

# A New Species of the Genus *Iphitrachelus* Haliday, 1835 (Hymenoptera: Platygastroidea: Platygastriidae) from Korea with a Key to the Known Species of the World

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Key Words: *Iphitrachelus koreensis* sp. nov. is described with illustration from the Korean Peninsula. A key to the known species of *Iphitrachelus* of the world is presented.  
Hymenoptera taxonomy  
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*Iphitrachelus*  
*Iphitrachelus koreensis* sp. nov.  
New species

Species of the genus *Iphitrachelus* Haliday, 1835 are small and are rarely collected platygastriine wasps. In spite of their minute body, they can be easily distinguished by their 4-segmented tarsi, pectinate fore tibial spur, well developed occipital pit, at least hind corners of propodeum with foamy structures, antennal formula 8-10, with female antennal segments 8-10 fused to a compact clava (therefore number of countable segments reduced to 8) and male antennal segments with long bristles.

The genus is worldwide in distribution, except for Chile (Masner and Huggert, 1989). Some species, e.g. *I. lar* Haliday, 1835 have unusually wide distribution range, from the Neotropical region throughout the Nearctic and Palearctic Regions (specimens were seen from China and Mongolia) to the Oriental Region (specimens from India perfectly identical with European specimens were observed by the author and one species was recently described from the Philippines (Buhl, 1997)) and partly the Australasian Region (Kozlov, 1971; Masner, 1976).

The new species described herein is the first recorded species of this genus from Korea. Further collectings may reveal more species to be present in the Korean Peninsula.

Nothing is known about their bionomics, but in Europe some species were collected from large stands of *Vinca minor* L. (Vlug, 1995) and an African species (*I. africanus* Huggert, 1976) was probably associated with coffee (*Coffea arabica* L.) (Huggert, 1976; Vlug, 1995).

On morphological peculiarities the genus is close to *Acerotella* Masner, 1964 and in spite of the lack of the knowledge on their biology, the genus is assumed to be a member of the subfamily Platygastriinae (Masner and Huggert, 1989).

Masner and Huggert (1989) suggested two species groups, namely the *lar*-group and the *gracilis*-group. The first group, which includes more plesiomorphic members, is characterised by the foamy structures not or just sparsely developed on the propodeum and first metasomal tergite, first tergite with two glabrous keels. Members of the second group possess better developed foamy structures on the propodeum and first metasomal tergite, first tergite without the two glabrous keels. The newly described species comes close to *I. lar* Haliday, but is more accurately placed in the *gracilis*-group on account of the structure of its first metasomal tergite.

There is a little confusion regarding whether the authority of the name *Iphitrachelus* should be assigned to Walker or to Haliday. The newest combination available was used (Vlug, 1995). This is used also because of the facts described in detail on pages 116. and 133. in Vlug and Graham (1984).

## Materials and Methods

The material of the newly described species is based on the study of the platygastriid collection of the Hungarian Natural History Museum.

**Abbreviations:** H: height. L: length. W: width. A: antennal segment. MT: metasomal tergite.

## Results

*Iphitrachelus koreensis* sp. nov.  
(Figs. 1-3.)

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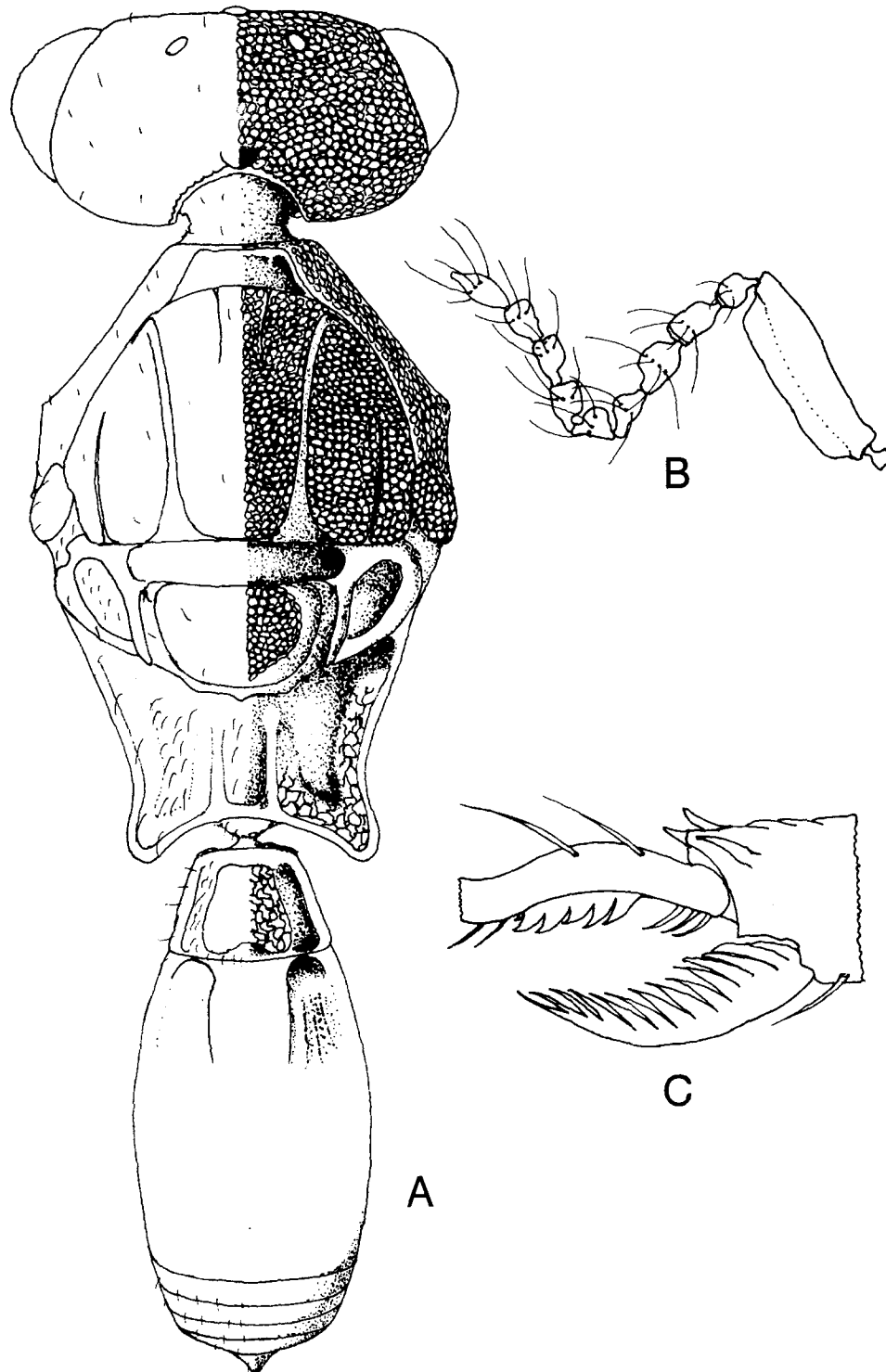


Fig. 1. *Iphitrachelus koreensis* sp. nov., male, dorsal view. A, Body sculpture on right side, pilosity on left side. B, Right antenna. C, Tibial spur of right fore leg.

Holotype: male (Fig. 1.). Labelled as follows: "KOREA, Prov. South Pyongan, Pyongyang, garden of Hungarian

Embassy", "No. 266. 16-18 July 1975, leg. J. Papp et A. Vojnits", "[Red bordered label] Holotypus '♂',

*Iphitrachelus koreensis* T. Megyaszi, 1998". On card point, left antenna, left fore, middle and hind legs missing, metasoma is glued separately on the card. Deposited in the Hungarian Natural History Museum (HNHM).

Length 0.8 mm. Body dark brown, with appendages lighter, yellowish. Antenna medium brown, with scape lighter, flagellomeres darker. Wings subhyaline. First metasomal tergite medium brown, with foamy structure yellowish light, rest of metasoma dark brown. Pilosity of the body very sparse, metapleurae and propodeum more pilose.

Head transverse, large, wider than mesosoma, W/L=24:11, W (head)/W (mesosoma)=24:21. Temples relatively short, occipital carina developed, crenulate, running close to foramen magnum, occipital pit very large. Surface of head with reticulate punctures. Eyes large, with facets very well developed. Ocelli centered in vertex, close to each other, POL:LOL:OOL=18:8:14. Clypeal depression well developed, smooth and shiny.

Antenna 10-segmented, as in Fig. 2, scape long, with large and complete ventral lamella, covering first flagellomeres, when antenna in geniculate position, upper lamella wide at base, but completely reduced at apex, scape with fine reticulate sculpture, flagellomeres with whorls of long bristles, pedicel also bears shorter bristles.

Mesosoma longer than wide, L/W=34:21. Surface of dorsal part of mesosoma with coarse reticulate sculpture. Pronotum well visible from above, with collar rather well developed, mesoscutum with smooth and shiny notaulices, developed admedian and parapsidal lines. Tegulae large, with same sculpture as on mesoscutum. Scutellum separated from straight posterior line of mesoscutum by a very broad, deep, smooth groove, groove deeper on lateral corners. Scutellum convex, in lateral view bulging and semicircular, in dorsal view with lateral keels well developed and posterior border semimembranous. Metanotum nonfoveolate, sparsely pubescent. Propodeum with two glabrous keels continuing in lateral edges of propodeum. Foamy structures developed only at posterolateral corners of propodeum, rest reticulately sculptured, with basal areas smoother. Lateral parts of mesosoma variously sculptured, with upper part of lateral pronotum distinctly reticulate-rugose, anteroventral part with wide and deep, glabrous pronotal groove. Ventral part again sculptured. Mesopleurae with ventral part sculptured same as mesoscutum, mesopleural depression subtriangular and medium sized, upper part of mesopleurae smooth. Metapleurae smooth, pilosity well developed. Lateral propodeum with some yellowish foamy structures at posterior corners.

Wings slightly infusate, fore wings with short, but well developed, at apex slightly knobbed submarginal vein, no other veins developed. Marginal cilia short, wing disc with moderately dense microtrichia, those absent on basal part of wing and around submarginal

vein. Wing rather short and broad, L/W=71:30. Hind wing narrow, marginal cilia longer than those of fore wing, submarginal vein only developed at base of hind wing, not reaching frenal hooks. Fore margin of hind wing with two frenal hooklets.

Legs rather stout, yellowish brown, tibial spur formula 1-1-1, fore tibial spur distinctly combed (Fig. 3), tarsi 4-segmented.

Metasoma with eight visible tergites, 8th tergite very small, triangular. MT1 subquadratic, L/W=21:29, with a large foamy patch medially, this structure separated only at posterior one-seventh. MT2 largest tergite of all, with 2 medium sized glabrous pits anterolaterally, a few indistinct striae start from posterior edge of a pit. MT2 with very fine reticulate sculpture, medially glabrous. MT3-MT7 transverse, with L/W ratios as follows: 4:35, 3.5:32, 2.5:30, 2.5:26, 3:7. Surface of MT3-MT7 almost glabrous, with very fine reticulate sculpture, which is better developed at sides.

Female: unknown.

Biology: unknown.

Etymology: the name '*koreensis*' refers to the location of the type.

## Discussion

The species closely resembles to *I. lar* Haliday, 1835 and *I. foutsii* Jackson, 1966. To distinguish these species, a key to the world species of *Iphitrachelus* Haliday is given.

Key to the world species of *Iphitrachelus* Haliday

- Ocelli closer to each other than to eyes, closely centered on vertex. Larger part of propodeum without foamy structure, this evident only at posterolateral corners or not developed at all. ....2  
Lateral ocelli notably close to eye margins, far from median ocellus. Usually larger part of propodeum with foamy structures, this structure may obliterate the original two propodeal keels. ....4
- MT1 without foamy structures, only with two keels, propodeum not foamy, not even at hind corners. Lower apical lamella of scape well developed throughout. Palearctic, Nearctic, Oriental, Neotropical.....  
.....*I. lar* Haliday, 1835  
MT1 with foamy structures, propodeum also foamy at least at hind corners. Apical lamella of scape either developed throughout or not.....3
- Foamy structures of MT1 distinctly separated or confluent only at base. Lower apical lamella of scape wide at base, but reduced apically. Nearctic.  
.....*I. foutsii* Jackson, 1966  
Foamy structures on MT1 confluent, slightly separated only at apex. Lower apical lamella very wide and developed throughout. Eastern Palearctic....  
.....*I. koreensis* sp. nov.

4. MT1 with well developed foamy structures, which almost or totally confluent. Foamity on propodeum well developed, it may cover the largest part of dorsal propodeum.....5  
 MT1 with two distinctly separated ridges and with no foamy structures. Foamy structures on dorsal propodeum evident only at sides and at place of the two propodeal keels, large part of propodeum without foamity. Afrotropical.....  
 .....*I. africanus* Huggert, 1976
5. Foamy structures on MT1 almost completely fused, leaving only a small apical nonfoamy area, or if better separated (but never in such form as in *I. canadensis*), then female antennal clava wide, just more than two times as long as wide, male antenna with segments 7 and 8 with well developed apical constrictions.....6  
 Foamy structures on MT1 separated at apex and at middle by a deep and smooth pit. Female antennal clava long, almost four times as long as wide, male antenna with segments 7 and 8 without such apical constrictions. Nearctic.....  
 .....*I. canadensis* Masner, 1976
6. Male flagellum with very long hairs, female antennal clava about 2.0 times as long as wide. MT1 with almost confluent foamy structure in male, better separated (except anteriorly) in female. Oriental.....  
 .....*I. masneri* Buhl, 1997  
 Male flagellum with relatively short hairs, female antennal clava about 2.2 times as long as wide. MT1 with foamy structure confluent, except for a small apical median area. Palearctic. ....  
 .....*I. gracilis* Masner, 1957

Remark: *I. masneri* Buhl was placed in the key with some doubt, since the types were not examined and the description has relatively few informative statements.

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