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BRACONIDAE (HYMENOPTERA) FROM KOREA, XXI. SPECIES OF FIFTEEN SUBFAMILIES

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Hundred forty-five braconid species are reported from Korea belonging to fifteen subfamilies. Ten species, one subspecies and one variety are new to science, they are as follows: *Aspilota* one species, *Dinotrema* nine species, one subspecies and one variety; the new taxa are related to their nearest allies. Seventy-five species proved to be new to the fauna of Korea. With 91 original figures.

Key words: Korea, Braconidae, new species, nearest allies, faunistics

INTRODUCTION

A total of hundred forty-five braconid species are reported from the Korean Peninsula, i.e. from the Democratic People's Republic of Korea and the Republic of Korea. The braconid wasps from North Korea have been collected by the staff-members of the Hungarian Natural History Museum, Budapest, during their collecting trips in the years 1970–1992. – those from South Korea by J.-Y. CHOI and D.-S. KU in the years 1987–1997. Further details concerning the Hungarian naturalists, collectings etc. are presented in my previous paper (PAPP 1990*a*). The bulk of the braconids are deposited in the Hungarian Natural History Museum, Budapest, and a portion is housed in Dr. D.-S. KU's Collection (Sancheong, South Korea) – both materials served for the present account. Specimens in the property of the Polish Zoological Institute in Warszawa are indicated in the species list as (in Warszawa) after the specimen numbers of the respective species.

The 145 braconid species are divided in fifteen subfamilies and, subsequently, they are enumerated with the indication of the numbers of the species (= sp.) representing the respective subfamilies (ranged in their systematic sequence): Doryctinae 5 spp., Rogadinae 3 spp., Hormiinae 10 spp., Gnamptodontinae 2 spp., Helconinae 2 spp., Meteorinae 7 spp., Euphorinae 24 spp., Macrocentrinae 2 spp., Charmontinae 1 sp., Ichneutinae 3 spp., Sigalphinae 1 sp., Agathidinae 16 spp., Cheloninae 11 spp., Microgastrinae 11 spp., and Alysiinae 47 spp.

From among the 145 species ten are new to the science, they are as follows: *Aspilota farra* sp. n., *Dinotrema alboacutum* sp. n., *D. crux* sp. n., *D. erectum* sp. n., *D. gradatim* sp. n., *D. hebescum* sp. n., *D. irekabi* sp. n., *D. longisoma* sp. n., *D.*

senex sp. n. and *D. tricarinae* sp. n. One new subspecies, *Dinotrema subcubicus asiaticus* ssp. n. and one new variety of *Dinotrema varipes*, are also described.

Seventy-five braconid species are new to the fauna of Korea, they belong to 13 subfamilies detailed as follows: one doryctine, one rogadine, one hormiine, one gnamptodontine, two helconine, four meteorine, nineteen euphorine, one macrocentrine, one ichneutine, thirteen agatidine, four chelonine, five microgastrine and thirty-three alysiine species.

In the chapter "Faunistic List" the localities are given in an abbreviated form, i.e. with the locality numbers presented in the original itinerary of the collecting trips. In the previous seven papers of my series (PAPP 1989, 1990*a*, 1990*b*, 1992, 1994, 1996, 2001) on the braconids of Korea I have published a long lists of the locality numbers completed with the detailed collecting sites, collecting time and with the short characterization of the vegetation of the collecting sites as well as with the collecting device, etc. Below those locality numbers with their detailed data are listed which were not included in my previous papers mentioned.

No. 5. Prov. South Pyongan (= Phenan): Desang-san, 12 km NE from Pyongyang, 21 May 1970. – Netting in the grass and shrub levels.

No. 99. Prov. Kaesong (= Kengi): Bagyon-san, Bagyon popo (= waterfall), about 27 km SW from Kaesong, 7 June 1970. – Netting the shrubs.

No. 113. Prov. Kaesong (= Kengi): Bagyon-san, Sanchon tong, about 20 km SE from Kaesong, 8 June 1970. – Beaten from flowering trees.

No. 139. Prov. South Pyongan: Mangyong dae, 25 km W from Pyongyang, 5 August 1971. – Singled material on ruderal vegetation.

No. 157. Prov. South Pyongan: Pyongyang, Pyongyang Hotel garden, 10 August 1971. – Singled insects at lamp.

No. 275. Prov. Ryang: Hyesan, Mt. Ze-dong, 1150 m, 22 July 1975, 17–18,30^{h}. – Singled insects on the edge of a *Larix* wood with shrubby level.

No. 289. Prov. Ryang: Chann-Pay plateau, Samzi yan, 1700 m, 24–25 July 1975. – Taken with Malaise trap in *Larix–Betula* forest.

No. 299. Prov. South Pyongan: Lyongak san, 14 km W from Pyongyang, 30 July 1975, 11–15,30^{h}, Sunny weather with clouds, 32 °C – Singled insects in coniferous–deciduous wood in a circle.

No. 305. Prov. Pyong-Sung: Beksung li, Zamo san, 60 km NE from Pyongyang, 1 August 1975, 12–18^{h}, at forenoon rainy and 22–24 °C, after 13 o'clock cloudy weather with sunshine and 28–30 °C. – Singled insects in sweet chesnut wood in nature conservancy field.

No. 351. Kumgang san (= Diamond Mts): Hotel Kumgang at village Ontsong, 9 July 1977. – Canopied coniferous forest. Collecting at MV lamp in the forest about 150–200 m S from the hotel.

No. 382. Mt. Pektu: wooded environs of the Samzi yan Hotel, 20 July 1977. – Taken with Malaise trap erected in a clearing vegetation.

No. 425. Prov. North Hwanghae: Sariwon, 20 km SSE from the town by Lake Sohung. 29 September 1978. – Swept from vegetation mixed witha blue *Aster* sp.

No. 511. Prov. North Hwanghae: Sinpyong, Ponghwa-ri, 15 October 1978. – Swept material from various vegetation including the grassy strip along road.

No. 557. Pyongyang City: Lyongak san, 15 km W of Pyogyang, 270 m above sea level, 20 September 1979. Netted and singled in mixed deciduous–coniferous forest and on clearings.
No. 805. Prov. North Pyongan: Mt. Myohyang, 16 July 1982. – Netted insects along the road between Bohyongsa cloister and Hotel Myohyang.
No. 893. Prov. South Hwanghwae: Haeju, Mt. Suyong, 31 July 1982. – Singled insects collected in a mixed forest.
No. 909. Pyongyang City: Pyogyang, 14 May 1985. – Collected in a small park near the Hotel Changgwang.
No. 938. Prov. North Pyogyan: Mt. Myohyang, 22 May 1985. – Pleasent evening. Collecting at blended light on the balcony of the hotel.
No. 1336. Prov. Kangwon: Kumgang san, Onjong-ri, 21 June 1988. – Warm, sunny forenoon. A little degraded vegetation along concrete roads in *Pinus densiflora* forest. Singling and sweeping the vegetation.
No. 1355. Prov. Ryang: NW of Samji yon, 31 km on Pektu Mt. road, 2000 m, 28 June 1988. – Cloudy, cool day. *Larix olgensis* forest with rather poor underwood, not far from the tree-borderline.
No. 1503. Prov. North Pyogyan: Myohyang san, Hyangsan, 5 July 1991. – Singled insects in a small patch of *Equisetum* sp. in the garden of the Myohyang Hotel. Sunny, very warm afternoon, 32 °C.
No. 1553. Prov. Kangwon: Kumgang san, 12 July 1991. – Singled insects along the pathway to the Kuryong popo (= waterfall).
No. 1572. Prov. Kangwon: Kumgang san, Oe-Kumgang, 13 July 1991. – Singled insects in the valley behind the Kumgang Hotel, by a small creek.
No. 1641. Prov. South Kangwon: vicinity of Chuncheon, Chuncheon-Dam, cca 400 m, 19 October 1993. – A steep rocky slope covered by dry, warm, partly shrubby, mixed forests near to an artificial lake.

Abbreviations applied in the chapters "Faunistic List" and "Descriptions of the New Species": Ocelli: OOL = shortest distance between hind ocellus and compound eye; POL = shortest distance between hind two ocelli. Alar veins of fore wing (ACHTERBERG, 1993: 5): *m–cu* = recurrent vein, *r* = first section of the radial (or marginal) vein; *1–CU(1)* and *2–CU(1)* = first and second sections of the discoidal vein; *2–SR* = first transverse cubital vein; *3–SR* and *4–SR* = second and third sections of the radial (or marginal) vein.

FAUNISTIC LIST

The species are enumerated in alphabetical order of the generic and species names. The subfamilies are ranged in systematic order. After the species name the locality numbers are given followed by distributional and taxonomic remarks where necessary.

DORYCTINAE

Dolopsidea indagator (HALIDAY, 1836) – 1 ♀ (as *Exontsira mongolica* TELENGA, 1941 in PAPP 1987*a*: 157; rectified by BELOKOBYLSKIJ 2000): No. 281. – Widely distributed in the Palaearctic Region. New to the fauna of Korea.

Heterospilus separatus FISCHER, 1960 (syn. *H. anulifer* PAPP, 1992) – 1 ♂ (det. PAPP 1991, det. BELOKOBYLSKIJ 2000): No. 917. – Frequent to common in the Palaearctic Region.

Spathius generosus WILKINSON, 1931 – 1 ♀ (det. BELOKOBYLSKIJ; in PAPP 1987*a*: 159 as *S. rubidus* ROSSI): No. 87. 1 ♀ (det. Belokobylskij 2000; in PAPP 1987*a*: 158 as *S. fasciatus* WALKER): No. 318. 1 ♀: Prov. North Pyongan, Mt. Myohyang, Hyangsan, 15 September 1994, leg. MÉSZÁROS et L. ZOMBORI. – In far east of the Palaearctic Region widely distributed, reported from Korea.

Spathius lesovik BELOKOBYLSKIJ, 1998 – 1 ♀ (det. BELOKOBYLSKIJ 2000): Prov. Kangwon, Mts Kumgang , Kuryong Waterfall, sifted litter, 400 m, 28 August 1982, leg. BERON et POPOV. – Known from Far East of Russia, Japan and Korea.

Zombrus bicolor ENDERLEIN, 1912 (syn. *Odontobracon sjoestedti* FAHRINGER, 1929) – 1 ♂: Prov. North Hamgjong, Musan, 19–20 August 1991, leg. HAN ENG HI. – Its Korean occurrences were reported by PAPP (1987*a*: 159, 1992: 66) under the name *Zombrus sjoestedti* .

ROGADINAE

Aleiodes (Aleiodes) apiculatus (FAHRINGER, 1932) – 1 ♀: No. 1324. 1 ♀: Prov. Cheju, Halla Mts, Halla National Park, 1280 m, 22 August 1992, leg. L. RONKAY. l ♀: No. 1324. – Distribution: Russia (East Siberia), Germany. New to the fauna of Korea.

Aleiodes (Aleiodes) tristis WESMAEL, 1838 – 1 ♀: No. 1345. – First reported from Korea by PAPP (1989: 86).

Aleiodes (Aleiodes) vittiger WESMAEL, 1838 – 2 ♀: Prov. North Pyongan, Mt. Myohyang, Hangsam, 27 May 1991, leg. L. RONKAY et A. VOJNITS. – First reported from Korea by PAPP (l989: 86).

HORMIINAE

Clinocentrus excubitor (HALIDAY, 1836) – 1 ♂ (det. BELOKOBYLSKIJ 1993): No. 5. 1 ♂ (det. BELOKOBYLSKIJ 1993): No. 319. – Frequent in the Holarctic Region, reported from Korea and Vietnam.

Colastes interdictus BELOKOBYLSKIJ, 1998 – 4 ♀ (det. BELOKOBYLSKIJ 2000; as *C. affinis* WESMAEL in PAPP 1987*a*: 159 and 1992: 66): No. 488. – Distribution: Far East Maritime Territory of Russia, Japan, Korea.

Colastes pubicornis (THOMSON, 1891) – 1 ♀ (det. BELOKOBYLSKIJ 2000; as *C. flavitarsis* THOMSON in PAPP 1992: 66): No. 940. – Widely distributed in the Palaearctic Region. First reported from Korea under the name *Xenarcha (X.) pubicornis* by PAPP (1987*a*: 160).

Hormius similis SZÉPLIGETI, 1896 – 1 ♀: Prov. North Hwanghae: Sariwon, 29 September 1994, leg. F. MÉSZÁROS et L. ZOMBORI. – Widely distributed and frequent in the Palaearctic Region, reported from Korea.

Noserus occipitale BELOKOBYLSKIJ, 1986 – 1 ♂: Prov. Kuonsang, Mt. Pohyon, Wolma and Pohyon san, 600 m, 24 April 1994, leg. L. PEREGOVITS, L. RONKAY et A. VOJNITS. – Described and hitherto known from Russian Far East. New to the fauna of Korea

Oncophanes minutus (WESMAEL, 1835) (syn. *Exothecus laevigatus* RATZEBURG, 1852) – 1 ♀ (det. BELOKOBYLSKIJ 2000; as *Clinocentrus gracilipes* THOMSON in PAPP 1992: 66): No. 992. – First reported from Korea by me under the name *O. laevigatus* (PAPP l.c.). Distributed in the Palaearctic Region.

Oncophanes rugosus TELENGA, 1941 – 1 ♀ (det. BELOKOBYLSKIJ 2000; as *Clinocentrus gracilipes* THOMSON in PAPP 1992: 66): No. 19. – Distributed in the eastern Palaearctic Region: Russian Far East, Japan, Korea.

Oncophanes striatus BELOKOBYLSKIJ, 1998 – 1 ♀ (det. BELOKOBYLSKIJ 2000; as *Clinocentrus gracilipes* THOMSON in PAPP 1992: 66): No. 944. – Known from Korea, Japan and Russian Far East.

Rhysipolis enukidzei TOBIAS, 1976 (syn. *Rh. alacer* PAPP, 1987) – 1 ♀: Prov. North Hwanghae, Sariwon, 29 September 1994, leg. F. MÉSZÁROS et L. ZOMBORI. – Widely distributed in the eastern Palaearctic Region, known from Korea.

Rhysipolis meditator (HALIDAY, 1836) – 1 ♀: No. 218. 1 ♀: No. 289. – Frequent to common in the Palaearctic Region. First reported from Korea by me (PAPP 1992: 66).

GNAMPTODONTINAE

Gnamptodon abnormis BELOKOBYLSKIJ, 1987 – 1 ♂: Kyongnam, Chinju-shi, Kajwadong, 22 August 1993, leg. D.-S. KU. – Hitherto known only from Russian Far East. New to the fauna of Korea.

Gnamptodon pumilio (NEES, 1834) – 1 ♂: Prov. Kangwon: Kumgang san, Oe-Kumgang, 23 September 1994, leg. MÉSZÁROS et L. ZOMBORI. – Frequent in the Palaearctic Region, known from Korea.

HELCONINAE

Diospilus ephippius NEES, 1834 – 1 ♀ + 1 ♂ (in Warszawa): Korea, Dephun, ad Kujang-dong, 1 ♀: 4 Sept. 1959, 1 ♂: 6 Sept. 1959, leg. B. PISARSKI. 1 ♂: No. 347. – In Europe a fairly sporadic species. New to the fauna of Korea.

Diospilus nigricornis (WESMAEL, 1835) (syn. *D. rufipes* REINHARD, 1862) – 1 ♂: No. 19. – Distributed in the western Palaearctic Region. New to the fauna of Korea.

METEORINAE

Meteorus cinctellus (SPINOLA, 1808) – 1 ♀: No. 231. – In the Far East of Russia a frequent to common species, known from Japan . New to the fauna of Korea.

Meteorus nixoni HUDDLESTON, 1980 – 1 ♀: Prov. Cheju, Halla Mts, Halla National Park, 1280 m, 22 August 1992, leg. L. RONKAY. – Known from Austria, Japan and Russian Far East. New to the fauna of Korea.

Meteorus obsoletus (WESMAEL, 1835) – 1 ♀: Prov. North Pyongan, Myohyang Mts, 19 August 1982, leg. BERON et POPOV.

Meteorus profligator (HALIDAY, 1835) – 1 ♂: Prov. North Pyongan, Myohyang Mts, 14 August 1982, leg. BERON et POPOV. – Sporadic in the Palaearctic Region, nearest to Korea listed in Japan and Russian Far East. New to the fauna of Korea.

Meteorus pulchricornis (WESMAEL, 1835) – 1 ♀: Prov. Cheju, Halla Mts, 3 km S from Songpanak, 630–650 m, 29 April 1994, leg. L. RONKAY et A. VOJNITS. 1 ♀: Prov. Kangwon, Kumgang Mts, 25 Sept. 1994, leg. F. MÉSZÁROS et L. ZOMBORI. – Frequent in the Palaearctic Region, reported from Korea.

Meteorus takenoi MAETÔ, 1989 – 7 ♀: Prov. Cheju, Halla Mts, Yongshil National Park, 1050 m, 27 April 1994, leg. L. PEREGOVITS, L. RONKAY et A. VOJNITS. – Listed in Japan, Russian Far East and Korea. In Korea frequent to common.

Meteorus watanabei MAETÔ, 1989 – 1 ♀: Prov. North Pyongan, Myohyang Mts, City Hotel, 14 August 1982, leg. BERON et POPOV.

Zele chlorophthalmus (SPINOLA, 1808) – 1 ♀: Prov. Kangwon, Kumgang Mts, Kumgang Hotel, 9 June 1991, leg. L. RONKAY et A. VOJNITS.

EUPHORINAE

Centistes (Ancylocentrus) chaetopygidium BELOKOBYLSKIJ

Centistes (Ancylocentrus) chaetopygidium BELOKOBYLSKIJ, 1992: Zool. Med. Leiden **66**: 203 (in key) and 216 (description) ♀♂, type locality: Russia, Primoryan Territory, 30 km E Spassk, female holotype (and 13 ♀ + 5 ♂ paratypes) in Zoological Institute Sankt Petersburg. – CHEN & VAN ACHTERBERG 1997: 31 (in key) and 32 (distribution, taxonomic note).

Centistes (Centistes) spinulosus PAPP, 1994: Acta zool. hung. 40(4): 340 ♀, type locality: Korea, Pyongyang City, Ryangak Mts, male holotype (and four male paratypes) in Hungarian Natural History Museum, Budapest; synonymized by BELOKOBYLSKIJ (2000*b*: 260).

One male paratype of the type series of *C. (A.) chaetopygidium* has been identified by S. BELOKOBYLSKIJ and he rectified its name as *C. (A.) chaetopygidium*. Checking the entire type series of my species I accept BELOKOBYLSKIJ's synonymization, consequently I place my name *C. spinulosus* (jun. syn.) in synonymy with BELOKOBYLSKIJ's name *C. chaetopygidium* (sen. syn.) adding the remark as follows: 1) Distal half of propodeum (i.e. beyond its transverse keel) smooth and shiny, at least laterally with a few rugulae–subrugulae (and not "more roughly and irregularly rugulose in distal half", cf. BELOKOBYLSKIJ 1992: 217); 2) First tergite laterally with fine striae (and not "more strongly rugulose than female", cf. BELOKOBYLSKIJ l.c.); 3.) Prosoma, mesoscutum and mesopleuron yellowish brown. – Localities in Korea see in PAPP l.c.

Leiophron (Euphorus) alkonost BELOKOBYLSKIJ, 2000 – 1 ♀ (det. BELOKOBYLSKIJ 2000): No. 332. – Described and hitherto known only in the Maritime Territory of Russian Far East. New to the fauna of Korea.

Leiophron (Euphorina) deficiens (RUTHE, 1856) – 1 ♂: No. 175. 1 ♀: No. 266. – A fairly sporadic albeit widely distributed species in the Palaearctic Region. New to the fauna of Korea.

Leiophron (Leiophron) kurilensis BELOKOBYLSKIJ, 1993 – 1 ♂: No. 351. – Known from the eastern Palaearctic Region (Russian Far East, Korea).

Microctonus aethiopoides LOAN, 1975 – 1 ♂: No. 963. – A fairly frequent species in the Palaearctic Region. New to the fauna of Korea.

Microctonus neptunus CHEN et VAN ACHTERBERG, 1997 – 1 ♀: No. 193. – Described from China (Setchuan), reported from Russian Far East. New to the fauna of Korea.

Perilitus erratus (CHEN et VAN ACHTERBERG, 1997) – 1 ♂: No. 944. – Body 5.5 mm long. Antenna with 28 antennomeres. Vein *r-m* absent. Originally assigned to the genus *Meteorus*, BELOKOBYLSKIJ & TOBIAS (2000: 286) transferred into the genus *Perilitus*. – Described from China (Guizhon, Liaoning, Yunnan). New to the fauna of Korea.

Perilitus flavifacies BELOKOBYLSKIJ, 2000 – 1 ♂ (det. BELOKOBYLSKIJ 2000): No. 293. 1 ♂ (det. BELOKOBYLSKIJ 2000): No. 956. – Known in several regions of Russian Far East so far. New to the fauna of Korea.

Perilitus oulemae CHEN et VAN ACHTERBERG 1997 – 1 ♀ (det. BELOKOBYLSKIJ 2000): No. 99. – Described and known from China (Hunnan province) so far. New to the fauna of Korea.

Perilitus rutilus (NEES, 1812) – 1 ♀: No. 99. – A Holarctic and frequent to common species. New to the fauna of Korea.

Peristenus cognatus (BELOKOBYLSKIJ, 2000) – 1 ♀ + 1 ♂: No. 962. – Described and up to now known only from the Maritime Territory of Russian Far East. New to the fauna of Korea.

Peristenus fuscotibialis (BELOKOBYLSKIJ, 2000) – 1 ♂: No. 944. – Described and up to now known only from the Maritime Territory of Russian Far East. New to the fauna of Korea.

Peristenus gamayun (BELOKOBYLSKIJ, 1995) – 1 ♀: No. 923. – Described and up to now known from the Maritime Territory of Russian Far East. New to the fauna of Korea.

Peristenus laeviventris (RUTHE, 1856) – 1 ♂: No. 293. – A sporadic to frequent species in the Palaearctic Region. New to the fauna of Korea.

Peristenus pacificus (BELOKOBYLSKIJ, 1995) – 1 ♂: No. 999. – Its several localities were listed in Russian Far East and Japan. New to the fauna of Korea.

Peristenus procerus CHEN et VAN ACHTERBERG, 1997, female new – 1 ♀ + 1 ♂: No. 962. – Female: Body 3.6 mm long. Vein *cu-a* of fore wing interstitial. Petiolus 1.7 times as long as broad behind. Antenna with 30 antennomeres. – Described from China (Liaoning), reported from the Maritime Territory of Russian Far East. New to the fauna of Korea.

Peristenus rugosus CHEN et VAN ACHTERBERG, 1997, female new – 1 ♀: No. 923. – The female form is similar to the male holotype. Body 4.2 mm long. Antenna with 28 antennomeres. Legs pale yellow. – Described from China (Zhejiang), reported from the Maritime Territory of Russian Far East. New to the fauna of Korea.

Peristenus subfacialis (BELOKOBYLSKIJ, 2000) – 1 ♀: No. 282. 1 ♀: No. 1355. – Distributed in Russian Far East and the European part of Russia. New to the fauna of Korea.

Peristenus tristis (BELOKOBYLSKIJ, 2000) – 1 ♂: No. 1324. – The species was described from Kunashir Islands of the Russian Far East. New to the fauna of Korea.

Rilipertus intricatus (RUTHE, 1859) – 1 ♀: No. 1985. – Sporadically distributed in the Palaearctic Region. New to the fauna of Korea.

Streblocera flaviceps (MARSHALL, 1898) – 1 ♂: No. 1345. – Known in Europe, Russian Far East, China. First reported from Korea by PAPP (1985: 353).

Streblocera macroscapa (RUTHE, 1856) – 1 ♂: No. 343. – Distributed in the Palaearctic Region, reported from Korea (BELOKOBYLSKIJ & Tobias 2000: 321).

Syntretus lyctaea COLE, 1959 – 1 ♀ (as *S. parvicornis* in PAPP 1992: 67): No. 282. – Known from England, Hungary, Lithuania, Russia (Ural Mts, Far East). New to the fauna of Korea (*S. parvicornis* cancelled).

Townesilitus deceptor (WESMAEL, 1835) – 1 ♀: Prov. North Pyongan, Myohyang Mts, Hotel, 14 August 1982, leg. BERON et POPOV. – Known in seveal countries of Europe, reported recently from China (Zhejiang). New to the fauna of Korea.

MACROCENTRINAE

Macrocentrus (Amicroplus) cnaphalocrocis HE et LON, 1993 – 1 ♀ (as *M. buolianae* EADY et CLARK in PAPP 1982: 108; det. VAN ACHTERBERG 1993): No. 423. – Described from China. New to the fauna of Korea.

Macrocentrus (Amicroplus) linearis (NEES, 1812) – 1 ♀: No. 550. – Frequent to common in the Holarctic Region.

CHARMONTINAE

Charmon extensor (LINNAEUS, 1758) – 1 ♂: Prov. Cheju, Mts Hall, Yondshil National Park, 1050 m, 27 April 1994, leg. L. PEREGOVITS, L. RONKAY et A. VOJNITS. – A frequent species in the Palaearctic Region, known from Korea.

ICHNEUTINAE

Ichneutes brevis WESMAEL, 1835 – 2 ♀ + 1 ♂: No. 986. 1 ♂: No. 992. 1 ♀: No. 1000. – Widely distributed in the Palaearctic Region, known from Korea.

Ichneutes facialis THOMSON, 1895 – 1 ♂: No. 951. 1 ♀: No. 992. – Described from Sweden, reported from the late USSR (European part of Russia, Chita Region). New to the fauna of Korea.

Proterops nigripennis WESMAEL, 1835 – 2 ♀ + 1 ♂: No. 1572. 2 ♀: No. 1577. 1 ♂: Mts Pektu, 18 July 1991, leg. HAN ENG HI. – A frequent species in the Palaearctic Region, known from Korea.

Proterops nigripennis var. **decoloratus** SHESTAKOV, 1940 – 1 ♀ (in Warsaw): Dephun, ad Kujang-dong, 6 Sept. 1959, leg. B. PISARSKI.

SIGALPHINAE

Acampsis chinensis CHEN et HE, 1992 – 1 ♀: Prov. North Pyongan, Mts Myohyang, Isonnam valley, 23 May 1991, leg. L. RONKAY et A. VOJNITS. – The species was reported from Korea, known from China, Japan and Russian Far East.

AGATHIDINAE

Agathis assimilis KOKUJEV, 1895 – 1 ♀: No. 288. – Distributed in the Palaearctic Region. New to the fauna of Korea.

Agathis genalis TELENGA, 1955 – 1 ♂: No. 376. 2 ♂: No. 425. 2 ♀: No. 511. 1 ♂: No. 639. 2 ♀ + 2 ♂: No. 680. Every specimen was identified by M. SHARKEY. – Distribution: frequent in Siberia (Russia). New to the fauna of Korea.

Agathis griseifrons THOMSON, 1895 – 1 ♂: Prov. North Hamyong, Musan, 19–20 August 1991, leg. HAN BANG HI. – Widely distributed in Europe. New to the fauna of Korea.

Agathis maetoi SHARKEY, 1996 – 1 ♂: No. 137. 1 ♀: No. 166. 1 ♂: No. 175. 1 ♀ + 1 ♂: No. 182. 1 ♀: No. 237. – Described from Japan, reported from the Maritime Territory of Russian Far East. New to the fauna of Korea.

Agathis montana SHESTAKOV, 1932 – 1 ♀ (in Warszawa): Diuyr ad Changjin, 24 August 1959, leg. B. PISARSKI. – Frequent to common in the Palaearctic Region. New to the fauna of Korea.

Bassus cingulipes (NEES, 1812) – 1 ♀ + 1 ♂: No. 285. 1 ♀: No. 332. 1 ♂ (det. SHARKEY): No. 376. 1 ♀: No. 705. – Widely distributed in the Palaearctic Region. New to the fauna of Korea.

Bassus conspicuus (WESMAEL, 1837) – 1 ♂: No. 196. 1 ♂: No. 231. 1 ♂: No. 261. 1 ♀: No. 33l. Every specimen was identified by M. SHARKEY. – Widely distributed and frequent in the Palaearctic Region. New to the fauna of Korea.

Bassus festivus (MUESEBECK, 1953) – 1 ♀: No. 182. 1 ♀: No. 225. 1 ♀: No. 229. 1 ♀: No. 237. 1 ♀: No. 243. 1 ♂: No. 285. 1 ♀: No. 305. 1 ♀: No. 314. 1 ♀: No. 909. Every specimen was identified by M. SHARKEY. – Distributed in the Maritime Territory of Russian Far East, Japan, China, Taiwan, India, Philippines and North America (introduced). New to the fauna of Korea.

Bassus romani (SHESTAKOV, 1940) – 1 ♂: No. 282. 1 ♀: No. 893. 1 ♀: No. 1553. 1 ♀: No. 1577. Every specimen was identified by M. SHARKEY. – Distributed in Russian East Siberia, Japan, Taiwan, India. New to the fauna of Korea.

Bassus rugulosus (NEES, 1834) – 1 ♀: Keumkang Mts, 28 August 1959, leg. B. PISARSKI. – In Europe reported from nine countries. New to the fauna of Korea.

Bassus tumidulus (NEES, 1814) – 1 ♀ (in Warszawa): Myohyang Mts, 6 August 1959, leg. B. PISARSKI. 1 ♀: Prov. Sariwon, North Hwanghae, 29 Sept. 1994, leg. F. MÉSZÁROS et L. ZOMBORI. – A Palaearctic species. New to the fauna of Korea.

Braunsia matsumurai WATANABE, 1937 – 1 ♀ (det. M. SHARKEY): No. 1503. – Described from Japan, reported from Russian Far East. New to the fauna of Korea.

Coccygidium nihonense SHARKEY, 1996 – 1 ♂ (det. M. SHARKEY): Mt. Sudo, 600 m, 24 August 1990, leg. K. YAMAGISHI. – Distributed in Russian Far East and Japan. New to the fauna of Korea.

Cremnops desertor (LINNAEUS, 1758) – 1 ♀: No. 260. 1 ♀: No. 275. 1 ♂: No. 805. 2 ♂: No. 1336. – Frequent to common in the Palaearctic Region.

Cremnops pappi SHARKEY, 1996 – 1 ♀ paratype (in Warsaw): Pyongyang, 21 July 1959, leg. B. PISARSKI. 2 ♀: No. 299 (paratypes). – Described and hitherto known from Japan and Korea.

Euagathis semenovi SHESTAKOV, 1940 – 3 ♀ + 3 m (2 ♀ + 2 ♂ in Warszawa, 1 ♀ + 1 ♂ in Budapest): Pyongyang, 21 July 1959, leg. B. PISARSKI et J. PROSZYNSKI. – Distributed in the Maritime Territory of Russian Far East, Japan. The species was described from Korea by SHESTAKOV.

CHELONINAE

Ascogaster bidentula WESMAEL, 1835 – 1 ♀: No. 1324. – A Palaearctic and fairly frequent species, reported from Korea.

Ascogaster grahami HUDDLESTON, 1984 – 1 ♂: No. 217. – In the Palaearctic Region a frequent species. New to the fauna of Korea.

Ascogaster quadridentata WESMAEL, 1835 – 1 ♀: Prov. Ryang, Pochon, 12 August 1990, leg. HAN BING HI.

Ascogaster reticulata WATANABE, 1967 – 1 ♀: No. 1324. – First reported from Korea by PAPP (1989: 128).

Ascogaster rufipes (LATREILLE, 1809) – 1 ♀: No. 326. – Its area covers the Palaearctic Region, in Europe frequent. First reported from Korea by PAPP (1989: 198).

Ascogaster varipes WESMAEL, 1835 – 1 ♀: No. 1361.

Chelonus inanitus (LINNAEUS, 1767) – 1 ♂: No. 281. 1 ♂: No. 376. – Widely distributed in the Palaearctic Region. New to the fauna of Korea.

Chelonus tabonus SONAN, 1932 – 1 ♂: Prov. Cheju, 11 October 1991, leg. L. ZOMBORI. – Widely distributed in East Asia (Japan, Taiwan, China). New to the fauna of Korea.

Microchelonus contractus (NEES, 1816) – 1 ♂: No. 376. – A frequent species in the Palaearctic Region. First reported from Korea by PAPP (1989: 298).

Phanerotoma flava ASHMEAD, 1906 – 1 ♂: Prov. Cheju, Mts Halla, 5 km SW of Cheju, 500 m, 24 August 1992, leg. L. RONKAY. – First recorded from Korea by KU, BELOKOBYLSKIJ & CHA (2001: 78). Distributed in Korea, China, Taiwan, Japan, a fairly frequent species.

Phanerotomella mariae BELOKOBYLSKIJ, 1986 – 1 ♀ (as *Ph.* ?*orientalis* TOBIAS in PAPP 1989: 301): No. 315. – The female specimen is representing an albinic form: body pale yellow to yellow, tergites medially whitish; the nominate form yellow with brownish pattern. Hitherto known only from Russian Far East. New to the fauna of Korea.

MICROGASTRINAE

Cotesia inducta (PAPP, 1973) (? syn. *Apanteles tenuivalvis* TOBIAS, 1986) – 1 ♀: No. 1324. – My Korean specimen is quite similar to the holotype. Described by me from Hungary, I have one female specimen from Turkey. New to the fauna of Korea. On the basis of the description (TOBIAS 1986: 388) *A. tenuivalvis* seems to be identical with my species; *A. tenuivalvis* was reported from Moldavia, Russia (Sotchi) and Uzbeghistan.

Cotesia plutellae (KURDJUMOV, 1912) – 3 ♀ + 2 ♂: Suweon, 28 June 1994, ex *Plutella xylostella* LINNAEUS (Lep., Plutellidae) 9 July 1994, leg. S. G. LEE. – Widely distributed and fairly frequent in the Palaearctic Region. Known from Korea (KU, BELOKOBYLSKIJ & CHA 2001: 200).

Microgaster fulvicrus THOMSON, 1895 – 1 ♀: No. 374. – Widely, albeit sporadically distributed in Europe. New to the fauna of Korea.

Microgaster globata (LINNAEUS, 1758) – 1 ♀ (in Warszawa): Myohyang Mts, 1300–1500 m, 7 August 1959, leg. B. PISARSKI et J. PROSZYNSKI. 1 ♀: Pyongyang, 12 Sept. 1959, leg. B. PISARSKI. 1 ♂: No. 266. – A fairly common species in the Palaearctic Region. New to the fauna of Korea.

Microgaster parvistriga (THOMSON, 1895) – 1 ♂: No. 920. 1 ♀: No. 956. – Distributed in northern half of Europe and Armenia. Known from Korea.

Microgaster stictica RUTHE, 1858 (syn. *M. confusus* PAPP, 1971) – 1 ♂: No. 281. – Widely, albeit sporadically distributed in the Palaearctic Region. Nearest to Korea known from Mongolia (PAPP 1976: 242). New to the fauna of Korea.

Microgaster subcompleta (NEES, 1834) – 1 ♀: No. 930. – Frequent to common in Europe and Russia. New to the fauna of Korea.

Microgaster szelenyii PAPP, 1974 – 1 ♂: No. 339. 1 ♂: No. 343. – Up to now known only from Korea.

Microplitis deprimator (FABRICIUS, 1798) (syn. *M. sordipes* NEES, 1834) – 1 ♀: No. 917. 1 ♀: No. 930. – Frequent to common in the Palaearctic Region. First reported from Korea by PAPP (1987*b*: 441).

Microplitis mediator (HALIDAY, 1834) – 1 ♀: No. 96l. – Frequent to common in the Palaearctic Region. First reported from Korea by PAPP (1987*b*: 441)

Microplitis tuberculifer (WESMAEL, 1837) – 1 ♀: No. 999. – Frequent to common in the Palaearctic Region. First reported from Korea by PAPP (1989*b*: 443).

ALYSIINAE: Alysiini

Aspilota anaphoretica FISCHER, 1973b – 2 ♀: No. 376. – Described from Austria (Tirol), turned up in Hungary. New to the fauna of Korea.

Aspilota farra sp. n.: for description see the chapter "Descriptions of the New Species".

Aspilota flagellaris FISCHER, 1973b – 1 ♀: No. 282. 1 ♂: No. 376. – Described and hitherto known in Austria. New to the fauna of Korea.

Aspilota inflatinervis FISCHER, 1973c – 1 ♂: No. 273. 1 ♂: No. 281. 1 ♂: No. 282. 1 ♂ (in Coll. KU): Kangwon, Chuchon Shinbuk, Chochon, 5-ri, 25 May 1993, leg. D.-S. KU. – Described and hitherto known in Austria. New to the fauna of Korea.

Aspilota stenogaster STELFOX et GRAHAM, 1951 – 1 ♀ (as *A. fuscicornis* HALIDAY in PAPP 2001: 3): No. 282. – First reported from Korea by PAPP (l.c.).

Dinotrema alboacutum sp. n.: for description see the chapter "Descriptions of the New Species".

Dinotrema carinatum (TOBIAS, 1962) – 1 ♀ (in Coll. KU): Kyongbuk Koryong, 9 June 1992, leg. D.-S. KU. 1 ♀ (in Budapest): Kangwon Pyoungchang, Mt. Odae, 10 Sept. 1997, leg. J.–Y. CHOI. – Described from the European part of Russia (Leningrad Region), its Korean localities are the second distributional data. New to the fauna of Korea.

Dinotrema castaneithorax (FISCHER, 1973) – 1 ♂: No. 144. 1 ♂: No. 1317. 1 ♀ (in Coll. KU): Chungnam, Kumsan Chubu, Kaedoksa, 22 May 1993, leg. D.-S. KU. – First reported from Korea by PAPP (2001: 4).

Dinotrema crassicosta (THOMSON, 1895) – 1 ♂: No. 193. – Body 2.5 mm long. Antenna with 22 antennomeres, penultimate flagellomere 1.6 times as long as broad. First tergite 1.8 times as long as broad behind. Hind femur 3.8 times as long as broad distally. – Known in Germany, Austria and Hungary. New to the fauna of Korea.

Dinotrema cratocera (THOMSON, 1895) – 1 ♀: No. 281. 1 ♀: No. 282. 1 ♀: No. 376. – Known in Sweden and Austria. New to the fauna of Korea.

Dinotrema cruciforme (FISCHER, 1973b) – 1 ♂: Chonbuk, Chinan Pukwi, 21 May 1993, leg. D.-S. KU. – Described and known in Austria so far. New to the fauna of Korea.

Dinotrema crux sp. n.: for description see the chapter "Descriptions of the New Species".

Dinotrema dentipraesens (FISCHER, 1974*b*) – 1 ♀: No. 282. 1 ♂: No. 347. 1 ♀: No. 376. – Described from Austria, known in Hungary. New to the fauna of Korea.

Dinotrema dimorpha (FISCHER, 1976) – 1 ♂ (in Coll. KU): Chungbuk, Checheon, Pongyang Pakdaljae, 23 May 1993, leg. D.-S. KU. 1 ♂ (in Budapest): Chungnam, Kumsan Nami Posoka, 22 May 1993, leg. D.-S. KU. 2 ♂ (1 ♂ in Coll. KU, 1 ♂ in Budapest): Kangwon, Chuchon, Mt. Obong, 25 May 1993, leg. D.-S. KU. 1 ♂ (in Coll. KU): Kyongbuk, Ponghwa Pobjon Oji, Norujae, 28 May 1993, leg. D.-S. KU. 1 ♂ (in Coll. KU): Kangwon, Mt. Taebek, Sangjangdong, 28 May 1993, leg. D.-S. KU. – First reported from Korea by PAPP (2001: 4). In Korea it seems a frequent species

Dinotrema glabrum (STELFOX et GRAHAM, 1951) (syn. *Aspilota venusta* TOBIAS, 1962) – 1 ♂ (in Coll. KU): Chungbuk, Chungju Sanchok, Yongdong, 23 May 1993, leg. D.-S. KU. 1 ♂ (in Budapest): Kangwon, Kosong Kansong, Konbongsa, 26 May 1993, leg. D.-S. KU. 1 ♂ (in Coll. KU): Kyongbuk, Ponghwa Myongho, Kokye, 28 May 1993, leg. D.-S. KU. 1 ♂ (in Coll. KU): Kyongbuk, Ponghwa Myongho, Kwanchang 2-ri, 28 May 1993, leg. D.-S. KU. 1 ♂: (in Coll. KU): Kyongnam, Mt. Chiri, Paekmu-dong, 30 July 1987, leg. D.-S. KU. – Body 2.1–2.3 mm long. Antenna with 22–25 antennomeres (22: 1 ♂, 24: 2 ♂, 25: 2 ♂). First tergite 1.7–2 times as long as broad behind. Body light brown to brown, 1 male with yellow pattern. – First reported from Korea by PAPP (2001: 4).

Dinotrema gradatim sp. n. and **Dinotrema hebescum** sp. n.: for description see the chapter "Descriptions of the New Species".

Dinotrema hodisense (FISCHER, 1976) – 1 ♀ (in Budapest): Kangwon, Mt. Taekbaek, Yooilsa, 30 June 1991, leg. D.-S. KU. – Described from Austria, reported from China (CHEN & WU 1994: 72, 168). The species is closely related to *D. occipitale* (FISCHER, 1973*c*). New to the fauna of Korea.

Dinotrema irekabi sp. n.: for description see the chapter "Descriptions of the New Species").

Dinotrema lineola (THOMSON, 1895) – 1 ♀: No. 282. 1 ♀: No. 1345. – Described from Sweden, reported from England, Austria, Italy (FISCHER 1972: 403) and Mongolia (PAPP 1999: 223). New to the fauna of Korea.

Dinotrema longisoma sp. n.: for description see the chapter "Descriptons of the New Species".

Dinotrema naevia (TOBIAS, 1962) – 1 ♀: No. 139. 3 ♀ + 1 ♂: No. 376. – Body 2–2.2 mm long. Antenna with 16–20 (females) and 22 (male) antennomeres. Vein *3–SR* 2–2.2 times as long as *2–SR*. First tergite 1.9–2(–2.1) times as long as broad behind. – Described from the European part of Russia (Leningrad Region). New to the fauna of Korea.

Dinotrema nigricorne (THOMSON, 1895) – 3 ♀ (2 ♀ in Coll. KU, 1 ♀ in Budapest): Chungbuk Checheon, Pongyang Pakdaljae, 23 May 1993, leg. D.-S. KU. 5 ♂ (2 ♂ in Coll. KU, 3 ♂ in Budapest): Chungbuk, Chungju Sanchok, Yongdong, 23 May 1993, leg. D.-S. KU. 2 ♂ (in Coll. Ku): Kangwon, Chunchon Shinbuk, Chonchonn 5-ri, 25 May 1993, leg. D.-S. KU. 1 ♀: Kyongbuk, Andong Imha-Daem, taken with yellow pan-trap 10 May 1997, leg. J.-Y. CHOI. 3 ♀ + 2 ♂: Kyongnam, Chinju-shi Kajwadong, 1 ♀ + 2 ♂: 9 June 1993 and 1 ♀: 22 August 1993, leg. D.-S. KU. 3 ♀ + 1 ♂ (2 ♀ + 1 ♂ in Coll. KU, 1 ♀ in Budapest): Kyongbuk, Ponghwa Pobjon Oji, Norujae, 28 May 1993, leg. D.-S. KU. 1 ♀ (in Coll. KU): Kyonggi, Suwon, Mt. Yogi, 6–13 July 1994, leg. D.-S. KU. – Body 1.9–2.2 mm long. Antenna with 16–21 antennomeres (16: 1 ♀, 17: 5 ♀, 18: 1 ♂, 19: 1 ♀ + 1 ♂, 20: 1 ♀ + 2 ♂, 21: 2 ♀ + 1 ♂). First tergite 1.8–2 times as long as broad behind. Ground colour of body dark brown, first tergite brown. – Distributed in Sweden, Austria, Hungary. New to the fauna of Korea.

Dinotrema oleraceum (TOBIAS, 1962) – 1 ♀: No. 376. – Known sporadically in the following countries: Austria, European part of Russia (Leningrad Region), Mongolia. New to the fauna of Korea.

Dinotrema propodeale (TOBIAS, 1962) – 1 ♀ + 1 ♂: No. 376. 1 ♂: No. 918. – Up to now known in the European part of Russia (Leningrad Region). New to the fauna of Korea.

Dinotrema senex sp. n.: for description see the chapter "Descriptions of the New Species".

Dinotrema sphaerimembre (FISCHER, 1973/b) – 1 ♂: No. 374. – Hitherto known only from Hungary. New to the fauna of Korea.

Dinotrema tauricum (TELENGA, 1935) – 1 ♀ (in Coll. KU): Chungbuk, Chungju Sanchok, Yongdong, 23 May 1993, leg. D.-S. Ku. – First reported from Korea by me (PAPP 2001: 4).

Dinotrema subcubicum asiaticum ssp. n.: for description see the chapter "Descriptions of the New Species".

Dinotrema tricarinae sp. n.: for description see the chapter "Descriptions of the New Species".

Dinotrema tuberculatum VAN ACHTERBERG, 1988 – 1 ♀: No. 282. 1 ♂: No. 376. – My female specimen coincides in every respect with the original description (VAN ACHTERBERG 1988: 32) except in two features: (1) body 1.8 (and not 1.9) mm long; (2) propodeum nearly entirely rugulose–uneven and without a medio-longitudinal carina (i.e. not smooth and shiny with a weak sculpture antero-medially, cf. Fig. 153: VAN ACHTERBERG 1988: 77). The male form is similar to the female. Antenna with 22 antennomeres, flagellomeres twice as long as broad. Propodeum medially rugulose with a hardly distinct medio-longitudinal carina, laterally uneven to almost smooth. – Distributed in The Netherlands, Hungary, China. New to the fauna of Korea.

Dinotrema varipes (TOBIAS, 1962) – 1 ♀: No. 144. 1 ♀ + 1 ♂: No. 145. 1 ♂: No. 225. 1 ♀: No. 282. 1 ♀: No. 382. 1 ♂ (in Coll. KU): KyongNam, Chinju, Chojeon-dong, taken with Mercury vapour lamp, 31 July – 1 August 1995, leg. D.-S. KU. – Described from the European part of Russia (Leningrad Region), reported from Mongolia (PAPP 1999: 224). New to the fauna of Korea.

1 ♀: No. 137. 2 ♀ (1 ♀ in Coll. KU): No. 145. 1 ♀ + 1 ♂: No. 347. 1 ♂ (in Coll. KU): Kyong Nam, Chinju, Chojeon-dong, taken with Mercury vapour lamp, 20–21 June 1995, leg. D.-S. KU. – These specimens matches well the nominate form except its corporal colour: the colour of the nominate form is blackish brown to brown, first tergite reddish; that of this form is reddish yellow except (dark) brown head (every specimen), mesoscutum (1 ♀) and tergites beyond the first one (2 ♂).

Panerema szelenyiana (FISCHER, 1974*a*) – 1 ♂: No. 376. – My female matches well with the original description (FISCHER 1974*a*: 69) except the following features: (1) antenna with 33 antennomeres, (2) head in dorsal view twice as broad as long and (3) body 2.3 mm long.

Synaldis acutidentata FISCHER, 1970 – 1 ♀ (det. T. MUNK 2000): No. 251. – Recorded from Austria and China. New to the fauna of Korea.

ALYSIINAE: Dacnusini

Agonia adducta (HALIDAY, 1839) – 1 ♂: No. 282. 1 ♂: No. 376. – Widely distributed in Europe and reported recently from the Maritime Territory of Russian Far East. New to the fauna of Korea.

Antrusa flavicoxa (THOMSON, 1895) – 1 ♀: No. 282. 1 ♀: No. 347. – Widely distributed in the Palaearctic Region. Nearest to Korea found in Russian Far East. New to the fauna of Korea.

Exotela lonicerae GRIFFITHS, 1967 – 1 ♀: No. 1000. – Distributed in England and Russian Far East. New to the fauna of Korea.

Exotela sonchina GRIFFITHS, 1967 – 1 ♂: No. 198. – Known in four countries of Europe as well as in Russian Far East. New to the fauna of Korea.

Lepton elegans (CURTIS, 1829) – 1 ♂: No. 282. – Widely distributed in the Palaearctic Region. New to the fauna of Korea.

Lepton gracile (CURTIS, 1829) – 1 ♂: No. 113. 1 ♀: No. 157. 1 ♂: No. 164. 1 ♂: No. 374. 1 ♂: No. 380. 1 ♂: No. 956. – Frequent to common in the Palaearctic Region. New to the fauna of Korea.

Lepton oryzicola (WATANABE, 1963) – 1 ♂: No. 1324. 1 ♀: No. 1336. – Decribed and known in Japan so far. New to the fauna of Korea.

Lepton pusillum (ASTAFUROVA, 1998) – 1 ♂: No. 1324. – Described from the Maritime Territory of Russian Far East (in BELOKOBYLSKIJ & TOBIAS 1998: 307). New to the fauna of Korea. I have specimen (1 ♂) from Hungary.

Lepton ruficollis (HERRICH–SCHÄFFER, 1838) – 1 ♀: No. 332. 1 ♂: No. 1324. – Temple in dorsal view not bulging (usually somewhat bulging), prothorax blackish with rusty suffusion (usually reddish yellow). – Distributed in the Palaearctic Region. New to the fauna of Korea.

Lepton vidum (CURTIS, 1829) – 1 ♀: No. 380. – In Europe frequent to sporadic species. New to the fauna of Korea.

Sarops popovi TOBIAS, 1962 – 1 ♂: No. 218. 1 ♀: No. 282. 2 ♀ + 2 ♂: No. 376. – Described from the European part of Russia (Leningrad Region), reported from several regions of Russia and Azerbaidjan. Nearest to Korea found in the Maritime Territory of Russian Far East. New to the fauna of Korea.

Trachionus hians (NEES, 1816) – 1 ♂: No. 282. – A Palaearctic and fairly frequent species. New to the fauna of Korea.

Trachionus mandibularis (NEES, 1814) – 1 ♂: No. 293. 1 ♀: No. 1011. – A Palaearctic and fairly frequent species. New to the fauna of Korea.

DESCRIPTIONS OF THE NEW TAXA

Aspilota farra sp. n. ♀
(Figs 1–5)

Material examined (1 ♀) – Female holotype: Korea, Prov. Ryang, Samjiyon, 1000 m, 26 June 1988, leg. O. MERKL et Gy. SZÉL (loc. no. 1345). – Holotype is deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. No. 10529. The holotype is in good condition, left pair of wings somewhat creased.

Etymology – The specific epithet "farra" is a phantasy name.

Description of the female holotype. – Body 2.1 mm long. Antenna somewhat longer than body and with 21 antennomeres. First flagellomere four times and penultimate flagellomere 2.5 times as long as broad. – Head in dorsal view (Fig. 1) transverse, almost twice as broad as long, eye one-third (or 1.6 times) longer than temple, latter rounded. Ocelli elliptic, OOL just less than four times as long as POL. Tentorial pit reaching clearly compound eye. Mandible (Fig. 2) along its median line 1.6 times as long as broad between teeth 1 and 3, upper or first tooth truncate and fairly withdrawn. Eye in lateral view 1.6 times as high as wide, temple beyond eye one-fourth less wide than eye. Head polished.

Mesosoma in lateral view 1.25 times as long as high. Mesoscutal dimple missing. Precoxal suture short, deep, crenulate. Propodeum areolate, horizontal (or upper) pair of areolae polished, areola basalis rugo-rugulose above, rest of areolae uneven with a few rugulae, pair of spiracles small and close to lateral margin of propodeum (Fig. 3). Mesosoma polished. – Hind femur five times as long as broad distally (Fig. 4). Hind basitarsus as long as tarsomeres 2–4 combined.

Fore wing one-fourth longer than body. Second submarginal cell long; *r* relatively long, 1.6 times as long as width of pterostigma; *3–SR* 2.3 times as long as *2–SR*, *4–SR* clearly twice as long as *3–SR*. Vein *1–2CU(1)* twice as long as *m–cu*.

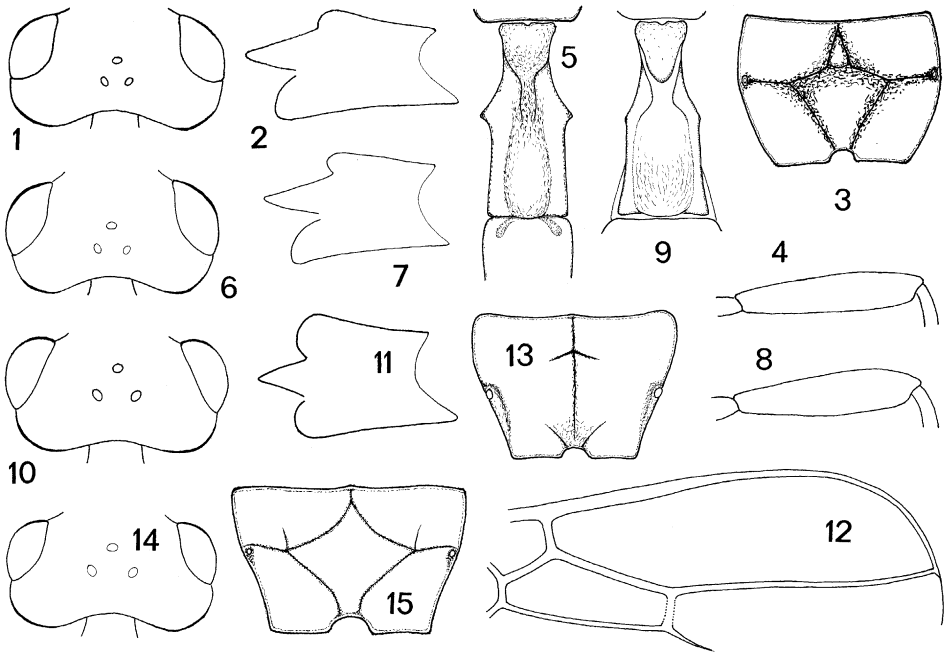
First tergite (Fig. 5) long, 2.5 times as long as broad behind, pair of spiracles tuberculiform protruding at middle of tergite, with a pair of medio-longitudinal keels, scutum longitudinally uneven-rugulose, laterally uneven to smooth, shiny. Second tergite latero-basally with a pair of deep dimples (Fig. 5). Metasoma beyond first tergite compressed. Ovipositor sheath in lateral view somewhat upcurved and as long as hind tarsomeres 1–4 combined.

Ground colour of head and mesosoma brownish black, metasoma dark brown. Scape and pedicel yellowish brown, flagellum brown. Mandible yellowish brown, palpi yellowish. Tegulae yellowish brown. Legs yellow, hind tibia distally faintly brownish. First tergite with blackish suffusion. Wings hyaline, pterostigma and veins light brownish yellowish.

Male and host unknown.

Distribution: Korea.

The new species, *Aspilota farra*, is representing the *fasciatae*-group (FISCHER 1976) and is nearest to *A. laevinotum* TOBIAS; the two species are differentiated by the features keyed:



Figs 1–15. 1–5 = *Aspilota farra* sp. n.: 1 = head in dorsal view, 2 = mandible, 3 = propodeum, 4 = hind femur, 5 = tergite 1–2. – 6–9 = *A. laevinotum* TOBIAS: 6 = head in dorsal view, 7 = mandible, 8 = hind femur, 9 = tergite 1. – 10–13 = *Dinotrema alboacutum* sp. n.: 10 = head in dorsal view, 11 = mandible, 12 = distal part of right fore wing, 13 = propodeum. – 14–15 = *D. dentatum* (TOBIAS): 14 = head in dorsal view, 15 = propodeum

1 (2) Temple in dorsal view somewhat more rounded (Fig. 6) Upper tooth of mandible rounded (Fig. 7). First tergite twice as long as broad behind, pair of spiracles not protruding (Fig. 9). Hind femur four times as long as broad clearly distally (Fig. 8). Female: 1.6–1.8 mm. – Russia, Korea
A. laevinotum TOBIAS, 1962

2 (1) Temple in dorsal view somewhat less rounded (Fig. 1). Upper tooth of mandible withdrawn (Fig. 2). First tergite 2.5 times as long as broad behind, pair of spiracles protruding (Fig. 5). Hind femur five times as long as broad distally (Fig. 4). Female: 2.1 mm. – Korea **A. farra** sp. n.

Within the *lobidens*-group (FISCHER 1976) the new species runs to *A. furtnerana* FISCHER; the two species are distinguished as follows:

1 (2) Eye in dorsal view as long as temple. First flagellomere five times and penultimate flagellomere 1.8 times as long as broad. Precoxal suture reaching fore margin of mesopleuron. Upper tooth of mandible faintly rounded. Areolae of propodeum uneven, along carinae rugulose. Ground colour of body dark brown. Female: 2.2 mm. – Austria *A. furtnerana* FISCHER, 1973

2 (1) Eye in dorsal view one-third longer than temple (Fig. 1). First flagellomere four times and penultimate flagellomere 2.5 times as long as broad. Precoxal suture not reaching fore margin of mesopleuron. Upper tooth of mandible withdrawn (Fig. 2). Horizontal (or upper) pair of areolae of propodeum polished, areola basalis rugo-rugulose above, rest of areolae uneven (Fig. 3). Ground colour of head and mesosoma brownish black, metasoma dark brown. Female: 2.1 mm. – Korea **A. farra** sp. n.

Dinotrema alboacutum sp. n. ♂
(Figs 10–13)

Material examined (1 ♂) – Male holotype: Korea, Prov. Pyongsung, Beksung-li, Zamo-san, 60 km NE from the city Pyongyan, 1 August 1975, leg. J. PAPP et A. VOJNITS (loc. no. 304). – Holotype is deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. No. 10530. The holotype is in good condition except left antenna with 14 antennomeres (i.e. distal part of flagellum missing).

Etymology – The specific epithet *alboacutum* refers to the white colour of the ultimate flagellomere.

Description of the male holotype. – Body 1.7 mm long. Antenna about one-sixth longer than body and with 18 antennomeres. First flagellomere almost four times and penultimate flagellomere twice as long as broad. – Head in dorsal view (Fig. 10) transverse, twice as broad as long, eye twice as

long as temple and somewhat bulging, temple rounded. OOL twice as long as POL. Tentorial pit short, not touching compound eye, its length equal to distance between pit and eye. Mandible stout, along its median line 1.25 times as long as broad between teeth 1 and 3 (Fig. 11). Eye in lateral view 1.4 times as high as wide, temple beyond eye one-third less wide than eye. Head polished.

Mesosoma in lateral view 1.2 times as long as high. Mesoscutal dimple missing. Precoxal suture short, subcrenulate. Propodeum smooth and shiny with a medio-longitudinal weak carina, close along carina subrugulose; latero-median pair of spiracles of propodeum on anterior end of a small swelling of lateral suture of propodeum (Fig. 13). Mesosoma polished. – Hind femur five times as long as broad distally. Hind basitarsus as long as tarsomeres 2–4 combined.

Fore wing about one-fifth longer than body. Second submarginal cell long, 3–SR 2.3 times as long as *2–SR*, *4–SR* 2.2 times as long as *3–SR* (Fig. 12). Vein *1–2(CU(1)* 1.5 times as long as *m–cu*. Veins somewhat thickened.

First tergite 1.4 times as long as broad behind, evenly broadening posteriorly, pair of basal keels merging into longitudinal substriation on hind half of tergite. Further tergites polished.

Scape, pedicel and first flagellomere yellow, second flagellomere darkening yellow to brownish, rest of flagellum greyish brownish, ultimate flagellomere whitish. Head, mesoscutum and scutellum dark brown, mesopleuron brown, propodeum light brown, pronotum brownish yellow. Tergites 1–2 yellow, rest of tergites brown. Clypeus brownish yellow, mandible yellow, palpi white. Tegulae yellow, parategulae whitish yellow. Legs yellow, coxae 2–3 whitish yellow, hind tibia darkening brownish. Wings hyaline, pterostigma and veins greyish yellowish.

Female and host unknown.

Distribution: Korea.

The new species, *Dinotrema alboacutum*, is nearest to the Nearctic species *D. bakeri* FISCHER within the *smithi*-group considering the polished propodeum of both species with a medio-longitudinal carina; the two species are distinct by the following features:

1 (2) Mandible long, 1.9 times as long as broad (Abb. V: 13 in FISCHER 1969*a*: 199). In dorsal view eye 1.6 times as long as temple. Pair of spiracles of propodeum on its lateral suture as usual (Abb. V: 14 l.c.). First tergite 1.7 times as long as broad (in Abb. V: 14 l.c. 1.9 times). Hind femur four times as long as broad. Tergites 1–2 chestnut brown. Female: 1.9 mm. – USA (Massachusetts) *D. bakeri* FISCHER, 1969

2 (1) Mandible short, 1.25 times as long as broad (Fig. 11). In dorsal view eye twice as long as temple (Fig. 10). Pair of spiracles of propodeum on anterior end of a small swelling along lateral suture of propodeum (Fig. 13). First tergite 1.4 times as long as broad behind. Hind femur five times as long as broad. Tergites 1–2 yellow. Male: 1.7 mm. – Korea **D. alboacutum** sp. n.

Taking into consideration the Palaearctic species of the *smithi*-group (FISCHER 1976: 352–353) *D. alboacutum* is nearest to *D. dentatum* (TOBIAS), the two species are distinguished by the features keyed:

1 (2) Propodeum with a wide pentagonal areola basalis (Fig. 15). In dorsal view eye a bit longer than temple (Fig. 14). Fore wing: second submarginal cell less long, *3–SR* 1.7 times as long as *2–SR* (Fig. 24 in TOBIAS 1962: 103). Antenna with 21–22 antennomeres. Ground colour of body black. Female: 1.7 mm. – European part of Russia (Leningrad Region)

D. dentatum (TOBIAS, 1962)

2 (1) Propodeum with a medio-longitudinal carina otherwise polished (Fig. 13). Eye in dorsal view twice as long as temple (Fig. 10). Fore wing: second submarginal cell long, *3–SR* 2.2 times as long as *2–SR* (Fig. 12). Antenna with 18 antennomeres. Ground colour of body dark brown to brown. Male: 1.7 mm. – Korea **D. alboacutum** sp. n.

Dinotrema crux sp. n. ♀♂
(Figs 16–21, 87)

Material examined (1 ♀ + 6 ♂) – Female holotype + one male paratype (in Budapest): Korea, Prov. South Phenan (= Pyongyan), Bongha ri, on the river Tedong, 45 km E from Pyongyang, 23 May 1970, leg. S. MAHUNKA et H. STEINMANN (loc. no. 19). – Three male paratypes (two males in Coll. KU, one male in Budapest): Korea, Kyongbuk, Ponghwa Myongho, Kokye, 28 May 1993, leg. D.-S. KU. – Two male paratypes (in Coll. KU): Korea, Kyongbuk, Ponghwa Myongho, Kwanchang-ri, 28 May 1993, leg. D.-S. KU.

Female holotype and two male paratypes are deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. Nos 10531 (holotype) and 10532–10533 (paratypes); four male paratypes are in Coll. KU (Sancheong, Republic of Korea).

Female holotype is in good condition, except left damaged antenna with 15 antennomeres; mounted on a pointed card by its lateral sternites of metasoma. Paratypes (six males) are in fairly good condition.

Etymology – The specific epithet "crux" refers to the cruciform carination of the propodeum.

Description of the female holotype. – Body 2.3 mm long. Antenna short, as long as head, mesosoma and two-thirds of metasoma combined; with 18 antennomeres. Flagellum faintly attenuating, first flagellomere 3.5 times, middle flagellomeres twice and penultimate flagellomere just more than twice as long as broad apically. – Head in dorsal view (Fig. 16) transverse, 1.85 times as broad as long, eye 1.65 times as long as temple, temple rounded. OOL three times as long as POL. Tentorial pit large, about five times as long as its distance from compound eye. Mandible long, 1.7 times as long medially as broad between teeth 1 and 3; upper (or first) tooth relatively small, lower (or third) tooth widely rounded (Fig. 17). Eye in lateral view 1.6 times as high as wide, beyond eye temple one-fourth less wide than eye. Head polished.

Mesosoma in lateral view 1.25 times as long as high. Mesoscutal dimple linear and fairly deep. Precoxal suture short; restricted to middle of mesopleuron, finely crenulate. Propodeum polished and with a cruciform carination, i.e. medio-longitudinal and transverse keels fully present and forming a cross (Fig. 18). Mesosoma polished. – Hind femur four times as long as broad distally (Fig. 19). Hind basitarsus as long as tarsomeres 2–3 combined.

Fore wing as long as body. Second submarginal cell long, *3–SR* clearly twice as long as *2–SR*, *4–SR* straight and somewhat more than twice as long as *3–SR*. Vein *1–2CU(1)* 2.1 times as long as *m–cu* (Fig. 87, see arrows).

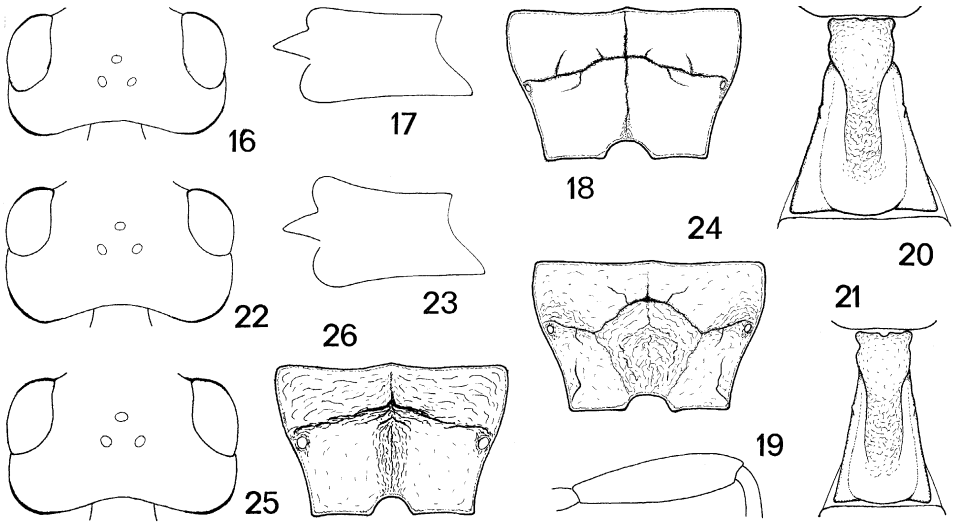
First tergite (Fig. 20) 1.35 times as long as broad behind, pair of small spiracles at middle of tergite, tergite evenly broadening antero-posteriorly, pair of basal keels merging into uneven-subrugulose surface, laterally from keels tergite polished. Further tergites also polished. Ovipositor sheath as long as hind femur or somewhat longer than first tergite.

Scape, pedicel and flagellomeres 1–3 brownish yellow, rest of flagellomeres greyish brown. Head dark brown, palpi pale yellow, mandible yellow. Mesosoma reddish yellow, mesoscutum and scutellum brown. Tegulae yellow. Legs yellow, coxae and trochanters rather pale yellow. Tergites brownish, sternites brownish yellow. Wings hyaline, veins light brownish.

Description of the six male paratypes. – Similar to the female holotype. Body 1.8–2.1 mm long (1.8: 1 ♂, 1.9: 1 ♂, 2: 1 ♂, 2.1: 3 ♂). Antenna somewhat longer than body and with 19–21 antennomeres (19: 1 ♂, 20: 1 ♂, 21: 4 ♂), first falgellomere 2.6 times, middle and penultimate flagellomeres 2.3–2.5 times as long as broad apically. Head in dorsal view less transverse, 1.7–1.8 times as broad as long, eye 1.6–1.7 times as long as temple. Cruciform carination of propodeum somewhat stronger, along medio-longitudinal keel fairly widely uneven (1 ♂). Hind femur 3.8–4 times as long as broad medially. *3–SR* 2–2.2 times as long as *2–SR*. First tergite 1.7–1.8(–1.9) times as long as broad behind. Mesosoma brown above, brown to light brown below.

Host unknown.

Distribution: Korea.



Figs 16–26. 16–21 = *Dinotrema crux* sp. n.: 16 = head in dorsal view, 17 = mandible, 18 = propodeum, 19 = hind femur, 20–21 = first tergite: female (20) and male (21). – 22–24 = *D. macrocera* (THOMSON): 22 = head in dorsal view, 23 = mandible, 24 = propodeum. – 25–26. = *D. cruciforme* (FISCHER): 25 = head in dorsal view, 26 = propodeum

The new species, *Dinotrema crux*, runs to *D. macrocera* (THOMSON) and *D. cruciforme* (FISCHER, 1973*b*) with the help of FISCHER's key to the *signifrons* species-group within the genus *Dinotrema* as well as to *D. tricarinae* sp. n. The three species are distinguished as follows:

1 (2) Eye in dorsal view just longer than temple, head in dorsal view 1.75 times as broad as long (Fig. 22). Upper (or first) tooth of mandible relatively large (Fig. 23). First tergite 2–2.2 times as long as broad behind. Propodeum with a faintly distinct and rugulose areola basalis, transverse carina present (Fig. 24). Propodeum dark brown to blackish. Female: 1.5–2.5 mm, male: 1.8–2 mm. – Sweden, Austria, Mongolia *D. macrocera* (THOMSON, 1895)

2 (1) Eye in dorsal view 1.5–1.9 times as long as temple, head in dorsal view 1.85 times as broad as long (Fig. 16). Upper (or first) tooth of mandible relatively small (Fig. 17). First tergite 1.25 (♀) and 1.7–1.8(–1.9) times (♂) as long as broad behind (Figs 20–21). Propodeum with cruciform carination, along carinae sometimes rugulose (♂), propodeum usually polished (Fig. 18). Propodeum yellowish to light brown. Female: 2.3 mm, male: 1.8–2.1 mm. – Korea **D. crux** sp. n.

*

1 (2) Head in dorsal view 1.7 times as broad as long, eye one-fourth longer than temple (Fig. 25). Precoxal suture reaching fore margin of mesopleuron. Propodeum with cruciform carination, transverse carina laterally gradually less distinct, relatively widely rugulose medio-longitudinally (Fig. 26). Antenna with 23–25 antennomeres (♀♂). Female: 2.5 mm, male: 2–2.2 mm. – Austria, Korea *D. cruciforme* (FISCHER, 1973)

2 (1) Head in dorsal view 1.85 times as broad as long, eye 1.5–1.7 times as long as temple (Fig. 16). Precoxal suture short, not reaching fore margin of mesopleuron. Propodeum polished and with distinct cruciform carination, sometimes (♂) along carinae closely subrugulose (Fig. 18). Antenna with 18 (♀) and 19–21 (♂) antennomeres. Female: 2.3 mm, male: 1.8–2.1 mm. – Korea **D. crux** sp. n.

*

The new species resembling of *D. tricarinae* sp. n., the distinction of the two species is presented at this species, see there.

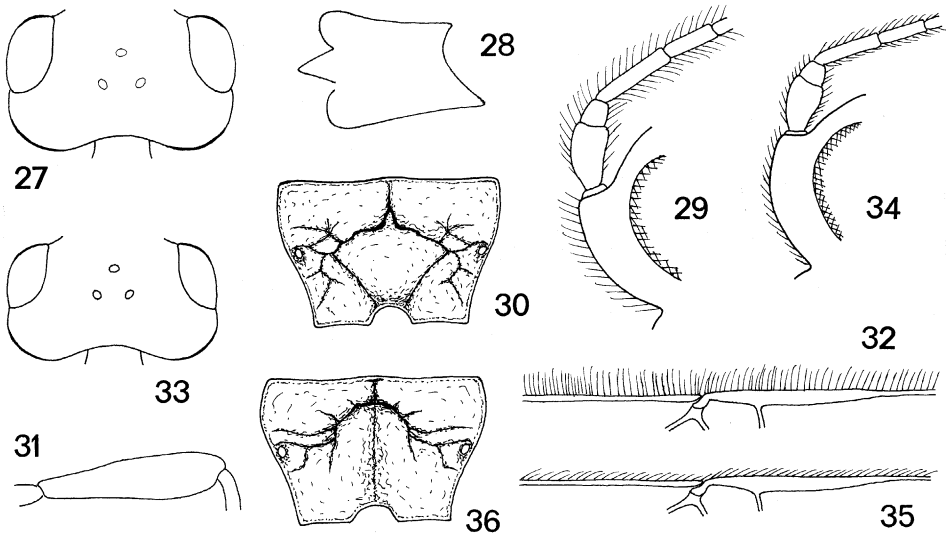
Dinotrema erectum sp. n. ♀
(Figs 27–32)

Material examined (1 ♀). – Female holotype: Korea, Prov. Kangwon, Kumgang san (= Diamond Mts), 12 October 1978, leg. A. VOJNITS et L. ZOMBORI (loc. no. 488). – Holotype is deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. No. 10534. The holotype is in good condition except right antenna with eight flagellomeres.

Etymology – The specific epithet "erectum" refers to the erected hairs of the body.

Description of the female holotype. – Body 2.1 mm long. Left antenna about as long as body and with 19 antennomeres. First flagellomere four times and penultimate flagellomere 1.8 times as long as broad. – Head in dorsal view (Fig. 27) transverse, 1.75 times as broad as long, eye 1.45 times as long as temple, temple clearly rounded. Ocelli elliptic, OOL 1.6 times as long as POL. Tentorial pit clearly not reaching compound eye. Mandible less long, 1.27 times as long medially as broad between teeth 1 and 3; three teeth in lateral view as in Fig. 28. Eye in lateral view less elliptic, 1.3 times as high as wide, beyond eye temple one-fourth less wide than eye. Head polished. Head and flagellum with long erected hairs (Fig. 29).

Mesosoma in lateral view 1.25 times as long as high. Mesoscutal dimple hardly distinct. Precoxal suture short, not reaching fore and hind margin of mesopleuron, crenulate. Propodeum areolated, along keels with rugae-rugulae (Fig. 30). Mesosoma polished, mesoscutum hairy. – Hind femur 4.1 times as long as broad distally (Fig. 31). Hind basitarsus as long as tarsomeres 2–4 combined.



Figs 27–36. 27–32 = *Dinotrema erectum* sp. n.: 27 = head in dorsal view, 28 = mandible, 29 = pubescence of face and antenna, 30 = propodeum, 31 = hind femur, 32 = pubescence of costal and marginal veins. – 33–36 = *D. mediocorne* (FISCHER): 33 = head in dorsal view, 34 = pubescence of face and antenna, 35 = pubescence of costal and marginal veins, 36 = propodeum

Fore wing about one-fourth longer than body. Second submarginal cell long, *3–SR* 2.5 times as long as *2–SR*, *4–SR* just not straight and twice as long as *3–SR*. Vein *1–2CU* 2.2 times as long as *m–cu*. Costal vein, pterostigma and metacarpal vein of fore wing with long hairs (Fig. 32).

First tergite 2.2 times as long as broad behind, pair of small spiracles at middle of tergite, tergite before spiracles broadening, beyond spiracles parallel-sided, pair of basal keels merging anteriorly into longitudinal striae. Tergites beyond first tergite polished. Ovipositor sheath about one-fifth longer than first tergite or half as long as hind tibia.

Body blackish brown. Scape and pedicel yellowish brown, flagellum brown to dark brown. Tegula brownish yellow, parategula yellow. Legs yellow. Wings hyaline, veins light brownish.

Male and host unknown.

Distribution: Korea.

The new species, *Dinotrema erectum*, is nearest to *D. mediocorne* (FISCHER) viewing their long second submarginal cell of fore wing, long first tergite, hairy mesoscutum and females with 18–19 antennomeres; the two species are separated by the features keyed:

1 (2) Eye in dorsal view as long as or somewhat longer than temple, latter somewhat less rounded, head in dorsal view 1.8 times as broad as long (Fig. 33). Head, flagellum (Fig. 34), mesoscutum, marginal veins of fore wing (Fig. 35) and legs with less erected hairs as usually. Mesoscutal dimple distinct, short linear. Propodeum not areolated (Fig. 36). Female: 2–2.1 mm. – Austria, Hungary *D. mediocorne* (FISCHER, 1973)

2 (1) Eye in dorsal view 1.45 times as long as temple, latter somewhat more rounded, head in dorsal view 1.7 times as broad as long (Fig. 27). Head, flagellum (Fig. 29), mesoscutum, marginal veins of fore wing (Fig. 32) and legs with unusually erected hairs. Mesoscutal dimple hardly distinct. Propodeum areolated (Fig. 30). Female: 2.1 mm. – Korea **D. erectum** sp. n.

Considering its hardly distinct mesoscutal dimple the new species may run to *D. semicompressum* (STELFOX et GRAHAM), however, the two species are clearly differentiated by the following features:

1 (2) Head in lateral view dorso-ventrally somewhat depressed. Propodeum with a medio-longitudinal carina, otherwise polished. Hairs of body, flagellum, legs and costal + marginal veins of fore wing of usual length and less erected (cf. Fig. 34–35). Female + male: 1.4–1.7 mm. – England, Austria, Hungary *D. semicompessum* (STELFOX et GRAHAM, 1949)

2 (1) Head in lateral view dorso-ventrally not depressed. Propodeum areolated, along keels with rugae-rugulae (Fig. 30). Hairs of body, flagellum (Fig. 29), legs and costal + marginal veins of fore wing (Fig. 32) unusually long and erected. Female: 2.1 mm – Korea **D. erectum** sp. n.

Dinotrema gradatim sp. n. ♀
(Figs 37–42)

Material examined (1 ♀) – Female holotype: Korea, Prov. Ryang, Paekdu-san-milyong, 1500 m, 27 June 1988, leg. O. MERKL et GY. SZÉL (loc. no. 1353). – Holotype is deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. No. 10535.

The holotype is in good condition. – Taxonomic remark: The specimen was named by T. Munk (in 2000) as "close to caudata (Thoms.)".

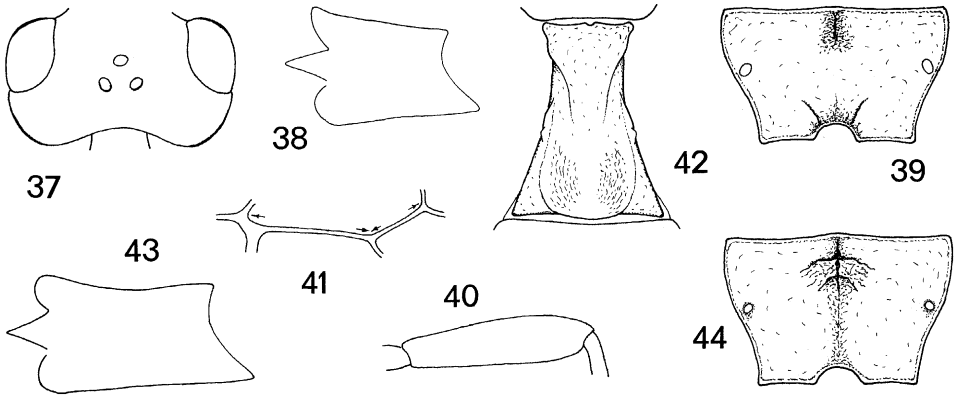
Etymology – The specific epithet "gradatim" refers to the specific differences being only gradual.

Description of the female holotype. – Body 2 mm long. Antenna as long as body, with 22 (right antenna) and with 21 antennomeres (left antenna). First flagellomere 1.8 times (in lateral view), middle flagellomeres 1.5 times and penultimate flagellomere (left antenna) 1.7 times as long as broad. – Head in dorsal view (Fig. 37) transverse, 1.8 times as broad as long, eye 1.5 times as long as temple, temple rounded. OOL three times as long as POL. Tentorial pit short, not reaching compound eye. Mandible stout, 1.3 times as long medially as broad between teeth 1 and 3, less broadening distally, tooth 1 subpointed (Fig. 38). Eye in lateral view 1.5 times as long as wide, beyond eye temple slightly less wide than eye. Head polished.

Mesosoma in lateral view about as long as high. Mesoscutal dimple short linear. Precoxal suture short, subcrenulate. Propodeum polished, its medio-longitudinal strip anteriorly rugulose-uneven, posteriorly just uneven (Fig. 39). Mesosoma polished. – Hind femur four times as long as broad somewhat distally (Fig. 40). Hind basitarsus as long as tarsomeres 2–3 combined.

Fore wing about one-third longer than body. Second submarginal cell long, *3–SR* 2.5 times as long as *2–SR*, *4–SR* faintly curved and 2.4 times as long as *3–SR*. Vein *1–2CU1* twice as long as *m–cu* (Fig. 41, see arrows).

First tergite (Fig. 42) 1.3 times as long as broad, evenly broadening posteriorly, pair of spiracles beyond middle of tergite, pair of weak keels reaching hind half of tergite, hind half of tergite



Figs 37–44. 37–42 = *Dinotrema gradatim* sp. n.: 37 = head in dorsal view, 38 = mandible, 39 = propodeum, 40 = hind femur, 41 = discal (*1–2CU1*) and recurrent vein (*m–cu*) of fore wing, 42 = first tergite. – 43–44 = *D. incarnatum* (FISCHER): 43 = mandible, 44 = propodeum

rather longitudinally subrugulose as in Fig. 42. Further tergites polished. Ovipositor sheath as long as hind tarsomeres 1–4 and half of 5th tarsomere combined and somewhat shorter than twice length of first tergite.

Ground colour of body blackish brown to dark brown. Antenna brown. Mandible and palpi light brown. Tegula brown, parategula yellowish. Legs brownish yellow. Propodeum and first tergite brown. Wings hyaline, pterostigma and veins brownish to light brownish.

Male and host unknown.

Distribution: Korea.

The new species, *Dinotrema gradatim*, is nearest to *D. caudatum* (THOMSON, 1895) and *D. incarinatum* (FISCHER, 1973) considering their rugulose-uneven medio-longitudinal strip of propodeum (i.e. propodeum not carinated, Figs 39 and 44); the three species are distinct by the following features:

1 (2) First tergite 1.6 times as long as broad behind, posteriorly moderately broadening. Eye in dorsal view just longer than temple (Fig. 2 in STELFOX & GRAHAM 1951:5). Vein *1–2CU1* three times as long as *m–cu*. Medio-longitudinal strip of propodeum evenly rugulose (Fig. 10 in l.c.). Fore wing: *3–SR* twice as long as *2–SR*. Female and male: 1.8 mm. – Europe
D. caudatum (THOMSON, 1895)

2 (1) First tergite 1.3 times as long as broad behind, posteriorly strongly broadening (Fig. 42). Eye in dorsal view 1.5 times as long as temple (Fig. 37). Vein *1–2CU1* twice as long as *m–cu* (Fig. 41, see arrows). Medio-logitudinal strip of propodeum anteriorly rugulose-uneven, posteriorly just uneven (Fig. 39). Fore wing: *3–SR* 2.5 times as long as *2–SR*. Female: 2 mm. – Korea
D. gradatim sp. n.

*

1 (2) First tergite 1.75 times as long as broad behind. Mandible 1.75 times as long medially as broad between teeth 1 and 3, tooth 1 widely rounded (Fig. 43). Hind femur five times as long as broad. Middle flagellomeres 2.5 times as long as broad. Propodeum as in Fig. 44. Legs yellow. Female: 1.8–2 mm. – Austria, Hungary *D. incarinatum* (FISCHER, 1973)

2 (1) First tergite 1.3 times as long as broad (Fig. 42). Mandible 1.3 times as long medially as broad between teeth 1 and 3, tooth 1 subpointed (Fig. 38). Hind femur four times as long as broad (Fig. 40). Middle flagellomeres 1.5 times as long as broad. Propodeum as in Fig. 39. Legs brownish yellow. Female: 2 mm. – Korea **D. gradatim** sp. n.

Dinotrema hebescum sp. n. ♂♀
(Figs 45–49)

Material examined (2 ♀ + 2 ♂) – Female holotype (in Budapest): Korea, Prov. South Pyongan, Mangyong-dae, 5 August 1971, leg. S. HORVATOVICH et J. PAPP (loc. no. 139). One female paratype (in Budapest): Korea, Gyeong Nam Chinju, City Chojeon-Dong, at night at light trap, 7–8 July 1993, leg. D.–S. KU. Two male paratypes (in Coll. KU): Korea, Prov. Kyöngnam, Chinju-shi Kajwadong, 14 July 1993, leg. D.–S. KU.

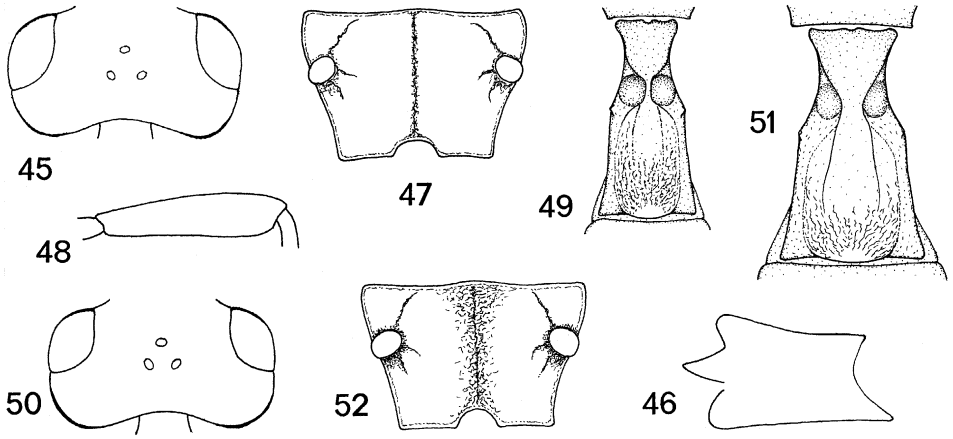
Female holotype and one female paratype are deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. Nos 10536 (holotype) and 10537 (paratype); two male paratypes are in D.–S. KU's Collection (Sancheong, Republic of Korea).

The holotype is in good condition except right antenna with 13 antennomeres (i.e. flagellum damaged); female paratype also in good condition except torn metacarpal vein (*1–R1*) at its middle (fore right wing). Two male paratypes in good condition.

Etymology – The specific epithet "hebescum" refers to the weak and hardly distinct mesoscutal dimple.

Description of the female holotype. – Body 2 mm long. Antenna as long as body and with 18 antennomeres. First flagellomere three times, further flagellomeres 2.5 times as long as broad. – Head in dorsal view (Fig. 45) transverse, 1.9 times as broad as long, eye 1.7 times as long as temple, temple not bulging and rounded. OOL almost three times as long as POL. Tentorial pit short and not touching compound eye. Mandible 1.7 times as long medially as broad between teeth 1 and 3 (Fig. 46). Eye in lateral view 1.5 times as high as wide, temple beyond eye one-third less wide than eye and ventrally slightly narrowing. Head polished.

Mesosoma in lateral view 1.2 times as long as high. Mesoscutal dimple short and weak, hardly distinct. Precoxal suture short, crenulate. Propodeum smooth and shiny with a medio-longitudinal carina, close along carina subrugulose, lateral pair of spiracles large and before middle of propodeum



Figs 45–52. 45–49 = *Dinotrema hebescum* sp. n.: 45 = head in dorsal view, 46 = mandible, 47 = propodeum, 48 = hind femur, 49 = first tergite. – 50–52 = *D. erythropa* (FÖRSTER): 50 = head in dorsal view, 51 = first tergite, 52 = propodeum

(Fig. 47). Mesosoma polished. – Hind femur four times as long as broad distally (Fig. 48). Hind basitarsus just shorter than tarsomeres 2–3 combined.

Fore wing about as long as body. Second submarginal cell long, *3–SR* 2.7 times as long as *2–SR*, *4–SR* straight and 2.5 times as long as *3–SR*. Vein *1–2CU1* twice as long as *m–cu*

First tergite twice as long as broad behind, beyond pair of spiracles subparallel-sided, pair of weak keels ending posteriorly on tergite, hind half of tergite longitudinally subrugulose (Fig. 49). Further tergites polished. Ovipositor sheath as long as hind tarsomeres 1–3 combined.

Scape and pedicel yellow, flagellum greyish brownish. Head and mesosoma brown, head somewhat darker above. Metasoma light brown. First tergite entirely and fore half of second tergite yellow. Clypeus brownish yellow, mandible yellow, palpi straw yellow. Tegula brownish yellow, parategula yellow. Legs yellow. Wings hyaline, pterostigma and veins greyish yellowish.

Description of the female paratype. – Similar to the female holotype. Body 1.9 mm long. Antenna with 19 antennomeres. First tergite 1.9 times as long as broad behind.

Description of the two male paratypes. – Similar to the female. Body 1.8–2 mm long. Antenna somewhat longer than body and with 19 antennomeres; first flagellomere 3.6 times and penultimate flagellomere 2.7 times as long as broad. Eye 1.6–1.7 times as long as temple. Second submarginal cell somewhat less long, *3–SR* 2.2–2.3 times as long as *2–SR*. First tergite 2–2.2 times as long as broad behind. Scape and pedicel brownish yellow.

Distribution: Korea.

The new species, *Dinotrema hebescum*, is a representative of the *subcubicus* species-group (FISCHER 1976) and is nearest to *D. erythropa* (FÖRSTER) and to *D. dreisbachi* (FISCHER) considering their unusually large pair of spiracles on propodeum; the three species are distinguished by the following features:

1 (2) Mesoscutal dimple long linear, extending on hind third of mesoscutum. In dorsal view eye 1.2 times as long as temple, temple less rounded (Fig. 50). Antenna with 27–28 antennomeres, flagellomeres 10–26–27 subcubic. First tergite (1.4–)1.5–1.6 times as long as broad behind (Fig. 51). Medio-longitudinal rugulosity of propodeum linear as in Fig. 52. Female and male: 3–3.2 mm. – Europe *D. erythropa* (FÖRSTER, 1862)

2 (1) Mesoscutal dimple short and weak, hardly distinct. In dorsal view eye 1.7 times as long as temple, temple rounded (Fig. 45). Antenna with 18–19 antennomeres, flagellomeres 2.5 times as long as broad. First tergite 1.9–2 times as long as broad behind (Fig. 49). Medio-longitudinal rugulosity of propodeum wide as in Fig. 52. Female: 1.9–2 mm. – Korea **D. hebescum** sp. n.

*

1 (2) Temple in dorsal view bulging, i.e. head between temples broader than between compound eyes; temple 1.3 times as long as eye. First tergite 1.2 times

as long as broad behind (Abb. 25 in FISCHER 1969*b*: 105). Hind femur thick, just three times as long as broad (Abb. 24 l.c.). Mandible strongly broadening (Abb. 22 l.c.). Female: 2.7 mm. – USA (Michigan)

D. dreisbachi (FISCHER, 1969)

2 (1) Temple in dorsal view not bulging, i.e. head between temples not broader than between eyes; eye 1.7 times as long as temple (Fig. 45). First tergite 1.9–2 times as long as broad behind (Fig. 49). Hind femur four times as long as broad (Fig. 48). Mandible less broadening (Fig. 46). Female:1.9–2 mm. – Korea **D. hebescum** sp. n.

Dinotrema irekabi sp. n. ♀♂
(Figs 53–60)

Material examined (1 ♀ + 2 ♂). – Female holotype: Korea, Mts Pektu, swept along lake-shore in grasses before Samzi-yan Hotel, 19 July 1977, leg. DELY et DRASKOVITS (loc. no. 376). One male paratype: Korea, Prov. Kengi, Mts Bagyon, Bagyon popo (= water fall), about 27 km NE from Kaesong, 7 June 1970, leg. S. MAHUNKA et H. STEINMANN (loc. no. 100). One male paratype: Korea, Mts Bagyon (= "Pakyon"), Bagyon popo, 27 km NE from Kaesong, 9 September 1971, leg. S. HORVATOVICH et J. PAPP (loc. no. 251).

Holotype and two paratypes are deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. Nos 10538 (holotype) and 10539–10540 (paratypes). – Holotype and paratypes are in good condition.

Etymology – The specific epithet "irekabi" is the reverse form of bakeri indicating the close relation of the two species.

Description of the female holotype. – Body 1.9 mm long. Antenna one-fourth longer than body and with 22 antennomeres. First flagellomere three times and further flagellomeres 2.7 times as long as broad apically. – Head in dorsal view (Fig. 53) transverse, 1.8 times as broad as long, eye 1.9 times as long as temple and strongly rounded. OOL three times as long as POL. Tentorial pit short, not reaching compound eye. Mandible along median line 1.4 times as long as broad between teeth 1 and 3 (Fig. 54). Eye in lateral view 1.35 times as high as wide, temple beyond eye 0.52 times as wide as eye or eye 1.9 times as wide as temple. Head polished.

Mesosoma in lateral view 1.3 times as long as high. Mesoscutal dimple absent. Precoxal suture short, subcrenulate. Propodeum polished with a medio-longitudinal weak carina, close along carina subrugulose (Fig. 55). Mesosoma polished. – Hind femur four times as long as broad distally (Fig. 56). Hind basitarsus as long as tarsomeres 2–3 and half of fourth tarsomere combined.

Fore wing about one-seventh longer than body. Second submarginal cell long, *3–SR* three times as long as *2–SR*, *4–SR* almost straight and 2.3 times as long as *3–SR* (Fig. 57). Vein *1–2CU1* almost twice as long as *m-cu.*

First tergite (Fig. 58) 2.1 times as long as broad behind, its hind half more broadening posteriorly, pair of basal keels reaching hind end of tergite; hind half of first tergite with striolae, further tergites polished. Ovipositor sheath twice as long as first tergite or as long as hind tarsus.

Ground colour of body dark brown to brown. Scape + pedicel yellowish, flagellum brownish grey. Clypeus brownish yellow, mandible yellow, palpi straw yellow. Tegula brown, parategula yellow. Pronotum yellowish, first tergite light brown. Legs yellow, hind tibia apically faintly brownish. Wings hyaline, pterostigma and veins greyish yellowish.

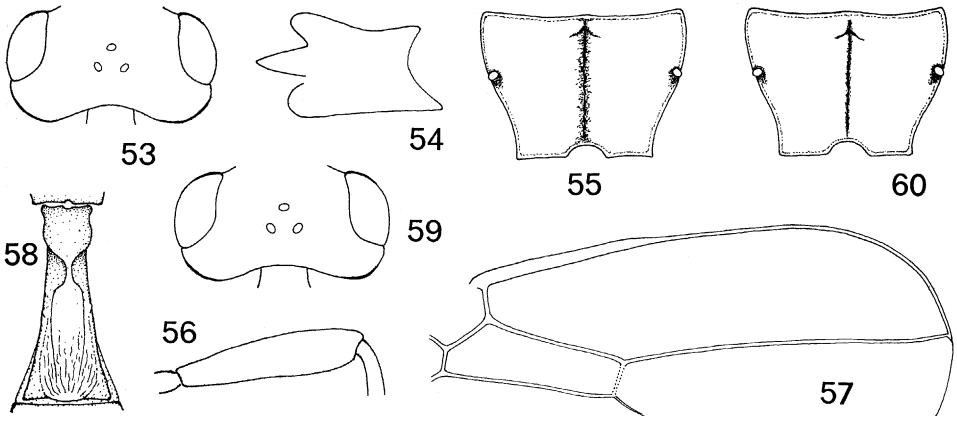
Description of the two male paratypes. – Similar to the female holotype. Body 2 mm long. Antenna with 19 antennomeres, flagellomeres 2.5 times as long as broad. Eye 2.5 times as long as temple, latter more rounded (Fig. 59). Propodeum close along carina not subrugulose (Fig. 60).

Distribution: Korea.

The new species, *Dinotrema irekabi*, is the member of the *smithi* species-group and runs to *D. bakeri* (FISCHER) with the help of FISCHER's key (1969*a*: 190–191). The two species seem to be very near to each other and their distinction is restricted to a few features not easy to recognize:

1 (2) Eye in dorsal view 1.6 times as long as temple. First tergite 1.7 times as long as broad behind (in FISCHER 1969*a*: 199 Abb. V: 14 1.9 times). Antenna with 19 antennomeres, flagellomeres twice as long as broad. Fore wing: *3–SR* twice as long as *2–SR* (Abb. V: 15 l.c.). Female: 1.9 mm. – U.S.A.
D. bakeri (FISCHER, 1969)

2 (1) Eye in dorsal view 1.9 times (♀) and 2.5 times (♂) as long as temple (Fig. 53: ♀, Fig. 59: ♂). First tergite 2.1 times as long as broad behind in female (Fig. 58), 2.2 times in male. Antenna with 22 (♀) and 19 (m) antennomeres, flagellomeres 2.7 times (♀) and 2.5 times (m) as long as broad. Ovipositor sheath twice as long as first tergite or as long as hind tarsus. Fore wing: *3–SR* 2.4 times as long as *2–SR* (Fig. 57). Female + male: 1.9–2 mm. – Korea
D. irekabi sp. n.



Figs 53–60. *Dinotrema irekabi* sp. n.: 53 = female head in dorsal view, 54 = mandible, 55 = female propodeum, 56 = hind femur, 57 = distal part of right fore wing, 58 = first tergite, 59 = male head in dorsal view, 60 = male propodeum

Dinotrema longisoma sp. n. ♀
(Figs 61–68)

Material examined (6 ♀). – Female holotype: Korea, Prov. South Pyongan, Desang san, 12 km NE from Pyongyan, 18 July 1975, leg. J. PAPP et A. VOJNITS (loc. no. 267). – One female paratype: Korea, Prov. South Pyongan, Zamo san, 60 km NE from Pyongyan, 2 September 1971, leg. S. HORVATOVICH et J. PAPP (loc. no. 231). – One female paratype: Korea, Prov. South Pyongan, Guksanbong, 40 km NE from Nampo, 5 September 1971, leg. S. HORVATOVICH et J. PAPP (loc. no. 238). – One female paratype: Korea, Prov. South Pyongan, Nampo, 19 July 1975, leg. J. PAPP et A. VOJNITS (loc. no. 273). – One female paratype: Korea, Prov. Gang-von, district On-dzong, Kumgang Mts, 4 August 1975, leg. J. PAPP et A. VOJNITS (loc. no. 314). – One female (not paratype, head missing): loc. no. 267.

Holotype, four paratypes and one female are deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. Nos 10541 (holotype) and 10542–10545 (paratypes). – The type specimens are in good condition.

Etymology – The specific epithet "longisoma" refers to the long metasoma.

Description of the female holotype. – Body 2.6 mm long. Antenna nearly as long as body and with 19 antennomeres. First flagellomere 3.5 times and penultimate flagellomere 1.8 times as long as broad. – Head in dorsal view (Fig. 61) transverse, 1.8 times as broad as long, eye almost twice as long as temple, temple more rounded. OOL almost three times as long as POL. Tentorial pit not touching compound eye. Mandible along median line 1.7 times as long as broad between teeth 1 and 3 (Fig. 62). Eye in lateral view 1.5 times as high as wide, temple beyond eye about one-fourth less wide than eye. Head polished.

Mesosoma in lateral view 1.25 times as long as high. Mesoscutal dimple present. Precoxal suture short, finely crenulate. Propodeum medio-longitudinaly rugo-rugulose, otherwise polished, pair of spiracles on suture (Fig. 63). Mesosoma polished. – Hind femur 3.8 times as long as broad medially (Fig. 64). Hind basitarsus as long as tarsomeres 2–3 + half of 4th tarsomere (Fig. 65, see arrows).

Fore wing about as long as body. Second submarginal cell long, *3–SR* 2.5 times as long as *2–SR*, *4–SR* straight and 2.3 times as long as *3–SR*. Vein *1–2CU*1 2.7 times as long as *m–cu* (Fig. 66, see arrows).

Metasoma unusually long, nearly one-and-a-half times as long as head + mesosoma.

First tergite (Fig. 67) long, three times as long as broad behind, pair of spiracles somewhat beyond middle of tergite, beyond spiracles tergite parallel-sided; pair of keels almost reaching hind end of tergite, scutum of tergite rugulose. Metasoma beyond first tergite laterally compressed. Second tergite latero-basally with a pair of longitudinal sulci (Fig. 67). Ovipositor sheath as long as hind tarsomeres 1–2 combined, sheath and ovipositor somewhat upcurved.

Head brown. Scape and pedicel yellow, flagellum darkening yellowish brown to greyish brown. Mandible yellow, palpi straw yellow. Mesosoma brown, metanotum and propodeum faintly lightening brown. Tegula yellowish. Legs yellow, hind tibia faintly darkening. First tergite yellow, further tergites brown, sternites yellow. Wings hyaline, veins opaque brownish greyish.

Description of the four female paratypes. – Body 2.3–2.6 mm long (2.3: 1 ♀, 2.5: 1 ♀, 2.6: 2 ♀). Antenna with 17–18 antennomeres. Head in dorsal view 1.75–1.85 times as broad as long. Mandible as in Fig. 68. Hind femur 4.1–4.4 times as long as broad medially. *3–SR* 2.1–2.2 times as long as *2–SR*. First tergite 2.8 times (1 ♀) and three times (3 ♀) as long as broad behind.

The single and non-paratypic female (its head is missing) is identical with the female holotype.

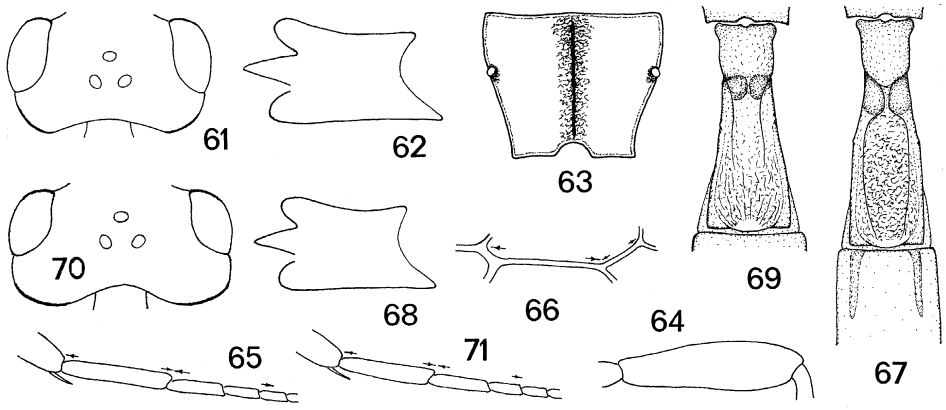
Male and host unknown.

Distribution: Korea.

The new species, *Dinotrema longisoma*, is nearest to *D. glabrum* (STELFOX et GRAHAM) within the *subcubicus* species-group by FISCHER (1976: 246–248), the two species are distinguished by the following features:

1 (2) First tergite 2–2.5 times as long as broad behind (Fig. 69). Eye in dorsal view 1.3–1.5 times as long as temple, latter rounded. Second tergite baso-laterally foveo-like impressed. Third basitarsus relatively short, as long as tarsomeres 2–3 combined (Fig. 71, see arrows). Antenna with 19–22 (♀) and 21–26 (♂) antennomeres, penultimate flagellomere twice as long as broad. Female + male: (1.7–)2–2.4 mm. – Ireland, Austria, Hungary, Russia (European part), Mongolia, Korea *D. glabrum* (STELFOX et GRAHAM, 1951)

2 (1) First tergite 3–3.2 times as long as broad behind (Fig. 67). Eye in dorsal view almost twice as long as temple, latter more rounded (Fig. 61). Second tergite baso-laterally sulciform impressed (Fig. 67). Third basitarsus relatively long, as long as tarsomeres 2–3 and half of 4th tarsomere combined (Fig. 65, see arrows). Antenna with 17–19 antennomeres (♀), penultimate flagellomere 1.8 times as long as broad. Female: 2.3–2.6 mm. – Korea **D. longisoma** sp. n.



Figs 61–71. 61–68 = *Dinotrema longisoma* sp. n.: 61 = head in dorsal view, 62 = mandible of the holotype, 63 = propodeum, 64 = hind femur, 65 = hind tarsomeres 1–4, 66 = discal (*1–2CU1*) and recurrent veins (*m–cu*) of fore wing, 67 = tergites 1–2, 68 = mandible of the paratype. – 69–71 = *D. glabrum* (STELFOX et GRAHAM): 69 = tergites 1–2, 70 = head in dorsal view, 71 = hind tarsomeres 1–4

Dinotrema senex sp. n. ♀
(Figs 72–76)

Material examined (4 ♀). – Female holotypes: Korea, Prov. Ryang, Chann-pay plateau, Samzi-yan, 1700 m, 24 July 1975, J. PAPP et A. VOJNITS (loc. no. 282). – One female paratype: Korea, Prov. Ryang, Chann-pay plateau, 24 km NW from Samziyan, road to Mt. Pektu, 2000 m, 24 July 1975, leg. J. PAPP et A. VOJNITS (loc. no. 281). – One female paratype: Korea, Mt. Pektu, before Samziyan Hotel, lake-shore, netting in grasses, 19 July 1977, leg. DELY et DRASKOVITS (loc. no. 376). – One female paratype: Korea, Prov. Ryang, Samziyan, 4 June 1985, leg. A. VOJNITS et L. ZOMBORI (loc. no. 992).

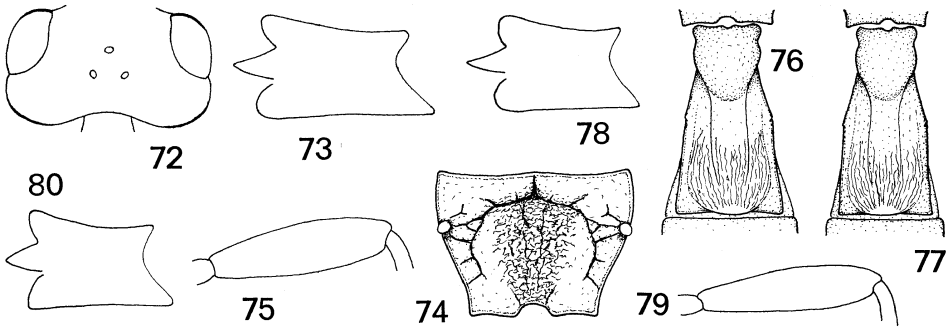
Holotype and three paratypes are deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest, Hym. Typ. Nos 10546 (holotype) and 10547–10549 (paratypes). – Holotype is in good condition. The three paratypes are also in good condition except one paratype (loc. no. 992) with 13 antennomeres of its left antenna.

Etymology. – The specific epithet "senex" is a phantasy name.

Description of the female holotype. – Body 2.2 mm long. Antenna as long as body and with 20 antennomeres. First flagellomere three times, middle flagellomeres 1.6 times and penultimate flagellomere 1.5 times as long as broad apically. – Head in dorsal view (Fig. 72) transverse, 1.9 times as broad as long, eye almost one-third (or 1.4 times) longer than temple, temple rounded. OOL twice as long as POL. Tentorial pit just longer than its distance from compound eye. Mandible long, as long medially as broad between teeth, tooth 2 pointed, teeth 1 and 3 rounded (Fig. 73). Eye in lateral view 1.5 times as high as wide, beyond eye temple just less wide than eye. Head polished.

Mesosoma in lateral view stout, just longer than high. Mesoscutal dimple round and moderately deep. Precoxal suture short, restricted to middle of mesopleuron, finely crenulate. Propodeum with a transverse carina, beyond carina antero-posteriorly rugo-rugulose, areola basalis missing, pair of spiracles small (Fig. 74). Mesosoma polished. – Hind femur 3.8 times as long as broad medially (Fig. 75). Hind basitarsus as long as tarsomeres 2–3 combined.

Fore wing about one-third longer than body. Second submarginal cell long, *3–SR* 2.1 times as long as *2–SR*, *4–SR* straight and 2.5 times as long as *3–SR*. Vein *1–2CU1* twice as long as *m–cu*.



Figs 72–80. 72–76 = *Dinotrema senex* sp. n.: 72 = head in dorsal view, 73 = mandible, 74 = propodeum, 75 = hind femur, 76 = first tergite. – 77–78 = *D. cratocera* (THOMSON): 77 = first tergite, 78 = mandible. – 79–80 = *D. sphaerimembre* (FISCHER): 79 = hind femur, 80 = mandible

First tergite (Fig. 76) 1.75 times as long as broad behind, pair of small spiracles at middle of tergite, beyond spiracles tergite less broadening, pair of basal keels merging into striation on posterior half of tergite. Further tergites polished. Beyond fourth tergite tergites somewhat shrivelled. Ovipositor sheath in lateral view somewhat longer than first tergite or as long as hind tarsomeres 1–2 combined and somewhat upwards curving.

Head and mesosoma blackish to dark brown, propodeum and metasoma brown. Scape and pedicel yellowish brown, flagellum greyish brownish. Mandible brownish yellow, palpi pale yellow. Tegula brown, parategula brownish yellow. Legs yellow. Wings hyaline, veins brownish to light brownish.

Description of the three female paratypes. – Similar to the female holotype. Body 2–2.3 mm long. Antenna with 19–22 antennomeres (19: 1 ♀, 20: 1 ♀, 22: 1 ♀), penultimate flagellomere 1.4–1.5 times as long as broad. Propodeum beyond transverse carina rather rugose (1 ♀). Hind femur 3.8 times (1 ♀) to 4 times (2 ♀) as long as broad distally. First tergite 1.6–1.8 times as long as broad behind (1.6: 1 ♀, 1.7: 1 ♀, 1.8: 1 ♀). Body black (1 ♀) or blackish brown (1 ♀).

Male and host unknown.

Distribution: Korea.

The new species, *Dinotrema senex*, is closely related to *D. cratocera* (THOMSON) and with the help of FISCHER's key (1976) runs to this species; the distinction between the two species is presented as follows:

1 (2) Precoxal suture long, reaching fore margin of mesopleuron (Abb. 36 in FISCHER 1976: 362). Antenna with 23–28 antennomeres, flagellomeres somewhat longer, penultimate flagellomere (1.6–)1.7–1.8 times as long as broad. First tergite 2–2.1 times as long as broad behind, slightly less broadening posteriorly (Fig. 77). Mandible 1.5 times as long medially as broad between teeth 1 and 3, its upper tooth slightly more rounded (Fig. 78). Ovipositor sheath shorter to just as long as first tergite. Female: 2.2–2.4 mm. – Sweden, Austria
D. cratocera (THOMSON)

2 (1) Precoxal suture short, not reaching fore margin of mesopleuron. Antenna with 19–22 antennomeres, flagellomeres somewhat less long, penultimate flagellomere 1.4–1.5 times as long as broad. First tergite 1.6–1.8 times as long as broad behind, slightly more broadening posteriorly (Fig. 76). Mandible 1.7 times as long medially as broad between teeth 1 and 3, its upper tooth slightly less rounded (Fig. 73). Ovipositor sheath somewhat longer than first tergite. Female: 2–2.3 mm. – Korea **D. senex** sp. n.

With the help of FISCHER's key (l.c.) the new species runs also to *D. sphaerimembre* (FISCHER), however, the two species are separated by the features keyed:

1 (2) Head in dorsal view between temples just broader than between eyes, eye as long as temple. Middle flagellomeres subcubic, i.e. just longer than broad (Abb. 31 in FISCHER 1973*b*: 121). Hind femur 4.5–5 times as long as broad

distally (Fig. 79). Mandible 1.4 times as long medially as broad between teeth 1 and 3, teeth 1 and 3 somewhat pointed (Fig. 80). Ground colour of body black. Female: 1.9–2 mm. – Austria, Denmark

D. sphaerimembre (FISCHER, 1973)

2 (1) Head in dorsal view between temples as broad as between eyes, eye one-third longer than temple (Fig. 72). Middle flagellomeres 1.6 times as long as broad. Hind femur 3.8–4 times as long as broad medially (Fig. 75) or distally. Mandible 1.7 times as long medially as broad between teeth 1 and 3, teeth 1 and 3 rounded (Fig. 73). Ground colour of body blackish brown to brown. Female: 2–2.3 mm. – Korea **D. senex** sp. n.

Dinotrema subcubicum asiaticum ssp. n.

Dinotrema subcubicus (FISCHER, 1969): new combination.
Aspilota subcubicus FISCHER, 1969*b*: Acta ent. Mus. natn. Pragae **38**: 99 (in key) and 112–114 (description) ♀♂, type locality: "Maryland, Glen Echo" (USA), female holotype and one male paratype in National Museum of Natural History, Washington; not examined.

Material examined (1 ♀). – Female holotype: Korea, Prov. Gang-von, district On-dzong, Mts Kumgang, Samil-po, 4 August 1975, leg. J. PAPP et A. VOJNITS (loc. no. 314). – Holotype is deposited in the Hungarian Natural History Museum (Department of Zoology), Budapest.

Etymology. – The subspecific name "asiaticus" indicates the East Asian distribution of the subspecies.

The deviation of the subspecies from the nominate form is restricted to a few features as follows:

D. subcubicus subcubicus: (1) eye in dorsal view as long as temple, head 1.5 times as broad as long; (2) antenna with 20 (♀) and 22 (♂) antennomeres, first flagellomere three times (f) as long as broad apically; (3) fore wing: vein *1–2CU1* twice as long as *m–cu*.

D. subcubicus asiaticus ssp. n.: (1) Eye in dorsal view 1.3 times as long as temple, head 1.6 times as broad as long; (2) antenna with 22 (♀) antennomeres, first flagellomere 3.7 times as long as broad apically; (3) fore wing: vein *1–2CU1* 1.7 times as long as *m–cu*.

Dinotrema tricarinae sp. n. ♀
(Figs 81–86)

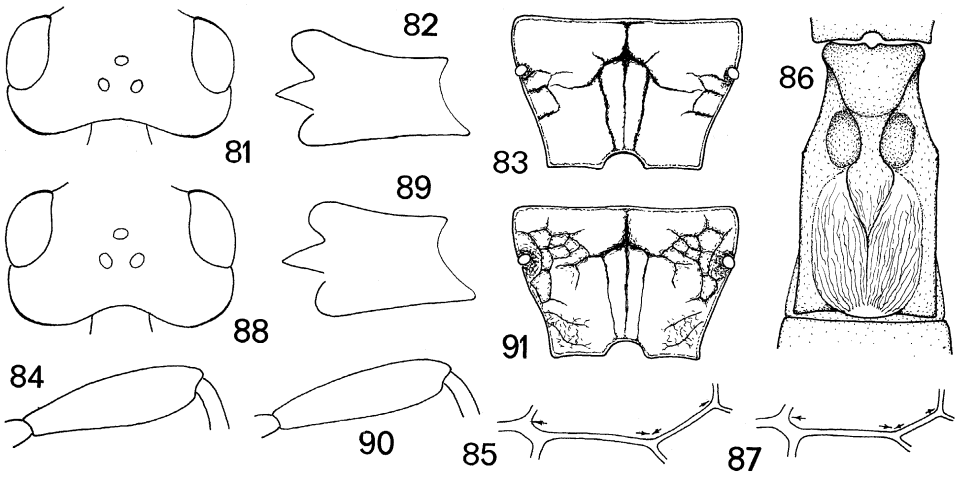
Material examined (1 ♀). – Female holotype: Korea, Chônnam, Yôchôn Nammyôn, Andori, 4 August 1993, leg. D.-S. KU. – Holotype is deposited in Coll. D.-S. KU (Sancheong, Republic of Korea).

Female holotype is in good condition: right antenna damaged and with 21 antennomeres, right fore leg hardly visible owing to the overflowed gum (the specimen is glued on a pointed card).

Etymology. – The specific epithet "tricarinae" refers to the three longitudinal carinae of propodeum.

Description of the female holotype. – Body 2.6 mm long. Antenna about as long as body and with 23 antennomeres. First flagellomere flattened (owing to dessication?), 2.3 times as long as broad apically, further flagellomere gradually shortening and indistinctly attenuating so that penultimate flagellomere just twice as long as broad. – Head in dorsal view (Fig. 81) transverse, 1.9 times as broad as long, eye just less than twice as long as temple, temple rounded. OOL three times as long as POL. Tentorial pit middle sized, about one-fourth longer than its distance from compound eye. Mandible short, 1.4 times as long medially as broad between teeth 1 and 3, clearly broadening distally, upper (or first) tooth large and directed upwards, middle (or second) tooth rather small and pointed, lower (or third) tooth rounded (Fig. 82). Eye in lateral view 1.4 times as high as wide, beyond eye temple 0.8 times as wide as eye. Head polished.

Mesosoma in lateral view 1.2 times as long as high. Mesoscutal dimple short linear and deep. Precoxal suture short, restricted to middle of mesopleuron, crenulate. Propodeum carinated (Fig. 83): antero-transverse carina medially strong (in lateral view clearly pointed) and laterally weakening,



Figs 81–91. 81–86 = *Dinotrema tricarinae* sp. n.: 81 = head in dorsal view, 82 = mandible, 83 = propodeum, 84 = hind femur, 85 = discal (*1–2CU1*) and recurrent veins (*m–cu*) of fore wing, 86 = first tergite. – 87 = *D. crux* sp. n.: discal (*1–2CU1*) and recurrent veins (*m–cu*) of fore wing. – 88–91 = *D. spiniphorae* (FISCHER): 88 = head in dorsal view, 89 = mandible, 90 = hind femur, 91 = propodeum

areola basalis narrow, medio-longitudinal carina distinct (dividing areola basalis in two parts), laterally around spiracle with short carinae, pair of spiracles small and at margin of propodeum, surface of propodeum polished. Mesosoma polished. – Hind femur thick, 3.4 times as long as broad distally (Fig. 84). Hind basitarsus as long as tarsomeres 2–3 combined.

Fore wing as long as body. Second submarginal cell less long, *3–SR* twice as long as *2–SR*, *4–SR* faintly arched and 2.4 times as long as *3–SR*. Vein *1–2CU1* 1.7 times as long as *m–cu* (Fig. 85, see arrows).

First tergite broad (Fig. 86), 1.8 times as long as broad behind, pair of spiracles before middle of tergite, beyond spiracles tergite parallel-sided, pair of keels uniting medially and reaching almost hind end of tergite, hind half of tergite striate. Further tergites polished. Ovipositor sheath as long as hind tarsomeres 1–2 combined.

Scape and pedicel brownish yellow, flagellum light brown. Head dark brown, mandible yellow, palpi pale yellow. Mesosoma dark brown with faint reddish suffusion, prosternum light testaceous, tegula brownish yellow. Legs pale yellow. Metasoma brownish testaceous, hind half of metasoma with dark brown maculae. Wings hyaline, veins light brownish.

Male and host unknown.

Distribution: Korea.

The new species, *Dinotrema tricarinae*, is nearest to *D. crux* sp. n., however, the two species are clearly distinguished by the features keyed:

1 (2) Propodeum polished and with distinct cruciform carination (Fig. 18). Upper (or first) tooth of mandible small, mandible not broadening distally (Fig. 17). Vein *1–2CU1* 2.1 times as long as *m–cu* (Fig. 87, see arrows). First tergite 1.35 times (♀) and 1.7–1.9 times (♂) as long as broad behind (Fig. 20–21). Hind femur of female four times as long as broad distally (Fig. 19). Female: 2.3 mm, male: 1.8–2.1 mm. – Korea **D. crux** sp. n.

2 (1) Areola basalis of propodeum narrow, propodeum with three longitudinal carinae, along carinae uneven-subrugulose (Fig. 83). Upper (or first) tooth of mandible large, mandible distinctly broadening distally (Fig. 82). Vein *1–2CU1* 1.7 times as long as *m–cu* (Fig. 85, see arrows). First tergite 1.8 times (♀) and 2.3 times (♂) as long as broad behind. Hind femur of female 3.3 times as long as broad distally (Fig. 84). Female: 2.6 mm. – Korea **D. tricarinae** sp. n.

The new species is related to *D. spiniphorae* (FISCHER) considering their several similar features, however, a few features differentiate them specifically as follows:

1 (2) Eye in dorsal view 1.3 times as long as temple, temple rounded (Fig. 88). Mandible less broadening distally, its upper tooth of usual size and not directed upwards (Fig. 89). Hind femur of female 3.8–4 times as long as broad

distally (Fig. 90). Propodeum as in Fig. 91. Female and male: 2.6–2.8 mm. – Germany *D. spiniphorae* (FISCHER, 1985)

2(1) Eye in dorsal view just less than twice as long as temple, temple slightly more rounded (Fig. 81). Mandible clearly broadening distally, its upper tooth large and directed upwards (Fig. 82). Hind femur of female 3.4 times as long as broad distally (Fig. 84). Propodeum as in Fig. 83. Female: 2.6 mm. – Korea **D. tricarinae** sp. n.

*

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