Elytra, *Tokyo*, New Series, **5** (1): 27–36
May 25, 2015

The Genus *Megalopinus* Eichelbaum (Coleoptera, Staphylinidae, Megalopsidiinae) of Japan, with Description of a New Species

Shun-Ichiro Naomi[1] and Shûhei Nomura[2]

[1] Natural History Museum and Institute, Chiba
Aoba-chô 955–2, Chûô-ku, Chiba, 260–8682 Japan
E-mail: naostenus@hb.tp1.jp
[2] National Museum of Nature and Science, Amakubo 4–1–1, Tsukuba, Ibaragi, 305–0005 Japan
E-mail: nomura@kahaku.go.jp

Abstract Japanese species of the genus *Megalopinus* Eichelbaum, 1915 (Staphylinidae, Megalopsidiinae) are briefly reviewed, with a key to six species from Japan and diagrammatic illustrations of the elytral markings of all species. A new species, *M. praeclarus* is described from Kyushu and Yaku Is. as the sixth species from Japan. *M. japonicus* (Nakane, 1957) is also redescribed, and its aedeagus and spermatheca are first illustrated.
Key words: Staphylinidae, *Megalopinus*, new species, redescription, key, Japan

The genus *Megalopinus* Eichelbaum, 1915 belongs to the monogeneric subfamily Megalopsidiinae. The genus is distributed in the world except for the Antarctic; and 68 species have been hitherto known from the Oriental Region (Puthz, 2012, 2013; Naomi & Hirano, 2014). Adults of the species of this genus inhabit dead branches of standing trees, and fallen decayed trees where fungi grow (Leschen & Newton, 2003), but the adults of some species inhabit dead leaves where fungi grow. The species of *Megalopinus* are all rare or very rare in Japan; and most staphylinists in Japan have anticipated that the Japanese *Megalopinus* fauna consist of at best two or three species. However, thanks to nice efforts by coleopterists who collect arboreal beetles, a few additional *Megalopinus* species have been collected from the dead branches of standing trees during the field surveys that aim at mostly collecting cerambycids by beating method. As a result, the six species have been collected and known from Japan (Nakane, 1957; Naomi, 1986, 1996; Naomi & Hirano, 2014; and present paper).

Therefore, we briefly review in this paper the Japanese fauna of the genus *Megalopinus*. For identification of the species we provide a key to the six species from Japan, together with a more or less diagrammatic illustration of elytral markings of all species. We describe a new species from Kyushu and Yaku Is. under the name of *M. praeclarus* as the sixth species from Japan, and illustrate its taxonomically important characters. Furthermore, we redescribe *M. japonicus* (Nakane, 1957) and first illustrate its taxonomically important characters including aedeagus and spermatheca.

The *Megalopinus* specimens examined here are deposited in the following public or private collections:

KUM: Kyushu University Museum, Fukuoka;
CBM-ZI: Natural History Museum and Institute, Chiba (Zoology, Insecta);
SEHU: Hokkaido University, Sapporo (Systematic Entomology);
NC: Naomi Collection.

Genus ***Megalopinus*** Eichelbaum, 1915

Genus *Megalopinus* Eichelbaum, 1915: 104; Naomi, 1986: 344; Herman, 2001: 1954; Puthz, 2012: 1377.

Remarks. At present the genus *Megalopinus* comprises six species from Japan, all of which belong to the species group of M. actangulus Waterhouse (see also Puthz, 2012). The Japanese species will be classified in the following way:

M. hirashimai: Body small, 2.4–2.8 mm in length. The yellow marking on each elytron consists of an oblique, curved band (running from the lateral margin of mesoscutellum to the median part of elytral lateral margin) and a stripe of sutural and adsutural area (Fig. 1F). *M. hirashimai* is widely distributed in the Oriental Region (Japan: Nansei Is. [Amami Is.], China, Taiwan, Thailand, and Malaysia) (Puthz, 2012). This species inhabits dead leaves where fungi grow, and is collected by sifting them by using sifter.

M. japonicus and *M. tomishimai*: Body large, 4.7–5.8 mm in length. The yellow marking on each elytron consists of 5 or 6 patches (Fig. 1A, B). In general, four yellow patches are located transversely in a line in the middle; and one or two yellow patches are located longitudinally at the adsutural area. In *M. japonicus* the elytral marking shows infraspecific variation. First, the four yellow patches located transversely in a line in the middle are sometimes fused to form an incomplete yellow band, but the yellow band is not conjoint with the adsutural patch. Second, the adsutural longitudinal patch is often completely or partially divided into two (anterior and posterior) patches in such a way that yellow patches on the elytron are six in number. *M. japonicus* is distributed in Honshu and Shikoku, while *M. tomishimai* is in Kyushu. The species inhabit dead branches of standing trees, and fallen decayed trees where fungi grow. *M. japonicus* has been collected by beating the dead branches in most cases, while *M. tomishimai* is collected from a fallen decayed tree in the natural forest (Naomi, 1996).

M. praeclarus, *M. jambar* and *M. flavomaculatus*: Body large, 4.0–4.6 mm in length. The yellow marking on each elytron is, broadly speaking, nearly L-shaped (Fig. 1C, D) or C-shaped (Fig. 1E). The L-shaped marking consist of a yellow band (located in the middle or occupying the almost all anterior half of elytron) and yellow adsutural (but not sutural!) stripe in *M. praeclarus* and *M. jambar*, while in *M. flavomaculatus* the C-shaped marking consist of the yellow band running along the posterior margin of elytron in addition to the afore-mentioned band and adsutural stripe. *M. praeclarus* is distributed in Kyushu and Yaku Is., *M. jambar* is in the northern mountainous area of Okinawa Is., and *M. flavomaculatus* is in Tsushima Is. The habitats of these three species are unknown in Japan, but it is supposed that they live in the same habitats as those of *M. japonicus* and *M. tomishimai*.

A Key to the Japanese Species of *Megalopinus*

1(2) Smaller species (2.42.8 mm in length); elytra with sutural area yellow (Fig. 1F); male: aedeagus (Fig. 2D). ····· *M. hirashimai* Naomi, 1986

2(1) Larger species (4.0—5.8 mm in length); elytra with sutural area dark red or brown to black.

3(6) Each elytron with marking composed of five or six yellow patches.

4(5) Punctate transverse groove running along the posterior margin of pronotum divided into five parts by narrow longitudinal keels; elytral marking with the 3rd yellow patch (from the lateral margin of elytron) elongate and longitudinal but rather small, and smaller than the 4th (i.e., the most mesial) yellow patch (Fig. 1A); male: unknown. ····· *M. tomishimai* Naomi, 1996

5(4) Punctate transverse groove running along the posterior margin of pronotum divided into six parts by narrow longitudinal keels; elytral marking with the 3rd yellow patch (from the lateral

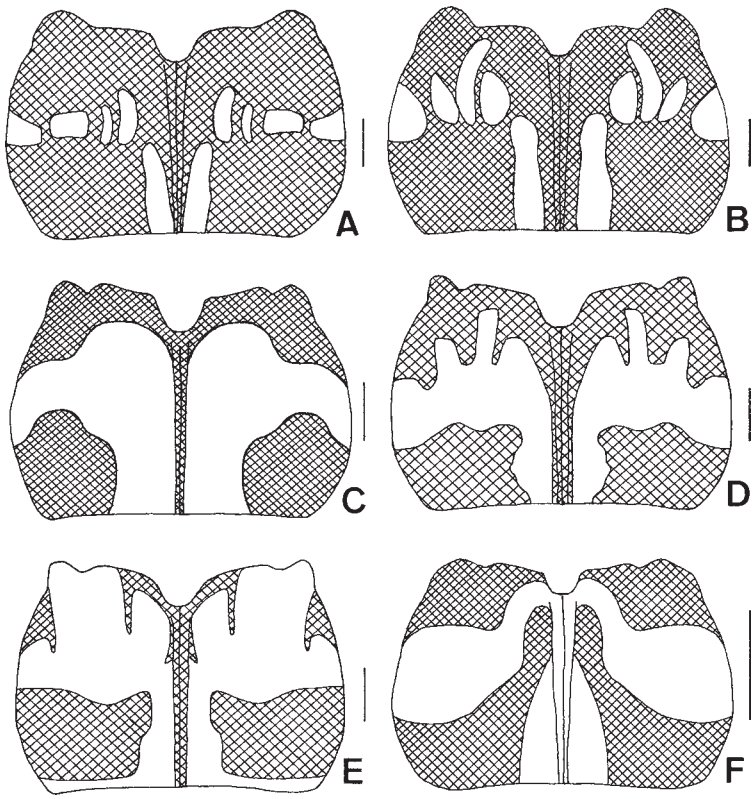

Fig. 1. *Megalopinus* spp. —— A, *Megalopinus tomishimai* NAOMI; B, *M. japonicus* (NAKANE); C, *M. jambar* NAOMI et HIRANO; D, *M. praeclarus* NAOMI et NOMURA sp. nov.; E, *M. flavomaculatus* NAOMI; F, *M. hirashimai* NAOMI. —— A–F, Elytra with markings. Scale: 0.25 mm.

margin of elytron) elongate, longitudinal and large, distinctly larger than the 4th (i.e., the most mesial) yellow patch (Fig. 1B); male: aedeagus (Fig. 4D). ····· *M. japonicus* (NAKANE, 1957)

6(3) Each elytron with a yellow, nearly L- or C-shaped marking.

7(10) Each elytron with a yellow, nealy L-shaped marking.

8(9) Elytral marking composed of a yellow band near the middle (more or less running obliquely, swollen and rounded at anteromesial part) and a broad adsutural stripe (Fig. 1C); male: aedeagus (Fig. 2C). ····· *M. jambar* NAOMI et HIRANO, 2014

9(8) Elytral marking composed of a yellow band in the middle (with three anterior extention of different length and shapes) and relatively narrow adsutural stripe (whose lateral part is weakly swollen laterally (Fig. 1D); male: aedeagus (Fig. 2A). ····· *M. praeclarus* NAOMI et NOMURA, sp. nov.

10(7) Each elytron with a yellow, nearly C-shaped marking: a yellow band occupying the almost all anterior half of elytron, and its posteromesial part conjoint with adsutural stripe, the adsutural stripe extending posteriorly to the posterior margin of elytron where it extends also to the lateral margin of elytron along the posterior margin (Fig. 1E); male: aedeagus (Fig. 2B). ····· *M. flavomaculatus* NAOMI, 1986

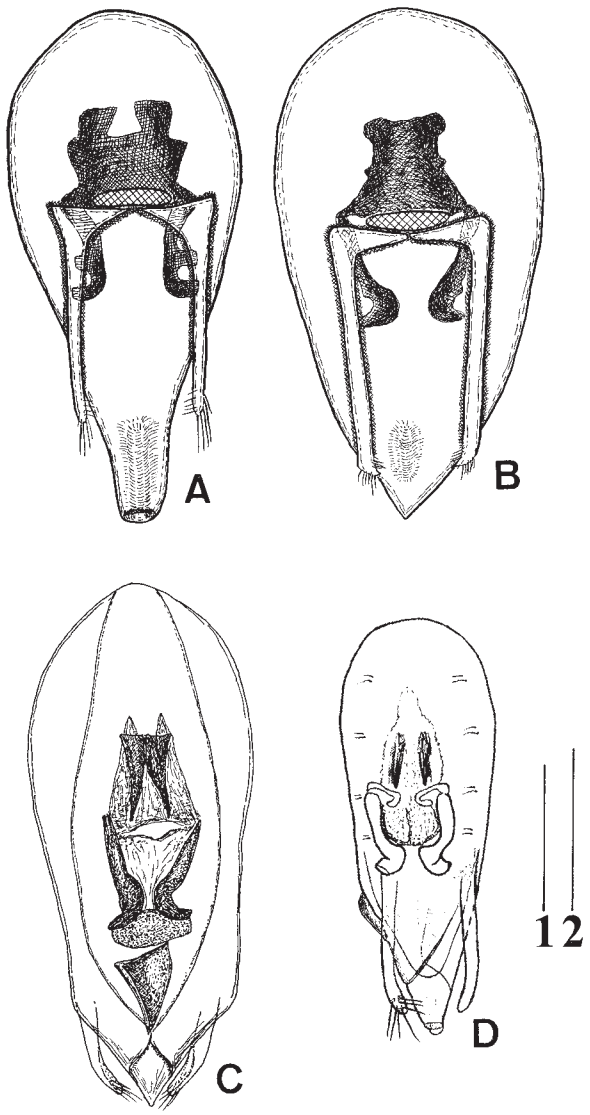

Fig. 2. *Megalopinus* spp. —— A, *Megalopinus praeclarus* NAOMI et NOMURA, sp. nov.; B, *M. flavomaculatus* NAOMI; C, *M. jambar* NAOMI et HIRANO; D, *M. hirashimai* NAOMI. —— A, B, D, Aedeagus in ventral view (A and B from NAOMI, 1986; D from PUTHZ, 2012); C, Aedeagus in dorsal view (from NAOMI & HIRANO, 2014). Scale 1: 0.2 mm for A–C; scale 2: 0.2 mm for D.

Megalopinus japonicus (NAKANE)

(Figs. 1B, 3A–B, 4A–D, 5A–E)

Megalopsidia japonica NAKANE, 1957: 53; NAKANE, 1963: 86; HERMAN, 2001: 1962.
Megalopinus japonicus: WATANABE, 1985: 278. (Misidentification.)
Megalopinus japonicus: NAOMI, 1986: 349. (Misidentification.)

M a l e and f e m a l e. Body (Fig. 3A–B) robust, very shining, 5.0–5.8 mm (fore body 3.2–3.3

mm) in length. Head and pronotum black; elytra dark red to black, each with the marking composed of five or six yellow to yellowish red patches (Fig. 1B); abdomen dark red to black, lateroventrites dark red. Antennae with 1st to 9th segments clear reddish brown, shining; 10th to 11th black, dull. Mandibles dark red; maxillary and labial palpi clear yellow. Legs yellowish brown to reddish brown, with knees more or less infuscate.

Head weakly convex, with antennal tubercles developed; clypeal area narrow, shortly protruded, widely emarginate, with its anterolateral corners pointed; interocular area transverse, almost glabrous, shining, and covered sparsely with irregular punctures (or foveae) of different sizes; neck with large punctures. Eyes located laterally, very large and prominent laterally. Antennae each with 1st segment short but robust, broader than 2nd, 2nd shorter and distinctly broader than 3rd, 3rd slender, about three times as long as 4th, 4th to 8th each short, 9th to 11th forming a loose club, 10th larger than 9th, pubescent, with several long setae, 11th very large, elongate-globose, rounded apically and densely pubescent, with very long, incurved bristles that occur at the basal part. Labrum bilobed and deeply emarginate. Mandibles falciform, distinctly incurved and acutely pointed.

Pronotum a little narrower than head, robust, strongly convex, side margins each with four short teeth; surface strongly uneven, with four punctate grooves when seen from above: 1st anterior transverse groove running along anterior margin of pronotum, interrupted by the median longitudinal elevated area, 2nd transverse groove located before the middle, interrupted by the median longitudinal elevated area, and running to anterolteral direction at lateral parts but not reaching the lateral margins, 3rd oblique groove located behind the middle, not reaching the lateral margins, distinctly interrupted by the median relatively broad ridge, and 4th groove running along posterior margin of pronotum, and divided into six parts by narrow longitudinal keels; when seen laterally the 1st groove is continuous with the 4th by the groove that runs along the lateral margin of pronotum; interstices between those grooves distinctly elevated, strongly shining and basically glabrous but a large fovea existing on each lateral side of interstice between 3rd and 4th grooves; several punctures on the 1st and 4th grooves each furnished with an erect seta.

Elytra (Fig. 1B) broader than head, transverse, well-convex above; each shallowly impressed along sutural area, with the well-angulate humerus; a nearly C-shaped punctate stria located at the middle of sutural part, three punctate striae of different length at the midlateral part, and other three punctate striae at the lateral deflexed part. Mesoscutellum subtrapezoidal, with a few, medium-sized punctures. Legs with tibiae slender, not broadened apically.

Abdomen a little narrower than elytra, robust; 8th tergum shallowly arcuate at posterior margin. Sculptures, punctuation and setation on abdorminal terga are as follows: 3rd tergum with five foveae along the basal line (the median fovea of which is deepest), a V-shaped keel located at each side of the lateral fovea, and an ovoidal, impressed area located outside the keel; 4th to 6th terga each with similar sculptures as on the 3th, but the basal foveae four in number (i.e., the median fovea missing), and shallower and broader than those on the 3rd; 7th tergum similarly sculptured as on the 6th, but also with additional relatively large, elongate-ovoidal punctures occurring fully on the median area between the lateral margins of tergum; 3rd to 6th terga each almost glabrous, with a few decumbent setae, putting aside the sculptues described above; 7th tergum very sparsely with decumbent setae except for the broad, glabrous posterior marginal area; 10th tergum with distinct, sparse punctures. Lateroventrites consist of two pairs (i.e., mesial and lateral) in each of 3rd to 7th abdominal segments; 3th mesial lateroventrite with a longitudinal groove, 4th to 6th mesial lateroventrites each punctate, and 7th mesial lateroventrite shallowly impressed; 3rd to 7th lateral lateroventrites all smooth and shining.

M a l e. Habitus as in Fig. 3A; 7th ventrite (Fig. 4A) widely, shallowly emaginate; 8th ventrite (Fig. 4A) widely, moderately emarginate; 9th tergum (Fig. 4C) with exposed area transverse, without

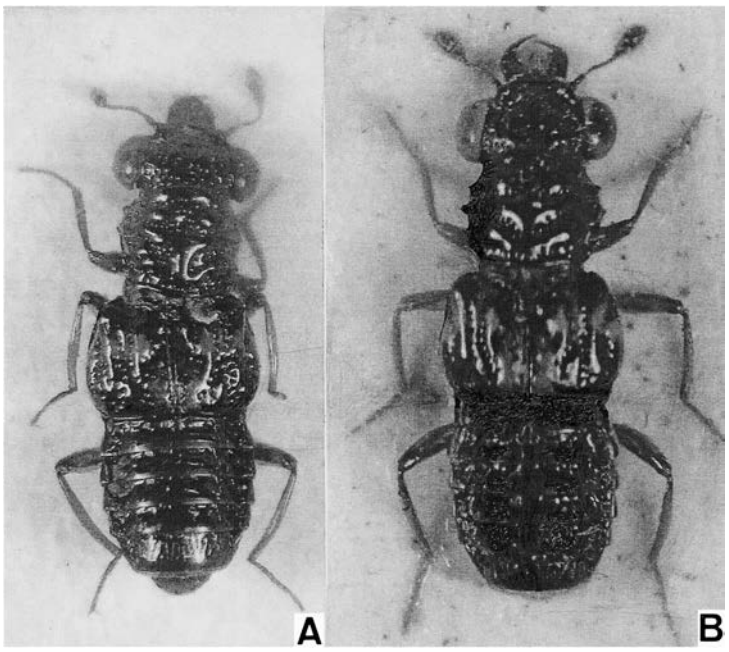

Fig. 3. *Megalopinus japonicus* (NAKANE). ——— A, Holotype (male); B, allotype (female).

posterolateral projections, ventral apophyses each with a large, subtransparent mesial flap; 9th sternum (Fig. 4B) spatulate, with apical margin moderately rounded; 10th tergum (Figs. 4C) rounded posteriorly. Aedeagus (Fig. 4D) almost elongate-ovoidal in basal 2/3, weakly rounded at about apical 1/3, and then narrowed toward apex which is rounded, and also with a small W-shaped tooth at the apico-dorsal portion of aedeagus. Endophallus (Fig. 4D) rather complex in structure, flagellar basal room with its internal surface covered with relatively thick hairs, the basal room franked with a pair of elongate sack-like structures whose surfaces have mesh pattern, and also with a pair of r- or v-shaped, small accessory sclerites; internal sac with surface densely covered with very fine tubercles; expulsion clasps strongly sclerotized, each with posterior process curved posterolaterally, minutely bidentate at apex. Parameres (Fig. 4D) short, each straight but weakly incurved at apical part which is attenuate; apical part of paramere laterally with five to six long straight setae and mesially with two to three short setae.

F e m a l e. Habitus as in Fig. 3B; 7th ventrite emaginate posteriorly as in male; 8th ventrite entire; 9th tergum widely separated into two plates, each plate (Fig. 5D) nearly triangular in shape, rounded apically; gonocoxites (Fig. 5C) each obtusely pointed, without stylus; accessory sclerite located between the gonocoxites (Fig. 5E) large, submembranous except for the moderately sclerotized rim, and very shallowly bi-arcuate at posterior margin; 10th tergum (Figs. 5A) rounded posteriorly. Spermatheca (Fig. 5B) almost L-shaped, composed of the basal thick tube and apical elongate-conical tube, nearly submembranous but apical margin of the basal thick tube moderately sclerotized to form a ring structure; spermathecal gland located near the base of spermatheca, bitter gourd-shaped.

Type specimens examined. Holotype: ♂ (SEHU), Kasuga, Nara Pref., 3.VII.1955, T. SHIBATA leg. Allotype: ♀ (SEHU), Okinoshima Is., Hirose, Kôchi Pref., 1.VIII.1953, K. MORIMOTO leg. Paratype: ♂ (SEHU), Momonoki-Cab, Ohsugi, Mie Pref., 11.VI.1952, T. KISHII leg.

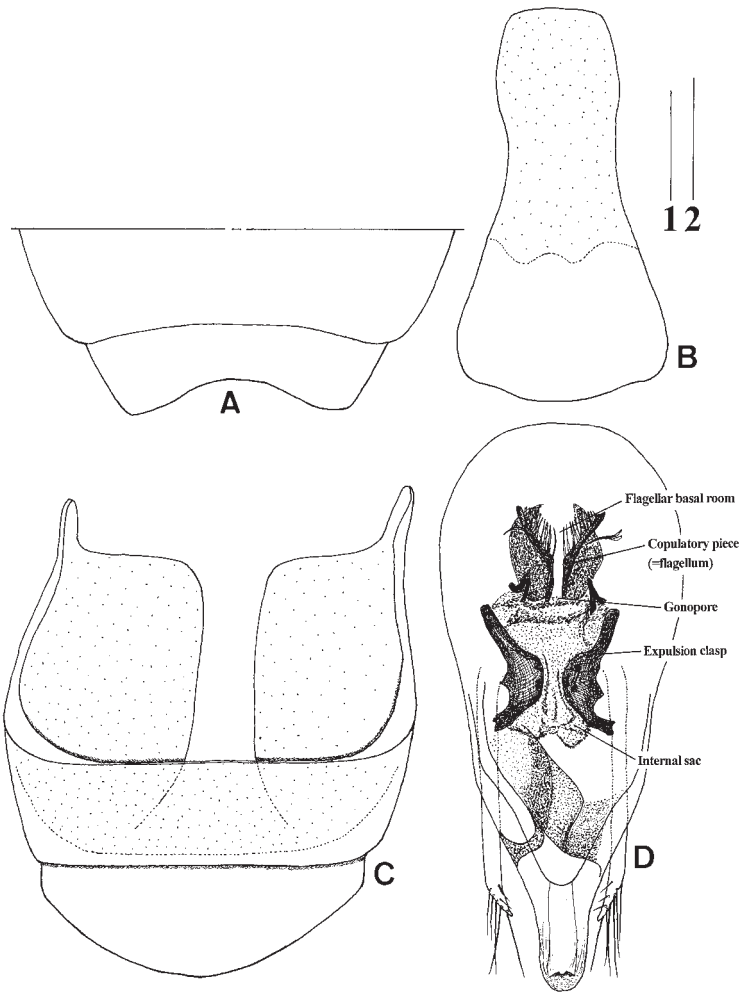

Fig. 4. *Megalopinus japonicus* (Nakane), male (Kamogawa, Chiba). —— A, Seventh and 8th ventrites; B, 9th sternum; C, 9th and 10th terga; D, aedeagus in dorsal view. Scale 1: 0.3 mm for A; scale 2: 0.2 mm for B–D.

Other specimens examined. 1 ♂ (CBM-ZI: 202806), 1 ♀ (CBM-ZI: 202807) & 1 ♂ (NC), Daisenbara-rindô, Yomogi, Kamogawa City, Chiba Pref., 8.VIII.2013, A. Saitô leg.; 1♀ (KUM), Mt. Takahachi, Tottori Pref., 10.VI.1976, O. Yamaji leg.

Distribution. Japan (Honshu and Shikoku). When gathering the distributional information that we can obtain from such papers as Nakane (1957), Watanabe (1985) and Naomi (1986), we see that *M. japonicus* is at present considered to be distributed in Hokkaido, Honshu, Shikoku, Kyushu, Tsushima Is. and Nansei Isls. However, as mentioned below, there are identification problems of the *Megalopinus* species in some taxonomic papers as well as in the illustrated books of Japanese beetles. Thus, the correct distributional area of *M. japonicus* should be restricted only to Honshu and Shikoku where the type localities are located. All specimens of the species that have been reported under the name of *M. japonicus* in the Japanese entomological literature must be re-examined for correct identification.

Remarks. *M. japonicus* was first described by Nakane (1957) based on the specimen collected

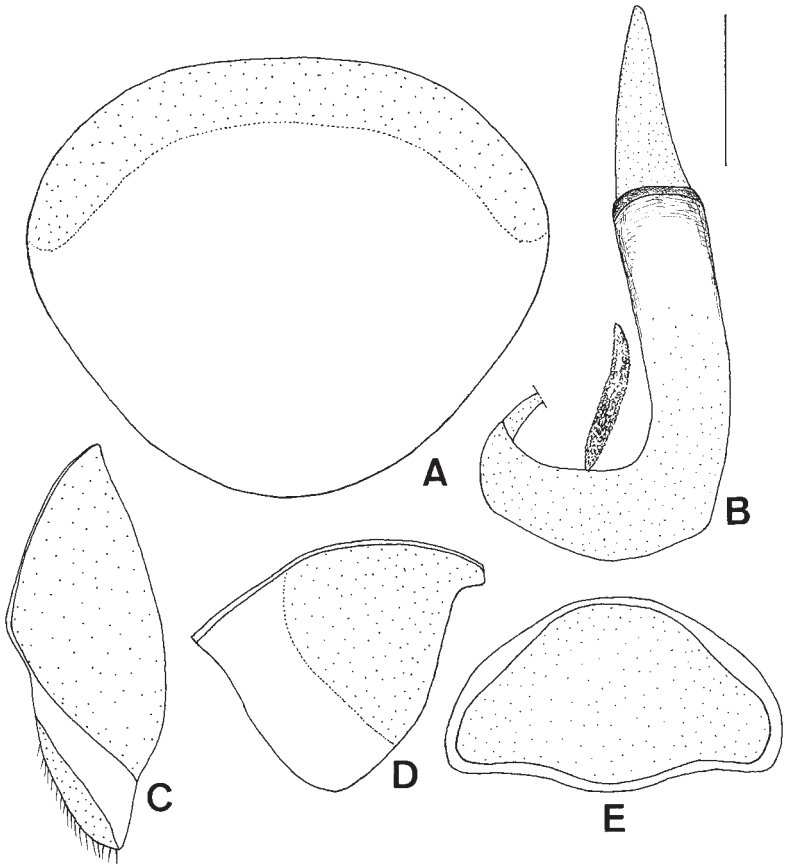

Fig. 5. *Megalopinus japonicus* (NAKANE), female (Kamogawa, Chiba). —— A, Tenth tergum; B, spermatheca; C, gonocoxite; D, 9th tergum; E, accessory sclerite located between the gonocoxites. Scale: 0.2 mm for A, C–E and 0.1 mm for B.

from Mt. Kasuga, Nara; and NAKANE (1963) correctly illustrated the *Megalopinus* species in an illustrated book of Japanese beetles. However, subsequently WATANABE (1985) mistook *M. jambar* NAOMI et HIRANO, 2014 (?) for *M. japonicus* (when judging from the photo of *Megalopinus* species that appeared in the illustrated book "The Coleoptera of Japan in Color"). To make the matter worse, when NAOMI (1986) revised the Japanese *Megalopinus*, he also mistook *M. praeclarus* (which is to describe in this paper as new) for *M. japonicus*. These misidentifications of *Megalopinus* species seem to be due to the following two causes: (1) *Megalopinus* species are rare in Japan; and resultantly staphylinists have not opportunities enough to examine plenty of specimens for solving the question about infraspecific variation; and (2) staphylinists may have a prejudice that those varied elytral markings of *Megalopinus* species reflect simply the infraspecific variations of *M. japonicus*, as in the cases of some Japanese Oxyporine species which show polymorphism with respect to the marking pattern of body (including elytra). Therefore, we examined type series of *M. japonicus* and redescribed above, with detailed illustration of its taxonomic characters.

M. japonicus is closely allied to *M. tomoshimai* when considering their shared similarities of the elytral markings, sculptures of pronotum and abdominal terga as well as the structure of spermatheca. *M. japonicus* is, however, clearly distinguishable from the latter by the following characters: the 4th

transverse groove running along the posterior margin of pronotum is divided into six parts (i.e., impressed areas) by narrow longitudinal keels when seen from above; and the different pattern of yellow patches on elytra (Fig. 1B).

Megalopinus praeclarus NAOMI et NOMURA, sp. nov.

[New Japanese name: Hime-kimon-medaka-ookiba-hanekakushi]

(Fig. 1D)

Megalopinus japonicus: NAOMI, 1986: 349 (partim).

M a l e and f e m a l e. Head with clypeal area narrow, shallowly arcuate; eyes very large, lateral in position; surface of cranium covered sporadically with punctures of different sizes; antennae short, each with a loose club which consists of 9th to 11th segments. Pronotum furnished with four pairs of teeth at lateral margins; surface with four transverse, punctate grooves: 1st (or anterior) and 2nd grooves each not interrupted at the middle by a median longitudinal keel, and also continuous each other at the middle by a median longitudinal groove, 3rd groove divided in the middle by a median longitudinal keel, and 4th (or posterior) groove fully running along the posterior margin of pronotum. Elytra dark brown, each with a L-shaped, yellow marking, the yellow transverse band located near the middle, with three yellow anterior extensions of different length, its posteromesial part of the band conjoint with adsutural yellow stripe which extends posteriorly to the posterior margin of elytron. Abdomen broad and rubust; 3rd tergum with five reversed V-shaped striae, one small fovea located at each side of the median stria; 4th to 7th terga each with six reversed V-shaped striae.

M a l e. Aedeagus (Fig. 2A) with median lobe bulbous in basal 3/4, then moderately constricted to form a narrow apical part which is rounded.

F e m a l e. Spermatheca moderately sclerotized, almost L-shaped, composed of the basal thick tube and apical elongate-tuberculiform tube; spermathecal gland located near the base of spermatheca, ovoidal in shape.

Type series. Holotype: 1 ♂ (KUM), Okawa-rindô, Yaku Is., Kagoshima Pref., 22.VII.1976, M. TAO leg. Paratype: 1 ♀ (KUM), Naidaijin, Mt. Kunimi, Kumamoto Pref., 29.VII.1952, Y. HIRASHIMA leg.

Distribution. Japan (Kyushu, Yaku Is.).

Remarks. NAOMI (1986) erroneously described this new species as *M. japonicus*, which is simply a careless mistake; and thus regarding the detailed description of this new species and illustration of its taxonomically important characters, see also NAOMI (1986; figs. 2A–H, 3A, C–I, 4A–F and 5C, D, F–H). *M. praeclarus* is closely allied to *M. flavomaculatus*, but it is clearly separable from the latter by the following characters: the elytron is provided with a yellow, nearly L-shaped marking (Fig. 1D); the aedeagal median lobe is bulbous in basal 3/4, and then moderately constricted to form a narrow apical part which is rounded (Fig. 2A); and the paramere is straight and is not incurved apically (Fig. 2A).

Etymology. The specific epithet of this new species is derived from the Latin adjective "*praeclarus*" which means "distinguished" or "easily distinguishable"; this new species is, as mentioned above, easily distinguishable from the other members of Japanese *Megalopinus*.

Acknowledgements

We express our sincere gratitude to Dr. V. PUTHZ (Burgmuseum Schlitz, Schlitz) for his constant

guidance on our *Megalopinus*-study. Our sincere thanks are due to Dr. M. MARUYAMA (Kyushu University Museum, Fukuoka) for his carefully examining type material of *M. praeclarus* and also for his other related taxonomic tasks which are necessary for the present study, and to Dr. M. ÔHARA (Hokkaido University Museum, Sapporo) for his kindness in sending the type series of *M. japonicus* (NAKANE) to the first author (NAOMI). We also thank Dr. A. SAITÔ (Natural History Museum and Institute, Chiba), Mr. M. TAO (Tokyo) and Mr. O. YAMAJI (Okayama) for loaning or gifting the first author the rare *Megalopinus* specimens examined in this paper.

要　　約

直海俊一郎・野村周平：日本産メダカオオキバハネカクシ属（鞘翅目ハネカクシ科）の分類学的研究．

――― 日本産メダカオオキバハネカクシ属を再検討し，日本産6種の検索表を作成し，6種の上翅斑紋および5種の雄交尾器を図示した．1新種 *M. praeclarus* NAOMI et NOMURA（和名新称：ヒメキモンメダカオオキバハネカクシ）を記載した．この種は *M. flavomaculatus* NAOMI に近縁であるが，上翅にL字状の黄色斑紋があり，その横帯部は上翅の前縁まで達せず，横帯部前縁に3つの異なった長さの黄色の張出部があること，雄交尾器中央片の後方が明らかにより狭く，雄交尾器側片の先端部が内側に曲がらないなどの点で区別される．*M. japonicus* NAKANE (1957) を模式標本等に基づき再記載し，雄交尾器や雌受精嚢を含む分類・同定に重要な形態的部位を図示した．これまでに図鑑や論文などで *M. japonicus* の名で記載・紹介された種は，幾つかの場合において，誤同定に基づくものである．したがって，これまで *M. japonicus* の名で公表された分布の記録は，再検討を要する．

References

EICHELBAUM, F., 1915. Verbesserungen und Zusätze zu meinem Katalog der Staphylinidengattungen aus dem Jahre 1909. *Archiv für Naturgeschichte*, (A) **81**: 98–121.

HERMAN, L. H., 2001. Catalog of the Staphylinidae (Insecta: Coleoptera). 1758 to the end of the second millennium. IV. Staphylinine group (Part 1). *Bulletin of the American Museum of Natural History*, (265): 1807–2440.

LESCHEN, R. A. B., & A. F. NEWTON, 2003. Larval description, adult feeding behavior, and phylogenetic placement of *Megalopinus* (Coleoptera: Staphylinidae). *The Coleopterists Bulletin*, **57**: 469–493.

NAKANE, T., 1957. Eine neue Art der Gattung *Megalopsidia* aus Japan. *Insecta Matsumurana*, *Sapporo*, (21): 53–55.

NAKANE, T., 1963. Staphylinidae. *In* NAKANE, T., K. OHBAYASHI, S. NOMURA & Y. KUROSAWA (eds.), *Iconographia Insectorum Japonicorum Colore naturali edita*, **2**. Pp. 81–100. (In Japanese.)

NAOMI, S.-I., 1986. Taxonomic study of the subfamily Megalopininae (Coleoptera, Oxyporidae) of Japan, with descriptions of two new species. *Kontyû*, *Tokyo*, **54**: 344–352.

NAOMI, S.-I., 1996. Two new species of the family Staphylinidae (Coleoptera) from Japan. *New Entomologist*, **45**: 69–73.

NAOMI, S.-I., & Y. HIRANO, 2014. A new species of the subfamily Megalopsidiinae (Coleoptera, Staphylinidae) from Okinawa Is., Japan. *Elytra*, *Tokyo*, (n. ser.), **4**: 293–297.

NAOMI, S.-I., & V. PUTHZ, 2013. Steninae. *In* SHIBATA, Y., & M. MARUYAMA (eds.), Catalogue of Japanese Staphylinidae (Insecta: Coleoptera). *Bulletin of the Kyushu University Museum*, (11): 136–145.

PUTHZ, V., 2012. Über die *Megalopinus*-Arten der Orientalis (Coleoptera, Staphylinidae). *Linzer Biologische Beitrage*, **44**: 1373–1430.

PUTHZ, V., 2013. Weitere *Megalopinus*-Arten aus der Orientalis (Coleoptera, Staphylinidae). *Linzer Biologische Beitrage*, **45**: 845–849.

WATANABE, Y., 1985. Staphylinidae (Micropeplinae to Paederinae). *In* UÉNO, S.-I., Y. KUROSAWA & M. SATÔ (eds.), *The Coleoptera of Japan in Color*, **2**. Pp. 261–289. Hoikusha, Osaka. (In Japanese.)

Manuscript received 30 March 2015;
revised and accepted 10 April 2015.