

Seven New Species of the Genus *Stenus* Latreille (Coleoptera, Staphylinidae) from Japan

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Abstract This is the 50th taxonomic study on the subfamily Steninae (Coleoptera, Staphylinidae) from Japan, with descriptions of seven new species of the genus *Stenus* Latreille. The new species of *Stenus* described herein are as follows: *S. unicuspidatus* (Nagano Pref.); *S. trispinosus* (Yamanashi Pref.); *S. masaakii* (Nagano Pref.); *S. usitatus* (Shizuoka Pref.); *S. pediculifer* (Tokushima Pref.); *S. sinanomontis* (Nagano Pref.); and *S. incurvatus* (Kagawa Pref.). The taxonomically important characters including several posterior abdominal segments, aedeagus, endophallic structures and spermatheca are illustrated in detail.

Key words: Coleoptera, Staphylinidae, *Stenus*, new species, Japan.

Introduction

During the course of our taxonomic study of Japanese Staphylinidae we discovered seven new *Stenus* species from Japan (Honshu and Shikoku); and thus we are to describe and illustrate them in this 50th paper on Japanese Steninae. The holotypes of the new *Stenus* species described herein are deposited in the National Museum of Nature and Science, Tsukuba (abbreviated as NMNS). The paratypes (depository of which is not written) belong to Naomi Collection (NC), but if necessarily, the NC is written for some paratypes for the sake of convenience.

Materials and Methods

The *Stenus* specimens obtained by Nomura were extracted by Tullgren funnels from sifted leaf litter. All holotype specimens were photographed by the digital microscope (KEYENCE digital microscope system VHX-2000 + VHX-

D510). For the SEM photo of Fig. 1H, the specimen (holotype) was non-coated, and examined with a low acv 1.2kV by the digital microscope shown above.

Stenus unicuspidatus sp. nov.

[New Japanese name: Ikkaku-hayashi-medaka-hanekakushi]

(Figs. 1A, 2A–E)

Male. Brachypterous species; body 4.5 mm (fore body 2.1 mm) in length, elongate, dull (Fig. 1A). Head and abdomen black; prothorax and elytra dark red; labrum, antennae and legs yellowish brown to reddish brown. Head with a pair of longitudinal depressions; punctures dense, round, distinct. Pronotum slightly uneven, with median longitudinal depression very indistinct; punctures very dense, round to elliptical. Elytra very weakly uneven; punctures very dense, round to elliptical, somewhat rough. Legs with

femora relatively thick; tarsi with 4th tarsomeres bilobed. Abdomen cylindrical, nearly parallel-sided; punctures dense, very distinct, almost round, small to medium in size on 3rd segment, small to very small, regular on posterior segments. Lateroventrites atrophied in 3rd segment; lateroventrites and tergoventral sutures missing in 4th to 6th segments.

Sixth ventrite (Fig. 2D) posteromedially with a semicircular flat area, its posterior margin almost straight; 7th ventrite (Fig. 2D) posteromedially with a very shallow, semicircular depression, its posterior margin almost straight; 8th ventrite (Fig. 2D) posteromedially with a large V-shaped emargination; 9th tergum (Fig. 2A) with ventral apophyses thick, long; 9th sternum (Fig. 2E) ser-



Fig. 1. *Stenus* spp. nov., dorsal habitus (A–G) and 6th to 8th ventrites of male in ventral view (H). A, *S. unicuspidatus* Naomi and Nomura sp. nov.; B, *S. trispinosus* Naomi and Nomura sp. nov.; C, *S. masaakii* Naomi and Nomura sp. nov.; D, *S. usitatus* Naomi and Nomura sp. nov.; E, *S. pediculifer* Naomi and Nomura sp. nov.; F, *S. cinanomontis* Naomi and Nomura sp. nov.; G–H, *S. incurvatus* Naomi and Nomura sp. nov.

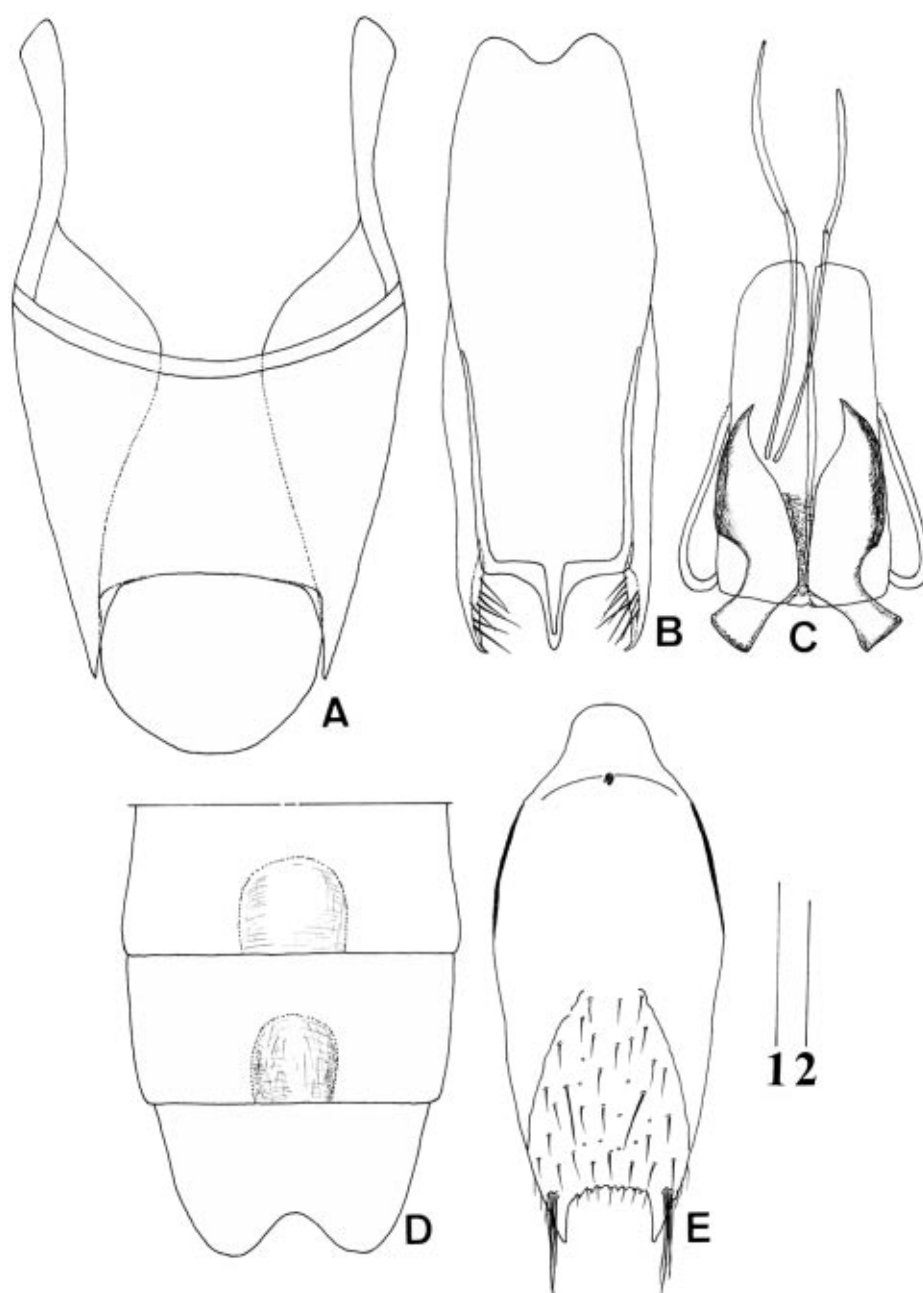


Fig. 2. *Stenus unicuspidatus* Naomi and Nomura sp. nov. A, Ninth and 10th terga of male; B, aedeagus of ventral view; C, endophallus; D, 6th to 8th ventrites of male; E, 9th sternum of male. Scale 1: 0.2 mm for A–B, E, and 0.1 mm for C; scale 2: 0.3 mm for D.

rate at posterior margin, with apicolateral teeth acutely pointed; 10th tergum (Fig. 2A) entire. Aedeagal median lobe (Fig. 2B) broad, almost right-angled at apicolateral corners, with the long, stout apicomedian cusp. Endophallus with

median longitudinal bands (Fig. 2C) very broad; lateral longitudinal bands thin (Fig. 2C); explosion clasps (Fig. 2C) separated, anterior plate completely fused with posterior plate, acutely pointed and incurved apically, posterior plate

turning posterolaterally, truncate at posterior margin; basal tube (Fig. 2C) rather simple, with basal room consisting of two shafts of different length, tube body attenuate, very weakly curved apically. Parameres (Fig. 2B) extending posteriorly just to the apex of median lobe, minutely but distinctly incurved at the apicalmost part; apical part of paramere weakly swollen mesially, with 7 to 9 setae of moderate length on its mesial marginal area.

Female. Unknown.

Type series. Holotype (No. NSMT-I-C-200261 in NMNS): ♂, Oohira Pass, Nagiso-cho, Nagano Pref., 15. xi. 1999, S. Nomura leg.

Distribution. Japan (Honshu: Nagano Pref.).

Remarks. *Stenus unicuspidatus* sp. nov. belongs to *S. asyura*-group. This new species is allied to *S. sawadaiellus* Naomi and Puthz, 1994 and *S. yatsugataakensis* Naomi, 2015, but it is clearly distinguishable from them by the following unique characters: the aedeagal median lobe is almost right-angled at the apicolateral corners, and almost straight at the hind margin except for the long, apicomedian cusp (Fig. 2B).

Etymology. The specific epithet of this new species consists of the Latin suffix “*uni-*” (which means “one”) and the Latin adjective “*cuspidatus*” (which means “cuspidate”); and the apex of aedeagal median lobe is unicuspidate (Fig. 2B).

***Stenus trispinosus* sp. nov.**

[New Japanese name: Mitsutoge-hayashi-medaka-hanekakushi]

(Figs. 1B, 3A–G)

Male and female. Brachypterous species; body 3.5–3.7 mm (fore body 1.7–1.8 mm) in length, elongate, moderately shining (Fig. 1B). Head and abdomen black; prothorax and elytra dark red; labrum, antennae and legs yellowish brown to reddish brown. Head with a pair of shallow longitudinal depressions; punctures dense, round and umbilicate. Pronotum slightly uneven, with shallow median longitudinal depression;

punctures very dense, round to elliptical. Elytra very weakly uneven; punctures very dense, round to elliptical, various in size. Tarsi with 4th tarsomeres bilobed. Abdomen cylindrical, nearly parallel-sided; punctures dense, very distinct, round on anterior segments, small, distinct and regular on posterior segments. Lateroventrites atrophied in 3rd segment; lateroventrites and tergoventral sutures missing in 4th to 6th segments.

Male. Sixth ventrite posteromedially with a semicircular flat area, its posterior margin almost straight; 7th ventrite posteromedially with a shallow, elliptical depression, the depressed area very shallowly emarginate; 8th ventrite posteromedially with a medium-sized, arcuate emargination; 9th tergum (Fig. 3A) with ventral apophyses thin; 9th sternum (Fig. 3B) weakly serrate at posterior margin, with apicolateral teeth acutely pointed; 10th tergum (Fig. 3A) entire. Aedeagal median lobe (Fig. 3D) broad, well angulate at apicolateral corners, apicomediaally tricuspidate with the three cusps of same shape; apical sclerotized area short, with anterior margin weakly bisinuate. Endophallus with median longitudinal bands (Fig. 3E) broad, narrowed anteriorly; expulsion clasps (Fig. 3F) connected by submembranous area, anterior plate partially separated by suture from posterior plate, posterior plate posterolaterally protruding and rounded, and also covered posterolaterally with fine denticles; basal tube (Fig. 3E) simple, basal room consisting of two shafts of different length, tube body narrowed apically. Parameres (Fig. 3D) short, thin, very weakly incurved, and acutely pointed; apical part very weakly swollen, short, with 6 setae on mesial side.

Female. Eighth ventrite pointed posteromedially; gonocoxites (Fig. 3G) each with apicolateral tooth pointed, and also with apicomediaal tooth small. Spermatheca (Fig. 3C) with capsule very small; RT-duct long, relatively thick; spermathecal duct thin, very long, almost tightly coiled; basal valve short; basal duct sclerotized, longer than basal valve; basal pouch large, cone-shaped.

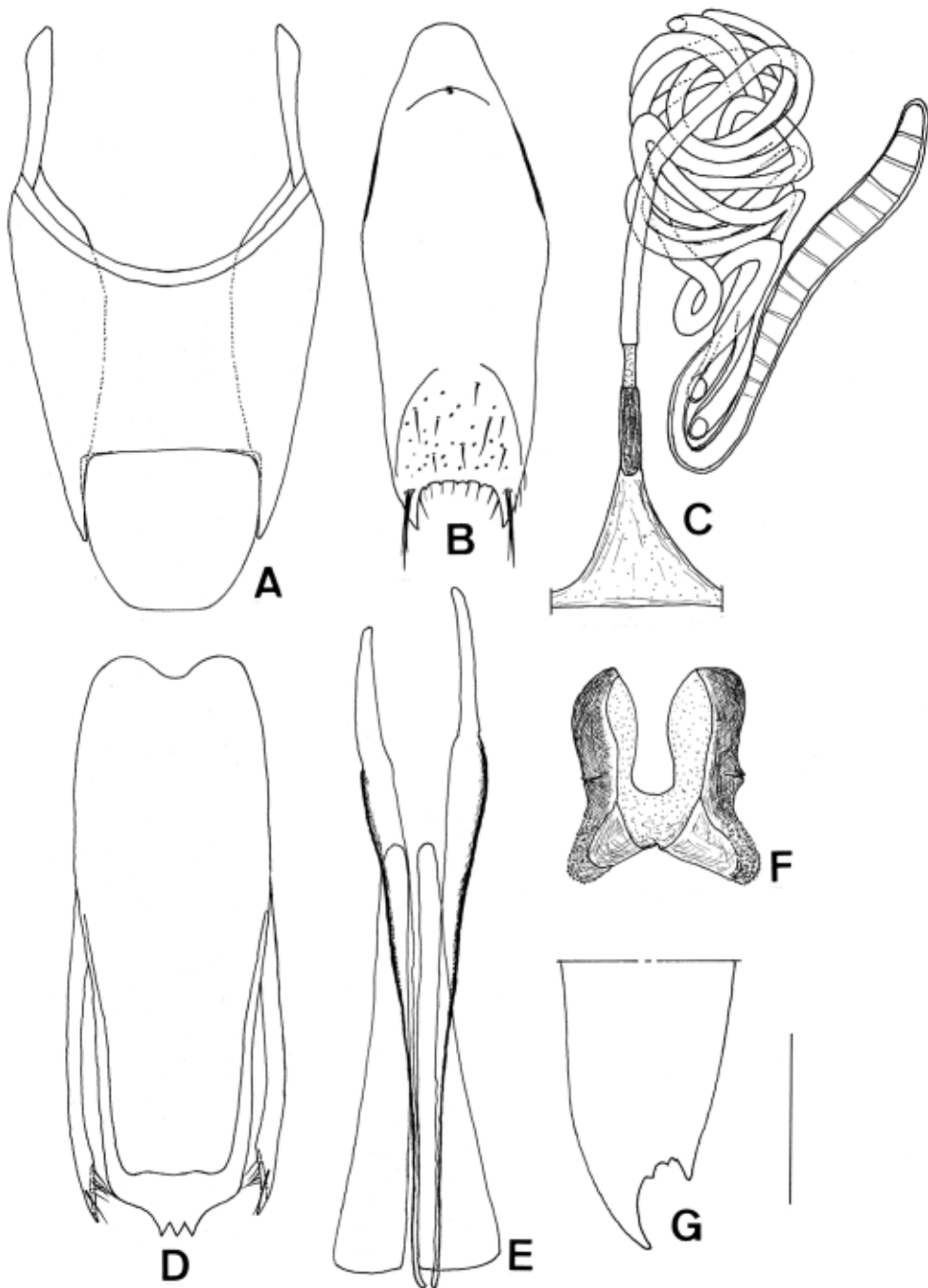


Fig. 3. *Stenus trispinosus* Naomi and Nomura sp. nov. A, Ninth and 10th terga of male; B, 9th sternum of male; C, spermatheca; D, aedeagus of ventral view; E, endophallus; F, expulsion clasps; G, posterior part of gonocoxite. Scale 1: 0.2 mm for A–B, D, and 0.1 mm for C, E–G.

Type series. Holotype (No. NSMT-I-C-200262 in NMNS): ♂, Mt. Misaka, Kawaguchi Lake, Yamanashi Pref., 24. x. 1999, S. Nomura leg. Paratype, ♀, same data as holotype.

Distribution. Japan (Honshu: Yamanashi Pref.).

Remarks. *Stenus trispinosus* sp. nov. belongs to *S. asyura*-group. *Stenus trispinosus* is allied to *S. nyorai* Naomi, 1990, but it is clearly distinguishable from the latter by the following characters: the 9th segment of female has the gonocoxite with apicomesial tooth (Fig. 3G), without accessory sclerite between the gonocoxites; the aedeagal median lobe is apicomediaally tricuspidate with three cusps of same shape (Fig. 3D); and the posterior plates of endophallic expulsion clasps are short, rounded posterolaterally, and are covered posterolaterally with fine denticles.

Etymology. The specific epithet of this new species consists of the Latin suffix “*tri-*” (which means “three”) and the Latin adjective “*spinosus*” (which means “spiny”); and the apex of aedeagal median lobe is provided with three spines or cusps (Fig. 3D).

***Stenus masaakii* sp. nov.**

[New Japanese name: Kiso-ochiba-medaka-hanekakushi]

(Figs. 1C, 4A–E)

Male. Brachypterous species; body 4.0 mm (fore body 1.8 mm) in length, elongate, moderately shining (Fig. 1C). Head black; prothorax and elytra reddish brown; abdomen dark brown; labrum, antennae and legs yellowish brown to reddish brown. Head with a pair of longitudinal depressions; punctures moderately dense, round, distinct, shallow and small. Pronotum uneven, with median longitudinal depression indistinct; punctures very dense, round and rough. Elytra narrow, weakly uneven, with weakly elevated sutural area; punctures very dense, round but different in size, somewhat rough. Legs moderately long; tarsi with 4th tarsomeres bilobed. Abdomen cylindrical; punctures dense, round to elliptical,

distinct on anterior segments, small to very small, regular on posterior segments. Lateroventrite atrophied in 3rd segment; lateroventrites and tergoventral sutures missing in 4th to 6th segments.

Sixth ventrite posteromedially with a semicircular flat area, its posterior margin almost straight; 7th ventrite posteromedially with a very shallow, semicircular depression, the depressed area very shallowly emarginate; 8th ventrite (Fig. 4E) posteromedially with an arcuate emargination; 9th tergum (Fig. 4C) elongate, with ventral apophyses moderately long; 9th sternum (Fig. 4A) irregularly serrate at posterior margin, with apicolateral teeth thick, pointed; 10th tergum (Fig. 4C) entire. Aedeagal median lobe (Fig. 4D) moderately constricted at about apical 1/3, then weakly narrowed apically, apicoventrally with a pair of low mesial flaps, obtusely angulate at apex; apical sclerotized area narrow, with its anteromesial margin arcuate. Endophallus with median longitudinal bands (Fig. 4B) very broad; expulsion clasps (Fig. 4B) atrophied to form a small sclerite, posteriorly with a U-shaped emargination; basal tube (Fig. 4B) rather simple, with basal room consisting of two thin shafts when seen ventrally, tube body very weakly narrowed apically. Parameres (Fig. 4D) thick, moderately diverging posterolaterally, acutely pointed, with 7 to 9 long setae arranged along its mesioventral margin, and also with 8 to 9 short setae along its mesiodorsal margin.

Female. Unknown.

Type series. Holotype (No. NSMT-I-C-200263 in NMNS): ♂, Seinaiji Pass, Nagiso-cho, Nagano Pref., 15. xi. 1999, S. Nomura leg.

Distribution. Japan (Honshu: Nagano Pref.).

Remarks. *Stenus masaakii* sp. nov. belongs to *S. cephalotes*-group (*S. okienis*-subgroup), given the following similarities with some members of *S. okienis*-subgroup: First, as in *S. masataikai* Naomi and Nomura, 1990 and *S. uenoi* Naomi and Nomura, 1990, the aedeagal median lobe is more or less constricted in the middle to form the narrowed apical part (Fig. 4D); second, as in *S. emma* Naomi, 1990, the apicoventral part

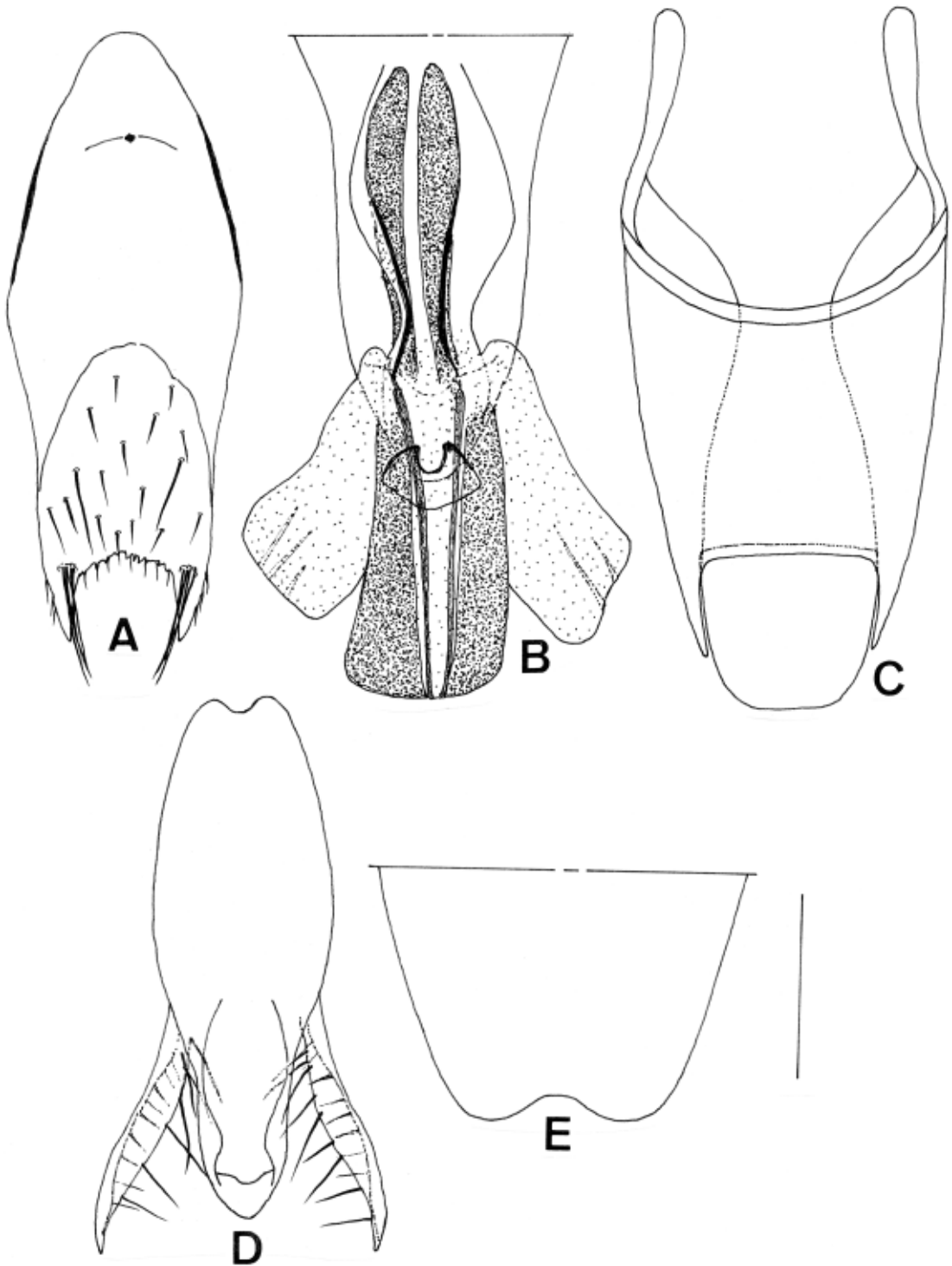


Fig. 4. *Stenus masaaki* Naomi and Nomura sp. nov. A, Ninth sternum of male; B, outthrust endophallus, with the apical part of median lobe; C, 9th and 10th terga of male; D, aedeagus of ventral view; E, apical part of 8th ventrite of male. Scale 1: 0.2 mm for A, C–E, and 0.1 mm for B.

of median lobe is equipped with a pair of low mesial flaps (Fig. 4D); third, as in *S. emma* and *S. uenoi*, the endophallic expulsion clasps are atrophied and fused to form a small sclerite (Fig. 4B); and fourth, as in *S. uenoi*, the parameres moderately diverge posterolaterally in a characteristic style (Fig. 4D). *Stenus masaakii* is, however, clearly separable from the afore-mentioned species by the following characters: the aedeagal parameres are thick and acutely pointed apically (Fig. 4D); and the endophallic median longitudinal bands are very broad (Fig. 4B).

Etymology. The specific epithet of this new species is named in honour of Mr. Masaaki Nishikawa, a coleopterist in Kanagawa.

***Stenus usitatus* sp. nov.**

[New Japanese name: Suruga-ochiba-medaka-hanekakushi]

(Figs. 1D, 5A–F)

Male and female. Brachypterous species; body 3.3–3.5 mm (fore body 1.6–1.7 mm) in length, elongate, moderately shining (Fig. 1D). Head black; prothorax and elytra dark red; abdomen dark red to black; labrum, antennae and legs yellowish brown to reddish brown. Head with a pair of longitudinal depressions; punctures dense, round to elliptical. Pronotum slightly uneven, with shallow median longitudinal depression; punctures very dense, round, somewhat rough. Elytra weakly uneven; punctures very dense, round to elliptical, various in size. Tarsi with 4th tarsomeres bilobed. Abdomen cylindrical, nearly parallel-sided; punctures dense, very distinct, round on anterior segments, small, distinct, regular on posterior segments. Lateroventrites atrophied in 3rd segment; tergoventral sutures existing in 4th to 6th segments.

Male. Sixth ventrite posteromedially with a semicircular flat area which is very shallowly emarginate; 7th ventrite (Fig. 5E) posteromedially with an ovoidal depression, the depressed area very shallowly emarginate; 8th ventrite (Fig. 5E) posteriorly with a wide V-shaped emargina-

tion; 9th tergum (Fig. 5A) elongate with ventral apophyses long, slender; 9th sternum (Fig. 5C) elongate, hardly or very weakly serrate at posterior margin, with apicolateral teeth acutely pointed; 10th tergum (Fig. 5A) entire, or with posterior margin almost straight. Aedeagal median lobe (Fig. 5B) distinctly narrowed behind the middle to form a posterior narrow lobe which becomes narrowed apically, with the apical sclerotized area elongate-triangular and acutely pointed. Endophallus with median longitudinal bands (Fig. 5B) very thin and long, attenuate before the middle; expulsion clasps (Fig. 5B) atrophied to be a pair of very small sclerites; basal tube (Fig. 5B) with basal room consisting of two thin shafts of different length, with indistinct basal constriction, tube body consisting of two parts, anterior part simple and baculiform, and posterior part tripartite into the short median tube and a pair of very thin, lateral branches. Parameres (Fig. 5B) each thick, rounded apically, with the low ventral flap at the base of apical swollen area which is furnished with 4 to 5 short setae on the ventromesial margin, and also with 4 to 5 short setae on the dorsomesial margin.

Female. Eighth ventrite pointed posteromedially; gonocoxites (Fig. 5F) each with apicolateral tooth large, pointed, and also with apicomesial tooth small. Spermatheca (Fig. 5D) with capsule very small, rounded; RT-duct moderately long, relatively thick; spermathecal duct thin, very long, with the apical mass of duct almost tightly coiled; basal valve short; basal duct sclerotized, about as long as basal valve.

Type series. Holotype (No. NSMT-I-C-200264 in NMNS): ♂, Mizugatsuka, Susono C., Shizuoka Pref., 5. xi. 2000, S. Nomura leg. Paratypes: 1 ♂ 2 ♀ (No. NSMT-I-C-200265 to 200268 in NMNS), same data as holotype; 1 ♂, Mizugatsuka, Susono C., Shizuoka Pref., 26. iv. 2010, T. Watanabe leg.; 2 ♂ 2 ♀, same locality, 7. ix. 2010, T. Watanabe leg.; 2 ♂ 1 ♀, same locality, 24. xi. 2010, T. Watanabe leg.; 3 ♂ 7 ♀, same locality, 25. iv. 2011, T. Watanabe leg.; 1 ♂, same locality, 15. v. 2011, T. Watanabe leg.; 2 ♂ 1 ♀, same locality, 27. x. 2011, T. Watanabe

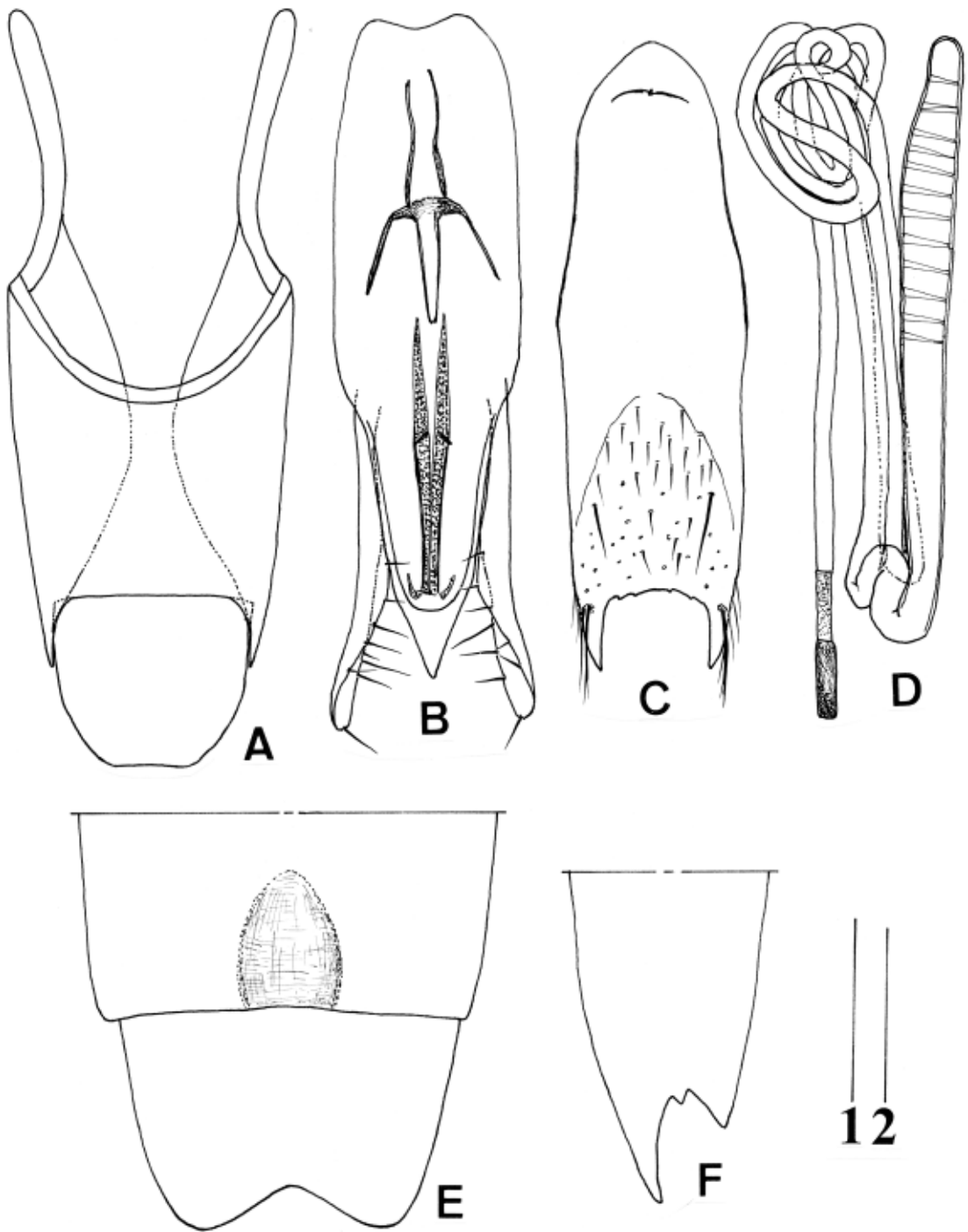


Fig. 5. *Stenus usitatus* Naomi and Nomura sp. nov. A, Ninth and 10th terna of male; B, aedeagus of ventral view; C, 9th sternum of male; D, spermatheca; E, 7th to 8th ventrites of male; F, posterior part of gonocoxite. Scale 1: 0.2 mm for A–C, and 0.1 mm for D, F; scale 2: 0.2 mm for E.

leg.; 1 ♂, same locality, 5. ix. 2012, T. Watanabe leg.; 1 ♀, same locality, 24. x. 2012, T. Watanabe leg.; 1 ♂, Susono C., Shizuoka Pref., 12. xi. 2003, I. Ohshio leg.; 1 ♂, Gotenba, Shizuoka Pref., 1. xi. 2003, I. Ohshio leg.; 1 ♂ 1 ♀, Nishiusuzuka, Fujinomiya C., Shizuoka Pref., 7. X. 2007, T. Watanabe leg.

Distribution. Japan (Honshu: Shizuoka Pref.).

Remarks. *Stenus usitatus* sp. nov. belongs to *S. cephalotes*-group (*okiensis*-subgroup). This new species is the sister species of *S. bosatsu* Naomi, 1989 because they share the similar structures of aedeagal median lobe and endophallic basal tube (which is tripartite apically; Fig. 5B), but it is distinguishable from the latter by the following characters: the 8th ventrite of male has the larger emargination (Fig. 5E); the apical sclerotized area of median lobe is elongate-triangular and acutely pointed (Fig. 5B); the parameres are longer (Fig. 5B); and the endophallic median longitudinal bands are much thinner (Fig. 5B).

Etymology. The specific epithet of this new species is derived from the Latin adjective “*usitatus*” which means “usual”; and *S. usitatus* is in fact a “common” species that inhabits natural forests around Mt. Fuji in Shizuoka Pref.

***Stenus pediculifer* sp. nov.**

[New Japanese name: Nagae-ochibamedaka-hanekakushi]

(Figs. 1E, 6A–F)

Male and female. Brachypterous species; body 3.1–3.8 mm (fore body 1.5–1.7 mm) in length, elongate, moderately shining (Fig. 1E). Head black; prothorax and elytra reddish brown; abdomen dark red; labrum, antennae and legs yellowish brown to reddish brown. Head with a pair of longitudinal depressions; punctures dense, regular, round to elliptical. Pronotum uneven, with an indistinct median longitudinal depression; punctures very dense, round, rough. Elytra weakly uneven; punctures very dense, round, somewhat rough. Legs moderately long; tarsi

with 4th tarsomeres strongly bilobed. Abdomen cylindrical, nearly parallel-sided; punctures dense, moderately large, round to elliptical on 3rd segments, small to very small, round, distinct, regular on posterior segments. Lateroven-trites and tergoventral sutures missing in 3rd to 6th segments.

Male. Sixth ventrite posteromedially with a semicircular flat area, with its posterior margin almost straight; 7th ventrite posteromedially with an elongate-elliptical depression; 8th ventrite (Fig. 6D) posteromedially with a small shallow emargination; 9th tergum (Fig. 6C) with ventral apophyses long, slender; 9th sternum (Fig. 6B) regularly serrate at posterior margin, with apicolateral teeth acutely pointed; 10th tergum (Fig. 6C) entire. Aedeagal median lobe (Fig. 6A) broad, distinctly angulate at apicolateral corners, minutely pointed apicomediaally, with apical sclerotized area short. Endophallus with median longitudinal bands (Fig. 6A) very broad and long, each covered with dot-like sculptures only on its mesial side; expulsion claps (Fig. 6A) boot-shaped, anterior plate indistinctly separated by an oblique ridge from posterior plate which has posteriorly a folded rim; basal tube small but rather complex in structure as in Fig. 6A. Parameres (Fig. 6A) very long, much extending posteriorly beyond the apex of median lobe; each with pedicel thick, and apical part well-developed, long, swollen mesially, and very acutely pointed, with 6 short setae on its mesial margin.

Female. Eighth ventrite obtusely pointed posteromedially; gonocoxites (Fig. 6F) each with apicolateral tooth large, acutely pointed, and also with two small teeth on posterior margin. Spermatheca (Fig. 6E) with capsule small, rounded; RT-duct short, a little broader than spermathecal duct; spermathecal duct short, very loosely coiled, with 5 turns; basal valve very short; basal pouch very large, strongly sclerotized.

Type series. Holotype (No. NSMT-I-C-200267 in NMNS): ♂, Mt. Takashiro, Koyadaira-son, Tokushima Pref., 27. ix. 1999. Paratypes: 1 ♂ 2 ♀ (NC) and 1 ♀ (No. NSMT-I-C-200270 in NMNS), same data as holotype.

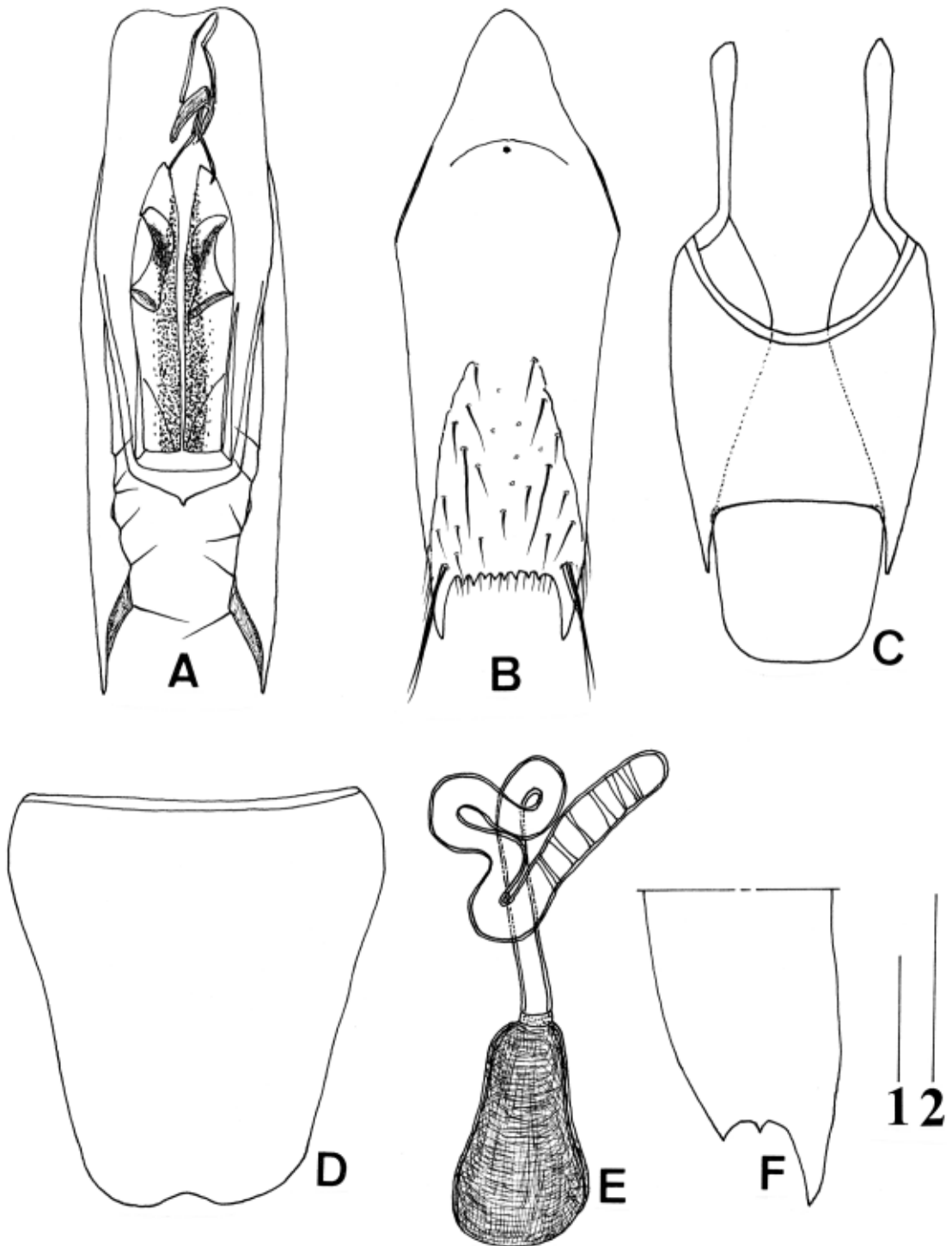


Fig. 6. *Stenus pediculifer* Naomi and Nomura sp. nov. A, aedeagus of ventral view; B, 9th sternum of male; C, 9th and 10th terga of male; D, 8th ventrite; E, spermatheca; F, posterior part of gonocoxite. Scale 1: 0.1 mm for A–B; scale 2: 0.2 mm for C–D and 0.1 mm for E–F.

Distribution. Japan (Shikoku: Tokushima Pref.).

Remarks. *Stenus pediculifer* sp. nov. belongs to *S. cephalotes*-group (*okiensis*-subgroup). This new species is the sister species of *S. amida* Naomi, 1989, because they share the similar structures of elongate-elliptical depression of male 7th venter, aedeagal parameres and endophallic basal tube, but it is distinguishable from the latter by the following characters: the apical sclerotized area of median lobe is hardly developed and short (Fig. 6A); the apex of paramere is more acutely pointed (Fig. 6A); the endophallic expulsion clasp is boot-shaped (Fig. 6A); the basal tube is complex in structure as in Fig. 6A; the spermathecal duct is longer, with 5 turns (Fig. 6E); and the spermathecal basal pouch is much larger (Fig. 6E).

Etymology. The specific epithet of this new species is the Latin adjective “*pediculifer*” which means “pedicelled” or “with a stalk”; and *S. pediculifer* has the pedicelled parameres of aedeagus.

***Stenus cinanomontis* sp. nov.**

[New Japanese name: Shinano-ochiba-medaka-hanekakushi]

(Figs. 1F, 7A–F)

Male and female. Brachypterous species; body 3.4–3.9 mm (fore body 1.6–1.7 mm) in length, elongate, moderately shining (Fig. 1F). Head black; prothorax, elytra and abdomen dark red to dark brown; labrum, antennae and legs yellowish brown to reddish brown. Head with a pair of longitudinal depressions; punctures moderately dense to dense, distinct and round. Pronotum slightly uneven, with median longitudinal depression indistinct; punctures very dense, round, somewhat rough. Elytra weakly uneven; punctures very dense, round to elliptical. Legs moderately long; tarsi with 4th tarsomeres bilobed. Abdomen cylindrical, nearly parallel-sided; punctures dense, round to elliptical, various in size on anterior segments, small to very small and regular on posterior segments. Latero-

ventrites present but highly atrophied and narrow in 3rd segment; lateroventrites and tergoventral sutures missing in 4th to 6th segments.

Male. Fourth and 5th ventrites each posteromedially with a semicircular flat area; 6th ventrite posteromedially with a semicircular shallow depression, the depressed area posteriorly with very shallow emargination; 7th ventrite modified with the similar depression as on the 6th, but the depression is a little longer and narrower; 8th ventrite (Fig. 7D) posteriorly with a large wide V-shaped emargination; 9th tergum (Fig. 7C) elongate, with ventral apophyses long, slender; 9th sternum (Fig. 7E) minutely serrate at posterior margin, with apicolateral teeth long, acutely pointed; 10th tergum (Fig. 7C) entire. Aedeagal median lobe (Fig. 7A) uniformly narrowed apically, apicomediaally with a thin and long cusp, with apical sclerotized area developed but narrow, gently rounded laterally. Endophallus with median longitudinal bands (Fig. 7A) very long, weakly divergent anteriorly; lateral longitudinal bands long, thin (Fig. 7A); expulsion clasps (Fig. 7A) separated, anterior plate demarcated by a transverse suture from posterior plate, mesially submembranous, posterior plate pointed posteriorly; basal tube (Fig. 7A) short, with basal room bulbous, tube body short, simply pointed. Parameres (Fig. 7A) very long, rounded at apex; each with straight pedicel, apical part relatively long, swollen mesially, with 11 to 12 setae of moderate length on its mesial side.

Female. Eighth ventrite obtusely pointed posteromedially; gonocoxites (Fig. 7F) each with apicolateral tooth long, acutely pointed, and also with three small teeth on posterior margin. Spermatheca (Fig. 7B) with capsule small, rounded apically; RT-duct long, almost straight, distinctly broader than spermathecal duct; spermathecal duct very long, thin and strongly coiled, but the most distal part of duct (i.e., just proximal to the RT-duct) a little broader than the proximal part of duct, a little bumpy; basal valve short, submembranous; basal pouch very large, cone-shaped, submembranous.

Type series. Holotype (No. NSMT-I-C-200271

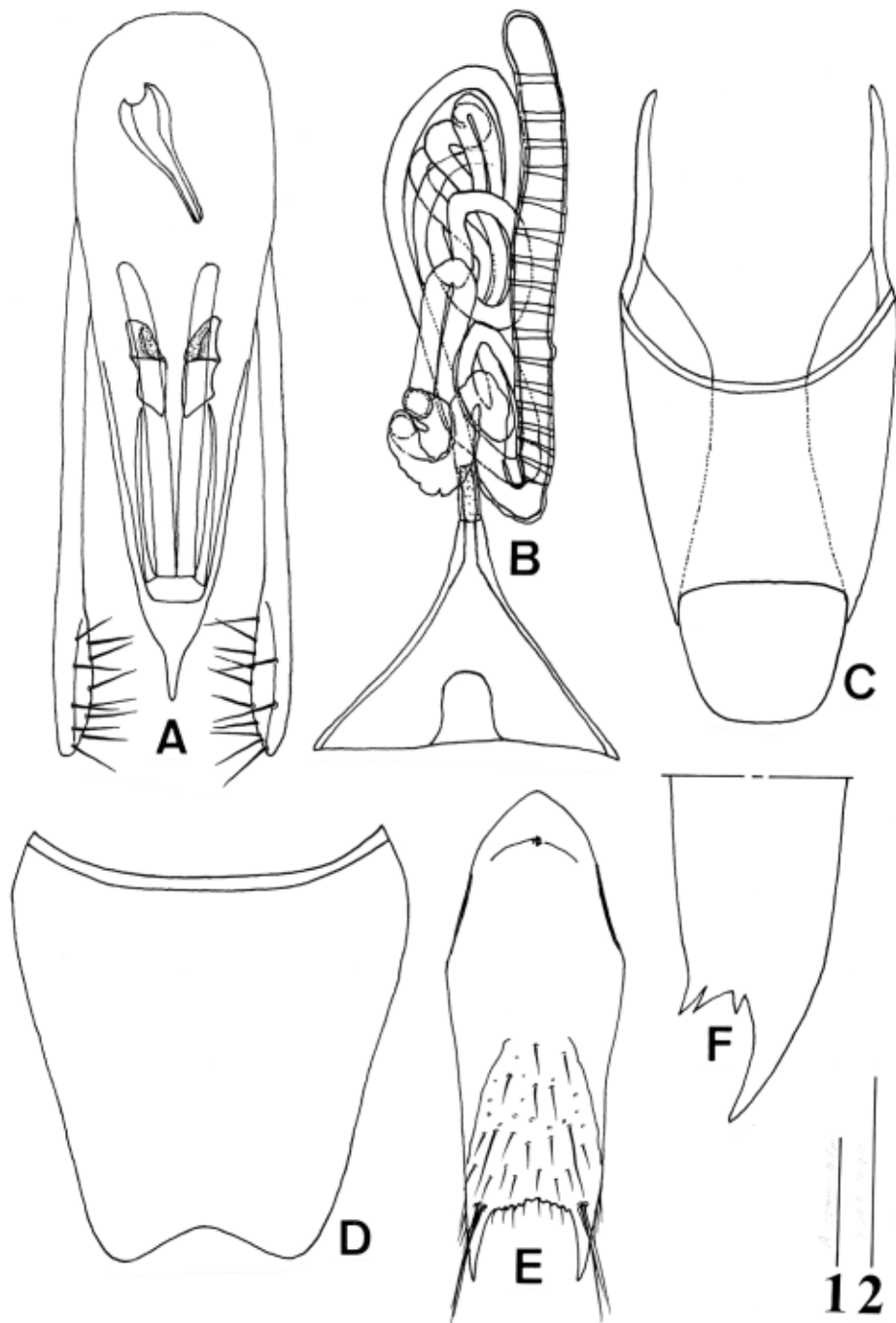


Fig. 7. *Stenus cinanomontis* Naomi and Nomura sp. nov. A, aedeagus of ventral view; B, spermatheca; C, 9th and 10th terga of male; D, 8th ventrite of male; E, 9th sternum of male; F, posterior part of gonocoxite. Scale 1: 0.1 mm for A; scale 2: 0.1 mm for B, F and 0.2 mm for C–E.

in NMNS): ♂, Hyogoe Pass, Minami-shinano, Nagano Pref., 16. xi. 1999, S. Nomura leg. Paratypes: 5 ♂ 3 ♀ (NC) and 1 ♂ 2 ♀ (Nos. NSMT-IC-200272 to 200274 in NMNS), same data as holotype.

Distribution. Japan (Honshu: Nagano Pref.).

Remarks. *Stenus cinanomontis* sp. nov. belongs to *S. cephalotes*-group (*rufescens*-subgroup). This new species is the sister species of *S. jamesashei* Naomi, 2012 because they share the similar structures of male 8th ventrite (with wide V-shaped emargination) and aedeagal median lobe (which is uniformly narrowed apically, with a thin, long cusp at apex), but it is distinguishable from the latter by the following characters: the male 6th ventrite is provided posteromedially with a semicircular shallow depression, and the depressed area is very shallowly emarginate; the apical cusp of aedeagal median lobe is longer (Fig. 7A); the posterior plate of endophallic expulsion clasp is pointed (Fig. 7A); the basal tube is much shorter (Fig. 7A); the paramere is rounded apically, and its apical swollen area is mesially without submembranous protuberance (Fig. 7A); the RT-duct of spermatheca is shorter and almost straight (Fig. 7B); and the spermathecal duct is much longer and tightly coiled (Fig. 7B).

Etymology. The specific epithet of this new species is composed of the name of type locality "Cinano" (= "Nagano") and Latin word "-montis" which means "mountainous"; and it inhabits the mountainous areas of Nagano Pref.

***Stenus incurvatus* sp. nov.**

[New Japanese name: Ayauta-ochiba-medaka-hanekakushi]

(Figs. 1G–H, 8A–G)

Male and female. Brachypterous species; body 3.3–3.5 mm (fore body 1.4–1.5 mm) in length, moderately shining (Fig. 1G). Head reddish brown but the lateral parts of vertex dark brown; pronotum, elytra and abdomen reddish brown but the apical segments of abdomen infus-

cate; labrum, antennae and legs yellowish brown to reddish brown, but the apical segments of antennae more or less infusate. Head with a pair of longitudinal depressions; punctures moderately dense to dense, distinct and round. Pronotum almost even, centrally with an indistinct shallow depression; punctures very dense, round, distinct, almost regular. Elytra very weakly uneven; punctures very dense, round, various in size. Legs moderately long; tarsi with 4th tarsomeres strongly bilobed. Abdomen cylindrical, nearly parallel-sided; punctures moderately dense, round to elliptical, relatively small on anterior segments, small to very small and regular on posterior segments. Lateroventrites and tergoventral sutures missing in 3rd to 6th segments.

Male. Fourth and 5th ventrites each posteromedially with a semicircular flat area, its posterior margin straight; 6th ventrite (Fig. 8B) posteromedially with a semicircular shallow depression, its posterior margin almost straight (Fig. 1H); 7th ventrite (Fig. 8B) with a large depression which is laterally with a longitudinal ridge, but the ridge does not extend posteriorly to the posterior margin of 7th ventrite, which is posteromedially with very shallow emargination (Fig. 1H); 8th ventrite (Fig. 8B) posteromedially with a medium-sized emargination (Fig. 1H); 9th tergum (Fig. 8A) elongate, with ventral apophyses long; 9th sternum (Fig. 8E) minutely serrate at posterior margin, with apicolateral teeth acutely pointed; 10th tergum (Fig. 8A) entire. Aedeagal median lobe (Fig. 8D) broad, bluntly angulate at apicolateral cornues, then strongly narrowed toward the pointed apex, with apical sclerotized area hardly developed. Endophallus with median longitudinal bands (Fig. 8C) short, moderately broad; expulsion clasps (Fig. 8C) each atrophied into a very small C-shaped sclerite; basal tube (Fig. 8C) simple in structure, with basal room short, tube body long, slender, attenuate and very weakly curved apically. Parameres (Fig. 8D) each weakly turned laterally at apical part, rounded at apex; apical part of paramere swollen mesially, with 8 to 9 short setae on its mesial margin.

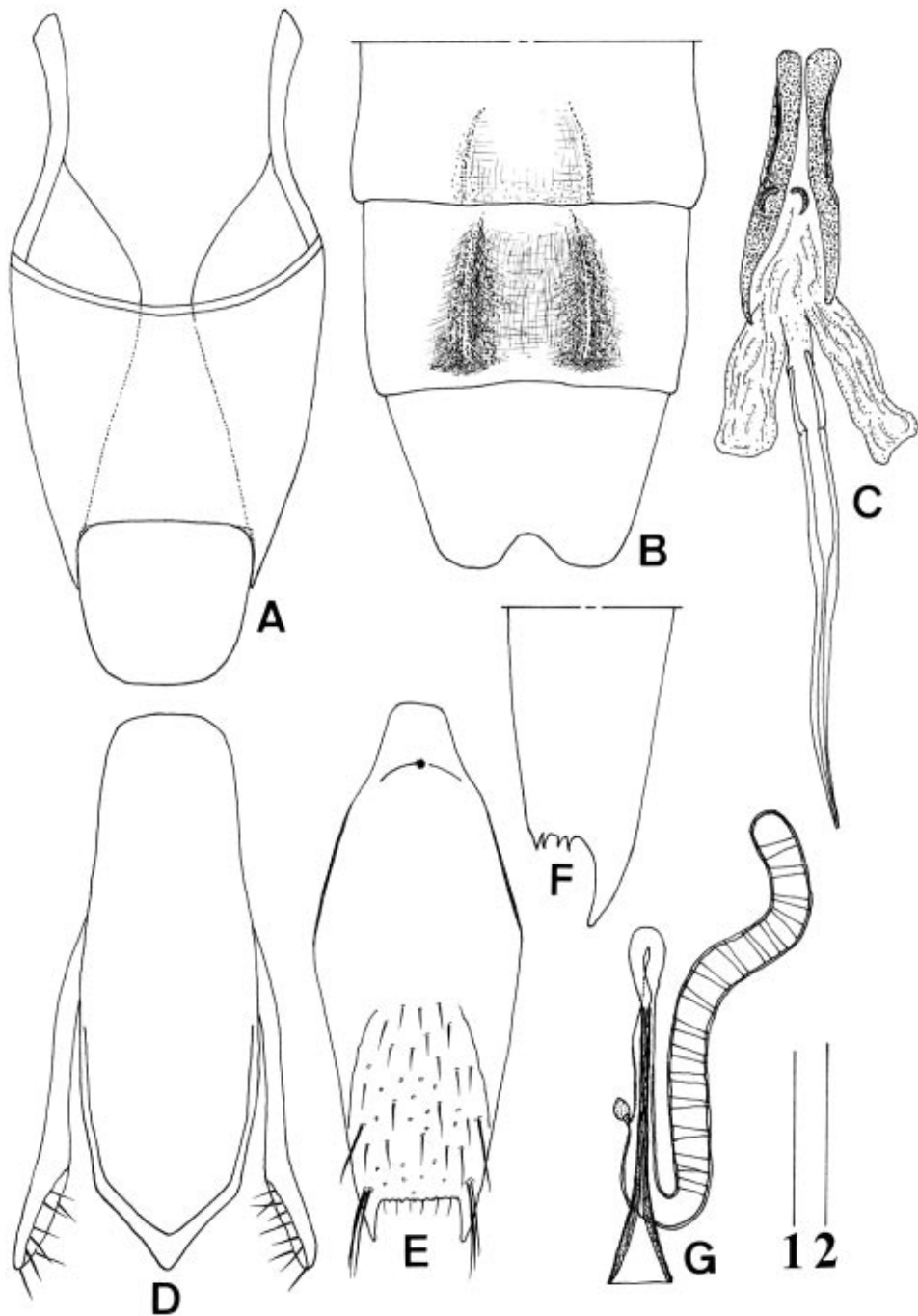


Fig. 8. *Stenus incurvatus* Naomi and Nomura sp. nov. A, Ninth and 10th terga of male; B, 6th to 8th ventrites of male; C, outthrust endophallus; D, aedeagus of ventral view; E, 9th sternum of male; F, posterior part of gonocoxite; G, spermatheca. Scale 1: 0.2 mm for A, C–E, and 0.1 mm for F–G; scale 2: 0.3 mm for B.

Female. Eighth ventrite obtusely pointed posteromedially; gonocoxites (Fig. 8F) each with apicolateral tooth large, long, acutely pointed, and also with three to four small teeth on posterior margin. Spermatheca (Fig. 8G) with capsule small, rounded apically; RT-duct long, moderately thick, incurved apically; spermathecal duct short, gradually narrowed proximally, with two turns; spermathecal gland small, located on the duct between the 1st and 2nd turns of duct; basal valve invisible; basal duct long, slender, sclerotized; basal pouch cone-shaped, sclerotized.

Type series. Holotype (No. NSMT-I-C-200275 in NMNS): ♂, Sogisho-higashi, Ayakawa-cho, Ayauta-gun, Kagawa Pref., 25. vi. 2011, M. Yoshida leg. Paratype: 1 ♀, same data as holotype.

Distribution. Japan (Shikoku: Kagawa Pref.).

Remarks. *S. incurvatus* sp. nov. belongs to *S. cephalotes*-group (*okiensis*-subgroup). This new species is the sister species of *S. amma* Naomi and Nomura, 1990, because they share the almost entirely reddish brown coloration of body and the similar structures of aedeagal median lobe and parameres, but it is distinguishable from the latter by the following characters: the male 7th ventrite is provided with a large depression which is laterally with the longitudinal ridge (Fig. 8B); the apex of aedeagal median lobe is simply pointed (Fig. 8D); and the tube body of endophallic basal tube is simple in structure (*i.e.*, long, slender, attenuate and very weakly curved apically; Fig. 8C).

Etymology. The specific epithet of this new species is derived from the Latin adjective “*incurvatus*” which means “curved inward”; and the spermathecal RT-duct is incurved apically (Fig. 8G).

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