

## Taxonomic Notes On Three Wireworm Parasites Of The Genus *Pristocera* From The Far East (Hymenoptera: Bethyloidea)

Yasumatsu, Keizo  
Entomological Laboratory, Department of Agriculture, Kyushu University

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TAXONOMIC NOTES ON THREE WIREWORM PARASITES  
OF THE GENUS *PRISTOCERA* FROM THE FAR EAST  
(Hymenoptera: Bethyloidea)

KEIZŌ YASUMATSU

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INTRODUCTION

In 1932 Professor Toichi Uchida published a paper in Japanese entitled, "On a species of Bethylidae from Japan," in which he wrote as follows:—"Only a single species of Bethylidae, *Dissomphalus harmandi* (♀), has hitherto been reported from Honshu in 1903 by Mr. R. Buysson. Unfortunately, however, I have had no occasion of examining this species up to the present. But through the courtesy of Mr. M. Suzuki I have received two specimens of Bethylidae. After examining these specimens, it became clear that the specimens represented the male of this species. Therefore, I publish a description of the male of this species which has hitherto been unrecorded. .... Kieffer insisted that this species might not belong to the genus *Dissomphalus*, and he did not indicate the exact generic position of this species. But from the present study I came to the conclusion that the species described by Buysson under the name *Dissomphalus harmandi* did not belong to the genus *Dissomphalus* but to the genus *Pristocera*." In the genus *Pristocera* the males are quite different from the females, and correct association of the two sexes is extremely difficult.

Several years ago the author received for identification specimens of two species of the genus *Pristocera* from Dr. Shojiro Asahina and Dr. Kunio Iwata. The male and female specimens of the species placed at the author's disposal by Dr. Asahina were collected by him in Formosa, while they were flying in copula.

The male specimen agrees with the description of *Pristocera formosana* Miwa et Sonan, 1935. The male and female specimens of another species sent by Dr. Iwata were reared by Mr. Eiichi Tanaka from the larva of an unknown species of Elateridae in Japan. This male is the species which Professor Uchida described as the male of *Disсомphalus harmandi* Buysson in 1933, and the female does not agree with the description of Buysson's species at all. It is apparent, therefore, that *Disсомphalus harmandi* Buysson is entirely different from what Uchida supposed it to be.

This paper is a taxonomic revision of these two species of *Pristocera*. In addition the author gives a description of another species of the same genus, of which the host is unknown.

The author wishes to thank Mr. Karl V. Krombein for his kindness in comparing the Formosan *Pristocera* specimen with *Pristocera puncticeps* of the Philippines in the collection of the U. S. National Museum and for reading and criticizing the manuscript of this paper. The author is also much indebted to Professor Teiso Esaki for his constant encouragement and similar criticism. Further, the author should like to take this opportunity to express his thanks to Dr. S. Asahina, Dr. K. Iwata, Mr. E. Tanaka, Dr. T. Shiraki, Dr. K. Takeuchi, Mr. Y. Yamamoto, Mr. Y. Kurosawa, Mr. T. Shirôzu, and other gentlemen for the gift of specimens.

#### KEY TO THE FEMALES OF *PRISTOCERA* FROM JAPAN, FORMOSA AND PHILIPPINES

1. Mandibles tridentate. Clypeal carinae enclosing a narrow triangle in the middle. Pronotum impunctate except along the margins. Philippines.....*puncticeps* Fouts
- Mandibles quadridentate. Clypeal carinae enclosing an equilateral triangle in the middle. Pronotum punctate except narrowly along the middle line ..... 2
2. Head 1.2 times as long as wide. Mesopleuron with widely separated and scattered punctures. Dorsal area of propodeum 1.25 times as long as wide, and completely impunctate; posterior part of the dorsal surface of propodeum comparatively more densely punctate. Body, seen from above, with first abdominal sternite almost as wide as propodeum. Formosa.....*formosana* Miwa et Sonan

- Head 1.5 times as long as wide. Mesopleuron with dense punctures, interspaces slightly smaller or larger than the diameter of punctures. Dorsal area of propodeum 1.33 times as long as wide, and with a few scattered punctures; posterior part of the dorsal surface of propodeum with only a few scattered punctures. Body, seen from above, with propodeum about twice as wide as first abdominal sternite. Japan and the Yaeyama Group ..... *japonica* sp. nov.

KEY TO THE MALES OF *PRISTOCERA* FROM  
JAPAN AND FORMOSA

1. Antenna very short, not extending to scutellum, with long hairs besides dense short pubescence. Tarsal claw trifid. Seventh sternite split almost to the anterior margin by a deep narrow incision. Formosa ... *formosana* Miwa et sonan
- Antenna very long, extending to the apex of propodeum, without long hairs. Tarsal claw neither bifid nor trifid, but with a tooth beneath. Seventh sternite not at all split by an incision ..... 2
2. Body shorter than 6 mm. Punctures on head minute and very sparse. Disc of propodeum without transverse wrinkles. Scutellum almost entirely impunctate. Mesopleuron entirely impunctate, but with a curved, well-defined, horizontal, costate furrow. Japan ..... *minuta* sp. nov.
- Body longer than 7 mm. Punctures on head large and dense. Disc of pronotum with a number of short, well-defined, irregular, transverse wrinkles. Scutellum with punctures but its apical half impunctate. Mesopleuron with large, dense punctures, but without a curved furrow. Japan and the Yaeyama Group ..... *japonica* sp. nov.

*Pristocera formosana* Miwa et Sonan

1935 *Pristocera formosana* Miwa et Sonan, Trans. Nat. Hist. Soc. Formosa, 25 (136-139): 90-92, ♂, figs. (In Japanese).

♂ (Redescription). Black. Antennae, mandibles and legs somewhat brownish black. Tegulae brownish. Wings transparent, slightly clouded or smoky, with veins and pterostigma brownish.

Head, seen in front, subquadrate, the sides behind eyes re-

gularly rounded, about as long as wide. Head distinctly wider than mesonotum. Frons rather depressed or slightly convex. Ocelli forming an equilateral triangle; median ocellus lying on a line drawn across posterior margin of eyes; posterior ocelli about equidistant from occiput and inner orbits. Clypeus with a median longitudinal carina, with the anterior margin narrowly truncate, very short, about half the length of scape. Head, seen in profile, with eye about as wide as temple. Antennae short, extending back just before the posterior margin of mesonotum; each flagellar segment about twice as wide as at the apex; scape strongly curved, gently widening apically, slightly larger than the width of an eye, about five times as long as wide at the apex, about as long as 2nd, 3rd and 4th segments taken together; 3rd very slightly longer than 4th, about three times as long as 2nd which is as long as wide; 3rd to 9th about twice as long as wide; 10th to 12th more than twice as long as wide; 13th three times as long as wide. Antennae tapering distally, especially after segment 8.

Pronotum about two-thirds as wide in front as behind, anteriorly sinking abruptly to broad well-defined collar, part behind collar not quite so long as mesonotum, the anterior vertical part shorter than the posterior horizontal part. Mesonotum much wider than long, with parapsidal furrows strong and slightly diverging anteriorly; notaulices parallel to parapsidal furrows. Furrow in front of scutellum deep, transverse, well-defined but not costate; scutellum nearly flat, wider than long. Metanotum less than half the length of scutellum. Propodeum, seen from above, wider than long, joining both lateral and posterior surfaces in a smooth curve, at sides weakly defined by carinae below dorsal edge, posteriorly not at all defined, posterior surface subquadrate, slightly convex. Legs with femora rather stout; claws trifold. Forewings with the end of Sc+R+M not expanded, it and C separated from the base of pterostigma by a broad hyaline spot; pterostigma elongate, about three times as long as wide; costa produced beyond very weakly for a distance a little shorter than pterostigma; radius arising about the middle portion of the posterior margin of pterostigma, proximally strongly curved, then nearly straight, straight portion about twice as long as pterostigma; radial cell open, about five times as long as wide.

Abdomen subpetiolate, strongly flattened; seventh tergite truncate; tergites deflexed ventrally and nearly covering the proximal portion of corresponding sternites; first sternite very narrow, with a broad longitudinal ridge; seventh sternite split almost to the anterior margin by a deep, narrow incision, the incised margin serrate, about as long as 4th, 5th and 6th sternites taken together and far exceeding the corresponding tergite.

Head, especially frons with large, strong, dense punctures; punctures larger than those of *japonica* but much more irregularly scattered; those on vertex slightly weaker and coarser, interspaces larger than the diameter of a puncture; temples just above eyes not punctured; clypeus entirely impunctate; mandibles with some sparse comparatively small but strong punctures; antennal scape impunctate. Collar almost smooth, with only about two or three transverse wrinkles along the anterior margin, and very shining, vertical portion almost impunctate and clearly defined from the posterior oblique or horizontal portion by a transverse carina, horizontal portion with irregularly scattered, very sparse, small punctures, narrow posterior margin of propodeum distinctly depressed. Mesonotum and scutellum with very sparse, irregularly scattered small punctures. Tegulae impunctate. Punctures on propleura very weak, small and sparse; those on mesopleura almost as large as those on frons, dense but irregularly scattered and becoming weaker, smaller and sparser towards mesosternum. Mesosternum with a large, triangular, deeply depressed area which has a distinct median carina; meso-metanotal furrow costate; upper portion of mesopleuron with a horizontal or longitudinal furrow almost its full length, and at the end of the furrow there is a small hollow; there is also one hollow just anterior to the pleuro-sternal boundary of mesothorax; upper half of metapleura with definite horizontal striae. Caudal area of propodeum irregularly reticulate; dorsal area of propodeum with three median parallel longitudinal carinae and a pair of oblique (posteriorly convergent) carinae, between the carinae the surface is transversely carinated; sides of propodeum weakly, somewhat horizontally striated. Metasternum well defined, strongly margined by a carina, pentagonal in outline, comparatively wider than that of *japonica*, its central portion longitudinally depressed. Punctures on abdomen very few in number; posterior margin of 3rd to 6th sternites with

many small punctures; 2nd sternite with two longitudinal rows (convergent posteriorly) of setigerous puncture groups; 7th sternite with comparatively dense, small but very deep punctures.

Hairs rather few compared with those of *japonica*. Pubescence on antennal segments comparatively short and not dense, but 1st to 6th segments each with several long hairs.

Length of body ca. 9 mm., length of forewings ca. 7 mm.

♀ (Undescribed). Body dark ferrugineous; antennal scrobes brownish; appendages also brownish.

Head, seen from above, 1.2 times as long as wide, the sides almost parallel, a little convergent before posterior angles which are obtusely rounded, nearly twice as wide as pronotum, very much wider than mesothorax which is the widest among thoracic segments and slightly wider than pronotum. Eyes and ocelli absent. Mandibles large, about two-thirds the length of head, quadridentate, clypeus small with the anterior margin entire, gently rounded, clypeal carinae enclosing an equilateral triangle in the middle. Antennae short, very much shorter than head and pronotum taken together; antennal scrobes distinctly divergent below, about as wide or thick as the 3rd antennal segment, about one-fifth the length of antennal scape; scape distinctly shorter than mandible (ratio about 10 : 13), somewhat curved and distinctly thickened distally, about three times as wide as the apex, about as long as 2nd to 6th segments taken together; 2nd segment pyriform, about as long as wide, distinctly shorter and narrower than 3rd; 3rd and 4th trapezoidal and slightly longer than wide; 5th to 12th transverse (8-12 more so); 12th the widest, 13th distinctly longer than 12th and about twice as long as wide.

Pronotum flat, with collar depressed, seen from above slightly but distinctly longer than wide, parallel-sided, distinctly shorter than propodeum, separated from mesonotum by a deep transverse furrow. Mesothorax trapeziform, wider in front than behind; mesopleuron very convex, bulging out on each side and almost on the same level as mesonotum. Propodeum, seen from above, with the dorsal horizontal area narrow, about 1.3 times as long as wide, with the sides distinctly converging anteriorly or constricted basally, relative lengths of the dorsal area and the oblique caudal area are about 2 : 1, caudal area narrowing to orifice,

surface of the dorsal area flattened (dorsum is as wide as the ventral surface) and distinctly separated from each vertical side by a longitudinal sharp carina, the boundary of dorsal and caudal or caudal and lateral not sharply defined but rounded. Legs short and stout, with femora and tibiae rather flattened, the measurements of the segments are as follows:

	Femur	Tibia	Tarsus	Basitarsus
Fore leg	22* (10†)	20 (6)	22	10
Mid-leg	20 (12)	20 (7)	25	
Hind leg	20 (11)	24 (5)	26	

\*Length †Width 28 units=13 mm.

Basitarsus of fore legs twisted, with a distinct spine latero-ventrally before the middle, ending in some stout spines, slightly shorter than the other tarsal segments combined; mid-tibia with about 13 spines and hairs on the outer side, ending in about 4 spines; hind tibia about as long as mandible, with hairs only.

Abdomen slightly shorter than head and thorax taken together, seen from above with 2nd tergite the widest and slightly narrower than head, with 1st tergite almost as wide as propodeum.

Body shining. Head with large and strong punctures which are arranged in several irregular series as shown in the figure; frons with a median longitudinal impunctate area; antennal scape with very sparse but distinct punctures only along the inner side, distance between punctures larger than a diameter of one puncture. Punctures on pronotum very similar to those of *japonica*, but much larger and sparser, horizontal furrow entire; propleuron bipunctate; mesonotum smooth with only several small punctures which are irregularly scattered along the margin; mesopleuron with very sparse small punctures or somewhat bipunctate as on propleuron, with very weak wrinkles; dorsal area of propodeum almost impunctate and very shining, posterior portion of the dorsal area and the upper portion of the sides with large, coarse, somewhat shallow punctures, posterior half of the oblique or vertical portion with many transverse wrinkles, sides just behind metathoracic spiracles excavated, the other portion of the sides with minute, weak, horizontal and oblique wrinkles. Abdomen with minute, very sparse, setigerous punctures on the disk.

Body covered with pale yellowish short and erect hairs.

Length of body ca. 8.5 mm.



Habitat: Formosa.

Specimens examined: 1 ♂, Daibu, Formosa, 27. vii. 1936, S. Asahina leg.; 1 ♀ (Allotype), the same data.

Hosts: Larvae of *Melanotus tamsuyensis* Bates and *Agonischius obscuripes* Gyllenhal (After Miwa and Sonan, 1935).

*Pristocera japonica* sp. nov.

1932 *Pristocera harmandi* Uchida (nec Buysson, 1903), Insect World, 36: 155-156, ♂ (Honshu—Kyoto and Daisen).

1939 *Pristocera harmandi* Yasumatsu (nec Buysson, 1903), Ins. Jap. illus. icon. col. nat. depicta, Tokyo: 355, pl. 160, fig. 624, 1, ♂ (Honshu and Kyushu).

♂. (Redescription). Almost entirely black; apical half of mandibles and tibiae and tarsi somewhat blackish brown; tegulae brownish. Wings slightly smoky or clouded, with veins and pterostigma brownish.

Head, seen in front, subquadrate, the sides behind eyes regularly rounded, about as long as wide. Head about as wide as mesonotum. Frons not depressed but more convex. Ocelli forming an equilateral triangle or somewhat obtuse-angled triangle; median ocellus lying on a line drawn across posterior margin of eyes. Clypeus with a median longitudinal carina and with the anterior margin very shallowly incised, very short, about one-third the length of scape. Head, seen in profile, with eyes very slightly wider than temples. Antennae long, extending back about to the apex of propodeum; scape strongly curved, gently widened apically, about as long as the width of an eye, more than three times as long as at the apex, very slightly shorter than 2nd and 3rd segments taken together; 2nd as long as wide; 3rd distinctly longer than 4th, about four times as long as 2nd, about four times as long as wide; each flagellar segment more than three times as long as wide; 12th about seven times as long as wide; 13th about eight times as long as wide; segments 11, 12 and 13 especially slender.

Pronotum about two-thirds as wide in front as behind, anteriorly sinking abruptly to broad well-defined collar, part behind collar about as long as mesonotum, the anterior vertical part shorter than the posterior horizontal part. Mesonotum much wider than long (about 24 : 13), parapsidal furrows slightly diverging anteriorly and very strong, notaulices parallel to each other.

Furrow in front of scutellum deep, transverse, well-defined but not costate. Scutellum nearly flat, wider than long; metanotum less than half the length of scutellum, with a well-defined, transverse but narrow, deep furrow at the middle of its basal margin. Propodeum, seen from above, wider than long, joining both lateral and posterior surfaces in a smooth curve, at sides and caudal margin defined by carina below dorsal area, posterior surface subquadrate, slightly convex. Legs with femora rather stout, claws neither bifid nor trifid, but with a small tooth beneath at the middle. Forewings with end of Sc+R+M not expanded, it and C separated from the base of pterostigma by a broad hyaline spot; pterostigma elongate, three times as long as wide; costa produced beyond very weakly for about two-thirds the length of pterostigma; radius arising about the middle portion of the posterior margin of pterostigma, proximally strongly curved, then nearly straight, straight portion about 1.5 times as long as pterostigma; open radial cell slightly more than four times as long as wide.

Abdomen sessile, strongly flattened; seventh tergite and sternite truncate at the apex, posterior margin of seventh sternite very shallowly and somewhat triangularly incised, but not deeply so; tergites deflexed ventrally and nearly covering the proximal portion of corresponding sternites; first sternite rather wide, triangular, with three posteriorly diverging carinae.

Head, especially frons, with large, strong and dense punctures. Frons with a trace of a median, longitudinal, impunctate depressed line just anterior to the median ocellus. Punctures on vertex slightly smaller, interspaces a little larger than a diameter of one ocellus. Temples just above eyes with impunctate areas. Clypeus entirely impunctate. Mandibles with some sparse, comparatively small, but strong punctures. Antennal scape with some irregularly shaped small punctures. Collar with several, very distinct, transverse wrinkles. Vertical portion of propodeum entirely impunctate and very much shining. Anterior half of the oblique or horizontal portion of pronotum with some transverse wrinkles and punctures. Upper margin of the vertical sides of pronotum with dense small punctures. Posterior margin of pronotum with very sparse, small, weak punctures. Mesonotum and scutellum with very sparse, comparatively small, weak punctures. Tegulae impunctate and

shining. Punctures on propleura very weak, sparse and small; those on mesopleura much stronger and denser but becoming larger above. Mesosternum with a large, triangular, deeply depressed area which has a weak, median longitudinal carina and a small medio-basal area surrounded by a carina except the anterior margin. Meso-metapleural furrow costate. Upper portion of mesopleuron with a horizontal furrow at its anterior half and the end of the furrow with a circular hollow, mesopleuron above this furrow impunctate, another circular hollow is present on the boundary area of mesopleuron and mesosternum. Metapleuron with an oblique sharp carina, impunctate, but upper half with fine horizontal striae. Propodeum with the sides defined by a carina below dorsal edge, posteriorly the caudal area weakly defined by a transverse carina below dorsal area; the sides weakly, somewhat horizontally striolate; caudal area reticulate, with an impunctate line below and several transverse carinae on the latero-apical portions; dorsal area with three main longitudinal carinae, one median and reaching the apical portion of the area, the other two only distinct at the basal portion and bifurcating posteriorly, with a pair of irregular oblique carinae joining these three carinae and many transverse carinae running between the oblique and lateral carinae, further several oblique carinae are present between this oblique and three main carinae. Metasternum somewhat long, pentagonal in outline, well margined by a definite carina. Fore coxae with minute but sparse punctures, mid- and hind coxae with dense punctures. Punctures on abdomen very small, those on sternites denser than those on tergites.

Pubescence yellowish-white and denser (except impunctate portions) on head and thorax (except on dorsal area of propodeum); that on abdomen denser in posterior segments; that on antennae very dense, fine and uniform.

Length of body ca. 10 mm., length of forewings ca. 7 mm.

♀ (Undescribed). Black with the following portions ferruginous black or blackish brown: antennal scrobes, mandibles (except the apex), antennae (scape darker except the apex, flagellum and pedicel paler), collar of pronotum, legs (fore coxae darker), posterior half of mesonotum, apex of propodeum and abdomen (sixth segment paler).

Head, seen from above, 1.5 times as long as wide, the sides almost parallel, a little convergent before posterior angles which are obtusely rounded, much wider than pronotum (about 3 : 2), slightly but distinctly wider than mesothorax which is the widest among thoracic segments, eyes and ocelli absent. Mandibles large, about two-thirds the length of head, quadridentate. Clypeus small, the anterior margin entire, clypeal carinae enclosing an equilateral triangle in the middle. Frons just above or between the antennal sockets with a short longitudinal carina which joins the upper branch of the clypeal carinae. Antennal scrobes very slightly divergent below, about as wide or thick as the 3rd antennal segment, about two-sevenths the length of antennal scape. Antennae short, slightly shorter than head and pronotum taken together; scape slightly shorter than mandibles, about three times as long as wide at the apex, somewhat curved, distinctly thickened distally, about as long as 2nd, 3rd and 4th segments taken together; 2nd segment pyriform, about as long as wide, slightly shorter and narrower than 3rd; 3rd and 4th segments trapezoidal, about as long as wide; 5th to 12th transverse (8th to 12th more so); 12th the widest; 13th slightly longer than 12th and about twice as long as wide.

Pronotum flat, with collar depressed; seen from above slightly but distinctly longer than wide, parallel-sided, shorter than propodeum; mesonotum small, triangular, wider than long, less than half the length of pronotum, the latter separated from mesonotum by a deep transverse furrow; mesothorax trapeziform, wider in front than behind; mesopleuron very convex, bulging out on each side and almost on the same level as mesonotum; propodeum, seen from above, with the dorsal horizontal area longer, about 1.3 times as long as wide, the sides distinctly converging anteriorly or constricted basally, relative lengths of the dorsal area and oblique caudal area about 2 : 1, caudal area narrowing to orifice, surface of the dorsal area flattened, dorsum much wider than the ventral surface, distinctly separated from each of the vertical sides by a longitudinal carina, the boundary between dorsal and caudal or the sides not sharply defined but rounded. Legs short and stout, with femora and tibiae rather flattened. The measurements of the segments are given in detail in the following page:

	Femur	Tibia	Tarsus	Basitarsus
Fore leg	20 (10)	16 (5)	18	8
Mid-leg	18 ( 9)	15 (5)	18	
Hind leg	20 (10)	21 (5)	25	

Basitarsus of fore legs twisted, with a distinct spine latero-ventrally at the middle, ending in some stout spines, slightly shorter than the other tarsal segments combined; outer surface of mid-tibia with about 11 spines as well as hairs, mid-tibia ending in about 4 spines; hind tibia about as long as mandible, with hairs only.

Body, seen from above, with propodeum about twice as wide as the 1st abdominal sternite; abdomen about as long as head and thorax taken together, with seven visible tergites; seen from above 2nd tergite about as wide as head.

Body shining. Head with large and strong punctures which are much denser than in *formosana* and arranged in several irregular series. Frons with a longitudinal median impunctate area. Antennal scape with very sparse but distinct punctures over the entire surface, interspaces larger than a diameter of one puncture. Pronotum with large, strong, irregularly scattered punctures except a median longitudinal impunctate area and the extreme sides (vertical portion of pronotum), upper portion of the sides with very shallow punctures and lower portion with minute horizontal wrinkles, collar without any punctures and somewhat coriaceous; propleuron coriaceous, the anterior area with some large but shallow punctures; pronotum with a horizontal furrow just behind the collar region and the furrow is distinct before the middle seen in profile; mesonotum with several irregular, large punctures, mesopleuron with dense, large but slightly shallow punctures; dorsal area of propodeum with the basal one-third impunctate, otherwise with several irregularly scattered punctures, caudal oblique area with several small irregularly scattered punctures, the sides just behind metathoracic spiracles not excavated, with feeble horizontal or oblique wrinkles. Abdomen with very sparse, minute, setigerous punctures.

Body covered with short, erect, pale yellowish hairs.

Length of body ca. 6.5 mm.

Habitat: Japan (Honshu and Kyushu).

Holotype: ♂, Fukuoka, Prov. Chikuzen, Kyushu, 15. iii. 1930, Yasumatsu leg.

Allotype: ♀, Mashiko-machi, Prov. Kozuke, 8. iii. 1950, E. Tanaka leg.

Paratypes: 1 ♂, Fukuoka, 3. v. 1930, T. Esaki et al. leg.; 1 ♂, Fukuoka, 1. v. 1946, T. Shirôzu leg.; 1 ♂, Inunakitôge, Prov. Chikuzen, 7. vi. 1931, Esaki et al. leg.; 3 ♂♂, 11. v. 1935, Inunakitôge, Yasumatsu leg.; 2 ♂♂, Wakasugiyama, Prov. Chikuzen, 28-29. v. 1930, H. Hori et al. leg.; 2 ♂♂, 3. v. 1931, Wakasugiyama, Esaki et al. leg.; 2 ♂♂, Magarifuchi, Prov. Chikuzen, 4. v. 1930, Yasumatsu leg.; 1 ♂, Sefuriyama, Prov. Chikuzen, 23. vi. 1940, T. Shirôzu leg.; 1 ♂, Sangunzan, Prov. Chikuzen, 10. v. 1931, Yasumatsu leg.; 1 ♂, Tachibanayama, Prov. Chikuzen, 21. iv. 1951, Y. Hirashima leg.; 1 ♂, Kôrasan, Prov. Chikugo, Kyushu, 11. v. 1930, Esaki et al. leg.; 1 ♂, Kôrasan, 26. v. 1935, Esaki et al. leg.; 1 ♂, Hikosan, Prov. Buzen, Kyushu, 10-11. v. 1942, I. Fukushima et S. Ito leg.; 1 ♂, Jyusanmagari, Prov. Bungo, Kyushu, 29. v. 1932, Hori leg.; 2 ♂♂, Tsukumishima, Prov. Bungo, 22-23. v. 1930, S. Hashimoto leg.; 1 ♂, Ambô, Yakushima, 23. iv. 1929, K. Takeuchi leg.; 1 ♂, Miyanoura, Yakushima, 25. iv. 1954, Y. Kurosawa leg.; 1 ♂, Amami, Prov. Settsu, Honshu, 22. v. 1938, O. Sato leg.; 1 ♂, Kaibara, Prov. Tamba, Honshu, 26. v. 1951, Y. Yamamoto leg.; 1 ♂ (paratopotype).

Host: Unknown Elaterid Larva.

The female of this species is somewhat allied to *Pristocera formosana* Miwa et Sonan, but differs from the latter by the characters given in the foregoing key.

*Pristocera japonica ishigakiensis* subsp. nov.

♂. Differs from the typical form as follows: punctures on head and thorax much stronger, those on mesonotum much deeper, dorsal area of propodeum almost entirely reticulated and without a pair of bifurcated carinae, disc of 1st abdominal sternite without longitudinal carinae, tibiae and tarsi pale brownish to greyish.

Length of body ca. 6 mm., length of forewings ca. 5 mm.

Habitat: Yaeyama Group (Ishigaki Island).

Holotype: ♂, Kainan, Ishigaki Island, Yaeyama Group, 8. xi. 1953, T. Shiraki leg.

*Pristocera minuta* sp. nov.

♂. Black and shining. Mandibles except for the base, antennal scape and pedicel, tegulae, legs, the sides and the posterior margin of the 1st abdominal tergite yellowish brown. Maxillary and labial palpi and antennal flagellum ferrugineous black or dark brownish red. Abdominal sternites somewhat brownish. Wings slightly clouded, with veins and pterostigma pale brownish.

Head, seen in front, somewhat circular in outline, about as wide as long; seen from above as wide as mesothorax. Ocelli forming an equilateral triangle, median ocellus situated distant from and above a line drawn across posterior margin of eyes, ocellocular line about twice as long as ocelloccipital line. Frons gently convex, without a median depressed line. Clypeus short, about half the length of antennal scape, with a median longitudinal carina, and its anterior margin very slightly rounded. Head, seen in profile, with eye as wide as temple. Antennae long, extending back about to the apex of propodeum, becoming slender apically; scape strongly curved, almost parallel-sided, about as long as the width of an eye, more than three times as long as wide at the apex, about as long as 2nd and 3rd segments taken together; 2nd as long as wide; 3rd distinctly longer than 4th, about four times as long as 2nd, about four times as long as wide; 4th to 12th almost of the same length; 4th to 8th each about three times as long as wide; 9th to 12th more than four times as long as wide; 13th about seven times as long as wide and distinctly shorter than 3rd.

Pronotum about two-thirds as wide in front as behind, anteriorly sinking abruptly to broad, well-defined collar, part behind collar about as long as mesonotum, the anterior vertical portion shorter than the remaining portion, which is much more narrowed anteriorly than that of the other two species. Mesonotum about twice as wide as long, parapsidal furrows strong, slightly divergent anteriorly, notaulices parallel. Furrow in front of scutellum deep, transverse, well-defined but not costate. Scutellum nearly flat, triangular, about as long as wide. Propodeum, seen from above, distinctly longer than wide, joining the sides and the posterior surface in a smooth curve, at sides defined by a strong carina below dorsal area, and caudal area defined by a weak carina



below dorsal area, caudal surface somewhat oblique and slightly convex. Legs with femora rather stout, claws neither bifid nor trifold, but with a small tooth at the middle beneath. Fore wings with end of Sc+R+M not expanded, it and C separated from the base of pterostigma by a broad hyaline spot; pterostigma elongate, about three times as long as wide; costa produced beyond for about the same length as pterostigma; radius arising about the middle portion of the posterior margin of pterostigma, proximally strongly curved, then nearly straight, straight portion about twice as long as pterostigma; radial cell about four times as long as wide.

Abdomen subpetiolate, strongly flattened, seventh tergite and sternite truncate at the apex; seventh sternite not at all incised; tergites deflexed ventrally and nearly covering the proximal portion of corresponding sternites; 1st sternite very narrow, with three longitudinal carinae.

Head with minute, very sparse punctures. Antennal scape impunctate. Mandibles without distinct carinae or ridges arising from teeth, with some strong and sparse punctures. Dorsum of thorax almost impunctate or with very few small punctures; collar with some weak transverse wrinkles anteriorly; vertical sides of propodeum with several strong horizontal carinae or wrinkles. Mesosternum with a well-defined, deeply depressed, oblong area which lacks a median longitudinal carina. Mesopleura and mesosternum almost impunctate. Mesopleuron with a curved, horizontal, costate furrow which has a branch starting at the middle and running anteriorly. A furrow along the anterior margin of meso-metapleural suture costate. Mesosternum with a pair of feeble longitudinal furrows just anterior to mid-coxae. Metasternum pentagonal in outline, well-defined, much longer than wide. Metapleuron and the sides of propodeum with weak horizontal striae. Propodeum without punctures, with three basal longitudinal carinae, the median one slightly more than half the length of the dorsal area, the lateral ones shorter, but longer than half the length of the median one, with some irregular striae between these carinae; caudal area with very weak transverse short striae; underside of the lateral carinae below the dorsal edge furrowed and costate except for the basal half of the furrow, the lateral carinae running to the apex of propodeum.



Pubescence greyish white, rather less scarce than those of the other two species; that on antennal flagellum very dense. Antennae without long hairs.

Length of body ca. 5 mm., length of forewings ca. 4 mm.

Habitat: Japan (Honshu and Kyushu).

Holotype: 1 ♂, Sobosan, Prov. Bungo, Kyushu, 8. ix. 1933, Yasumatsu leg.; 2 ♂♂, Hikosan, 12-13. x. 1944, Yasumatsu leg.; 1 ♂, Kaibara, Prov. Tamba, Honshu, 18. x. 1950, Y. Yamamoto leg.

I am unaware of the nearest relative of the present species.

Almost all the specimens recorded in the present paper are deposited in the collection of the Entomological Laboratory of Kyushu University, Fukuoka. Several paratypes of *Pristocera japonica* will be deposited in the collections of the United States National Museum, American Museum of Natural History and the British Museum (Natural History).

#### ESTABLISHMENT OF A NEW SUBGENUS

As indicated in the key to the males of *Pristocera* from Japan and Formosa, the three species mentioned above may be clearly divided into two subgroups. Namely, *formosana* Miwa et Sonan belongs to one group (Subgenus *Pristocera* Klug, 1808, subgenotype = *Bethylus depressus* Fabricius, 1804) which has very short antennae with long hairs, trifold claws and the seventh sternite deeply incised to the anterior margin. *Japonica* Yasumatsu and *minuta* Yasumatsu belong to another group which has very long antennae without long hairs, claws neither bifid nor trifid and the seventh sternite entire. For this latter group I want to erect a new subgenus *Neopristocera* (Subgenotype = *Pristocera japonica* Yasumatsu). Unfortunately, however, I cannot find any subgeneric differences in the female sex between *japonica* and *formosana*. It seems that in the genus *Pristocera* the differentiation among the species is much more pronounced in the male sex than in the female.

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