilus flaves [!] Fabricius: Kim, 1970: 556, 805.

**Voucher specimen.** ♀, Gayasan, 1960.viii.5, Kim CH/ Hy. 44, 14–4.

**Distribution.** Korea (GN), Japan (Honshu, Shikoku, Kyushu, Ryukyus), South China and Taiwan.

**Notes.** Refer to Shimizu and Wahis (2004) for detailed validation of the name of *Cyphononyx fulvognathus* in eastern Asia. Matsumura and Uchida (1926) first recorded this species in Korea under the name of *Salius flavus*.

Genus Episyron Schiødte, 1837 허리무늬대모벌속

16. Episyron arrogans Smith, 1873 허리무늬대모벌

*Episyron arrogans* Smith: Kim, 1970: 558, Pl. 53, Fig. 642 (♀, Korea: GW: Hwacheon), 806.

Episyron capitosus Smith: Kim, 1970: 559, Pl. 53, Fig.

643 (A, Korea: Seoul: Ui-dong), as new to Korea. Corrected by Kim, 2023.

**Voucher specimens.** ♀, Hwacheon, 1967.vi.6, JI Kim/ Hy. 44, 6–6 (for *Episyron arrogans*); ♀, Uidong, 1960. vi.20, Jae/ Hy. 44, 7–3 (for *Episyron capitosus*).

**Distribution.** Transpalearctic: Europe to the Far East (Korea, Russian Far East, China, Japan); Oriental: Philippines.

Genus Lophopompilus Radoszkowski, 1887 왕무늬대모벌속(신칭)

**Notes.** The genus *Lophopompilus* was resurrected by Loktionov and Lelej (2014).

### 17. Lophopompilus samariensis (Pallas, 1771) 왕무늬대모벌

Anoplius samariensis Pallas: Kim, 1970: 561, Pl. 53, Fig. 648 a, b (♂, Korea: GW: Hwacheon; ♀, Korea: JJ), 808.

**Distribution.** Transpalearctic: North Africa, Europe to the Far East (Korea, Russian Far East, China, Japan). **Notes.** Earlier Korean records for this species were *Pom*-

*pilus atrocissimus* in Uchida (1925) and *Psammocharis* (*Anoplius*) *samariensis* in Yasumatsu (1935b). Voucher specimens are not examined, may be lost. Both description and illustrations in Kim (1970) were well matched with this species.

Genus Parabatozonus Yasumatsu, 1936 얼굴무늬대모벌속

**Notes.** Loktionov and Lelej (2014) synonymized the genus *Batozonellus* Arnold, 1937 with this genus. Herein, I apply their generic concept.

## 18. Parabatozonus annulatus (Smith, 1873) 황띠대모벌

Batozonellus annulatus Fabricius: Kim, 1970: 563, 807.

**Distribution.** Korea (JN), Japan; India, Taiwan, SE Asia. **Notes.** Although a voucher specimen was not indicated, description of Kim (1970) matched well with this species. *Pompilus unifasciatus* in Matsumura and Uchida (1926) seemed to be the first record of this species in Korea. Detailed synonymies of the old names related to this species were in Yasumatsu (1937).

# **19.** Parabatozonus jankowskii (Radoszkowski, 1887) 얼굴무늬대모벌

Parabotazonus hakodadi Dalla Torre: Kim, 1970: 563, Pl. 54, Fig. 654 (♀, Korea: GW: Taebaeksan), 564: Fig. 79, 807.

**Distribution.** Korea (GW), China (Beijing), Russian Far East (south of Primorsky Territory), Japan (Hokkaido, Honshu, Kyushu, Tsushima).

**Notes.** Uchida (1925) recorded *Pompilus fallacious* Matsumura, 1911 in Korea, and later the species synonymized with *P. hakodadi* Dalla Torre, 1897 by Yasumatsu (1936). *P. hakodadi* (replaced name for *Pompilus bilunatus* Smith, 1873) was synonymized with *Parabatozonus jankowskii* by Lelej and Yamane (1992: 107). Voucher specimen of this species is not examined, may be lost. Both description and illustration in Kim (1970) were well matched with this species.

# 20. Parabatozonus lacerticida (Pallas, 1771) 네눈대모벌

Poecilopompulus lacertieida [!] Pallas: Kim, 1970: 565, Pl. 55, Fig. 658 (♀, Korea: GW: Taebaeksan), 806 (listed as Poecilopompilus lacartieidus [!]).

**Voucher specimen.** ♀, Taebaeksan, 1961.viii.5, Kim Won Jae/ Hy. 44, 22–4.

**Distribution.** Transpalearctic: North Africa, Western Europe, Central Asia, Russia, Northeast China, Korea (Seoul, GW), Japan (Hokkaido, Honshu).

**Notes.** Yasumatsu (1937) first recorded this species in Korea under the name of *Batozonus laceticida*.

### 21. Parabatozonus maculifrons (Smith, 1873) 쌍는대모벌

*Poecilopompulus* [!] *bioculatus* Bingham: Kim, 1970: 565, 807.

**Distribution.** Korea (JJ), China, Japan; Taiwan, India, SE Asia; Australia.

**Notes.** Detailed synonymies of this species were in Yasumatsu (1937). Kim (1970, p. 807) doubted the occurrence of this species in Korea, but Lelej *et al.* (1995) discovered it in Jeju-do, Korea.

"Poecilopompilus bioculata Bingham: Kim, 1970: 565, 807" was erroneously included in the synonym list of *Eopompilus internalis* in Kim (2022).

# DISCUSSION

Despite its taxonomic value for Pompilidae taxonomy in Korea as stated in the introduction, Kim (1970) has received little attention to by subsequent researchers. Just a handful of species were cited in Lelej *et al.* (1994), Shimizu and Wahis (2007), and most recently Kim (2022; 2023). I hope that the revised checklist herein can provide useful information for future researchers of Korean spider

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wasps.

It is reasonable that *Irenangelus perinx* and *Priocnemis matakensis* be excluded from the Korean fauna. The former was known to be the Oriental species (Shimizu and Wahis, 2007), and the latter in Kim (1970) probably sole record for the Korean fauna was a misidentification of *Caliadurgus ussuriensis*. However, further study on *Priocnemis* (*Umbripennis*) *irritablis*, *Anoplius* (*Arachnophroctonus*) *reflexus* and *A*. (*A*.) *infuscatus* in the Korean fauna is needed (refer to notes of each species).

Also, the occurrences of the following three species in Korea remain unclear. They were included in Kim (1970) without designation of voucher specimens, and I have failed to detect any additional Korean treatments of them. Considering currently known distributional ranges, it is likely that their inclusions in Kim (1970) were groundless.

# Anoplius nigerrimus (Scopoli, 1763) in Kim, 1970: 560, 808

This species is known to be found broadly in northern Eurasia and North America (Loktionov and Lelej, 2014; 2017). The occurrence of this species in Korea and Japan was, however, doubted by Lelej *et al.* (1994) and Shimizu and Terayama (2016).

#### Auplopus obtusa Pérez, 1905 in Kim, 1970: 557, 806

Valid specific epithet is *obtusus*. The short and general description in Kim (1970) was of no value for species identification. However, body length stated as ca. 19 mm in his description was noticeable, as such a large *Auplopus* species has not been known in the Far East. *A. yasumatsui* was known to be at most as long as 15 mm in body length (Loktionov and Lelej, 2014).

### Pompilus herbigradus Bingham in Kim, 1970: 566, 808

This species was combined with the genus *Anoplius* by Wahis (2018: 9). In the Far East, this species was first reported by Kobayashi (1931) as *Psammochares herbignadus* [!] in Kuril Islands (Russia). However, this species is currently treated as *Arachnospila* (*Arachnospila*) *eisukei* (Ishikawa, 1969) in Russian Far East (Southern Sakhalin, Kuril Islands) (Loktionov and Lelej, 2014) or *A*. (*A.*) *fummipenis eisukei* (Ishikawa, 1969) in Japan (Shimizu and Terayama, 2016), yet has not been found in Korea.

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