

A checklist of Trichoptera (Insecta) of the Korean Peninsula

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A revised checklist of Korean Trichoptera is provided for the species recorded from the Korean Peninsula, including both North and South Korea. The checklist includes bibliographic research as well as results after reexamination of some specimens. For each species, we provide the taxonomic literature that examined Korean Trichoptera materials or mentioned significant taxonomic treatments regarding to Korean species. We also provide the records of unnamed species based on larval identification for further study. Based on taxonomic considerations, 20 species among the previously known nominal species in Korea are deleted or synonymized, and three species omitted from the previous lists, *Hydropsyche athene* Malicky and Chantaramongkol, 2000, *H. simulata* Mosely, 1942 and *Helicopsyche coreana* Mey, 1991 are newly added to the checklist. *Hydropsyche formosana* Ulmer, 1911 is recorded from the Korean Peninsula for the first time by the identification of *Hydropsyche* KD. In addition, we recognized 14 species of larvae separated with only tentative alphabetic designations. As a result, this new Korean Trichoptera checklist includes 218 currently recognized species in 66 genera and 25 families from the Korean Peninsula.

Keywords: caddisflies, catalogue, history, North Korea, South Korea

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INTRODUCTION

Trichoptera is the seventh-largest order among Insecta, with more than 16,000 extant species (Morse *et al.*, 2019). This order also has more species than the total combined with other primarily aquatic insect orders (Ephemeroptera, Odonata, Plecoptera and Megaloptera) (Holzenthal *et al.*, 2007; Morse *et al.*, 2019). The adults of this holometabolous order are mainly aerial, terrestrial and nocturnal, but their eggs, larvae and pupae mostly live in freshwater. The larvae have a very unique character of producing silk, and attaching various materials from the aquatic environment using the silk to build multiple types of cases and retreats. Trichoptera is an essential component of the aquatic ecosystem because they have been adapted to the most aquatic habitats and contribute to the transfer of energy and nutrients through the trophic levels of all freshwater ecosystems (Wiggins, 1996).

Taxonomic studies on Trichoptera from the Korean Peninsula (Korea) have been intermittently conducted since the 1920s. From the 1920s to the 1950s, all the Korean Trichoptera records were done by a few Japanese scientists. After that time until the early 1990s, most taxonomic studies were performed by a few European taxonomists, using materials from the Korean People's

Democratic Republic (North Korea). Since the mid 1970s, several scientists within the Republic of Korea (South Korea) have studied Trichoptera. Despite the various research materials, the knowledge about Trichoptera fauna in Korea is still insufficient because of sporadic and unsustained studies. In addition, some species were recorded only based on their larval stage by reference to mostly Japanese literature, and research on larva-adult associations using Korean materials is lacking.

Several checklists of Korean caddisflies have been published by some North and South Korean entomologists (Cho, 1955; Ju, 1969; Yoon and Kim, 1994; Park and Bae, 1998b; Cho, 2003; Choi and Ko, 2006; Hwang, 2010; Jung *et al.*, 2011). Recently, the National Institute of Biological Resources (Incheon, South Korea) published checklists of Korean insects including caddisflies, based on the registered species in the National List of Species of Korea (Hwang, 2012; Ahn *et al.*, 2013; Park *et al.*, 2019). However, the list overlooked some records of Korean Trichoptera species and taxonomic treatments such as synonymy. Therefore, a revised checklist of Korean Trichoptera based on scientific and taxonomic consideration is required in Korea.

In this study, we provide an amended checklist of Korean Trichoptera based on not only bibliographic surveys

but also the reexamination of some specimens. We list the species included in taxonomic publications concerned with Korean Trichoptera, but exclude some publications which provided only “Korea” as a distribution area, bibliographic checklists or illustration books. The records solely based on the larval stage without any descriptions or illustrations are also excluded, but some publications including important information of Korean fauna are mentioned. There are many records of unnamed species separated with or without only tentative alphabetic designations in Korea. We provide their information for the future study.

In the checklist, we followed Morse *et al.* (2019) and Thomas *et al.* (2020) for the higher classification, and subfamilies, genera and species are arranged alphabetically in each family. The recorded country (North or South Korea), provincial localities, sex or stage, and Korean name of each species are provided. In case of giving new Korean names or correcting former Korean names, we put an asterisk beside the Korean name. The abbreviations used in this list are as follows: N (North Korea) and S (South Korea) for countries; CB (Chungcheongbuk-do), CN (Chungcheongnam-do), GB (Gyeongsangbuk-do), GG (Gyeonggi-do), GN (Gyeongsangnam-do), GW (Gangwon-do), HGB (Hamgyeongbuk-do), HGN (Hamgyeongnam-do), HHB (Hwanghaebuk-do), HHN (Hwanghaenam-do), JB (Jeollabuk-do), JJ (Jeju-do), JN (Jeollanam-do), NGW (Gangwon-do in North Korea), PB (Pyeongannbuk-do), PN (Pyeongannam-do), PY (Pyeongyang), RG (Rygang-do) and SL (Seoul) for provinces; A (adult), M (male adult), F (female adult), P (pupa) and L (larva) for sex or stage.

RESULTS AND DISCUSSION

In North Korean checklists (Ju, 1969; Lee and Kim, 1993; Choi and Ko, 2006; Ahn *et al.*, 2013), we found the records of *Himalopsyche japonica* (Morton, 1900) (Rhyacophilidae), *Semblis melaleuca* (McLachlan, 1871) (Phryganeidae), *Uenoa tokunagai* Iwata, 1927 (Uenoidae) and *Perissoneura paradoxa* McLachlan, 1871 (Odontoceridae). They were based on the larval identification from North Korea and did not include any detailed information. We did not include these species even at the generic level although these genera, unknown from Korea at present, may be found in the future.

The following species have been removed from the previously known Korean Trichoptera due to misidentifications, synonyms or taxonomic problems mentioned in remarks for each species: *Arctopsyche spinifera* Ulmer, 1907, *Hydropsyche setensis* Iwata, 1927 (Hydropsychidae); *Stenopsyche griseipennis* McLachlan, 1866

(Stenopsychidae); *Stactobia makartschenkoi* Botosaneanu and Levanidova, 1988 (Hydroptilidae); *Glossosoma boltoni* Curtis, 1834 (Glossosomatidae); *Rhyacophila hokkaidensis* Iwata, 1927, *R. nigrocephala* Iwata, 1927 (Rhyacophilidae); *Agrypnia pagetana* Curtis, 1835, *Semblis melaleuca* (McLachlan, 1871) (Phryganeidae); *Lepidostoma ebenacanthus* (Ito, 1992), *L. japonicum* (Tsuda, 1936) (Lepidostomatidae); *Goera pilosa* (Fabricius, 1775) (Goeridae); *Dicosmoecus obscuripennis* Banks, 1938 (Limnephilidae); and *Psilotreta kisoensis* Iwata, 1928 (Odontoceridae). Three species, *Stenopsyche sauteri* Ulmer, 1907 (Stenopsychidae); *Glossosoma intermedium* (Klapálek, 1892) (Glossosomatidae); and *Oligotricha fulvipes* Matsumura, 1904 (Phryganeidae), which appeared in some illustration books or checklists (Esaki *et al.*, 1938; Kuwayama, 1949; Takeuchi, 1955; Hwang, 2012; Yang *et al.*, 2016) are also removed because there have not been any Korean records for them. On the other hand, *Hydropsyche athene* Malicky and Chantaramongkol, 2000, *H. simulata* Mosely, 1942 (Hydropsychidae); and *Helicopsyche coreana* Mey, 1991 (Helicopsychidae), which were omitted from the previous checklists are added to this list, and *Hydropsyche formosana* Ulmer, 1911 (Hydropsychidae) is recorded from the Korean Peninsula for the first time by the identification of *Hydropsyche* KD.

Additionally, we recognized 14 unnamed species separated with only tentative alphabetic designations as follows: *Hydropsyche* KD as *Hydropsyche formosana* Ulmer, 1911, *Hydropsyche* KF and *Hydropsyche* KUB as *Hydropsyche kozhantschikovi* Martynov, 1924 (Hydropsychidae); *Apsilochorema* KUa as *Apsilochorema sutshanum* Martynov, 1934 (Hydrobiosidae); *Rhyacophila* sp. KA as *Rhyacophila lata* Martynov, 1918, *Rhyacophila* sp. KB as *Rhyacophila narvae* Navás, 1926, *Rhyacophila* sp. RC as *Rhyacophila retracta* Martynov, 1914, *Rhyacophila* sp. RE as *Rhyacophila shikotsuensis* Iwata, 1927 (Rhyacophilidae); *Oligotricha* sp. as *Oligotricha lapponica* (Hagen, 1864), *Neuronina* sp. KA as *Semblis phalaenoides* (Linnaeus, 1758) (Phryganeidae); *Neophylax* sp. KA as *Neophylax ussuriensis* (Martynov, 1914) (Uenoidae); *Asynarchus* KUa as *Asynarchus amurenensis* (Ulmer, 1905) (Limnephilidae); *Leptocerus* sp. KD as *Ceraclea shuotsuensis* (Tsuda, 1942) (Leptoceridae); and *Gumaga* KUa as *Gumaga orientalis* (Martynov, 1935) (Sericostomatidae). In addition, we listed many unnamed 'species' separated by the larval morphology.

As a result, 218 nominal species belonging to 66 genera and 25 families were recognized in this study, but 12 species of them were recorded only based on larval identifications. Further study on Korean caddisfly fauna, especially faunistic studies based on adult materials and the larval and adult association, are required.

Checklist of Trichoptera of the Korean Peninsula

Order Trichoptera Kirby, 1813 날도래목
Suborder Annulipalpia Martynov, 1924 환상수아목

Family Hydropsychidae Curtis, 1835 줄날도래과
Subfamily Arctopsychinae Martynov, 1924
곰줄날도래아과*
Genus *Arctopsyche* McLachlan, 1868 곰줄날도래속

1. *Arctopsyche ladogensis* (Kolenati, 1859) 곰줄날도래
Aphelocheira ladogensis Kolenati, 1859, Gen Spec
Trich 2, 145, 147, 165, 183, 201, pl 1 f 4.
Arctopsyche ladogensis (Kolenati, 1859): Yoon and Kim
1988, 460–461, f 11, S (GG, GW), L.

Remarks. This species was recorded solely based on larval specimens by Yoon and Kim (1988). Their descriptions and illustrations mostly agree with those provided by Lepneva (1964) and Ruiter *et al.* (2013), but the adult has not been reported from Korea.

2. *Arctopsyche palpata* Martynov, 1934 수염곰줄날도래
Arctopsyche palpata Martynov, 1934, Tabl analyt Faune
URSS 13, 251–252, 339, f 182a–c; Botosaneanu
1970, 296, N (HGB, PB), M, F; Kobayashi 1989, 2–3,
S (GN), M; Malicky 1993, 14, N (PB), M; Lee and
Kim 1993, 265, N (RG), L; Choe and Woo 1998, 74, S
(JN), M; Hwang 2006, 54–55, f 121–125, S (GN, GW,
JN), M, F; Oláh *et al.* 2018, 109, N (PB), M.

Arctopsyche sp.

Arctopsyche spinifera Ulmer, 1907: Doi 1932 (as *A. spinigera*), 74, N (HGN), A. **Misidentification.**

Remarks. Doi (1932), a Japanese entomologist, must have used Matsumura (1931) for reference because Matsumura (1931) also used the same misspelling, *A. spinigera*. Matsumura (1931) provided the general and simple morphological characters of this Japanese species, and we believe it is not appropriate for Korean materials to be identified based on Matsumura (1931).

Genus *Parapsyche* Betten, 1934 흰알락줄날도래속*

3. *Parapsyche maculata* Ulmer, 1907 점박이날도래
Arctopsyche maculata Ulmer, 1907, Cat Coll Selys 6, 1,
71–72, f 112–113, pl 4 f 18; Doi 1932, 74, N (HGN), A.

Remarks. Doi (1932) recorded this species, originally described from Japan, probably based on the characteristic markings of adult fore wings. However, this character is not reliable to identify the species in this genus even in Japan (Nozaki, 2016). Although we tentatively

use the name, *P. maculata*, further study of Korean species of the genus *Parapsyche* is required.

Subfamily Diplectroninae Ulmer, 1951
산골줄날도래아과*
Genus *Diplectrona* Westwood, 1840 산골줄날도래속

4. *Diplectrona kibuneana* Tsuda, 1940 산골줄날도래
Diplectrona kibuneana Tsuda, 1940a, Annot zool Jap 19,
24–25, 33, f 1–2; Park *et al.* 2017, 6, f 4C–D, S (GB,
GN), M, F.
Diplectrona KUa: Yoon and Kim 1988, 462, f 12, S (CN,
GN), L. Associated with this species by Park *et al.*
(2017).
Potamyia czekanovskii (Martynov, 1910): Hwang 2006,
67–68, f 161–165, S (GW), M. **Misidentification.**

Remarks. The photographs of wings and genitalia as *P. czekanovskii* in Hwang (2006) apparently show that his male specimens belong to *D. kibuneana*. The genitalic morphology of *D. kibuneana* was provided by Park *et al.* (2017).

Subfamily Hydropsychinae Curtis, 1835 줄날도래아과
Genus *Cheumatopsyche* Wallengren, 1891
꼬마줄날도래속

5. *Cheumatopsyche albofasciata* (McLachlan, 1872)

흰띠꼬마줄날도래
Hydropsyche albofasciata McLachlan, 1872a, Ann Soc
Ent Belg 15, 68, pl 2 f 6–6b.
Cheumatopsyche albofasciata (McLachlan, 1872): Mey
1989, 302, N (PB), M; Kumanski 1992, 66–67, f 48–
51, N (PB, PY), M, F; Hwang and Yoon 1996, 9, f 4,
8g–h, S (CN, GG), M, F; Choe and Woo 1998, 74, S
(JN), M; Hwang 2006, 63–64, f 146–150, S (CB, GG,
GW), M, F.

6. *Cheumatopsyche brevilineata* (Iwata, 1927)

꼬마줄날도래
Hydropsyche brevilineata Iwata, 1927a, Zoo Mag 39,
222–223, 226–227, f B–c; Kim 1974, 14, f 38 (as *Hy-*
dropsychodes), S (GB, GG, GW), L.
Cheumatopsyche brevilineata (Iwata, 1927): Yoon and
Kim 1988, 470–471, f 19, S (GB, GG, GN, GW, JJ,
JN), L.

Remarks. Kim (1974) and Yoon and Kim (1988) recorded this species based on larval characters, especially a median notch of the frontoclypeal apotome, but the larvae of *C. infascia* and *C. tanidai* have similar characters (Hayashi, 1998; Tanida, 2018). Specimens identified as this species in the previous records need to be reexamined. Although no adults of the species have been re-

corded from Korea, adults of this species were collected from Far East Russia (Oláh *et al.*, 2008).

7. *Cheumatopsyche infascia* Martynov, 1934

물결꼬마줄날도래

Cheumatopsyche infascia Martynov, 1934, Tabl analyt Faune URSS 13, 283–284, 341, f 205a–c; Botosaneanu 1970, 297, pl 20 f 1, N (NGW, PB), M; Kobayashi 1989, 3, S (GN), F; Mey 1989, 302, N (PB), M, F; Kumanski 1992, 66, N (HHB, HHN, NGW, PN, PY), M, F; Hwang and Yoon 1996, 9, f 5, 8i–j, S (CB, CN, GG, GW), M, F; Hwang 2006, 64–65, f 151–155, S (CB, CN, GB, GG, GW, JN), M, F; Oláh *et al.* 2018, 109–110, N (PB), M.

8. *Cheumatopsyche tanidai* Oláh and Johanson, 2008

타니다꼬마줄날도래

Cheumatopsyche tanidai Oláh and Johanson, 2008, Zootaxa 1802, 184–185, f 303–306; Park *et al.* 2017, 5–6, f 4B, S (GB, GN), M, F; Oláh *et al.* 2018, 110, S (JJ), M.

Cheumatopsyche KUa 꼬마줄날도래 KUa

Cheumatopsyche KUa: Yoon and Kim 1988, 471, f 20, S (GB), L.

Cheumatopsyche sp.

Cheumatopsyche sp.: Malicky 1993, 14, N (PB), F.

Genus *Hydropsyche* Pictet, 1834 줄날도래속

9. *Hydropsyche athene*

Malicky and Chantaramongkol, 2000

호리줄날도래*

Hydropsyche athene Malicky and Chantaramongkol, 2000, Linzer biol Beitr 32(2), 820, pl 32; Oláh and Johanson 2008, 90, f 132–135, N (RG), M.

Material examined. South Korea: CN, Geumsan-gun, 36°3'22.58"N 127°36'4.08"E, alt. 183 m; 24 ix 2016; 3 males; col. K.-S. Jung.

Remarks. Oláh and Johanson (2008) mentioned that the genitalic morphology of their single male from North Korea is somewhat different from that of the original description. They pointed out that their single material may belong to a new species. However, we recognized this species based on the examination of three males collected from South Korea for the first time.

10. *Hydropsyche dolosa* Banks, 1939 날쨌줄날도래

Hydropsyche dolosa Banks, 1939, Bull Mus Comp Zool Harvard 85, 489, pl 9 f 93, 101, 105–106; Kumanski 1992, 65–66, N (PY), M, F.

Remarks. This species was synonymized with *Hydropsy-*

che formosana Ulmer, 1911 by Mey (1999b), but treated as a distinct species by Malicky and Chantaramongkol (2000) and Yang *et al.* (2016).

11. *Hydropsyche formosana* Ulmer, 1911 두줄날도래*

Hydropsyche formosana Ulmer, 1911, D ent Z, 397–398, pl 4 f 4–6.

Hydropsyche KD: Kim 1974, 12–13, f 35, S (CB, GG, GW, JB), L; Yoon and Kim 1988, 464–465, f 13, S (CN, GG), L.

Remarks. The characters of *Hydropsyche* KD from Korea are identical to those of *H. formosana* described by Zhou (2007), and COI gene comparison by Park (unpublished data) supports this conclusion.

12. *Hydropsyche kozhantschikovi* Martynov, 1924

줄날도래

Hydropsyche kozhantschikovi Martynov, 1924a, Jb Martynov Mus 2, 63, 70, 75, 80, 87–88, f 1a–c; Oláh 1985, 137, N (HHN), M; Kobayashi 1989, 3, S (GW), M; Kumanski 1992, 66, N (HHB, HHN, NGW, PB, PY), M, F; Hwang and Yoon 1996, 8, f 1, 8a–b, S (CB, CN, GG, GW), M, F; Hur *et al.* 2000b, 58–59, f 1–5, S (GG), M, P, L; Hwang 2006, 59–60, f 131–135, S (CB, CN, GG, GW), M, F; Oláh and Johanson 2008, 128, N (HGB, HHN, PY), M; Oláh *et al.* 2018, 110, N (PB), S (GW), M.

Hydropsyche kawamurai Tsuda, 1940a, 27–28, 33, f 3–4, N (HGB), M, F; Tsuda 1942a, 230–231, N (HGB, RG), M, F. Synonymized by Oláh and Johanson (2008).

Hydropsyche sp. KA: Kim 1974, 11, f 30–31, S (CB, GB, GG, GW), L. Associated by Hur *et al.* 2000b.

Hydropsyche KUa: Yoon and Kim 1988, 465–466, f 14, S (GB, GW), L. Associated by Hur *et al.* 2000b.

Hydropsyche sp. KF: Kim 1974, 13–14, f 37, L.

Hydropsyche KUb: Yoon and Kim 1988, 466–467, f 15, S (CB, CN, GB, GG, GW, JN), L.

Remarks. Hur *et al.* (2000b) pointed out that larval head markings of *H. kozhantschikovi* are variable, and they recognized both *Hydropsyche* sp. KA and KUa as the larval stage of this species. Furthermore, they suggested a possibility that *Hydropsyche* KUb also belongs to this species. In our field studies, *Hydropsyche* sp. KA, sp. KF and *Hydropsyche* KUa, KUb were often found with intermediate forms at the same location. We believe that *Hydropsyche* sp. KF and KUb are also the larval stages of *Hydropsyche kozhantschikovi*.

13. *Hydropsyche newae* Kolenati, 1858 새롬줄날도래

Hydropsyche newae Kolenati, 1858, Wien ent Mschr 2, 278; Botosaneanu 1970, 296, N (HGB), M; Mey 1989 (as *H. nevae*), 302, N (RG), M, F; Kumanski 1992 (as

H. nevae, 66, N (PB), M; Oláh and Johanson 2008, 129, N (PB, RG), M.

14. *Hydropsyche orientalis* Martynov, 1934

동양줄날도래

Hydropsyche orientalis Martynov, 1934, Tabl analyt Faune URSS 13, 276–277, 340, f 198a–c; Botosaneanu 1970, 296, pl 19, N (PB), M; Kobayashi 1989, 3, S (GN), M, F; Kumanski 1992, 66, N (NGW, PB), M; Hwang and Yoon 1996, 8, f 2, 8c–d, S (CB, CN, GB, GG, GW), M, F; Choe and Woo 1998, 74, S (JN), A; Hur *et al.* 2000a, 26–28, f 1–5, S (GG), M, F, P, L; Hwang 2006, 61–62, f 136–140, S (CB, CN, GB, GG, GW), M, F; Oláh and Johanson 2008, 129–130, N (HGB, NGW, PB), M; Oláh *et al.* 2018, 110, N (NGW, PB), M.

Hydropsyche ulmeri Tsuda, 1940a: Tsuda 1942a, 231, N (HGB), M, F; Lee and Kim 1993, 265, N (RG), L. Synonymized by Tanida (1982).

Hydropsyche KE: Kim 1974, 13, f 36, S (CB, CN), L. Associated by Hur *et al.* (2000a).

Hydropsyche KUe: Yoon and Kim 1988, 468–469, f 18, S (CB, GB, GG, GW, JN), L. Associated by Hur *et al.* (2000a).

15. *Hydropsyche simulata* Mosely, 1942 가로줄날도래*

Hydropsyche simulata Mosely, 1942, Tr Ent Soc London 92, 350–351, 361, f 22–25; Oláh and Johanson 2008, 142, N (PB, PY), M.

16. *Hydropsyche valvata* Martynov, 1927 흰점줄날도래

Hydropsyche valvata Martynov, 1927, Annuaire Mus Leningrad 28, 192, pl 11 f 54–56; Botosaneanu 1970, 296, pl 18, N (HGB), M; Mey 1989, 302, N (HHN), M; Kumanski 1992, 66, N (PB), M; Malicky 1993, 14, N (PB), M; Lee and Kim 1993, 265, N (RG), L; Hwang and Yoon 1996, 8–9, f 3, f 8e–f, S (CB, GG, GW), M, F; Hur *et al.* 1999, 14–15, f 1–3, S (GG), M, F, L; Hwang 2006, 62–63, f 141–145, S (CB, GG, GW), M, F; Oláh and Johanson 2008, 144–145, N (PB), M; Oláh *et al.* 2018, 110, S (GW), M.

Hydropsyche KC: Kim 1974, 12, f 33–34, S (CN, GG, GW, JB), L. Associated by Hur *et al.* 1999.

Hydropsyche KUc: Yoon and Kim 1988, 467, f 16, S (GG, GW), L. Associated by Hur *et al.* 1999.

Hydropsyche KUD 줄날도래 KUD

Hydropsyche KUD: Yoon and Kim 1988, 468, f 17, S (CN, GG, GN, JN), L.

Hydropsyche sp.

Hydropsyche setensis Iwata, 1927a: Yamada 1938, 3–4, N (HGN, NGW, PB, PN), S (GB, GG, GN, JB, JN), P, L.

Remarks. Yamada (1938) identified larvae and pupae collected from Korea as *H. setensis* based on Iwata (1927a), but the larval description by Iwata (1927a) is not reliable due to limited resources available during that time (Tanida, 1987). In addition, no adult of *H. setensis* has been recorded from Korea.

Hydropsyche spp.

Hydropsyche spp.: Malicky 1993, 14, N (HHN, PB), F.

Genus *Potamyia* Banks, 1900 강줄날도래속

17. *Potamyia chinensis* (Ulmer, 1915) 강줄날도래

Hydropsyche chinensis Ulmer, 1915, D ent Z, 47–48, f 14–15.

Potamyia chinensis (Ulmer, 1915): Kumanski 1992, 67, N (HHN, PB, PN), M, F; Hwang and Yoon 1996, 9–10, f 6, 8k–l, S (CB, GG, GW), M, F; Hwang 2006, 66–67, f 156–160, S (CB, GG, GW, SL), M, F; Oláh *et al.* 2018, 110, N (PB, PN, PY, RG), S (GW, JN), M, F.

18. *Potamyia czekanovskii* (Martynov, 1910)

검은강줄날도래

Hydropsyche czekanovskii Martynov, 1910, Annuaire Mus St Petersburg 15: 393–396, f 31–34.

Potamyia czekanovskii (Martynov, 1910): Botosaneanu 1970, 297, pl 20 f 2, N (PY), F; Kumanski 1992, 67, f 52–54, N (PB, PY), M, F; Malicky 1993, 14, N (PB), M; Hwang and Yoon 1996, 10, f 7, S (GW), M; Oláh *et al.* 2018, 110, N (NGW), M.

Remarks. Although the figures of genitalia of Hwang and Yoon (1996) are those of a male *P. czekanovskii*, the wing figures, especially that of the hind wing, do not match the characters of the genus *Potamyia*.

Potamyia KUB 강줄날도래 KUB*

Hydropsyche sp. KB: Kim 1974, 11–12, f 32, S (GW), L. *Cheumatopsyche* KUB: Yoon and Kim 1988, 472, f 21, S (CN, GG, GW, JB, JN), L.

Remarks. Kim (1974) described a larva as *Hydropsyche* sp. KB, which has unforked trochantin on each foreleg, and Yoon and Kim (1988) redescribed this larva as *Cheumatopsyche* KUB. However, the characters provided by Kim (1974) and Yoon and Kim (1988) suggest that this species belongs to the genus *Potamyia*.

Subfamily Macronematinae Ulmer, 1905

큰줄날도래아과*

Genus *Aethaloptera* Brauer, 1875 흰줄날도래속

19. *Aethaloptera evanescens* (McLachlan, 1880)

어리흰줄날도래

Chloropsyche evanescens McLachlan, 1880, Rev Syn Suppl 2, 69–70, pl 57 f 1–5.

Aethaloptera rossica Martynov, 1910: Kumanski 1992, 65, N (PY), M, F. Synonymized by Barnard (1980).

***Aethaloptera* KUa 흰줄날도래 KUa**

Aethaloptera KUa: Yoon and Kim 1988, 475, f 23, S (GW), L.

Genus *Macrostemum* Kolenati, 1859 큰줄날도래속

20. *Macrostemum austrovicinorum* Mey, 1989

남방큰줄날도래

Macrostemum austrovicinorum Mey, 1989, Acta Ent Bohemoslov 86, 302, f 14, N (PY), M, F.

21. *Macrostemum radiatum* (McLachlan, 1872)

큰줄날도래

Macronema radiatum McLachlan, 1872a, Ann Soc Ent Belg 15, 48, 67, pl 2 f 5; Doi 1932, 74, N (PN), A; Cho 1963, 173, S (JJ), A; Botosaneanu 1970, 296, N (PB), M; Kim 1974, 10–11, f 29, S (GB, GG, GW, JB), L; Yoon and Kim 1988, 473–474, f 22, S (CN, GG, GW), L.

Macrostemum radiatum (McLachlan, 1872): Mey 1989, 300–301, f 11–13, N (PB), M; Kumanski 1992, 65, N (PB, PN, PY), M, F; Malicky 1993, 14, N (PB), F; Choe and Woo 1998, 74, S (JN), M, F; Hwang 2006, 57–58, f 126–130, S (GB, GG, GN, GW, JB, JN), M, F; Oláh *et al.* 2018, 110, N (PB, PY, RG), M.

***Macrostemum* sp.**

Macronema sp.: Doi 1932, 74, N (PB), A.

Family Philopotamidae Stephens, 1829

입술날도래과

Subfamily Chimarrinae Rambur, 1842

어리입술날도래족*

Genus *Chimarra* Stephens, 1829 어리입술날도래속*

22. *Chimarra tsudai* Ross, 1956 앵도입술날도래

Chimarra tsudai Ross, 1956, Evol Class Mt Caddisflies, 71–72, f 112A–B, 150–151; Kumanski 1992, 55, N (NGW), M.

Subfamily Philopotaminae Stephens, 1829

입술날도래아과*

Genus *Dolophilodes* Ulmer, 1909 넓은입술날도래속

23. *Dolophilodes affinis*

Levanidova and Arefina, 1996 배들기입술날도래

Dolophilodes affinis Levanidova and Arefina, 1996, in Arefina *et al.* (1996), Far eastern Ent 34, 2–4, f 1–5; Nozaki *et al.* 2019, 3–4, S (GN), M, F.

Dolophilodes distincta (Walker, 1852): Kobayashi 1989 (as *Sortosa*), 2, f 1, S (GN), M, F. Misidentification mentioned by Arefina *et al.* (1996) and Nozaki *et al.* (2019).

24. *Dolophilodes mroczkowskii* Botosaneanu, 1970

멋쟁이입술날도래

Dolophilodes mroczkowskii Botosaneanu, 1970, Annlz zool Warsz 17, 292–293, pl 15, N (HGB, PB), M, F (?); Kumanski 1992, 55, N (PB), M; Hwang 2006, 49, f 78–82, S (GB, GW), M; Oláh *et al.* 2018, 103–104, N (PB), M.

***Dolophilodes* KUa 넓은입술날도래 KUa**

Chimarra sp. KA: Kim 1974 (as *Chimarrha*), 8–9, f 22, S (GW), L.

Dolophilodes KUa: Yoon and Kim 1988, 449–450, f 6, S (GN, GW), L; Yoon and Kim 1989a, 27–28, f 7–9, S (GN, GW), L.

Remarks. Yoon and Kim (1988) recognized that *Chimarra* sp. KA belongs to the genus *Dolophilodes*, and redescribed it as *Dolophilodes* KUa.

Genus *Kisaura* Ross, 1956 빗입술날도래속*

25. *Kisaura aurascens* (Martynov, 1934)

각시입술날도래

Dolophilodes aurascens Martynov, 1934, Tabl analyt Faune URSS 13, 173–174, 332, f 115a–c.

Kisaura aurascens (Martynov, 1934): Hwang 2006, 46–48, f 97–101, S (CB, GB, GG, GN, GW, JN), M; Uy *et al.* 2019, 293–295, f 2, 4A–D, S (GG, JB), M, F.

Dolophilodes hapirensis Botosaneanu, 1970, 293–294, pl 16, N (PB), M, F; Kumanski 1992, 55, N (HHB, NGW), M, F; Oláh *et al.* 2018 (as *Kisaura*), 104, N (PB), M. Synonymized by Ivanov (1997) and Uy *et al.* (2019).

26. *Kisaura coreana* Uy, Kuhara and Bae, 2019

고려입술날도래*

Kisaura coreana Uy, Kuhara and Bae, 2019, Zoosymposia 14, 291–293, f 1, S (JB), M, F.

27. *Kisaura tsudai* (Botosaneanu, 1970)

추다이입술날도래

Dolophilodes tsudai Botosaneanu, 1970, Annlz zool Warsz 17, 294–295, f 17; Kumanski 1992, 55, N (HHB, HHN), M, F.

Kisaura tsudai (Botosaneanu, 1970): Hwang 2006, 48–49, f 102–105, S (GG), M.

Remarks. Uy *et al.* (2019) pointed out the necessity to reexamine the materials of Kumanski (1992) because

of the close similarity between *K. coreana* and *K. tsudai*. Although Uy *et al.* (2019) did not mention Hwang (2006), the reexamination of the record by Hwang (2006) is also required.

Genus *Wormaldia* McLachlan, 1865 입술날도래속

28. *Wormaldia longicerca* Kumanski, 1992

긴꼬리입술날도래

Wormaldia longicerca Kumanski, 1992, Ins Koreana 9, 56–57, f 4–7, N (HHN, NGW), M, F; Hwang 2006, 45–46, f 90–96, S (GB), M.

29. *Wormaldia niiensis* Kobayashi, 1985 입술날도래

Wormaldia niiensis Kobayashi, 1985, Bulletin Kanagawa prefect Mus nat Sci no 16, 9–10, f 6–8; Oláh *et al.* 2018, 104, N (PB), S (JJ), M.

Wormaldia coreana Kumanski, 1992, 56, f 1–3, N (NGW, PB), M, F; Hwang 2006, 45, f 83–89, S (GG, GW), M. Synonymized by Kuhara (2005).

***Wormaldia* KUa** 입술날도래 KUa

Dolophilodes sp. KA: Kim 1974, 9, f 23, S (GW), L.

Wormaldia KUa: Yoon and Kim 1988, 451, f 7, S (CN, GB, GG, GW, GN, JN), L; Yoon and Kim 1989a; 28, f 10–12, S (CN, GB, GG, GN, GW, JN), L.

Remarks. Yoon and Kim (1988) recognized that *Dolophilodes* sp. KA belongs to the genus *Wormaldia*, and redescribed it as *Wormaldia* KUa.

Family Stenopsychidae Martynov, 1924 각날도래과

Subfamily Stenopsychinae Martynov, 1924

각날도래아과*

Genus *Stenopsyche* McLachlan, 1866 각날도래속

30. *Stenopsyche bergeri* Martynov, 1926

연날개수염치레각날도래

Stenopsyche bergeri Martynov, 1926, Eos 2, 287, 295–297, f 18–21; Botosaneanu 1970, 295, N (PN), M; Oláh 1985, 137, N (?), M; Yoon and Kim 1988, 447–448, f 5, S (GB, GG, GN, GW, JB, JJ, JN), L; Yoon and Kim 1989a, 27, f 4–6, S (GB, GG, GN, GW, JB, JJ, JN), L; Kobayashi 1989, 1–2, S (GW), M; Kumanski 1992, 58, f 22–23, N (NGW, PB), M, F; Hwang 2006, 51, f 106–110, S (GG, GW), M; Oláh *et al.* 2018, 103, N (HHN, NGW), M, F.

Parastenopsyche bergeri (Martynov, 1926): Kuwayama, 1930a, 117, N (HGN), M; Doi 1932, 75, N (HGN, PB), A; Tsuda 1942a, 230, N (HGB), M; Kim 1974, 9–10, f 25, S (GB, GW), L.

31. *Stenopsyche coreana* (Kuwayama, 1930)

고려수염치레각날도래

Parastenopsyche coreana Kuwayama, 1930a, Ins Matsum 4, 116, 117–118, f 4–5, N (HGN), M; Doi 1932 (as *Farastenopsyche*), 75, N (HGB), A; Kim 1974, 10, f 26–27, S (GW), M, P.

Stenopsyche coreana (Kuwayama, 1930): Botosaneanu 1970, 295, N (HGB, PB), M; Mey 1989, 300, N (NGW), M; Kumanski 1992, 58, f 20–21, N (NGW, PB), M, F; Malicky 1993, 14, N (PB), M, F; Hwang 2006, 51–52, f 111–115, S (GW), M; Oláh *et al.* 2018, 103, N (NGW), M.

Stenopsyche bergeri Martynov, 1926: Schmid 1965b, 136, pl 2 f 9, pl 3 f 3, Coree (Uttikongo), M. Misidentification mentioned by Schmid (1969).

32. *Stenopsyche marmorata* Navás, 1920

멋쟁이각날도래

Stenopsyche marmorata Navás, 1920: Revista Ac Cienc Madrid 18, 164, f 6a–b; Botosaneanu 1970, 295, N (HGB, PB), M, F; Kim 1974, 9, f 24, S (CB, GB, GG, GW, JB), L; Kobayashi 1989, 1, S (GN, GW), M, F; Mey 1989, 300, N (NGW, PB, RG), M, F; Kumanski 1992, 57, f 18–19, N (HGB, NGW, PB), M, F; Hwang 2006, 52–53, f 116–120, S (GG, GW, JJ), F; Oláh *et al.* 2018, 103, N (HGB, NGW, PB), M.

Stenopsyche griseipennis McLachlan, 1866: Martynov 1926, 288, Korea (Pung-Tung), M; Tsuda 1942a, 229–230, N (HGB, RG), M, F. Misidentification mentioned by Kimmins (1958) and Schmid (1969). Yoon and Kim 1988, 446–447, f 4, S (GB, GG, GN, GW, JJ, JN), L; Yoon and Kim 1989a, 26–27, f 1–3, S (GB, GG, GN, GW, JJ, JN), L; Lee and Kim 1993, 267, N (RG), L.

Misidentification.

Remarks. The records of *S. griseipennis* from East Asia were misidentifications of this species (Kimmins, 1958; Schmid, 1969), but Yoon and Kim (1988; 1989a) and Lee and Kim (1993) did not refer to Kimmins (1958) and Schmid (1969).

33. *Stenopsyche variabilis* Kumanski, 1992

한가람각날도래

Stenopsyche variabilis Kumanski, 1992, Ins Koreana 9, 57–58, f 8–15, N (PB), M, F; Oláh *et al.* 2018, 103, N (PB), M.

Family Psychomyiidae Walker, 1852 통날도래과

Subfamily Psychomyiinae Walker, 1852

통날도래아과*

Genus *Metalype* Klapálek, 1898 갈고리통날도래속*

34. *Metalype uncatissima* (Botosaneanu, 1970)

갈고리통날도래

Psychomyia uncatissima Botosaneanu, 1970, Anns zool Warsz 17, 301–302, pl 27, pl 28 f 1–2, N (HGB, PB),

- M, F; Kumanski 1992, 60, N (HGB, PB), M; Lee and Kim 1993, 266, N (RG), L.
Metalype uncatissima (Botosaneanu, 1970): Hwang 2006, 76–77, f 190–193, S (GG, GW), M; Oláh *et al.* 2018, 106, N (HGB), M.
- Genus *Paduniella* Ulmer, 1913 애기통날도래속*
- 35. *Paduniella amurensis* Martynov, 1934**
 가람통날도래
Paduniella amurensis Martynov, 1934, Tabl analyt Faune URSS 13, 206, 208–210, 334–335, f 148, 149a–c; Kumanski 1992, 59, N (PY), M, F; Hwang 2006, 81–82, f 214–218, S (GG), M.
- 36. *Paduniella martynovi* Kumanski, 1992**
 마르티노프통날도래
Paduniella martynovi Kumanski, 1992, Ins Koreana 9, 59, f 24–27, N (PY), M, F; Hwang 2006, 82–83, f 219–223, S (GG), M.
- 37. *Paduniella unmun* Inaba and Park, 2017**
 운문통날도래
Paduniella unmun Inaba and Park, 2017, in Park *et al.* (2017), Anim Syst Evol Divers 33(1), 3, f 3, S (GB), M.
- Genus *Psychomyia* Latreille, 1829 통날도래속
- 38. *Psychomyia coreana* (Tsuda, 1942) 고려통날도래**
Psychomyiella coreana Tsuda, 1942a, Mem Coll Sci Kyoto B 17, 230, 275, f 3–4, N (HGB), M, F.
- 39. *Psychomyia cruciata* (Kumanski, 1992)**
 십자통날도래
Psychomyiella cruciata Kumanski, 1992, Ins Koreana 9, 61–62, f 31–34, N (PB), M; Hwang 2006, 79–80, f 204–208, S (GG, GW), M.
- 40. *Psychomyia forcipata* Martynov, 1934**
 집게통날도래
Psychomyia forcipata Martynov, 1934, Tabl analyt Faune URSS 13, 201–202, 334, f 141a–c; Botosaneanu 1970, 301, N (PB), M, F; Kobayashi 1989 (as *Psychomyiia*), 2, S (GW), M; Kumanski 1992, 60, N (PB, PY), M, F; Hwang 2006, 78–79, f 199–203, S (GG, GN), M; Oláh *et al.* 2018, 108, N (PB), M.
- 41. *Psychomyia minima* (Martynov, 1910)**
 꼬마통날도래
Psychomyiella minima Martynov, 1910, Annuaire Mus St Petersburg 15, 411–414, f 51–54; Kumanski 1992, 60, N (PB, PN, PY), M, F.
Psychomyia minima (Martynov, 1910): Hwang 2006, 77–78, f 194–198, S (GW), M; Oláh *et al.* 2018, 108, N (PN, PY, RG), M.
- 42. *Psychomyia myohyangsanica* (Kumanski, 1992)**
 묘향산통날도래
Psychomyiella myohyangsanica Kumanski, 1992, Ins Koreana 9, 60–61, f 28–30, N (NGW, PB, PY), M; Hwang 2006, 80–81, f 209–213, S (GB, GG, GN, GW), M.
Psychomyia myohyangsanica (Kumanski, 1992): Oláh *et al.* 2018, 108, N (PN), M.
- Psychomyia* KUa 통날도래 KUa**
Psychomyia KUa: Yoon and Kim 1988, 452–453, f 8, S (GB), L; Yoon and Kim 1989a, 28, f 13–16, S (GB), L.
- Psychomyia* sp.**
Psychomyia spec.: Mey 1989, 300, N (PB), F.
- Subfamily Tinodinae Li and Morse, 1997
 가는통날도래아과*
 Genus *Tinodes* Curtis, 1834 가는통날도래속*
- 43. *Tinodes furcatus* Li and Morse, 1997** 갈래통날도래
Tinodes furcatus Li and Morse, 1997, Insecta Mundi 11(3–4), 278, f 7–9; Park *et al.* 2017, 4–5, f 4A, S (GN), M; Oláh *et al.* 2018, 109, S (JJ), M.
- 44. *Tinodes higashiyamanus* Tsuda, 1942**
 히가시야마통날도래*
Tinodes higashiyamanus Tsuda, 1942b, Mem Coll Sci Kyoto B 17, 271–272, f 30; Oláh *et al.* 2018, 109, N (NGW), M.
- Family Polycentropodidae Ulmer, 1903** 깃날도래과
 Subfamily Polycentropodinae, Ulmer, 1903
 깃날도래아과*
 Genus *Nyctiophylax* Brauer, 1865 고리깃날도래속
- 45. *Nyctiophylax angarensis* Martynov, 1910**
 밤깃날도래
Nyctiophylax angarensis Martynov, 1910, Annuaire Mus St Petersburg 15, 404–408, f 39–43; Kumanski 1992, 64, f 42–43, N (PB), M, F.
- 46. *Nyctiophylax digitatus* Martynov, 1934**
 손가락깃날도래
Nyctiophylax digitatus Martynov, 1934, Tabl analyt Faune URSS 13, 241–242, f 174; Botosaneanu, 1970, 299, N (PB), M.
- 47. *Nyctiophylax hjangsanichonus* Botosaneanu, 1970**
 고리깃날도래
Nyctiophylax hjangsanichonus Botosaneanu, 1970, Annals zool Warsz 17, 299–300, pl 22 f 1–2, pl 23, N (PB), M; Kumanski 1992, 64, f 44–45, N (PB), M, F.

Paranyctiophylax hjangsanchonus (Botosaneanu, 1970):
Hwang 2006, 72, f 176-179, S (CB, GG), M; Hwang
and Chun, 2006, 96, f 5-6, 13-14, S (CB, GG), M.

***Nyctiophylax* sp.**

Nyctiophylax sp.: Kumanski 1992, 64, f 46-47, N (PB), F.

Genus *Plectrocnemia* Stephens, 1836 깃날도래속

48. *Plectrocnemia baculifera* Botosaneanu, 1970

깃날도래

Plectrocnemia baculifera Botosaneanu, 1970, Anns zool
Warsz 17, 297-299, pl 11, N (PB), M; Kumanski 1992,
63-64, N (PB), M; Malicky 1993, 14, N (PB), M;
Hwang 2006, 69-70, f 166-170, S (GG), M; Hwang
and Chun 2006, 94-95, f 1-2, 9-10, S (GG), M.

49. *Plectrocnemia kusnezovi* Martynov, 1934

용추깃날도래

Plectrocnemia kusnezovi Martynov, 1934, Tabl analyt
Faune URSS 13, 213, 218-221, 336, f 156a-c; Boto-
saneanu 1970, 297, N (HGN, PB), M; Kumanski 1992,
64, N (PB), M; Hwang 2006, 70, 71, f 171-175, S (GG),
M; Hwang and Chun, 2006, 95, 96, f 3-4, 11-12, S
(GG), M.

50. *Plectrocnemia wui* (Ulmer, 1932) 참깃날도래

Polycentropus wui Ulmer, 1932, Peking nat Hist Bull 7,
46-47, f 12-13.

Plectrocnemia wui (Ulmer, 1932): Kumanski 1992, 64,
N (NGW), M; Oláh *et al.* 2018, 104, S (JJ), M.

***Plectrocnemia* KUa 깃날도래 KUa**

Plectrocnemia KUa: Yoon and Kim 1988, 455-456, f
9, S (CB, CN, GG, GN, GW, JB, JJ, SL), L; Yoon and
Kim 1989a, 29, f 20-23, S (CB, CN, GG, GN, GW,
JB, JJ, SL), L.

***Plectrocnemia* sp. PA**

Polycentropus sp. PA: Kim 1974, 10, f 28, S (GG, JJ), L.

***Plectrocnemia* sp.**

Plectrocnemia sp.: Kumanski 1992, 64, N (PN), F.

Genus *Polyplectropus* Ulmer, 1905 나도깃날도래속*

51. *Polyplectropus malickyi*

Nozaki, Katsuma and Hattori, 2010

말리키깃날도래

Polyplectropus malickyi Nozaki, Katsuma and Hattori,
2010, Denisia 29, 239-241, f 3a-g, 5a-c; Park *et al.*
2017, 2-3, f 2, S (GB, GN), M, F; Oláh *et al.* 2018,
105-106, f 4-6, N (NGW), M.

52. *Polyplectropus nocturnus* Arefina, 1996

그물깃날도래

Polyplectropus nocturnus Arefina, 1996, in Arefina *et al.*
(1996), Aq Ins 18: 61-64, f 1-7; Hwang 2006, 73, f
180-184, S (GG), M; Hwang and Chun 2006, 96, f
7-8, 15-16, S (GG), M.

Family Ecnomidae Ulmer, 1903 별날도래과

Genus *Ecnomus* McLachlan, 1864 별날도래속

53. *Ecnomus japonicus* Fischer, 1970 셋별날도래

Ecnomus serrata Kobayashi, 1959, Bull nat Sci Mus 4,
347-348, f 3a-c. Preoccupied by *Ecnomus serrata*
Ulmer, 1930, and renamed by Fischer (1970).

Ecnomus japonicus Fischer, 1970, Ent Ber, Amst 30,
242; Kuhara 2016, 566-568, f 4, S (GB), M, F.

Ecnomus tsudai Kumanski, 1992, Ins Koreana 9, 62-
63, f 35-40, N (PB, PN, PY), M, F; Hwang 2006, 74-
75, f 185-189, S (GG), M. Synonymized by Kuhara
(2016).

54. *Ecnomus tenellus* (Rambur, 1842) 별날도래

Philopotamus tenellus Rambur, 1842, Hist nat Nevr, 503.

Ecnomus tenellus (Rambur, 1842): Botosaneanu, 1970,
302, N (PY), M; Yoon and Kim 1988, 457-458, f 10,
S (JJ), L; Yoon and Kim 1989a, 30, f 17-19, S (JJ), L;
Kumanski 1992, 62, N (HHN, PY), M, F; Oláh *et al.*
2018, 104, S (GG), M.

55. *Ecnomus yamashironis* Tsuda, 1942 밝은별날도래

Ecnomus yamashironis Tsuda, 1942b, Mem Coll Sci Kyo-
to B 17, 267-268, f 25-26; Botosaneanu 1970, 302-
303, pl 28 f 3, N (PY), M; Kumanski 1992, 62, N (PY),
M, F; Oláh *et al.* 2018, 104, N (PN), M.

***Ecnomus* sp.**

Ecnomus sp.: Malicky 1993, 14, N (PB), F.

***Ecnomus* sp.**

Ecnomus spec.: Mey 1989, 300, N (PY), F.

Family Pseudoneureclipsidae Ulmer, 1951

가슴띠날도래과*

Genus *Pseudoneureclipsis* Ulmer, 1913

가슴띠날도래속*

56. *Pseudoneureclipsis botosaneanui* Morse, 2001

한국가슴띠날도래*

Pseudoneureclipsis botosaneanui Morse, 2001, in Li *et al.*
(2001), Aquatic Ins 23(2), 116.

Pseudoneureclipsis ussuriensis Martynov, 1934: Botosa-
naneanu, 1970, 300-301, pl 22 f 3-5, pl 24-26, N (PB),
M, F. Misidentification mentioned by Li *et al.* (2001).

57. *Pseudoneureclipsis proxima* Martynov, 1934

부채띠가슴날도래*

Pseudoneureclipsis proxima Martynov, 1934, Tabl analyt Faune URSS 13, 182-185, 333, f 124a-b; Kumanski 1992, 63, N (PB), M, F.

Suborder Integripalpia Martynov, 1924 무환수아목

Family Hydroptilidae Stephens, 1836 애날도래과

Subfamily Hydroptilinae Stephens, 1836

애날도래아과*

Genus *Hydroptila* Dalman, 1819 애날도래속**58. *Hydroptila angulata* Mosely, 1922 뽕족애날도래**

Hydroptila angulata Mosely, 1922, Tr ent Soc London, 178-180, pl 2 f 4-6.

Hydroptila emarginata Martynov, 1927: Botosaneanu 1970, 289, pl 13, N (PY), M, F; Kumanski 1990, 46-48, N (PN, PY), M, F. Synonymized by Malicky (1997).

59. *Hydroptila asymmetrica* Kumanski, 1990

다른애날도래

Hydroptila asymmetrica Kumanski, 1990, Historia Naturalis Bulgarica 2, 50, f 56-63, N (NGW), M, F.

60. *Hydroptila botosaneanui* Kumanski, 1990

꼬마애날도래

Hydroptila botosaneanui Kumanski, 1990, Historia Naturalis Bulgarica 2, 48-49, f 51-55, N (NGW, PB), M, F.

61. *Hydroptila coreana* Kumanski, 1990 한국애날도래

Hydroptila coreana Kumanski, 1990, Historia Naturalis Bulgarica 2, 52-54, f 72-79, N (NGW, PB), M, F.

62. *Hydroptila dampfi* Ulmer, 1929 늪애날도래

Hydroptila dampfi Ulmer, 1929, Zool Anz 80: 264-266, f 10-12; Park *et al.* 2018, 102-103, f 2A-F, S (GN), M, F.

Hydroptila sp.: Kumanski 1990, 56-57, f 87-90, N (PN), F. Mentioned by Park *et al.* (2018).

63. *Hydroptila extrema* Kumanski, 1990 막내애날도래

Hydroptila extrema Kumanski, 1990, Historia Naturalis Bulgarica 2, 50-52, f 64-71, N (PB, PY), M, F.

64. *Hydroptila giama* Oláh, 1989 어리애날도래

Hydroptila giama Oláh, 1989, Acta zool Hung 35(3-4): 285.

Hydroptila hubenovi Kumanski, 1990, 54-55, f 80-86, N (NGW), M, F. Synonymized by Malicky (2013).

65. *Hydroptila introspinata* Zhou and Sun, 2009

팔가시아날도래

Hydroptila introspinata Zhou and Sun, 2009, in Zhou

et al. (2009), 906-908, 910-911, f 12-16; Park *et al.* 2018, 103, f 2G-L, S (GB), M.

66. *Hydroptila moselyi* Ulmer, 1932 첫애날도래

Hydroptila moselyi Ulmer, 1932, Peking nat Hist Bull 7, 42-43, f 5; Kumanski 1990, 48, f 48-50, N (PB, PY), M.

67. *Hydroptila phenianica* Botosaneanu, 1970

고은애날도래

Hydroptila phenianica Botosaneanu, 1970, Anns zool Warsz 17: 290-291, pl 12, N (PY), M, F; Kumanski 1990, 48, N (NGW, PN), M, F.

***Hydroptila* KUa 애날도래 KUa**

Hydroptila KUa: Yoon and Kim 1988, 498, f 41, S (GG, JB), L.

Genus *Oxyethira* Eaton, 1873 긴다리아날도래속**68. *Oxyethira campanula* Botosaneanu, 1970**

방울애날도래

Oxyethira campanula Botosaneanu, 1970, Anns zool Warsz 17, 291-292, pl 14, N (PB), M.

69. *Oxyethira josifovi* Kumanski, 1990

이슬방울애날도래

Oxyethira josifovi Kumanski, 1990, Historia Naturalis Bulgarica 2, 57-59, f 91-98, N (NGW), M, F; Oláh and Ito 2013, 29, f 5-8, N (NGW), M.

Remarks. This species was synonymized with *O. datra* Oláh 1989 by Malicky and Chantaramongkol (2007), but Oláh and Ito (2013) recognized these species as two distinct species.

70. *Oxyethira miea* Oláh and Ito, 2013 엄지애날도래

Oxyethira miea Oláh and Ito, 2013, Opuscula Zoologica Budapest 44(1), 42-43, f 53-56; Park *et al.* 2018, 107-108, f 4, S (GB), M, F.

***Oxyethira* sp.**

Oxyethira sp.: Kumanski 1990, 59, f 99-101, N (NGW), F.

Subfamily Orthotrichiinae Nielsen, 1948

네모애날도래아과*

Genus *Orthotrichia* Eaton, 1873 네모애날도래속**71. *Orthotrichia coreana* Ito and Park, 2016**

한국네모애날도래

Orthotrichia coreana Ito and Park, 2016, Anim Sys Evol Divers 32(3), 230-233, f 1-2, S (GB), M, F.

72. *Orthotrichia costalis* (Curtis, 1834) 뿔애날도래

Hydroptila costalis Curtis, 1834, Phil Mag 4, 218.

Orthotrichia costalis (Curtis, 1834): Park *et al.* 2018, 103–104, f 3A–C, S (GB, GN), M, F.

73. *Orthotrichia tragetti* Mosely, 1930 민숭애날도래
Orthotrichia tragetti Mosely, 1930, Tr ent Soc London 78, 237, 247–249, f 25–26; Park *et al.* 2018, 104–107, f 3D–F, S (GN), M, F.

Subfamily Stactobiinae Botosaneanu, 1956

여울애날도래아과*

Genus *Stactobia* McLachlan, 1880 여울애날도래속

74. *Stactobia nishimotoi*

Botosaneanu and Nozaki, 1996 두고리아애날도래
Stactobia nishimotoi Botosaneanu and Nozaki, 1996, Bull Zool Mus Univ Amsterdam 15(8), 58–59, 61, f 15–18; Park *et al.* 2018, 108, f 5, S (GN), M.

75. *Stactobia sujansanica* Kumanski, 1990

수양산애날도래*

Stactobia sujansanica Kumanski, 1990, Historia Naturalis Bulgarica 2, 46, f 39–47, N (HHN), M, F.

***Stactobia* sp.**

Stactobia makartschenkoi Botosaneanu and Levanidova, 1988, Bull zool Mus 11: 169, 171, f 1–9; Oh and Kong 2014, 158, f 2, S (GW), L. **Misidentification.**

Remarks. Oh and Kong (2014) recorded *S. makartschenkoi* based on a larval specimen. However, the larva deposited in Kyonggi University does not have the diagnostic characters of *S. makartschenkoi* provided by Ito (2017) (Park and Ito unpublished data).

Hydroptilidae Gen. sp.

Hydroptilidae indet.: Botosaneanu 1970, 292, N (HGN, PB), F.

Family Glossosomatidae Wallengren, 1891

광택날도래과

Subfamily Agapetinae Martynov, 1913

큰광택날도래아과*

Genus *Agapetus* Curtis, 1834 큰광택날도래속

76. *Agapetus jakutorum* Martynov, 1934 큰광택날도래

Agapetus jakutorum Martynov, 1934, Tabl analyt Faune URSS 13, 97, 104, 329, f 63a–c.

Synagapetus jakutorum (Martynov, 1934): Kumanski 1990, 45, N (HHN), M.

77. *Agapetus sibiricus* Martynov, 1918

시베리아큰광택날도래

Agapetus sibiricus Martynov, 1918, Annuaire Mus Petrograd 22 (1917), 49–50, f 5–7; Hwang 2006, 42–43, f

72–77, S (CB, GG, GW), M; Oláh *et al.* 2018, 113, N (PB), M.

Synagapetus sibiricus (Martynov, 1918): Botosaneanu 1970, 289, pl 11, N (HGB, NGW, PB), M, F; Mey 1989, 300, N (HHN, NGW, PB), M, F; Kumanski 1990, 45, N (NGW, PB, PN, PY), M, F.

Synagapetus japonicus Tsuda, 1940c, Annot Zool Japan, 194, f 5–6; Kim 1974 (as *Synagepetus*), 8, f 21, S (GW), P, L. Synonymized by Kim (1974) and Nozaki and Tanida (2007).

***Agapetus* KUa** 큰광택날도래 KUa

Agapetus KUa: Yoon and Kim 1988, 495–496, f 40, S (GG, GN, GW), L; Yoon and Kim 1989b, 306, f 58–60, S (GG, GW), L.

Subfamily Glossosomatinae Wallengren, 1891

광택날도래아과*

Genus *Glossosoma* Curtis, 1834 광택날도래속

78. *Glossosoma altaicum* (Martynov, 1914)

알타이광택날도래

Mystrophora altaica Martynov, 1914a, Rev russe Ent 14, 72–75, f 1–4.

Synafophora altaicum (Martynov, 1914): Botosaneanu 1970, 289, N (PB), M; Kumanski 1990, 43, f 25–33, N (NGW, PB), M, F.

Glossosoma altaicum (Martynov, 1914): Kobayashi 1989, 5, S (GW), M, F; Malicky 1993, 14, N (PB), M, F; Hwang 2006, 39–40, f 58–64, S (CB, GG, GW), M; Oláh *et al.* 2018, 115, N (PB), M, F.

79. *Glossosoma ussuricaum* (Martynov, 1934)

우수리광택날도래

Mystrophora ussurica Martynov, 1934, Tabl analyt Faune URSS 13: 76, 79–80, 326–327, f 43a–c.

Mystrophora inops Tsuda, 1940c: Kim 1974, 8, f 20, S (GB, GW), L; Lee and Kim 1993, 265, N (RG), L. Synonymized by Minakawa *et al.* (2004).

Synafophora ussuricum (Martynov, 1934): Kumanski 1990, 44–45, f 34–38, N (NGW, PB), M, F.

Glossosoma ussuricum (Martynov, 1934): Malicky 1993, 14, N (HHN, PB), F; Hwang 2006, 40–42, f 65–71, S (CB, GG, GN, GW), M; Oláh *et al.* 2018, 115, N (NGW), M.

***Glossosoma* KUa** 광택날도래 KUa

Glossosoma KUa: Yoon and Kim 1988, 494–495, f 39, S (CB, CN, GG, GN, GW, JB, JN), L; Yoon and Kim 1989b, 305–306, f 53–57, S (CB, GG, GW), L.

***Glossosoma* sp.**

Glossosoma boltoni Curtis, 1834: Yamada 1938, 2–3, N (HGN, NGW, PB, PN), S (GB, JN), P, L.

Remarks. Yamada (1938) reported the larvae and pupae as *G. boltoni* from Korea, probably based on Iwata (1927a), but the larval identification of the species in this genus was not reliable at that time. Nozaki *et al.* (1994) mentioned that the records of *G. boltoni* from Japan was based on misidentification.

***Glossosoma* sp.**

Glossosoma (s. lat.!) sp.: Botosaneanu 1970, 289, N (HGB), F.

Subfamily Protoptilinae Ross, 1956

옛광택날도래아과*

Genus *Padunia* Martynov, 1910 세잎광택날도래속*

80. *Padunia fasciata* (Tsuda, 1942) 가람광택날도래
Uenotrichia fasciata Tsuda, 1942a, Mem Coll Sci Kyoto b 17: 228–229, 255, f 1–2, N (RG), M, F.

Family Hydrobiosidae Ulmer, 1905 긴발톱물날도래과

Subfamily Apsilochoreminae Neboiss, 1977

긴발톱물날도래아과*

Genus *Apsilochorema* Ulmer, 1907 긴발톱물날도래속

81. *Apsilochorema sutshanum* Martynov, 1934

긴발톱물날도래

Apsilochorema sutshanum Martynov, 1934, Tabl analyt Faune URSS 13, 71, 72, 326, f 39, 40a–c; Hwang 2006, 37–38, f 52–57, S (JB, SL), M; Oláh *et al.* 2018, 113, N (NGW), M.

Apsilochorema coreanum Botosaneanu, 1970, 288–289, pl 10, N (PB), F; Kumanski 1990, 43, N (NGW), F. Synonymized by Mey (1999a).

Apsilochorema KUa: Yoon and Kim 1988, 491–492, f 38, S (CB, GB, GG, GN, GW, JJ, SL), L; Yoon and Kim 1989b, 305, f 48–52, S (CB, GB, GG, GW, SL), L.

Remarks. The larval descriptions and illustrations by Yoon and Kim (1988; 1989b) are identical to the characters provided by Lepneva (1964) and Hattori (2005a).

Family Rhyacophilidae Stephens, 1836 물날도래과

Genus *Rhyacophila* Pictet, 1834 물날도래속

82. *Rhyacophila angulata* Martynov, 1910

그물무늬물날도래

Rhyacophila angulata Martynov, 1910, Annuaire Mus St Petersburg 15, 414–417, f 55–56; Botosaneanu 1970, 283, pl 8 f 7, N (HGB, PB), M, F; Mey 1989, 296, N (HHN), M; Kumanski 1990, 40, N (NGW, PB), M, F; Lee and Kim 1993, 264, N (RG), L; Hwang 2006, 25–26, f 1–5, S (CB, GN, JB, JN), M; Oláh *et al.* 2018, 111, N (HGB, NGW, PB), M.

83. *Rhyacophila articulata* Morton, 1900 주름물날도래
Rhyacophila articulata Morton, 1900, Tr ent Soc London, 5, pl 1 f 10–11; Kim 1974, 3–4, f 1, S (GW), L; Yoon and Kim 1988, 483–484, f 29, S (CB, GG, GN, GW), L; Yoon and Kim 1989b, 302, f 21–24, S (CB, GG, GN, GW), L; Lee and Kim 1993, 264, N (RG), L.

Remarks. This species was recorded based solely on larval materials from Korea, probably referring to the larval description by Tsuda and Akagi (1962). Hattori (2005b) pointed out that taxonomic problems remain in the *Acropedes* species group including this species. Further study of this Korean larva, especially the larval and adult association, is needed.

84. *Rhyacophila bilobata* Ulmer, 1907 두잎물날도래

Rhyacophila bilobata Ulmer, 1907, Cat Coll Selys 6 (1), 84–85, f 129–130; Yoon and Kim 1988, 486–487, f 33, S (JN), L; Yoon and Kim 1989b, 303, f 31–33, S (JN), L. *Rhyacophila niwae* Iwata, 1927b: Yamada 1938, 2, S (GB, GN), P, L; Kim 1974, 5, f 5, S (GB), L; Lee and Kim 1993, 264, N (RG), L.

Remarks. *Rhyacophila niwae* was synonymized with *R. bilobata* by Tanida (1985), but Hattori (2005b) recognized each species as a distinct species based on adults. Hattori (2005b) pointed out these two species are indistinguishable from each other by the larval morphology. In addition, adults of these two species have not been reported from Korea yet. We tentatively list all the records identified as *R. bilobata* or *R. niwae* from Korea as *R. bilobata*. It is necessary to associate Korean larvae with their adults.

85. *Rhyacophila brevicephala* Iwata, 1927

넓은머리물날도래

Rhyacophila brevicephala Iwata, 1927a, Zool Mag 39, 212, 214, 217, f 1, 37, 38; Kim 1974, 4–5, f 4, S (GG, GW), L; Yoon and Kim 1988, 484–485, f 30, S (CN, GG, GN, GW); Yoon and Kim 1989b, 303, f 18–20, S (CN, GG, GW), L.

Remarks. This species, originally described from Japan, has been recorded based on only larval materials, but the adults have not been found from Korea.

86. *Rhyacophila clemens* Tsuda, 1940

클레멘스물날도래

Rhyacophila clemens Tsuda, 1940b, Annot zool Jap 19, 124–125, 135, f 8; Yoon and Kim 1988, 485, f 31, S (CN, GG, GN, GW), L; Yoon and Kim 1989b, 303, f 25–27, S (CB, CN, GB, GG, GN, GW), L.

Remarks. This species, originally described from Japan,

has been recorded based on larval materials, but adults of this species have not been reported from Korea.

87. *Rhyacophila confissa* Botosaneanu, 1970

덕유산물날도래

Rhyacophila confissa Botosaneanu, 1970, Annlz zool Warsz 17: 285–287, pl 6, pl 9 f 5–8, N (HGB), M, F; Ko and Park 1988, 9, f 16–18, S (GW, JB), M, F; Hwang 2006, 26–27, f 6–10, S (GG, GW), M, F; Oláh *et al.* 2018, 111, N (PB), M, F.

88. *Rhyacophila coreana* Tsuda, 1940 참물날도래

Rhyacophila coreana Tsuda, 1940b, Annot zool Jap 19, 122–123, 135, f 5, N (HGB), M, F; Tsuda 1942a, 227, N (HGB), M, F; Botosaneanu 1970, 279, pl 1, N (HGN), M; Oláh 1985, 137, N (NGW), M; Ko and Park 1988, 10, f 27–29, S (GW), M; Mey 1989, 296, N (HHN), M; Kumanski 1990, 38, f 1–4, N (HHB, PY), M, F; Oláh *et al.* 2018, 111, N (NGW), M.

89. *Rhyacophila impar* Martynov, 1914 거친물날도래

Rhyacophila impar Martynov, 1914a, Rev Russe Ent 14, 77–79, f 7–9; Botosaneanu 1970, 288, pl 8 f 8, N (HGB, HGN), M, F; Yoon and Kim 1988, 480, f 25, S (GG, GW), L; Yoon and Kim 1989b, 301, f 5–7, S (GG, GW), L; Oláh *et al.* 2018, 111, N (PB), M, F.

Rhyacophila sp.: Kumanski 1990, 41–43, f 21–24, N (PB), F. Mentioned by Arefina (2001).

90. *Rhyacophila kawamurae* Tsuda, 1940

카와무라물날도래

Rhyacophila kawamurae Tsuda, 1940b, Annot zool Jap 19, 130–131, 135, f 17, N (HGB), M; Tsuda 1942a, 228, N (HGB), M; Ko and Park 1988, 10, f 30–32, S (CN, GW, JB), M, F; Hwang 2006, 27–28, f 11–14, S (GG, GW, JN), M.

Remarks. Malicky (2014) synonymized this species with *R. manuleata*, but Kuranishi (2016) recognized each species as a distinct species.

91. *Rhyacophila kumgangsanic* Kumanski, 1990

금강산물날도래

Rhyacophila kumgangsanic Kumanski, 1990, Historia Naturalis Bulgarica 2, 41, f 14–20, N (NGW), M; Hwang 2006, 28–29, f 15–19, S (GG, GW), M; Oláh *et al.* 2018, 111, S (GW), M.

92. *Rhyacophila kuramana* Tsuda, 1942 계곡물날도래

Rhyacophila kuramana Tsuda, 1942b, Mem Coll Sci Kyoto B 17, 247–248, f 5–6; Yoon and Kim 1988, 486, f 32, S (GB, SL), L; Yoon and Kim 1989b, 303, f 28–30, S (GB, SL), L.

Remarks. This species, originally described from Japan, has been recorded based solely on larval materials, but the adults have not been found from Korea.

93. *Rhyacophila lata* Martynov, 1918 올챙이물날도래

Rhyacophila lata Martynov, 1918, Annuaire Mus Petrograd 22, 46–48, f 1–4; Botosaneanu 1970, 285, pl 8 f 3–4, N (NGW, PB), M, F; Ko and Park 1988, 8–9, f 9–12, S (GW), M, F; Mey 1989, 296, N (HHN), M, F; Kumanski 1990, 39, N (HGB, HHB, HHN, NGW, PB, PN, RG), M, F; Malicky 1993, 14, N (PB), M; Lee and Kim 1993, 264, N (RG), A; Hwang 2006, 29–31, f 20–24, S (CB, CN, GB, GG, GN, GW, JB, JN), M; Oláh *et al.* 2018, 111–112, N (PB), M, F.

Rhyacophila nigrocephala Iwata, 1927a: Kim 1974, 4, f 3, S (GB, GG, GW), L; Yoon and Kim 1988, 488, f 35, S (CB, CN, GB, GG, GN, GW, JN, JJ, SL), L; Yoon and Kim 1989b, 304, f 37–39, S (GG, SL), L; Lee and Kim 1993, 264, N (RG), L. **Misidentification.**

Rhyacophila sp. KA: Kim 1974, 6, f 10–11, S (GG, GW), P (M), L.

Remarks. All Korean records as *R. nigrocephala*, originally described from Japan, must have been based on the identification referring to Japanese literature (Tsuda and Akagi, 1962; Tanida, 1985). However, the larval characters also agree with those of *R. lata*, described from continental Russia (Lepneva, 1964). DNA barcoding data of larvae of Korean ‘*nigrocephala*’ and adults of *R. lata* suggested that the Korean larvae belong to *R. lata*. The male genitalia of *Rhyacophila* sp. KA, illustrated by Kim (1974) clearly shows that this species also belongs to *R. lata*.

94. *Rhyacophila manuleata* Martynov, 1934

사랑무늬물날도래

Rhyacophila manuleata Martynov, 1934, Tabl analyt Faune URSS 13, 38, 69–70, 324–325, f 37a–c; Botosaneanu 1970, 285, pl 8 f 5–6, N (HGB, HGN, NGW), M, F; Ko and Park 1988, 8, f 5–8, S (GW, JB), M, F; Kobayashi 1989, 3–4, S (GN, GW), M; Mey 1989, 296, N (HHN), M, F; Lee and Kim 1993, 264, N (RG), L; Oláh *et al.* 2018, 112, N (HGB), M.

95. *Rhyacophila maritima* Levanidova, 1977

잔털물날도래*

Rhyacophila maritima Levanidova, 1977, Trudy biol-pochvenn Inst, Vladivostok 45(148), 64; Mey 1989, 296, f 1–2, N (RG), M; Hwang 2006, 31–32, f 25–29, S (GG, GW), M; Oláh *et al.* 2018, 112, S (GW), M.

96. *Rhyacophila mjohjangsanica* Botosaneanu, 1970

묘향산물날도래

Rhyacophila mjohjangsanica Botosaneanu, 1970, Annlz zool Warsz 17, 283–285, pl 5, pl 9 f 1–4, N (HGN), M,

F; Oláh *et al.* 2018, 112, N (PB), M.

97. *Rhyacophila mroczkowskii* Botosaneanu, 1970

톱가지물날도래

Rhyacophila mroczkowskii Botosaneanu, 1970, Annlz zool Warsz 17, 279–280, pl 2, pl 9 f 9–10, N (HGB, HGN, PB), M, F; Ko and Park 1988, 9, f 13–15, S (GW), M; Kumanski 1990, 39, N (HHN, NGW, PB), M, F; Malicky 1993, 14, N (PB), M; Hwang 2006, 32, f 30–34, S (GB), M.

98. *Rhyacophila narvae* Navás, 1926 무늬물날도래

Rhyacophila narvae Navás, 1926, Ent Mitt 15, 57, pl 1 f 7; Botosaneanu 1970, 280, pl 8 f 1–2, N (HGB), M, F; Yoon and Kim 1988, 482–483, f 28, S (GB, GN, GW), L; Yoon and Kim 1989b, 302, f 15–17, S (GN, GW), L; Kobayashi 1989, 4, S (GN), M, F; Kumanski 1990, 39, N (HHB, PB), M; Lee and Kim 1993, 264, N (RG), L; Oláh *et al.* 2018, 112, N (NGW, PB), M, F.

Rhyacophila cf. tonneri Mey, 1989: Kumanski 1990, 39, f 5–9, N (HGB, NGW), F.

Rhyacophila sp. KB: Kim 1974, 6, f 14 (as f 12), S (GG, JB), L.

Remarks. Kumanski (1990) recorded two females as *R. cf. tonneri* from Korea, and pointed out that they were identical to the female of *R. narvae* recorded in Botosaneanu (1970). Arefina (2001) described the female of *R. narvae* using Russian materials, and recognized that Botosaneanu (1970)'s female belongs to *R. narvae*. The larva described as *Rhyacophila* sp. KB by Kim (1974) is identical to the larva described as *R. narvae* by Yoon and Kim (1988; 1989b).

99. *Rhyacophila retracta* Martynov, 1914

용수물날도래

Rhyacophila retracta Martynov, 1914a, Rev Russe Ent 14, 75–77, f 5–6; Botosaneanu, 1970, 285, pl 8 f 9, H (HGN, PB), M, F; Emoto 1979, 561, f 2A–B, f 3, f 5A, 5E, 5I, S (GB), M, F; Ko and Park 1988, 9–10, f 24–26, S (GW, JB), M, F; Yoon and Kim 1988, 480–481, f 26, S (GB, GG, GN, GW, JB, SL), L; Yoon and Kim 1989b, 301, S (GB, GG, GN, GW, JB, SL), L; Kumanski 1990, 41, N (NGW), M, F; Lee and Kim 1993, 264, N (RG), L; Choe and Woo 1998, 73, S (JN), M; Hwang 2006, 33, f 35–39, S (CB, GG, GW, JB, JN), M, F; Oláh *et al.* 2018, 112, N (HGB, PB, PY), M; Nozaki *et al.* 2019, 2, f 2A–C, S (GN), M.

Rhyacophila uchidai Kobayashi, 1989, 4, f 2, S (GN), M. Synonymized by Nozaki *et al.* (2019).

Rhyacophila sp. RC: Kim 1974, 5, f 6–8, S (GB), M, P, L.

Remarks. The larva described as *Rhyacophila* sp. RC by Kim (1974) is identical to the larva described as *R.*

retracta by Yoon and Kim (1988; 1989b).

100. *Rhyacophila riedeliana* Botosaneanu, 1970

꼬마물날도래

Rhyacophila riedeliana Botosaneanu, 1970, Annlz zool Warsz 17, 280–281, pl 3, N (HGN), M; Kumanski 1990, 39, f 10–13, N (NGW, PB), M, F; Hwang 2006, 34, f 40–42, S (GW), M; Oláh *et al.* 2018, 112, N (HGB), M.

101. *Rhyacophila shikotsuensis* Iwata, 1927

민무늬물날도래

Rhyacophila shikotsuensis Iwata, 1927a, Zool Mag 39, 212, 214, 216, f 33–34; Yoon and Kim 1988, 487–488, f 34, S (GB, GG, GN), L; Yoon and Kim 1989b, 303–304, f 34–36, S (GG, GN, JN), L.

Rhyacophila sp. RE: Kim 1974, 6, f 9, S (GB, GG, GW), L. Associated by Tanida (1985).

Remarks. This species, originally described from Japan, has been recorded based on only larval materials, but the adults have not been found from Korea.

102. *Rhyacophila sibirica* McLachlan, 1879

시베리아물날도래

Rhyacophila sibirica McLachlan, 1879, Rev Syn, 465–466, pl 49 f 1–4; Yoon and Kim 1988, 481–482, f 27, S (GB, GG, GN, GW, JB, SL), L; Yoon and Kim 1989b, 302, f 12–14, S (GB, GG, GN, GW, JB, SL), L.

Remarks. This species, originally described from Siberia, Russia, has been widely recorded from Korea, but the adults of this species have yet to be recorded from Korea.

103. *Rhyacophila singularis* Botosaneanu, 1970

검은줄물날도래

Rhyacophila singularis Botosaneanu, 1970, Annlz zool Warsz 17, 281–283, pl 4, N (HGB), M; Ko and Park 1988, 9, f 19–23, S (JB), M; Hwang 2006, 34–35, f 43–47, S (CB, GW), M, F.

104. *Rhyacophila soldani* Mey, 1989

알록가슴물날도래*

Rhyacophila soldani Mey, 1989, Acta Ent Bohemoslov 86, 296–298, f 3–4, N (RG), M; Oláh *et al.* 2018, 112, S (GW), M.

105. *Rhyacophila szeptyckii* Malicky, 1993

평안물날도래*

Rhyacophila szeptyckii Malicky, 1993, Braueria 20, 14, figs, N (PB), M, F.

106. *Rhyacophila tonneri* Mey, 1989 맑은물날도래

Rhyacophila tonneri Mey, 1989, Acta Ent Bohem 86,

298–300, f 5–10, N (RG), M, F.

107. *Rhyacophila vicina* Botosaneanu, 1970

집계물날도래

Rhyacophila vicina Botosaneanu, 1970, Annls zool Warsz 17, 287–288, pl 7, N (HGB, PB), M, F; Kumanski 1990, 39, N (HHB, NGW), M, F; Hwang 2006, 35–36, f 48–51, S (CB, GG, GW), M; Oláh *et al.* 2018, 112–113, N (HGB, NGW, PB), M; Nozaki *et al.* 2019, 2–3, f 2D–F, S (GN), M, F.

Rhyacophila jirisana Kobayashi, 1989, 4, f 3, S (GN), M, F. Synonymized by Nozaki *et al.* (2019).

108. *Rhyacophila yamanakensis* Iwata, 1927

곤봉물날도래

Rhyacophila yamanakensis Iwata, 1927a, Zool Mag 39, 212, 214, 217, f 28–30; Kim 1974, 4, f 2, S (GG, GW), L; Yoon and Kim 1988, 479, f 24, S (GG, JB), L; Yoon and Kim 1989b, 301, f 1–4, S (GG, JB), L.

Remarks. This species, originally described from Japan, has been recorded based only on larval materials, but the adults have not been found from Korea.

***Rhyacophila* KC**

Rhyacophila KC: Kim 1974, 6–7, f 13, S (GW), L.

***Rhyacophila* KE**

Rhyacophila KE: Kim 1974, 7, f 15, S (GW), L.

***Rhyacophila* KF**

Rhyacophila KF: Kim 1974, 7, f 16, S (GG), L.

***Rhyacophila* KG**

Rhyacophila KG: Kim 1974, 7–8, f 17–19, S (GB), M, P, L.

***Rhyacophila* KUa 물날도래 KUa**

Rhyacophila KUa: Yoon and Kim 1988, 489–490, f 36, S (CN, GB, GG, GN, GW, JB, JN), L; Yoon and Kim 1989b, 304, f 43–47, S (CN, GG, GN, GW, JN), L.

Rhyacophila KD: Kim 1974, 7, f 12 (as f 14), S (GW), L.

Remarks. The characters of *Rhyacophila* KD provided by Kim (1974) clearly match those of *Rhyacophila* KUa.

***Rhyacophila* KUb 물날도래 KUb**

Rhyacophila KUb: Yoon and Kim 1988, 490, f 37, S (GB, GG, GW), L; Yoon and Kim 1989b, 304, f 40–42, S (GB, GG, GW), L.

***Rhyacophila* sp.**

Rhyacophila hokkaidensis Iwata, 1927a: Ko and Park 1988, 8, f 1–4, S (GW), M, F. Misidentification mentioned by Kuranishi (1999).

***Rhyacophila* sp.**

Rhyacophila sp.: Doi 1932, 75, N (NGW), F.

***Rhyacophila* sp.**

Rhyacophila sp.: Yamada 1938, 2, N (PB), S (GG, GN), P, L.

***Rhyacophila* sp.**

Rhyacophila sp.: Lee and Kim 1993, 264, N (RG), L.

Family Phryganopsychidae Wiggins, 1959

등근날개날도래과

Genus *Phryganopsyche* Wiggins, 1959

등근날개날도래속

109. *Phryganopsyche latipennis* (Banks, 1906)

등근날개날도래

Phryganea latipennis Banks, 1906, Proc ent Soc Wash 7, 107.

Phryganopsis latipennis (Banks, 1906): Doi 1932, 73, N (NGW), A.

Phryganopsyche latipennis (Banks, 1906): Oláh 1985, 137, N (NGW, PN), M, F; Yoon and Kim 1988, 506–508, f 44, S (CN, GG, JJ), L; Kumanski 1991b, 17, N (NGW, PB), M, F; Park 1999, 36–37, f 95–97, S (CB, GG, GN, GW, JB, JJ, JN), M, F, L; Hwang 2006, 87–88, f 232–236, S (CB, GG, GW, JB, SL), M, F; Oláh *et al.* 2018, 116, S (GW, JJ), M, F.

Family Phryganeidae Leach, 1815 날도래과

Subfamily Phryganeinae Leach, 1815 날도래아과*

Genus *Agrypnia* Curtis, 1835 단발날도래속

110. *Agrypnia czerskyi* (Martynov, 1924) 참단발날도래

Prophryganea czerskyi Martynov, 1924b, CR Ac Sci Russie A, 78.

Dasystegia czerskyi (Martynov, 1924): Kuwayama 1973, 36, S (CB), A.

Agrypnia czerskyi (Martynov, 1924): Kumanski 1991b, 17, N (NGW, RG), M, F; Wiggins 1998, 103–105, f 77–78, Seishu (Chungdu), M, F.

111. *Agrypnia incurvata* Wiggins, 1998

굽은단발날도래*

Agrypnia incurvata Wiggins, 1998, Caddis Fam Phryganeidae, 105–107, f 79–80, Korea (Chafunsoek), M.

Remarks. Wiggins (1998) reported this species from “Korea: Chafunsoek”, but we were unable to determine the exact locality.

112. *Agrypnia picta* Kolenati, 1848 맵시단발날도래

Agrypnia picta Kolenati, 1848, Gen Spec Trich 1, 23, 33, 79; Botosaneanu 1970, 303, N (NGW), M; Kumanski

1991b, 17, N (HHB, NGW), M, F; Wiggins 1998, 96–97, f 66–67, S (GG), M.

113. *Agrypnia sordida* (McLachlan, 1871)

소요산날도래

Phryganea sordida McLachlan, 1871, J Linn Soc London Zool 11, 103, 106.

Prophryganea sordida (McLachlan, 1871): Doi 1933, 95, S (GB, GG), A; Kamijo 1933, 48, S (GB), A.

Dasytegia sordida (McLachlan, 1871): Kuwayama 1973, 36, S (SL), A.

Agrypnia sordida (McLachlan, 1871): Wiggins 1998, 88–91, f 55–57, Chafunseok, M, F.

114. *Agrypnia ulmeri* (Martynov, 1909) 흰등날도래

Phryganea ulmeri Martynov, 1909, Annuaire Mus St Petersb 14, 236–241, 243, 257–258, f 9–12 in part.

Phryganea ulmerina Navás, 1920: Kuwayama 1922, 959, N (HGN), A.

Prophryganea ulmeri (Martynov, 1909): Doi 1932 (as *Prophrygades*), 73, S (SL), A; Kamijo 1933, 48, S (GB), A.

Remarks. Wiggins (1998) mentioned that Korean records of this species are doubtful because *A. acristata* Wiggins, 1998 was widely misidentified as *A. ulmeri*. However, Zhou *et al.* (2016) pointed out a taxonomic problem among *A. czerskyi*, *A. ulmeri* and *A. acristata*, and their relationship is not clear. We list this species for the Korean fauna until the problem is resolved.

***Agrypnia* sp.**

Agrypnia pagetana Curtis, 1835, Brit Ent, pl 540; Yoon and Kim 1988, 501–503, f 42, S (JJ), L.

Remarks. Yoon and Kim (1988) described a Korean larva as *A. pagetana*. Their description clearly shows that the larva belongs to the genus *Agrypnia*, but it cannot be identified to species. Although adults of five *Agrypnia* species have been recorded from Korea, no adults of *A. pagetana* have been found in Korea.

Genus *Eubasilissa* Martynov, 1930 공주날도래속*

115. *Eubasilissa regina* (McLachlan, 1871) 공주날도래

Holostomis regina McLachlan, 1871, J Linn Soc London Zool 11, 103–104.

Eubasilissa regina (McLachlan, 1871): Lee and Kim 1993, 265, N (RG), L; Wiggins 1998, 227–228, f 228–230, “Korea (no date)”, M, F.

Remarks. Wiggins (1998) examined a specimen labelled only as “Korea (no date)”.

116. *Eubasilissa signata* Wiggins, 1998 셋별공주날도래
Eubasilissa signata Wiggins, 1998, Caddis Fam Phryganeidae, 237–238, f 243–244, “Korea”, F.

Remarks. Wiggins (1998) examined a specimen labelled only as “Korea” without any more information. Kuranishi and Hsu (2019) mentioned a possibility that the single female described by Wiggins (1998) is not from Korea.

Genus *Oligotricha* Rambur, 1842 매끈날도래속*

117. *Oligotricha lapponica* (Hagen, 1864) 매끈날도래
Neuronia lapponica Hagen, 1864, Verh zool bot Ges 14, 852.

Oligotricha lapponica (Hagen, 1864): Kuwayama 1973, 37, S (GW), A; Wiggins 1998, 114–115, f 85–89, S (GW), F.

Oligotricha sp.: Kwon *et al.* 2013, 708–709, figs, S (GW), L.

Remarks. We reexamined specimens of *Oligotricha* sp. reported by Kwon *et al.* (2013), and identified it as *O. lapponica*.

Genus *Phryganea* Linnaeus, 1758 끝검은날도래속*

118. *Phryganea japonica* McLachlan, 1866

끝검은날도래

Phryganea japonica McLachlan, 1866, Tr ent Soc London (3) 5, 248–249; Kuwayama 1922, 960, Korea (as Chosen), A; Doi 1932, 73, S (GG), A.

Material examined. South Korea: GW, Cheolwon-gun, 38°08'08.78"N 127°28'20.21"E, alt. 556 m; 29 vi 2017; col. H.S. Kwon.

Remarks. Wiggins (1998) doubted records of this species from Korea by Kuwayama (1922). However, we found one male specimen of *P. japonica* from Korea.

119. *Phryganea sinensis* McLachlan, 1862 중국날도래

Phryganea sinensis McLachlan, 1862, Tr ent Soc London (3) 1, 302–303; Kuwayama 1922, 960, N (PY), A; Doi (1932), 73, N (HHN), A; Wiggins 1998, 151, f 141–142, distribution; Hwang 2006, 84–85, f 224–227, S (CN, GG), M, F.

Colpomera sinensis (McLachlan, 1862): Kuwayama 1973, 42, N (PY), A.

***Phryganea* sp. KB**

Neuronia sp. KB: Kim 1974, 19, f 52, S (GB), L.

Remarks. Kim (1974) described a larva as *Neuronia* sp. KB, and the morphological characters such as markings

on the head and pronotum and setation of the mesonotum shows that the larva belongs to the genus *Phryganea*.

Genus *Semblis* Fabricius, 1775 골뚝날도래속

120. *Semblis atrata* (Gmelin, 1789)

희시무루표범날도래

Phryganea atrata Gmelin, 1789, Linn Syst Nat ed 13, 2634.

Holostomis atrata (Gmelin, 1789): Doi 1933, 95, N (HGB), A.

Holostomis chinganica Martynov, 1907: Kuwayama 1973, 40, N (HGB), A.

Semblis atrata (Gmelin, 1789): Oláh *et al.* 2018, 115–116, N (HGB), M.

121. *Semblis phalaenoides* (Linnaeus, 1758)

골뚝날도래

Phryganea phalaenoides Linnaeus, 1758, Syst Nat ed 10, 547.

Neuronia phalaenoides (Linnaeus, 1758): Kuwayama 1922 (as *N. phalanoides*), 957, S (GG), A.

Holostomis phalaenoides (Linnaeus, 1758): Doi 1932, 73, N (NGW, PN), S (GG), A; Lee and Kim 1993, 265, N (RG), L.

Holostomis coreana Kuwayama, 1967, 1–2, pl 1 f 1, pl 2 f 1–2, N (HGB), S (GG, GW), M, F; Kuwayama 1973, 39, N (HGB), S (GG, GW, SL), A. Synonymized by Mey (1989).

Semblis phalaenoides (Linnaeus, 1758): Yoon and Kim 1988, 503–505, f 43, S (GG, GN, GW), L; Mey 1989, 302–303, N (PB), M, F; Kumanski 1991b, 17, N (PB), M, F; Wiggins 1998, 195–198, f 193–198, S (GG, GW, Kanko (Chosen), Kongosan), M, F; Park 1999, 35, f 87–88, S (GG, GN, GW), M, F, L; Hwang 2006, 85–87, f 228–231, S (CB, GG, GW), M, F.

Neuronia sp. KA: Kim 1974, 18, f 50, S (JJ), L.

Remarks. Yoon and Kim (1988) pointed out the characters of *Neuronia* sp. KA by Kim (1974) were identical to those of *S. phalaenoides*, although the body size of *Neuronia* sp. KA is smaller than that of *S. phalaenoides*. We consider the difference may be due to the different larval stages.

Family Brachycentridae Ulmer, 1903

등근얼굴날도래과

Genus *Brachycentrus* Curtis, 1834

긴다리얼굴날도래속*

122. *Brachycentrus japonicus* (Iwata, 1927)

긴다리얼굴날도래*

Brachycentriella japonia Iwata, 1927a, Zool Mag 39, 259.

Brachycentrus bilobatus (Martynov, 1935): Botosaneanu 1970, 303, N (HGB), M, F. Synonymized by Nozaki (2005).

***Brachycentrus* sp.**

Brachycentrus sp.: Lee and Kim 1993, 266, N (RG), L.

Genus *Micrasema* McLachlan, 1876 등근얼굴날도래속

123. *Micrasema gelidum* McLachlan, 1876

찬얼굴날도래

Micrasema gelidum McLachlan, 1876, Trans Ento Soc London, 263–264; Botosaneanu 1970, 303, pl 29, N (HGB), M; Lee and Kim 1993 (as *M. geliolum*), 266, N (RG), L.

124. *Micrasema hanasense* Tsuda, 1942

등근얼굴날도래

Micrasema hanasense Tsuda, 1942b, Mem Coll Sci Kyoto B 17, 327–328, f 70–71; Hwang 2006, 89–90, f 237–243, S (CB), M; Hur 2009, 64–67, S (GW, JB), M, F, L.

Micrasema KUa: Yoon and Kim 1988, 509–510, f 45, S (GB, GW), L. Associated by Hur (2009).

***Micrasema* sp.**

Micrasema sp. (? *gelidum* McLachlan, 1876): Kumanski 1991b, 17–18, N (HHN), F.

***Micrasema* sp.**

Micrasema sp.: Lee and Kim 1993, 266, N (RG), L.

Family Lepidostomatidae Ulmer, 1903

네모집날도래과

Subfamily Lepidostomatinae Ulmer, 1903

네모집날도래아과*

Genus *Lepidostoma* Rambur, 1842 네모집날도래속

125. *Lepidostoma albardanum* (Ulmer, 1906)

네모집날도래

Maniconeura albardana Ulmer, 1906, Not Leyden Mus 28, 26–28, f 32–34.

Dinarthrodes kurentzovi Martynov, 1935: Botosaneanu 1970, 307, N (PB), M; Oláh 1985, 137, N (PB), M; Kobayashi 1989, 5–6, S (GN, GW), M. Synonymized by Kumanski and Weaver (1992).

Dinarthrodes albardanus (Ulmer, 1906): Kumanski and Weaver 1992, 154–156, f 1–4, N (NGW, PB), M, F.

Goerodes albardanus (Ulmer, 1906): Choe and Woo 1998, 74–75, S (JN), M, F; Park and Bae 1998a, 365–366, f 11, S (CB, JB), M; Park 1999, 16–17, f 20, S (CB, JB), M; Hwang 2006, 118–120, f 334–339, S (CB, GG, GW, JB, JN), M.

Lepidostoma albardanum (Ulmer, 1906): Oláh *et al.*

2018, 116, N(NGW), S(GW), M.

126. *Lepidostoma coreanum*

(Kumanski and Weaver, 1992) 털머리날도래

Indocrunoecia coreana Kumanski and Weaver, 1992, Aq Ins 14, 163–165, f 19–22, N(HHN, NGW, PB), M, F.

Dinarthrum coreanum (Kumanski and Weaver, 1992): Park and Bae 1998a, 366, f 12–13, S (JB), M; Park 1999, 16, f 17–18, S (JB), M.

Lepidostoma coreanum (Kumanski and Weaver, 1992): Hwang 2006, 120–121, f 340–345, S (CB, GG, GW, JB), M.

127. *Lepidostoma elongatum* (Martynov, 1935)

흰점네모집날도래

Dinarthrodes elongatus Martynov, 1935, Trav Inst zool Leningrad 2, 208, 379–384, f 186–191; Kobayashi 1989 (as *D. elongata*), 5, S (GN), M; Kumanski and Weaver 1992, 157–159, f 5–6, N(HHN, NGW, PB), M, F.

Goerodes elongatus (Martynov, 1935): Park and Bae 1999b, 304, f 1, S (GG), F, L; Park 1999, 18–19, f 19, 21–23, S (CB, GG, GW, JB), M, F, L.

Lepidostoma elongatum (Martynov, 1935): Hwang 2006, 121–123, f 346–351, S (CB, GB, GG, GN, GW, JN), M; Oláh *et al.* 2018, 116, N(NGW, PB), S(GW), M, F.

128. *Lepidostoma hirtum* (Fabricius, 1775)

거친네모집날도래

Phryganea hirta Fabricius, 1775, Syst Ent, 308.

Ayabeopsyche nipponica Tsuda, 1942b: Botosaneanu 1970, 307, N (PB), M. Synonymized by Kumanski and Weaver (1992).

Lepidostoma hirtum (Fabricius, 1775): Mey 1989, 304, N (PB), M; Kumanski and Weaver 1992, 165–166, f 23, N (PB), M, F; Oláh *et al.* 2018, 116, N(NGW, PB), M.

129. *Lepidostoma itoae* (Kumanski and Weaver, 1992)

한네모집날도래

Dinarthrodes itoae Kumanski and Weaver, 1992, Aq Ins 14, 161–163, f 15–18, N(HHN, NGW, PN, PY), M, F.

Lepidostoma itoae (Kumanski and Weaver, 1992): Hwang 2006, 123–124, f 352–357, S (CB, GG), M.

130. *Lepidostoma myohyangsanicum*

(Kumanski and Weaver, 1992)

묘향산네모집날도래

Dinarthrodes myohyangsanicus Kumanski and Weaver, 1992, Aq Ins 14, 159–160, f 7–11, N (PB), M, F.

Lepidostoma ebenacanthum (Ito, 1992): Oh *et al.* 2013 (as *L. ebenacanthus*), 210–211, f 1, S (GW), M, F, L; Oh and Kong 2014, 157. **Misidentification.**

Remarks. We reexamined males and females used in Oh *et al.* (2013) and Oh and Kong (2014), and recognized them as a misidentification of *L. myohyangsanicum*.

131. *Lepidostoma orientale* (Tsuda, 1942)

동양네모집날도래

Crunoeciella orientalis Tsuda, 1942b, Mem Coll Sci Kyoto B 17, 329–331, f 72–74.

Goerodes orientalis (Tsuda, 1942): Mey 1989, 304, N (HHN), M; Kumanski and Weaver 1992, 166, f 24, N (NGW, PN), M, F.

Lepidostoma orientale (Tsuda, 1942): Hwang 2006, 125–126, f 364–369, S (CB, GB, GG, GN, GW), M; Oláh *et al.* 2018, 116, N(NGW), M.

132. *Lepidostoma sinuatum* (Martynov, 1935)

굽은네모집날도래

Crunobiodes sinuata Martynov, 1935, Trav Inst zool Leningrad 2, 208, 376–379, f 182, 185.

Agoerodes spinosus Oláh 1985, 139–140, f 2, N(NGW), M. Synonymized by Kumanski and Weaver (1992).

Crunobiodes koriaensis Kobayashi, 1989, 6, f 4, S (GN), M. Synonymized by Ito (2001) and Nozaki *et al.* (2019).

Dinarthrodes sinuatus (Martynov, 1935): Kumanski and Weaver 1992, 160–161, f 12–14, N(HHN, NGW, PN), M, F.

Goerodes sinuatus (Martynov, 1935): Park and Bae 1999b, 304, f 2–5, S (GG), M, L; Park 1999, 19, f 24–27, S (GG), M, L; Ito 2001, 8–9.

Lepidostoma sinuatum (Martynov, 1935): Hwang 2006, 124–125, f 358–363, S (GG, GN, GW), M; Oláh *et al.* 2018, 116, N(NGW), M; Nozaki *et al.* 2019, 4, S (GN), M.

***Lepidostoma* KUa** 네모집날도래 KUa

Goerodes KUa: Yoon and Kim 1988, 532–534, f 55, S (JN), L.

***Lepidostoma* KUb** 네모집날도래 KUb

Dinarthrodes sp. KA: Kim 1974, 23, f 63, S (GG), L.

Goerodes KUb: Yoon and Kim 1988, 534, f 56, S (CB, CN, GB, GG, GN, GW, JJ, JN, SL), L.

Remarks. A larva described as *Dinarthrodes* sp. KA by Kim (1974) is identical to *Lepidostoma* KUb.

***Lepidostoma* KA**

Neoseverinia sp. KA: Kim 1974, 23, f 62, S (GG), L.

Remarks. The genus *Neoseverinia* was synonymized with the genus *Lepidostoma* by Weaver (2002).

Lepidostoma sp.

Lepidostoma japonicum (Tsuda, 1936): Yamada 1938 (as *Atmyiella japonica*), 4–5, N (HGB, PB, PN), S (GB, GG, JB), P, L.

Remarks. Yamada (1938) identified some Korean larvae and pupae as *L. japonicum* (as *Atmyiella japonica*), originally described from Japan, but the species identification was not reliable at that time. Since then, many species related to *L. japonicum* have been found in Korea and Japan, but the adults of *L. japonicum* have not been collected in Korea.

Lepidostomatidae gen. sp.

Lepidostomatidae g. sp.: Malicky 1993, 14, N (PB), F.

Family Goeridae Ulmer, 1903 가시날도래과

Subfamily Goerinae Ulmer, 1903 가시날도래아과*

Genus *Goera* Stephens, 1829 가시날도래속

133. *Goera curvispina* Martynov, 1935 방동가시날도래
Goera curvispina Martynov, 1935, Trav Inst zool Leningrad 2, 208, 367–370, f 169–171; Choe *et al.* 1999, 46, f 10d–f, S (CN), M.

134. *Goera horni* Navás, 1926 알록가시날도래
Goera horni Navás, 1926, Ent Mitt 15, 58, pl 1 f 9a–b; Gall *et al.* 2007, 106–108, f 2, N (PB), M; Oláh *et al.* 2018, 117, N (PB), M.

Goera interrogationis Botosaneanu, 1970, 305–307, pl 31, N (PB), M; Oláh 1985, 137, N (NGW), M; Lee and Kim 1993, 266, N (RG), A; Park and Bae 1998a, 362–364, f 1–2, S (CB, GG, JB, JN), M, F; Park and Bae 1999a, 366–367, f 2, S (GG), F, L; Park 1999, 10–11, f 2–4, 6, S (CB, GG, GW, JB, JN), M, F, L. Synonymized by Gall *et al.* (2007).

135. *Goera jaewoni* Park and Bae, 1999 재원날도래
Goera jaewoni Park and Bae, 1999a, Korean J Biol Sci 3, 365–366, f 1, S (GW); Park 1999, 13–14, f 11–13, S (GW), M; Hwang 2006, 110, f 311–313, S (GW), M.

136. *Goera japonica* Banks, 1906 일본가시날도래
Goera japonica Banks, 1906, P ent Soc Wash 7, 108–109, pl 3 f 9; Yoon and Kim 1988, in part, 530–531, f 54, S (JJ), L; Park 1999, 11–12, in part, S (JJ), L; Choe *et al.* 1999, 108–111, in part, S (JJ), M, F; Gall *et al.* 2007, 108–111, f 3–4, S (JJ), M, F; Oláh *et al.* 2018, 116–117, S (JJ), M, F.

Remarks. Gall *et al.* (2007) mentioned that *G. japonica* is not a continental species, and previous records of *G. japonica* should be replaced by *G. horni* or *G. squamifera*. They recorded this species only from Jeju-do Is-

land, the southernmost part of Korea. Therefore, we treat the records of *G. japonica* from the Korean Peninsula except Jeju-do Island as an unidentified species. Furthermore, since the larvae of *G. horni* and *G. squamifera* are not distinguishable from each other at present, we also list larval records from Korea as an unidentified species.

137. *Goera parvula* Martynov, 1935 그물가시날도래
Goera parvula Martynov, 1935, Trav Inst zool Leningrad 2, 208, 365–367, f 166–168; Botosaneanu 1970, 305, N (HGB), M; Kumanski 1991b, 25, N (NGW, PB), M, F; Lee and Kim 1993, 266, N (RG), L; Park and Bae 1998a, 364, f 3–4, S (GG, JN), M; Park and Bae 1999a, 367, f 3, S (GG, GW), M, L; Park 1999, 12–13, f 7–10, S (GG, GW), M, F, L; Hwang 2006, 108–110, f 304–310, S (GG, GN, GW, JN), M; Oláh *et al.* 2018, 117, N (HGB, PY), M.

138. *Goera squamifera* Martynov, 1909
비늘가시날도래*

Goera squamifera Martynov, 1909, Annuaire Mus St Petersburg 14: 250–253, f 20–22; Mey 1989 (as *G.? squamifera*), 303–304, N (HHN), M; Gall *et al.* 2007, 104–106, f 1, S (GW), M; Oláh *et al.* 2018, 117, N (HHB, NGW), M.

Goera japonica Banks, 1906: Kumanski 1991b, 25, in part, f, 15–17, N (HHB, HHN, NGW, PB, PN, PY), M, F. Misidentification mentioned by Gall *et al.* (2007). Malicky 1993, 14, N (HHN), M. **Misidentification.**

Remarks. Reexamination of the specimens recorded as *G. japonica* from Korea (Malicky, 1993) showed that it was a misidentification of *G. squamifera* (H. Malicky, pers. comm. on June 29, 2018).

139. *Goera tungusensis* Martynov, 1909
북방가시날도래

Goera tungusensis Martynov, 1909, Annuaire Mus St Petersburg 14, 246–253, f 16–19; Mey 1989, 304, N (RG), M; Oláh *et al.* 2018, 117, N (PB), M.

140. *Goera yamamotoi* (Tsuda, 1942) 잔가시날도래
Lithax yamamotoi Tsuda, 1942a, 235–237, f 11–12, N (RG), M.

Remarks. Malicky (2013) mentioned a possibility that this species is synonymous with *G. tungusensis*.

***Goera* spp.**

Goera japonica Banks, 1906: Tsuda 1942a, 235, N (HGB), M, F; Kim 1974, 22–23, f 61, S (GB, GW, JN), L; Yoon and Kim 1988, in part, 530–531, f 54, S (CN, GB, GG, GN), L; Lee and Kim 1993, 266, N (RG), L; Choe and Woo 1998, 74, S (JN), M, F; Park 1999, in

part, 11–12, S (GG, GW), F, L; Choe *et al.* 1999, in part, 43–46, f 10a–c, 11j, S (CN, GB, GG, GN, JN), M, F; Hwang 2006, 106–108, f 299–303, S (CB, CN, GB, GG, GN, GW, JN), M. See remarks of *G. japonica*.

Goera pilosa (Fabricius, 1775): Yamada 1938, 4, S (GB), P, L. Misidentification mentioned by Tsuda and Akagi (1955).

Remarks. Yamada (1938) recorded a European species, *G. pilosa*, based on larval and pupal specimens. Tsuda and Akagi (1955) pointed out that the larval records as *G. pilosa* were misidentifications of *G. japonica*. We treat the records by Yamada (1938) as *Goera* sp. because the identification as *G. japonica*, especially based on the immature stage at that time, was not reliable in Korea (see remarks of *G. japonica*). Gall *et al.* (2007) suggested the possibility that the drawings as *G. japonica* by Choe *et al.* (1999) mostly corresponds to *G. squamifera*. However, the records by Choe *et al.* (1999) included many specimens from various areas, and some specimens may belong to *G. horni*.

Goera sp.

Goera sp.: Lee and Kim 1993, 266, N (RG), L.

Family Uenoidae Iwata, 1927 가시우묵날도래과

Subfamily Thremmatinae Martynov, 1935

가시우묵날도래아과*

Genus *Neophylax* McLachlan, 1871 가시우묵날도래속

141. *Neophylax goguriensis* Oláh and Park, 2018

고구려가시우묵날도래*

Neophylax goguriensis Oláh and Park, 2018, in Oláh *et al.* (2018), Opusc Zool Budapest 49(2), 119–121, f 22–30, N (PB), M, F.

142. *Neophylax relictus* (Martynov, 1935)

봄가시우묵날도래*

Amukia relictus Martynov, 1935, Trav Inst zool Leningrad 2, 207, 306–310, f 116–122.

Neophylax relictus (Martynov, 1935): Oláh *et al.* 2018, 123, N (RG), M.

143. *Neophylax sillensis* Park and Oláh, 2018

신라가시우묵날도래*

Neophylax sillensis Park and Oláh, 2018, in Oláh *et al.* (2018), Opusc Zool Budapest 49(2), 121–122, f 31–49, S (GB, GG, GN, GW, JN), M, F.

144. *Neophylax ussuriensis* (Martynov, 1914)

가시우묵날도래

Halesinus ussuriensis Martynov, 1914b, Annuaire Mus Petrograd 19, 276–278, f 89–91.

Neophylax ussuriensis (Martynov, 1914): Schmid 1965a

(as *N. ussuricus*), 29, N (HGB), M, F; Yoon and Kim 1988, 527–529, f 53, S (GB, GG, GN, GW), L; Kumanski 1991b, 19, N (NGW, RG), M, F; Park and Bae 1998a, 365, f 10, S (JB), M; Park 1999, 29–30, f 74, S (GG, GN, GW, JB), M, L; Hwang 2006, 111–112, f 314–318, S (GG, GN, GW, JB), M; Oláh *et al.* 2018, 122–123, f 50–56, N (RG), M.

Neophylax sp. KA: Kim 1974, 21, f 57–58, S (GG), L.

Remarks. The characters of *Neophylax* sp. KA provided by Kim (1974) are identical to those of *N. ussuriensis*.

Family Apataniidae Wallengren, 1886

애우묵날도래과

Subfamily Apataniinae Wallengren, 1886

애우묵날도래아과*

Genus *Apatania* Kolenati, 1848 애우묵날도래속

145. *Apatania aberrans* (Martynov, 1933)

넓적애우묵날도래*

Apatelia aberrans Martynov, 1933, Annot zool Jap 14, 153–156, f 26–32.

Apatania aberrans (Martynov, 1933): Hwang 2006, 113–114, f 319–323, S (GB, GW), M; Oláh *et al.* 2018, 117, N (NGW), S (JJ), M, F.

146. *Apatania maritima* Ivanov and Levanidova, 1993

큰애우묵날도래

Apatania maritima Ivanov and Levanidova, 1993, Braueria 20, 15, f 1–8; Park 1999, 25, f 59–60, S (GW), F; Park and Bae 2000, 16, f 1:1–2, S (GW), F; Hwang 2006, 115–116, f 329–333, S (GG, GW), M; Hur 2009, 67–70, S (JN), M, L; Oláh *et al.* 2018, 117–118, N (PY), S (GW), M, F.

147. *Apatania sinensis* (Martynov, 1914) 애우묵날도래

Apatelia sinensis Martynov, 1914c, Annuaire Mus Petrograd 19, 21, 22, 25, 49, 50, 86–87, 336, f 1–3.

Apatania sinensis (Martynov, 1914): Kumanski 1991b, 19, N (PB, PY), M, F; Park and Bae 1998a, 364, f 5–6, S (JB), M, F; Park 1999, 25, f 61–62, S (GW, JB), M, F; Hwang 2006, 114–115, f 324–328, S (GG, GN, GW), M, F; Oláh *et al.* 2018, 118, N (HHN, NGW, PB, PY), S (GW), M, F.

148. *Apatania yenchingensis* Ulmer, 1932

남방애우묵날도래*

Apatania yenchingensis Ulmer, 1932, Peking nat Hist Bull 7, 67–68, f 41–43; Oláh *et al.* 2018, 118, S (JJ), M.

Apatania KUa 애우묵날도래 KUa

Apatania KUa: Yoon and Kim 1988, 524–525, f 51, S (GB, GW, JJ), L.

Apatania KUb 애우묵날도래 KUb

Apatania sp. KA: Kim 1974, 19, f 53, S (GB, GG, JJ), P, L.
Apatania KUb: Yoon and Kim 1988, 525–527, f 52, S (CB), L.

Apatania maritima Ivanov and Levanidova, 1993: Hur 2009, 67–70, S (JN), L; Kwon *et al.* 2013, 740–741, S (GG, GW), L.

Remarks. Based on DNA analysis, Hur (2009) recognized that the larva described as *Apatania* KUb, is the same species as *A. maritima*, and Kwon *et al.* (2013) followed the result. However, Oh (2013) reported that the larvae of *A. aberrans* also have the same characters as *Apatania* KUb. These results suggest that *Apatania* KUb possibly includes two or more species. The larva described as *Apatania* sp. KA by Kim (1974) also has the same characters as *Apatania* KUb.

Apatania sp.

Apatania sp.: Lee and Kim 1993, 265, N (RG), L.

Apatania sp.

Apatania sp. (? *mirabilis* Martynov, 1909): Kumanski 1991b, 19, N (RG), F.

Remarks. Kumanski (1991b) mentioned this female resembles to that of *Apatidelia mirabilis* (Martynov, 1909).

Apataniidae gen. sp. KB

Apatania sp. KB: Kim 1974, 19–20, f 54, S (GB), L.

Remarks. The larva, described as *Apatania* sp. KB by Kim (1974), apparently belongs to the family Apataniidae, but three pairs of sclerotized setal areas on its metathorax suggest that this larva does not belong to the genus *Apatania*. The larval morphology provided by Kim (1974) mostly matches that of the genus *Manophylax* Wiggins, but further study is needed to solve its generic and specific status.

Family Limnephilidae Kolenati, 1848 우묵날도래과

Subfamily Dicosmoecinae Schmid, 1955

큰우묵날도래아과*

Genus *Dicosmoecus* McLachlan, 1875

큰우묵날도래속

149. Dicosmoecus coreanus Oláh and Park, 2018

고려큰우묵날도래*

Dicosmoecus coreanus Oláh and Park, 2018, in Oláh *et al.* (2018), Opusc Zool Budapest 49(2), 124–125, f 57–64, N (PB), S (GW), M, F.

150. Dicosmoecus jozankeanus (Matsumura, 1931)

누리우묵날도래

Stenophylax jozankeanus Matsumura, 1931, 6000 Ill ins

Japan, 1126; Doi 1933, 95, N (NGW), A.

151. Dicosmoecus palatus (McLachlan, 1872)

가람우묵날도래

Stenophylax palatus McLachlan, 1872a, Ann Soc ent Belg 15, 63–64, pl 1 f 14, 14a.

Dicosmoecus palatus (McLachlan, 1872): Kumanski 1991b, 18, N (RG), M, F.

Dicosmoecus sp.

Dicosmoecus obscuripennis Banks, 1938: Oh and Kong 2014, 157–158, f 1, S (GW), L. **Misidentification.**

Remarks. We reexamined the larval specimen recorded as *D. obscuripennis* by Oh and Kong (2014), but could not find the specific characters of *D. obscuripennis* provided by Wiggins and Richardson (1982).

Genus *Ecclisomyia* Banks, 1907 깃우묵날도래속

152. Ecclisomyia kamtshatica (Martynov, 1914)

캄차카우묵날도래

Praecosmoecus kamtshaticus Martynov, 1914d, Rev Russe Ent 13, 478–479, f 1.

Ecclisomyia kamtshatica (Martynov, 1914): Mey 1989, 303, N (RG), M, F; Kumanski 1991b, 18, N (HGB), F; Park and Bae 1998a, 364, f 7–8, S (GW), F; Park 1999, 26, f 63–67, S (GG, GW), M, F, L; Choe *et al.* 1999, 28–29, f 1, S (GW), M, F; Park and Bae 2000, 16, f 1 (3), S (GG), M, L; Hwang 2006, 93–94, f 244–249, S (GG, GW), M, F; Oláh *et al.* 2018, 127, N (NGW), F.

Genus *Nothopsyche* Banks, 1906 갈색우묵날도래속

153. Nothopsyche bilobata Park and Bae, 2000

두잎우묵날도래

Nothopsyche bilobata Park and Bae, 2000, Korean J Syst Zool 16(1), 18–19, f 3(1–3), S (GN), M; Park 1999, 30–31, f 78–80, S (GN, GW), M; Oláh *et al.* 2018, 127–128, f 73–80, N (HGB, PB), M, F.

154. Nothopsyche nigripes Martynov, 1914

붉은가슴갈색우묵날도래

Nothopsyche nigripes Martynov, 1914b, Annuaire Mus Petrograd 19, 272–275, f 86–87; Hwang 2006, 94–95, f 250–255, S (GW), M; Nozaki *et al.* 2006, 50–52, f 1, S (GG), M.

155. Nothopsyche pallipes Banks, 1906

큰갈색우묵날도래

Nothopsyche pallipes Banks, 1906, P ent Soc Wash 7, 107–108, pl 3 f 1, 10; Lee and Kim 1993, 265–266, N (RG), L; Hwang 2006, 95–96, f 256–260, S (GW, JB), M.

Remarks. Lee and Kim (1993) recorded this species based on the larval stage, but Nozaki (2002) pointed out it is impossible to distinguish the larvae of related species.

156. *Nothopsyche ruficollis* (Ulmer, 1905)

반디우묵날도래*

Chilostigma ruficolle Ulmer, 1905, Stettin ent Zeit 66, 14–15, pl 1 f 12–13.

Nothopsyche ruficollis (Ulmer, 1905): Oláh *et al.* 2018, 128–129, S (JJ), M, F.

157. *Nothopsyche speciosa* Kobayashi, 1959

맵시우묵날도래

Nothopsyche speciosa Kobayashi, 1959, Bull nat Sci Mus 4, 351–353, f 5a–d; Kumanski 1991b, 18, N (NGW), M.

***Nothopsyche* sp. A**

Nothopsyche sp. A: Park 1999, 31, f 75–77, S (JB), F; Park and Bae 2000, 19, f 3 (4–6), S (JB), F.

***Nothopsyche* KUa 갈색우묵날도래 KUa**

Platyphylax sp. KA: Kim 1974, 20–21, f 56, S (GB, GG, JB), L

Nothopsyche KUa: Yoon and Kim 1988, 520–521, f 49, S (CB, GG, GN, GW), L.

Remarks. The characters of *Platyphylax* sp. KA provided by Kim (1974) are identical to those of *Nothopsyche* KUa.

***Nothopsyche* KUb 갈색우묵날도래 KUb**

Nothopsyche KUb: Yoon and Kim 1988, 522–523, f 50, S (CB), L.

Remarks. Nozaki *et al.* (2006) mentioned that there is a possibility that *Nothopsyche* KUb might be *N. nigripes*.

Subfamily Limnephilinae Kolenati, 1848

우묵날도래아과*

Genus *Asynarchus* McLachlan, 1880

검은날개우묵날도래속

158. *Asynarchus amurensis* (Ulmer, 1905)

아무르검은날개우묵날도래

Limnophilus amurensis Ulmer, 1905, Stettin ent Zeit 66, 8–9, pl 1 f 4–5.

Asynarchus amurensis (Ulmer, 1905): Botosaneanu 1970, 305, N (HGN), M; Kumanski 1991b, 21, N (NGW, RG), M; Malicky 1993, 14, N (PB), F; Choe *et al.* 1999, 36–37, f 6a–c, 11c, S (GW), F; Hwang 2006, 100, f 276–278, S (GW), M; Oláh *et al.* 2019, 17, f 34, N (PB), M.

Asynarchus KUa: Yoon and Kim 1988, 515–517, f 47, S (GW), L.

Remarks. The larva described as *Asynarchus* KUa by Yoon and Kim (1988) agrees well with the description of *A. amurensis* by Lepneva (1966).

Genus *Brachypsyche* Schmid, 1952

가로줄우묵날도래속*

159. *Brachypsyche schmidi* Choe,

Kumanski and Woo, 1999 슈미드우묵날도래

Brachypsyche schmidi Choe, Kumanski and Woo, 1999, Korean J Syst Zool 15(1), 42–43, f 9a–e, S (GW), M; Oláh *et al.* 2018, 129, S (GG), M; Oláh *et al.* 2019, 42, f 122, S (GG), M.

Genus *Hydatophylax* Wallengren, 1891

띠무늬우묵날도래속

160. *Hydatophylax formosus* Schmid, 1965

우리큰우묵날도래

Hydatophylax formosus Schmid, 1965a, Ent Tidskr 86, 32, f 7–10, N (HGB), M, F; Choe *et al.* 1999, 41, f 7h–i, 8g–h, S (GB, GG, GN, GW), M, F; Hwang 2006, 103–104, f 285–288, S (GW), M, F; Oláh *et al.* 2018, 131–132, N (NGW, PY), S (GW), M, F.

161. *Hydatophylax grammicus* (McLachlan, 1880)

무늬날개우묵날도래

Stenophylax grammicus McLachlan, 1880, Rev Syn Suppl 2, 83, pl 59 f 1–4.

Astenophylax grammicus (McLachlan, 1880): Doi, 1932, 73, N (NGW), A; Lee and Kim 1993, 265, N (RG), L.

Hydatophylax grammicus (McLachlan, 1880): Kumanski 1991b, 21, N (HGB), F; Mey 1989, 303, N (PB), M; Kumanski 1991b, 21, N (HGB), F; Park 1999, 27, f 68–69, S (GW), M, F; Choe *et al.* 1999, 37, f 8a–b, 11g; S (GW), F; Hwang 2006, 104–105, f 295–298, S (GW), M; Oláh *et al.* 2018, 132–133, N (PB), M.

162. *Hydatophylax magnus* (Martynov, 1914)

큰우묵날도래

Stenophylax magnus Martynov, 1914b, Annuaire Mus Petrograd 19, 240–244, 246, 252, f 49–54.

Hydatophylax magnus (Martynov, 1914): Kumanski 1991b, 21, f 7, 10–11, N (HHN, PB), M, F; Park and Bae 1998a, 364–365, f 9, S (GB, GG), M; Park 1999, 27–28, f 70, S (GB, GG), M; Choe *et al.* 1999, 39–41, f 7d–g, 8e–f, 11i, S (CB, CN, GB, GG, GW, JN, JJ, SL), M, F; Hwang 2006, 101–102, f 279–284, S (CB, GG, GW, JB, JN, SL), M, F; Oláh *et al.* 2018, 133, N (HHB, PB), S (CB, GN, JB, JN), M, F.

163. *Hydatophylax nigrovittatus* (McLachlan, 1872)

띠무늬우묵날도래

Platyphylax nigrovittatus McLachlan, 1872a, Ann Soc

ent Belg 15, 64–65, pl 2 f 1–1d.

Hydatophylax nigrovittatus (McLachlan, 1872): Botosaneanu 1970, 305, N (HGB), M, F; Yoon and Kim 1988, 517–519, f 48, S (CB, GB, GG, GN, GW, JB, JN, SL), L; Kobayashi 1989, 6, S (GW), M; Kumanski 1991b, 21, N (HGB, PB), M, F; Park 1999, 28, f 71, S (GG, GW), M; Choe *et al.* 1999, 37–39, f 7a–c, 8b–c, 11h, S (CB, GG, GW, JN), M, F; Hwang 2006, 102–103, f 289–294, S (CB, GG, GW, JB, JN, SL), M, F; Oláh *et al.* 2018, 133, N (PB), S (GB), M, F.

Remarks. All larval materials belonging to the genus *Hydatophylax* have been identified as *H. nigrovittatus* in South Korea even though several adult species have been widely recorded from South Korea. Further study on larvae of the genus *Hydatophylax* is required.

164. *Hydatophylax sakharovi* Kumanski, 1991

줄무늬우묵날도래

Hydatophylax sakharovi Kumanski, 1991b, Ins Kor 8, 21–24, f 4–6, 8–9, N (NGW), M, F.

165. *Hydatophylax soldatovi* (Martynov, 1914)

대륙우묵날도래*

Astenophylax soldatovi Martynov, 1914b, Annuaire Mus Petrograd 19, 247–249, f 55–57.

Hydatophylax soldatovi (Martynov, 1914): Oláh *et al.* 2018, 133, N (RG), M.

***Hydatophylax* sp. KA**

Astenophylax sp. KA: Kim 1974, 21–22, f 59, S (GW), L.

Remarks. The genus *Astenophylax* Ulmer was synonymized with the genus *Hydatophylax* Wallengren by Schmid (1950).

Genus *Limnephilus* Leach, 1815 모시우묵날도래속

166. *Limnephilus correptus* McLachlan, 1880

모시우묵날도래

Limnephilus correptus McLachlan, 1880, Rev Syn Suppl 2, 18, pl 53 f 1–2; Doi 1932, 74, S (SL), A.

Limnephilus correptus McLachlan, 1880: Choe *et al.* 1999, 30, f 2a–b, S (GG), M.

167. *Limnephilus fuscovittatus* Matsumura, 1904

검정모시우묵날도래

Limnephilus fuscovittatus Matsumura, 1904, 1000 Ins Jap 1, 171, pl 12 f 13; Lee and Kim 1993, 265, N (RG), L.

Limnephilus fuscovittatus Matsumura, 1904: Kumanski 1991b, 19–20, N (PY), M; Choe *et al.* 1999, 30–33, f 2e–f, 3c–j, 11b, S (GG), M; Oláh *et al.* 2018, 129–130, N (HHB, NGW, PB, PY, RG), M, F; Oláh *et al.*

2019, 26, f 67, N (HHB, NGW, PB, PY, RG), M.

168. *Limnephilus orientalis* Martynov, 1935

동양모시우묵날도래

Limnephilus orientalis Martynov, 1935, Trav Inst zool Leningrad 2, 348.

Limnephilus orientalis Martynov, 1935: Choe *et al.* 1999, 30, f 2c–d, f 3a–b, S (JB, JN), M; Hwang 2006, 213, f 266–270, S (JB), F; Oláh *et al.* 2018, 130, S (GN), F.

169. *Limnephilus quadratus* Martynov, 1914

등근네모우묵날도래*

Limnephilus quadratus Martynov, 1914b, Annuaire Mus Petrograd 19, 202–205, f 22–24

Limnephilus quadratus Martynov, 1914: Oláh *et al.* 2018, 130, N (RG), M; Oláh *et al.* 2019, 29, f 81–82, N (RG), M.

170. *Limnephilus sericeus* (Say, 1824) 비단우묵날도래

Phryganea sericea Say, 1824, Narrative Exp Long 2, 309

Limnephilus sericeus (Say, 1824): Kumanski 1991b, 19, N (RG), M, F.

171. *Limnephilus sibiricus* Martynov, 1929

북방우묵날도래

Limnephilus sibiricus Martynov, 1929, Konowia 8, 305–308, f 13–16; Kumanski 1991b, 19, N (PN, PY), M, F.

***Limnephilus* sp.**

Limnephilus sp. (gr. *rhombicus*): Kumanski 1991b, 20, f 1–3, N (RG), F.

***Limnephilus* KUa**

Limnephilus KUa: Yoon and Kim 1988, 513–515, f 46, S (JJ), L.

Genus *Nemotaulius* Banks, 1906 띠우묵날도래속

172. *Nemotaulius brevilinea* (McLachlan, 1871)

줄우묵날도래

Grammotaulius brevilinea McLachlan, 1871, J Linn Soc London Zool 11, 107–108, pl 2 f 1.

Nemotaulius brevilinea (McLachlan, 1871): Doi 1932, 73–74, S (GG, SL), A; Cho 1963, 173, S (JJ), A; Kumanski 1991b, 20, N (NGW), M, F; Choe *et al.* 1999, 33, f 4a–b, 5a–b, 11d, S (GG, GW), M, F; Oláh *et al.* 2018, 130, N (NGW), M.

173. *Nemotaulius coreanus* Oláh, 1985 고려우묵날도래

Nemotaulius coreanus Oláh, 1985, Folia Ent Hungarica Rov Koezl 46, 137–139, f 1, N (RG), M; Oláh *et al.* 2018, 130–131, f 84–88, N (RG), S (GB, GN, GW,

JB), M, F; Oláh *et al.* 2019, 38, f 114, N (RG), M.
Glyphotaelius admorsus (McLachlan, 1866): Doi 1932, 73, S (GG), A; Kim 1974, 20, f 55, S (GG), L.
Nemotaulius admorsus (McLachlan, 1866): Kumanski 1991b, 20–21, N (NGW, PY), M, F; Lee and Kim 1993, 265, N (RG), A; Choe *et al.* 33–35, f 4b–c, 5b–c, 11e, S (GG, GW, JB, JN, SL), M, F; Hwang 2006, 99–100, f 271–275, S (CN, GB, GW), M, F. Misidentification.

Remarks. Oláh *et al.* (2018) and Oláh *et al.* (2019) pointed out all the records as *N. admorsus* from the Korean Peninsula and Ussuri area of Russia are misidentifications of this species.

174. *Nemotaulius mutatus* (McLachlan, 1872)

어리우묵날도래

Glyphotaelius mutatus McLachlan, 1872a, Ann Soc ent Belg 15, 60–61, pl 1 f 12–12b.

Nemotaulius mutatus (McLachlan, 1872): Botosaneanu 1970, 305, N (NGW), F; Kumanski 1991b, 21, N (NGW), M; Choe *et al.* 1999, 35, f 4e–f, 5e–f, 11f, S (GG, GW), M, F.

***Nemotaulius* sp. A**

Nemotaulius sp. A: Park 1999, 29, f 72, S (GG), L; Park and Bae 2000, 17, f 2(1), S (GG), L.

***Nemotaulius* sp. B**

Nemotaulius sp. B: Park 1999, 29, f 73, S (GN, JB), L; Park and Bae 2000, 17–18, f 2(2), S (GN, JB), L.

Subfamily Pseudostenophylacinae Schmid, 1955

장수우묵날도래아과*

Genus *Pseudostenophylax* Martynov, 1909

장수우묵날도래속*

175. *Pseudostenophylax amurensis* (McLachlan, 1880)

아무르장수우묵날도래*

Stenophylax amurensis McLachlan, 1880, Rev Syn Suppl 2, 82–83, pl 59 f 1–2.

Pseudostenophylax amurensis (McLachlan, 1880): Hwang 2006, 97, f 261–265, S (GW), M, F; Oláh *et al.* 2018, 129, N (HGB), M.

176. *Pseudostenophylax riedeli* Botosaneanu, 1970

찬물장수우묵날도래*

Pseudostenophylax riedeli Botosaneanu, 1970, Annls zool Warsz 17: 304–305, pl 30, N (HGB), M; Oláh *et al.* 2018, 129, N (NGW), M.

***Pseudostenophylax* sp. KA**

Stenophylax sp. KA: Kim 1974, 22, f 60, S (GG), L.

Remarks. The larval characters described by Kim (1974)

match those of the genus *Pseudostenophylax*.

Family Calamoceratidae Ulmer, 1905 채다리날도래과

Subfamily Anisocentropodinae Lestage, 1936

어깨채다리날도래아과*

Genus *Anisocentropus* McLachlan, 1863

어깨채다리날도래속*

177. *Anisocentropus kawamurai* (Iwata, 1927)

어깨채다리날도래*

Kizakia kawamurai Iwata, 1927a, Zool Mag 39, 242.

Anisocentropus minutus Martynov, 1930: Hwang 2006, 134–135, f 390–394, S (GW), M; Kwon *et al.* 2013, 754–755, f S (CB, GW), L. Synonymized by Ito *et al.* (2012).

Subfamily Calamoceratinae Ulmer, 1905

채다리날도래아과*

Genus *Ganonema* McLachlan, 1866 채다리날도래속

178. *Ganonema extensum* Martynov, 1935

채다리날도래

Ganonema extensum Martynov, 1935, Trav Inst Zool Leningrad 2, 207, 208–214, f 1–7; Park and Bae 1998a; 366–368, f 15, S (JB), M; Park 1999, 9, f 1, S (JB), M; Hwang 2006, 135, f 395–399, S (JB), M, F.

179. *Ganonema uchidai* Iwata, 1930

원통채다리날도래*

Ganonema uchidai Iwata, 1930, Zool Mag 42, 61–62, 64–65, f 285–288.

Asotocerus nigripennis Kuwayama, 1930b, 53–56, f 1–3, S (GG), M, F; Doi 1932, 74, S (GG), A. Synonymized by Nozaki and Tanida (2010).

***Ganonema* KUa**

Ganonema KUa: Yoon and Kim 1988, 544–545, f 61, S (GB), L.

Family Molannidae Wallengren, 1891 날개날도래과

Genus *Molanna* Curtis, 1834 날개날도래속

180. *Molanna moesta* Banks, 1906 날개날도래

Molanna moesta Banks, 1906, P ent Soc Wash 7, 110, pl 3 f 5–6; Doi, 1933, 95, Korea; Botosaneanu 1970, 316, N (HGB, PB, PN), M, F; Yoon and Kim 1988, 540–542, f 59, S (GN, GW), L; Kumanski 1991b, 28, N (NGW, PN, PY), M, F; Park 1999, 32, S (GG, GN, GW, JB, JN), L; Hwang 2006, 129–130, f 375–379, S (CB, GG, GN, GW), M, F; Oláh *et al.* 2018, 136, N (NGW, PY), S (JJ), M.

Molanna falcata Ulmer, 1908: Doi 1932, 74, N (HGN), A; Kim 1974, 15, f 40, S (GG), L. Synonymized by Wiggins (1968).

181. *Molanna submarginalis* McLachlan, 1872

언저리날개날도래

Molanna submarginalis McLachlan, 1872b, CR Soc Nat-
ural Moscou 10: 116; Kumanski 1991b, 28, N (RG), F;
Oláh *et al.* 2018, 136, N (RG), M.

Molanna coreana Tsuda, 1942a, 231-233, f 5-7, N
(HGB), M, F. Synonymized by Wiggins (1968).

***Molanna* sp.**

Molanna sp.: Kumanski 1991b, 28, N (HHN), F.

Family Leptoceridae Leach, 1815 나비날도래과

Subfamily Leptocerinae Leach, 1815

나비날도래아과*

Genus *Athripsodes* Billberg, 1820

긴머리나비날도래속*

182. *Athripsodes ceracleoides* Kumanski, 1991

어리나비날도래

Athripsodes ceracleoides Kumanski, 1991a, Hist natr
Bulg 3: 56-58, f 15-21, N (PY), M, F; Oláh *et al.* 2018,
133, N (PY), M.

***Athripsodes* sp. KA**

Tripectides sp. KA: Kim 1974 (as *Tripectides*), 15, f 41, S.

Remarks. The characters described as *Tripectides* sp.
KA by Kim (1974) belong to the genus *Athripsodes*.

Genus *Ceraclea* Stephens, 1829 나비날도래속

183. *Ceraclea albimacula* (Rambur, 1842)

가시나비날도래

Mystacida albimacula Rambur, 1842, Hist nat Nevr, 509.
Athripsodes biwaensis Tsuda and Kuwayama, 1950: Bot-
osaneanu 1970, 308, N (PY), M. Synonymized by Yang
and Morse (1988).

Ceraclea alboguttata (Hagen, 1860): Kumanski 1991a,
58, N (PB, PY), M, F. Synonymized by Malicky (2005).

Ceraclea morsei Kumanski, 1991a, 58-60, f 22-29, N
(PB, PY), M, F; Park 1999, 21, f 35-37, S (GG), M;
Park *et al.* 1999, 157, f 8-10, S (GG), M; Hwang 2006,
144, f 425-429, S (CB, GG), M; Lee *et al.* 2013, 86, f
18-21, S (CN, GW), M; Oláh *et al.* 2018, 134, N (PY),
M. Synonymized by Malicky (2013).

Ceraclea albimacula (Rambur, 1842): Lee *et al.* 2013,
85-86, f 14-17, S (GG), M; Oláh *et al.* 2018, 133-134,
N (PY, RG), M.

184. *Ceraclea annulicornis* (Stephens, 1836)

반지나비날도래

Leptocerus annulicornis Stephens, 1836, Ill Brit Ent 6,
199.

Athripsodes annulicornis (Stephens, 1836): Botosaneanu

1970, 308, N (HGB), M.

185. *Ceraclea armata* Kumanski, 1991

창나비날도래
Ceraclea armata Kumanski, 1991a, Hist Nat Bulg 3, 63-
66, f 36-43, N (PB), M, F; Park 1999, 20, f 28-29, S
(GW), M; Park *et al.* 1999, 156, f 1-2, S (GW), M;
Hwang 2006, 138-139, f 400-404, S (GG, GW), M;
Lee *et al.* 2013, 82, f 1, S (GG, GW), M.

186. *Ceraclea coreana* Kumanski, 1991

한국나비날도래

Ceraclea coreana Kumanski, 1991a, Hist Nat Bulg 3, 68,
f 53-56, N (PB), M; Lee *et al.* 2013, 82-83, f 2-4, S
(GG), M.

187. *Ceraclea excisa* (Morton, 1904)

끝나비날도래
Leptocerus excisus Morton, 1904, Meddel Soc F Fl Fenn
30, 67-69, 215, f 1-5.

Ceraclea excisa (Morton, 1904): Kumanski 1991a, 63, N
(PY), F.

188. *Ceraclea gigantea* Kumanski, 1991

장수나비날도래

Ceraclea gigantea Kumanski, 1991, Hist Nat Bulg 3,
60-62, f 30-32, N (PB), F; Hwang 2006, 143-144, f
420-424, S (CB, GG), M, F.

189. *Ceraclea hastata* (Botosaneanu, 1970)

뿔족나비날도래

Athripsodes hastatus Botosaneanu, 1970, Anns zool
Warsz 17, 308-310, pl 32, N (PB), M.

Ceraclea hastata (Botosaneanu, 1970): Kumanski 1991a,
66, N (PB), M.

190. *Ceraclea lobulata* (Martynov, 1935)

앞사귀나비날도래

Leptocerus lobulatus Martynov, 1935, Trav Inst Zool
Leningrad 2, 207, 223-225, f 16-18.

Ceraclea lobulata (Martynov, 1935): Mey 1989, 304, N
(PY), M, F; Kumanski 1991a, 62, N (PB, PN, PY), M,
F; Park 1999, 20-21, f 30-33, S (GG, GN), M; Park
et al. 1999, 156, f 3-7, S (GG, GN), M; Hwang 2006,
139-141, f 405-409, S (CB, GG, GN, GW), M; Jung
and Bae, 2006, 149-151, f 1, S (GG, SL), M, L; Lee
et al. 2013, 83-84, f 5-6, S (CB, GB, GG, JN, SL), M;
Oláh *et al.* 2018, 134, N (RG), M.

191. *Ceraclea mitis* (Tsuda, 1942)

연꽃나비날도래
Leptocerus mitis Tsuda, 1942b, Mem Coll Sci Kyoto B
17, 291-292, f 42.

Ceraclea mitis (Tsuda, 1942): Kumanski 1991a, 66-68, f
44-52, N (PB), M, F; Lee *et al.* 2013, 84, f 7-9, S (GG),
M; Oláh *et al.* 2018, 134, N (PB), M, F.

192. *Ceraclea shuotsuensis* (Tsuda, 1942)

길주나비날도래

Leptocerus shuotsuensis Tsuda, 1942a, Mem Coll Sci Kyoto B 17, 233–234, 289, f 8, N (HGB), M; Kobayashi 1989, 8, S (GW), M.

Ceraclea shuotsuensis (Tsuda, 1942): Kumanski 1991a, 63, N (PB), M, F; Park 1999, 21–22, f 38–39, S (CB), M; Hwang 2006, 141–142, f 410–414, S (CB, GG, GW, JB), M; Lee *et al.* 2013, 84–85, f 10–11, S (CB, GG, GW, JB), M; Oláh *et al.* 2018, 134, N (PB, RG), M.

Leptocerus sp. KD: Kim 1974, 16–17, f 45–46, S (GG), M, L.

Remarks. Kim (1974) provided descriptions and illustrations of *Leptocerus* sp. KD's larva and male genitalia. The genitalic morphology clearly shows that *Leptocerus* sp. KD (Kim, 1974) is *C. shuotsuensis*.

193. *Ceraclea sibirica* (Ulmer, 1906)

시베리아나비날도래

Leptocerus sibiricus Ulmer, 1906, Not Leyden Mus 28, 36–38, f 42–43; Tsuda 1942a, 233, N (RG), M, F.

Athripsodes sibiricus (Ulmer, 1906): Botosaneanu 1970, 308, N (PB), M.

Ceraclea sibirica (Ulmer, 1906): Kumanski 1991a, 62–63, f 33–35, N (PB), M, F; Park 1999, 22, f 40–46, S (GN), M; Park *et al.* 1999, 157, f 11–17, S (GN), M, F; Hwang 2006, 142–143, f 415–419, S (GN, GW), M; Lee *et al.* 2013, 85, f 12–13, S (CN, GW), M; Oláh *et al.* 2018, 134, N (PB), M.

***Ceraclea* KUa 나비날도래 KUa**

Ceraclea KUa: Yoon and Kim 1988, 547–548, f 62, S (GG, GW), L.

***Ceraclea* KUb 나비날도래 KUb**

Ceraclea KUb: Yoon and Kim 1988, 548–549, f 63, S (GG, GW), L.

***Ceraclea* KUc 나비날도래 KUc**

Ceraclea KUc: Yoon and Kim 1988, 549–550, f 64, S (GG), L.

***Ceraclea* sp. KB**

Leptocerus sp. KB: Kim 1974, 16, f 43, S (GG), L.

Remarks. Most characters, especially a pair of dark markings on mesonotum provided by Kim (1974), suggest that this species belongs to the genus *Ceraclea*.

***Ceraclea* sp. KE**

Leptocerus sp. KE: Kim 1974, 17, f 47, S (GG), L.

Remarks. Most characters, especially a pair of dark

markings on mesonotum provided by Kim (1974), suggest that this species belongs to the genus *Ceraclea*.

Genus *Leptocerus* Leach, 1815 참나비날도래속*

194. *Leptocerus valvatus* (Martynov, 1935)

참나비날도래

Setodes valvata Martynov, 1935, Trav Inst zool Leningrad 2, 207, 264–268, f 72–77.

Leptocerus valvatus (Martynov, 1935): Kumanski 1991a, 53, N (NGW), F.

Genus *Mystacides* Berthold, 1827 청나비날도래속

195. *Mystacides azureus* (Linnaeus, 1761)

청나비날도래

Phryganea azurea Linnaeus, 1761, Fauna Svec ed 2, 380.

Mystacides azurea (Linnaeus, 1761): Park 1999, 22–23, f 47–49, S (GN), F; Park *et al.* 1999, 157–159, f 18–20, S (GN), F.

196. *Mystacides dentatus* Martynov, 1924

청동나비날도래

Mystacides dentata Martynov, 1924a, Jb Martjanov Mus 2, 65, 70, 75, 82, 89–92, f 3a–b; Mey 1989, 304, N (HHN), M, F; Kumanski 1991a, 70, N (NGW, PB, PY), M, F; Park 1999, 23–24, f 50–56, S (GN, GW), M; Park *et al.* 1999, 159, f 21–27, S (GN, GW), M; Oláh *et al.* 2018, 135, N (PB), M, F.

Mystacides dentatus Martynov, 1924: Hwang 2006, 148–149, f 443–447, S (CB, CN, GG, GN, GW, JB), M.

***Mystacides* sp. KA**

Mystacides sp. KA: Kim 1974, 18, f 49, f 51, S (JN), F, P.

***Mystacides* KUa 청나비날도래 KUa**

Mystacides sp. MA: Kim 1974, 17–18, f 48, S (GG), L.

Mystacides KUa: Yoon and Kim 1988, 550–551, f 65, S (JJ), L.

***Mystacides* sp.**

Mystacides sp.: Doi 1932, 74, S (GG, GW), A.

***Mystacides* sp.**

Mystacides sp.: Botosaneanu 1970, 310, N (PB), F.

***Mystacides* sp.**

Mystacides sp.: Malicky 1993, 14, N (PB), F.

Genus *Oecetis* McLachlan, 1877 무늬나비날도래속

197. *Oecetis antennata* (Martynov, 1935)

Oecetodella antennata Martynov, 1935, Trav Inst zool Leningrad 2, 207, 257–261, f 59–63.

Oecetis antennata (Martynov, 1935): Lee *et al.* 2012, 272–273, f 1, S (GW), M, F.

198. *Oecetis caucula* Yang and Morse, 2000
첨나비날도래

Oecetis caucula Yang and Morse, 2000, Mem Amer Ent Inst 64, 8, 130–131, 146, f 142, 227; Lee *et al.* 2012, 273–275, f 2, S (CB, GG), M.

199. *Oecetis dilata* Yang and Morse, 2000
연무늬나비날도래

Oecetis dilata Yang and Morse, 2000, Mem Amer Ent Inst 64, 8, 123–124, 145, 148, f 135, 223; Lee *et al.* 2012, 274–275, f 3, S (GW), M, F; Oláh *et al.* 2018, 134, N (NGW), M.

200. *Oecetis kumanskii* Yang and Morse, 2000
길쭉나비날도래

Oecetis testacea orientalis Kumanski, 1991a, Hist Nat Bulg 3, 52–53, f 1–2, f 5, N (NGW, PB), M, F.

Oecetis testacea kumanskii Yang and Morse, 2000, 135: Hwang 2006, 146–147, f 433–437, S (CN, GG, GW), M, F; Lee *et al.* 2012, 277–278, f 6, S (GW), M, F.

Oecetis kumanskii Yang and Morse, 2000: Oláh *et al.* 2018, 134–135, N (PB, PY), M, F.

Remarks. Yang and Morse (2000) renamed the subspecies *O. t. orientalis* recorded by Kumanski (1991a) as *O. t. kumanskii* because the former name was a homonym. Oláh *et al.* (2018) recognized it as a species level taxon.

201. *Oecetis nigropunctata* Ulmer, 1908
얼룩무늬나비날도래

Oecetis nigropunctata Ulmer, 1908, D ent Z, 345–346, f 4–7; Kumanski 1991a, 50–51, N (HHB, HHN, NGW, PB, PY, RG), M, F; Lee *et al.* 2012, 275–276, f 4, S (GG), M, F; Oláh *et al.* 2018, 135, N (HHN, PB), M.

202. *Oecetis notata* (Rambur, 1842) 무늬나비날도래
Mystacida notata Rambur, 1842, Hist nat Nevr, 514–515.
Oecetis notata (Rambur, 1842): Lee *et al.* 2012, 276–277, f 5, S (GW), M, F.

203. *Oecetis tripunctata* (Fabricius, 1793)
세점무늬나비날도래

Phryganea tripunctata Fabricius, 1793, Ent Syst 2, 81.
Oecetis tripunctata (Fabricius, 1793): Kumanski 1991a, 51–52, N (PB), M, F.

204. *Oecetis yukii* Tsuda, 1942 고운나비날도래
Oecetis yukii Tsuda, 1942b, Mem Coll Sci Kyoto B 17, 297–298, f 48–49; Kumanski 1991a, 52, N (PB), F; Hwang 2006, 147, f 438–442, S (GG), M; Lee *et al.* 2012, 278–279, f 7, S (GG), M.

***Oecetis* sp.**

Oecetis sp.: Malicky 1993, 14, N (PB), F.

Genus *Setodes* Rambur, 1842 금모래나비날도래속*

205. *Setodes argentatus* Matsumura, 1907
은나비날도래

Setodes argentata Matsumura, 1907, Syst Ento I, 194.
Setodes uenoi Tsuda 1942a, 234–235, f 9–10, N (RG), M, F. Synonymized by Schmid (1987).

Setodes argentatus Matsumura, 1907: Kumanski 1991a, 53, f 10–12, N (PB, PY), M, F.

206. *Setodes crossotus* Martynov, 1935 옛나비날도래
Setodes crossotus Martynov, 1935, Trav Inst Zool Lenin-grad 2, 207, 281–283, f 102–104; Kumanski 1991a, 56, f 7–9, N (PB), M, F.

207. *Setodes furcatulus* Martynov, 1935
갈래나비날도래

Setodes furcatulus Martynov, 1935, Tr Inst zool Lenin-grad 2, 207, 271–274, f 83–87; Kumanski 1991a, 56, N (NGW, PB, PY), M, F.

208. *Setodes pulcher* Martynov, 1910
예쁜이나비날도래*

Setodes pulcher Martynov, 1910, Annuaire Mus St Petersb 15, 380–382, f 23–26; Botosaneanu 1970, 312, pl 35 f 1, N (PB), M; Mey 1989, 305, N (PB), M; Kumanski 1991a, 53, N (NGW, PB), M, F; Malicky 1993, 14, N (PB), M; Oláh *et al.* 2018, 135, N (PB), M, F.

209. *Setodes ujiensis* (Akagi, 1960) 맨드리나비날도래
Trichosetodes ujiensis Akagi, 1960, Kontyu 28: 88–89, f 3–4.

Setodes ujiensis (Akagi, 1960): Kumanski 1991a, 53–54, f 13–14, N (PY), M, F.

***Setodes* sp.**

Setodes sp.: Botosaneanu 1970, 312, pl 35 f 2–3, N (NGW, PB), F.

Genus *Triaenodes* McLachlan, 1865 연나비날도래

210. *Triaenodes plectus* Ulmer, 1908
요정연나비날도래

Triaenodes plectus Ulmer, 1908, D ent Z, 344–345, f 1–3.

Triaenodes gracillimus (Martynov, 1935): Kumanski 1991a, 68, N (NGW), M. Synonymized by Uenishi (1993).

211. *Triaenodes unanims* McLachlan, 1877
연나비날도래

Triaenodes unanimitis McLachlan, 1877, Rev Syn, 324–325, pl 35 f 1–4; Kumanski 1991a, 70, f 57–59, N (NGW, PB, PN, PY), M, F; Park 1999, 24, f 57–58, S (GG, GN), F; Park *et al.* 1999, 159–161, f 28–29, S (GG, GN), F; Hwang 2006, 145, f 430–432, S (GG, GN), F.

Genus *Trichosetodes* Ulmer, 1915 솜털나비날도래속*

212. *Trichosetodes japonicus* Tsuda, 1942

솜털나비날도래*

Trichosetodes japonicus Tsuda, 1942b, Mem Coll Sci Kyoto B 17, 302–303, f 56–57.

Trichosetodes polonorum Botosaneanu, 1970, 310–312, pl 33–34, N (PB), M. Synonymized by Uenishi (1993).

***Trichosetodes* sp. KA**

Leptocerus sp. KA: Kim 1974, 16, f 42, S (GB), L.

Remarks. The characters of *Leptocerus* sp. KA provided by Kim (1974) match those of the genus *Trichosetodes*.

Leptoceridae gen. sp. KC

Leptocerus sp. KC: Kim 1974, 16, f 44, S (GG), P.

Remarks. Kim (1974) described this pupal species as a species belonging to the genus *Leptocerus*, but the identification based on only pupae is not reliable even at present.

Leptoceridae gen. spp.

Leptoceridae gg. spp.: Malicky 1993, 14, N (PB), F.

Family Odontoceridae Wallengren, 1891

바수염날도래과

Subfamily Odontocerinae Wallengren, 1891

바수염날도래아과*

Genus *Psilotreta* Banks, 1899 바수염날도래속

213. *Psilotreta falcu* Botosaneanu, 1970

멧바수염날도래

Psilotreta falcu Botosaneanu, 1970, Anns zool Warsz 17: 314–316, pl 37, pl 39 f 3, N (HGB, HBN, PB), M, F; Kumanski 1991b, 28, N (NGW), M, F; Lee and Kim 1993, 266, N (RG), L; Park and Bae 1999b, 304–305, f 6–11, S (CB, GG, GW, JB, JN), M, F; Park 1999, 33, f 81–86, S (CB, GG, GW, JB, JN), M, F; Hwang 2006, 132–133, S (GB, GN, GW, JN, SL), M; Oláh and Johanson 2010, 101, N (NGW), M, F; Oláh *et al.* 2018, 135, N (NGW, PB), M, F; Nozaki *et al.* 2019, 4, S (GN), M, F.

Psilotreta pyonga Oláh, 1985, 140–141, f 3, N (PB), M. Synonymized by Oláh and Johanson (2010).

Ganonema odaenum Kobayashi, 1989, 8, in part, S (GN), M, F. Misidentification mentioned by Nozaki *et al.*

(2019).

Remarks. Nozaki *et al.* (2019) found that some specimens that were used for the description of *G. odaenum* by Kobayashi (1989) were *P. falcu*.

214. *Psilotreta kerka* Oláh, 2018 둥근바수염날도래*

Psilotreta kerka Oláh, 2018, in Oláh *et al.* (2018), 135–136, f 89–91, N (HGB), M.

215. *Psilotreta locumtenens* Botosaneanu, 1970

수염치레날도래

Psilotreta locumtenens Botosaneanu, 1970, Anns zool Warsz 17, 313–314, pl 38, pl 39 f 2, N (PB), M, F; Mey 1989, 304, N (PB), M, F; Kumanski 1991b, 28, N (PB), M, F; Park and Bae 1999b, 305–306, f 12–17, S (GG, GW, JB), M, F, L; Park 1999, 33–34, f 89–94, S (GG, GW, JB), M, F, L; Hwang 2006, 131–132, f 380–384, S (CN, GG, GW), M, F; Oláh *et al.* 2018, 136, N (NGW, PY), M; Nozaki *et al.* 2019, 4, S (GW), M, F.

Ganonema odaenum Kobayashi, 1989, 7–8, in part, f 5, S (GW), M, F. Synonymized by Oláh and Johanson (2010) and Nozaki *et al.* (2019).

***Psilotreta* sp.**

Psilotreta sp.: Kumanski 1991b, 28, N (NGW), F.

***Psilotreta* sp.**

Psilotreta kisoensis Iwata, 1928, Zool Mag 40, 117, 124–125, f 211–212; Tsuda 1942a, 231, N (HGB, RG), S (GG), M, L; Kim 1974, 14, f 39, S (GW), L. Misidentification mentioned by Botosaneanu (1970) and Parker and Wiggins (1987). Yoon and Kim 1988, 538–539, f 58, S (CN, GB, GG, GN, GW, JB, JN), L; Lee and Kim 1993, 266, N (RG), L.

Remarks. Botosaneanu (1970) and Parker and Wiggins (1987) mentioned that the records of *P. kisoensis* from Korea were based on misidentifications and they included at least two species, *P. falcu* and *P. locumtenens*. However, Yoon and Kim (1988) and Lee and Kim (1993) continued to use the name, *P. kisoensis*. Park and Bae (1999b) reported that their *P. locumtenens* larvae correspond with the larval descriptions of *P. kisoensis*, but Oh (2013) reported the larvae of *P. locumtenens* and *P. falcu* are indistinguishable from each other. Further study on the larval stage of Korean *Psilotreta* species is required.

Family Helicopsychoidea Ulmer, 1906 달팽이날도래과

Genus *Helicopsyche* Siebold, 1856 달팽이날도래속

216. *Helicopsyche coreana* Mey, 1991

한국달팽이날도래*

Helicopsyche coreana Mey, 1991, Dtsch ent Z NF 38, 360–361, f 10–12, N (PB), M, F.

217. *Helicopsyche yamadai* Iwata, 1927 달팽이날도래
Helicopsyche yamadai Iwata, 1927a, Zool Mag 39, 263–264, f 185–190; Kim 1974, 24, f 65, S (GG, JN), L; Yoon and Kim 1988, 543, f 60, S (JB), L.

Remarks. This Japanese species has been recorded based solely on the larval stage from Korea. However, the body size and habitat of the Korean larvae described by Kim (1974) and Yoon and Kim (1988) is quite different from those of *H. yamadai* in Japan (Iwata, 1927a). Further study is needed on Korean *Helicopsyche* larvae.

Family Sericostomatidae Stephens, 1836

털날도래과

Genus *Gumaga* Tsuda, 1938 털날도래속

218. *Gumaga orientalis* (Martynov, 1935)

동양털날도래

Oecismus (?) *orientalis* Martynov, 1935, Trav Inst zool Leningrad 2, 208, 363–364, f 165.

Gumaga okinawaensis Tsuda, 1938: Kumanski 1991b, 25–27, f 18–23, N (NGW, PB), M, F; Malicky 1993, 14, N (PB), F; Lee and Kim 1993, 266, N (RG), L.

Notidobia chaoi Hwang, 1957: Botosaneanu 1970, 313, N (PB), M, F; Mey 1989, 304, N (HHN, PB), M, F. Synonymized by Malicky (1995).

Gumaga orientalis (Martynov, 1935): Mey 1991, 360, N (PB), F; Park and Bae 1998a, 366, f 14, S (CB, GW), M; Hwang 2006, 127–128, f 370–374, S (CB, GG, GW), M, F; Oláh *et al.* 2018, 136, N (PB), M.

Gumaga sp. KA: Kim 1974, 23–24, f 64, S (JN), L.

Gumaga KUa: Yoon and Kim 1988, 535–536, f 57, S (GW), L.

Remarks. *Gumaga orientalis* is the only species in the genus *Gumaga* known from Far East Russia, China and Japanese main islands. The characters of *Gumaga* sp. KA and *Gumaga* KUa provided by Kim (1974) and Yoon and Kim (1988), respectively, are identical to those of *G. orientalis*.

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