

Descriptions of Two New Species of the Subgenus *Hypostenus* of the Genus *Stenus* Latreille (Coleoptera; Staphylinidae) from Japan*

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Abstract Two new species of the subgenus *Hypostenus* of the genus *Stenus* are described as follows: *S. productus* and *S. amagasui*, both from Mie Pref., Japan. Important morphological characters of these new species are illustrated.

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

The subgenus *Hypostenus* of the genus *Stenus* is speciose, and more than 100 species have been previously recorded from Japan. In this paper two additional new species are described from Mie Pref., central Japan. Holotypes of new species described in this paper are deposited in the Natural History Museum and Institute, Chiba.

Stenus (*Hypostenus*) *productus* Naomi sp. nov. (Figs. 1A-H)

Male and female. Body: 3.0-3.4 mm in length. Head black to dark brown, with clypeal area reddish brown; pronotum and elytra dark red to brown to reddish brown; abdomen dark brown to dark red; maxillary palpi reddish brown to reddish yellow; antennae yellowish brown to yellow, with infusate apical segments, legs yellowish brown to yellowish red.

Head with a pair of shallow longitudinal depressions convergent anteriorly, median part between depressions relatively broad, moderately convex, almost triangular in shape; surface with punctures moderately dense, round, distinct, with interstices distinctly microsculptured, moderately shining near inner margins of eyes, while punctures moderately dense, relatively shallow and somewhat umbilicate, with interstices moderately shining, distinctly or indistinctly microsculptured on median part. Pronotum strongly convex dorsally, broadest a little before middle, weakly constricted at base; surface weakly uneven, irregularly weakly depressed, with median longitudinal depression shallow, obscure in outline, but extending from anterior margin of pronotum to near posterior margin of pronotum; punctures dense, round

to oval, distinct but a little irregular, diameter of a large puncture about as broad as basal cross-section of 4th antennal segment, interstices between punctures narrow, moderately shining and distinctly microsculptured.

Elytra relatively robust, narrowed at base, well-rounded laterally, conjoint hind margins forming a distinct broad V-shaped emargination, suture weakly elevated; surface very flat or almost flat along suture, weakly uneven on lateral areas; punctures very dense, large, distinct, round, almost regular, interstices very narrow, distinct, shining, more or less microsculptured.

Legs moderately long, with femora relatively thick.

Abdomen very weakly narrowed posteriorly; 3rd segment without paratergites, anterolateral fovea relatively large, shallow, open behind, becoming gradually shallower posteriorly; paratergites of 4th to 6th segments completely atrophied; punctures on 3rd tergite relatively small to moderate in size, round to ovoidal, distinct, interstices between punctures moderately shining and microsculptured; punctures becoming gradually smaller toward posterior segments; punctures on 7th tergite fine, very sparse, regular and elongate-ovoidal to elliptical, interstices between punctures weakly shining, shallowly but distinctly microsculptured.

Male. Sixth sternite (Fig. 1C) without modification; 7th sternite (Fig. 1C) without distinct secondary sexual characters, but posteromedian area furnished with setae denser than those on lateral areas; 8th sternite (Fig. 1G) with a shallow emargination at middle of posterior part; 9th sternite (Fig. 1D) with apicolateral projections relatively short, acute, apical margin almost straight, minutely serrate. Aedeagus (Fig. 1B) with median lobe moderately robust, broadest at

* Studies on the subfamily Steninae from Japan 40.

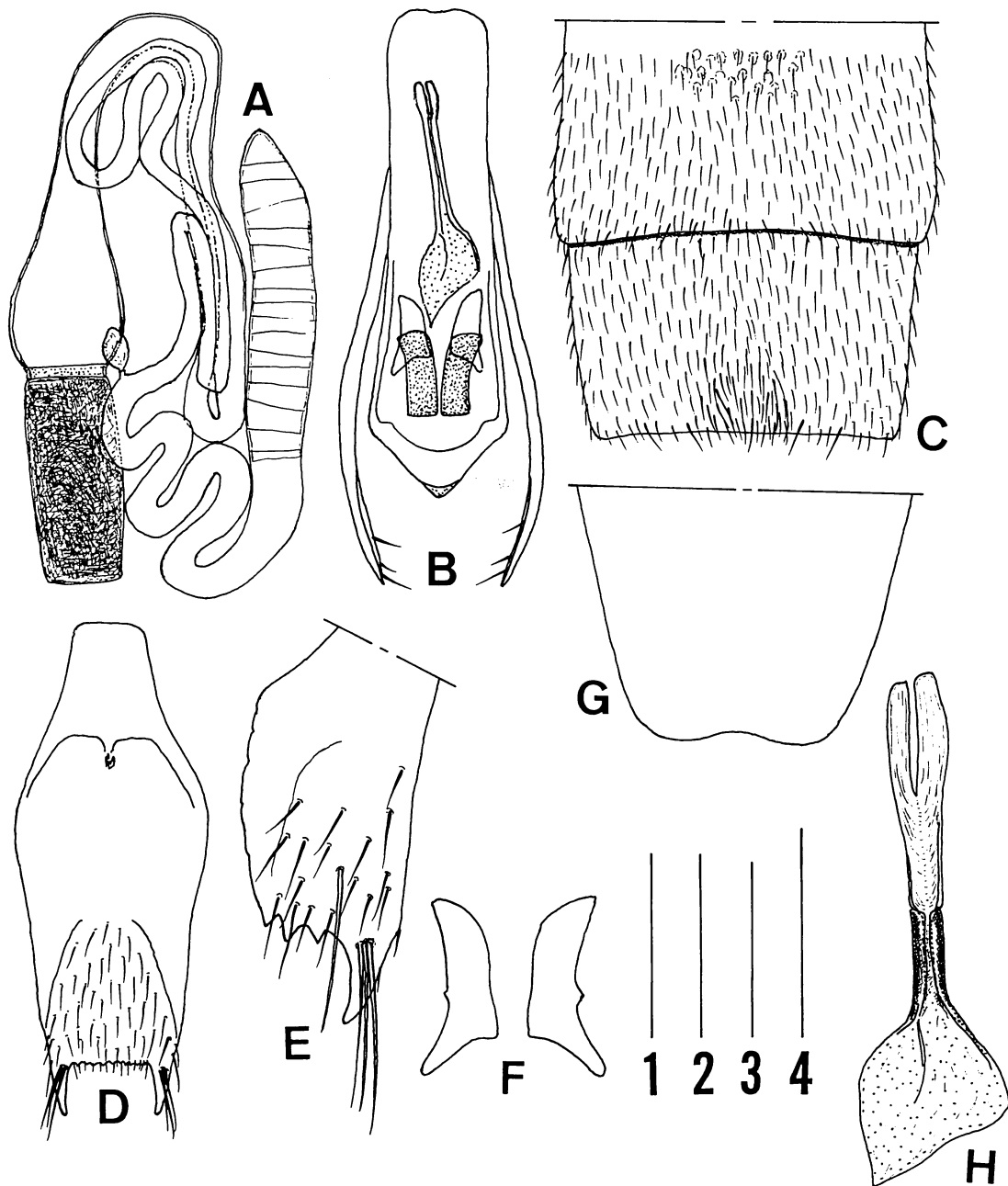


Fig. 1. *Stenus productus* sp. nov. A, Spermatheca (Watari, Mie); B, aedeagus in ventral view (Tsurugi, Mie); C, 6th and 7th sternites of male (Tsurugi, Mie Pref.); D, 9th sternite of male (Watari, Mie); E, 9th sternite of female (Watari, Mie); F, median hooks of endophallus (Tsurugi, Mie); G, 8th sternite of male (Tsurugi, Mie); H, basal tube of endophallus (Tsurugi, Mie). Scale 1: 0.1 mm for A, E, F, H; scale 2: 0.2 mm for B, D; scale 3: 0.25 mm for C; scale 4: 0.25 mm for G.

apicolateral corner which is angulate, apicolateral margin almost straight, apicomedian part narrowly rounded, sometimes subtransparent, apical sclerotized area with its inner margin broadly and moderately arcuate; median longitudinal bands very short and

broad, with anterior end subtruncate; median hooks (Fig. 1F) completely separated, each hook with posterior and anterior plates completely connate, postero-external corner well-protruded posteriorly, anterior end well angulate, a small tooth near middle of

external margin; basal tube (Fig. 1H) well spatulate; sperm sac rather elongate, longer than full length of median hook, basal constriction small but distinct; body of tube with proximal tube short, well-sclerotized, distal tube strongly expanded, obliquely truncate, and pointed at apex; parameres (Fig. 1B) extending far beyond apex of median lobe, thin and moderately curved medially before middle, apical part of paramere slender, without apico-internal corners, apico-internal part of paramere with a few short setae.

Female. Ninth sternite (Fig. 1E) with apico-external projection weakly curved inward, pointed, apico-external tuft very long, internal margin very feebly indented; spermatheca (Fig. 1A) with basal duct very large and thick, basal valve very short; spermathecal tube with basalmost part strongly swollen, broader than basal duct; RT-duct baculiform, almost straight, capsule small and pointed; spermathecal gland situated between the 5th and 6th bents when counted from the apex.

Type series. Holotype: ♂ (Type No. 122139), Kawakami, Omiya, Watarai, Mie Pref., 11. ii. 1997, F. Ichikawa leg. Paratypes, 1 ♀, same data as holotype; 2 ♀, Sazaraura, Nansei, Watarai-gun, Mie Pref., 3. iii. 1998, A. Amagasu leg.; 1 ♂ 3 ♀, same locality, 7. iii. 1998, A. Amagasu leg.; 2 ♂ 4 ♀, Kajiya Pass, Yokowa, Ise, Mie Pref., 23. ii. 1997, F. Ichikawa leg.; 1 ♂, Oshibuchi, Nansei-cho, Mie Pref., 13. iii. 1994, H. Yokozeki leg.; 1 ♂ 6 ♀, Tsurugi Pass, Ise City, Mie Pref., 31. i. 1998, A. Amagasu leg.; 1 ♂, same locality, 27. v. 2002, H. Yokozeki leg.; 2 ♂ 1 ♀, Sengyu Shrine, Nanto, Watarai, Mie Pref., 11. ii. 1997, F. Ichikawa leg.; 1 ♂, Ootokoya-ryobu, Ise City, Mie Pref., 20. xi. 2002, H. Yokozeki leg.; 1 ♂ 5 ♀, Fujisako Pass, Nanto-cho, Watarai-gun, Mie Pref., 14. iii. 1996, H. Yokozeki leg.; 1 ♀, Nanto, Mie Pref., 26. ii. 1987, A. Amagasu leg.; 3 ♂, same locality, 17. xii. 1989, A. Amagasu leg.; 2 ♂ 3 ♀, Nomi Pass, Nanto-cho, Mie Pref., 11. x. 1993, H. Yokozeki leg.; 6 ♀, same locality, 4. ii. 1996, H. Yokozeki leg.

Distribution. Honshu (Mie Pref.).

Remarks. *Stenus coiffaitiellus* Naomi et Puthz, 1993, was described from Ise City of Mie Pref. based on 3 males and 1 female. The new species is the sister species of *S. coiffaitiellus*; and the configuration of the aedeagus is very similar. However, *S. productus* is clearly separable from the latter by the following points. First, the apicolateral corner of the aedeagus is much more distinctly angulate in the new species, while it is broadly rounded in *S. coiffaitiellus*. Secondly, the basal tube of the new species is well spatulate, while it is thin and attenuate posteriorly in *S. coiffaitiellus*.

Etymology. A Latin adjective, which means "elongated" or "extended", is used for the specific epithet of the new species, because the postero-external corner of median hook is well extended postero-externally.

Stenus amagasui Naomi sp. nov.
(Figs. 2A-B)

Male and female. Body: 2.5-3.6 mm in length. Head black to dark red, with clypeus reddish brown; pronotum and elytra dark red to reddish brown or light reddish brown; abdomen dark red, becoming darker in color toward posterior segments; maxillary palpi yellowish brown; antennae yellowish brown, with apical segments more or less infuscate; legs reddish brown to yellowish brown.

Head with a pair of depressions longitudinal, shallow and relatively broad, median part between depressions broad, moderately convex, almost triangular in shape; surface with punctures moderately dense, round, distinct, with interstices distinctly microsculptured and shining near inner margins of eyes, while punctures round, moderately dense and relatively shallow, with interstices distinctly microsculptured and shining on median part. Pronotum strongly convex dorsally, broadest a little before middle; surface more or less uneven, irregularly depressed especially before middle, median longitudinal depression rather short, almost distinct but varying in depth; punctures very dense to dense, distinct, round but varying in size, interstices between punctures narrow, moderately shining, very distinctly microsculptured.

Elytra robust, weakly narrowed at base, well-rounded laterally, conjoint hind margins forming a very shallow V-shaped emargination, suture weakly elevated; surface almost flat along suture, weakly uneven on lateral areas; punctures very dense, large, round and distinct, interstices very narrow, shining but microsculptured.

Legs moderately long, with femora relatively thick.

Abdomen weakly narrowed posteriorly; 3rd segment without paratergites, anterolateral fovea relatively small, almost triangular, shallow, open behind; paratergites of 4th to 6th segments completely atrophied; punctures on 3rd tergite distinct, round but varying in size, interstices between punctures shining, indistinctly microsculptured; punctures becoming gradually smaller and shallower toward posterior segments; punctures on 7th tergite fine, sparse, regular, interstices between punctures shining, with microsculptures running transversely or obliquely.

Male. Seventh sternite with shallow depression on

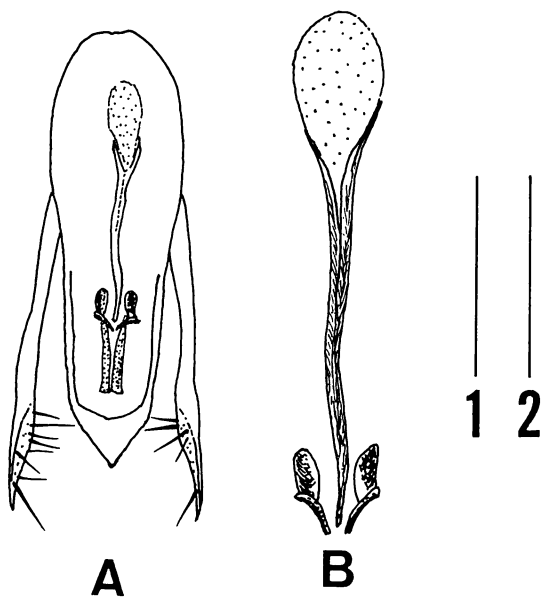


Fig. 2. *Stenus amagasui* sp. nov. (Ohuchiyama, Mie). A, Aedeagus in ventral view; B, median hooks and basal tube of endophallus. Scale 1: 0.2 mm for A; scale 2: 0.1 mm for B.

middle of posterior part, its posterior margin weakly arcuate, surface on depression furnished with denser setae than on remainder of 7th sternite; 8th sternite with a relatively broad and shallow V-shaped emargination at the middle of posterior margin; 9th sternite with apicolateral projections short but acute, apical margin straight, minutely serrate. Aedeagus (Fig. 2A) small, with median lobe moderately bulbous at base, moderately constricted near middle, gradually weakly narrowed apically, apical sclerotized area large, sometimes extending anteriorly a little beyond apicolateral corners, almost acutely pointed at apex, with inner margin gently arcuate; median longitudinal bands narrow, short, extending anteriorly to median hooks; median hooks (Fig. 2B) distinctly separated, small, with posterior plates each thin, anterior plates larger than posterior plates, round or almost triangular in shape; basal tube (Fig. 2B) thin, weakly sinuate, sperm sac elongate-ovoidal, weakly sclerotized, submembranous, without distinct basal constriction; parameres (Fig. 2A) slender, sometimes weakly sinuate, apical part of each paramere with weakly developed apico-internal corner, apico-internal area furnished with 5 to 8 short straight setae, apex of paramere very acute.

Female. Eighth sternite entire at posterior part; 9th sternite with apico-external projection strongly pointed.

Type series. Holotype: ♂ (Type No. 122978), Ohuchiyama-mura, Watarai-gun, Mie Pref., 11. iv. 1996, H. Ichihashi leg.; 4 ♀, same locality, 4. xi. 1996, H. Ichihashi leg.; 1 ♂ 1 ♀, Fujikawa, Ohmiya-cho, Watarai-gun, Mie Pref., 14. iii. 1996, H. Yokozeki leg.; 1 ♂, Nako, Kisei-cho, Watarai-gun, 18. xii. 1998, A. Amagasu leg.; 1 ♂, same locality, 18. xii. 1998, H. Ichihashi leg.; 4 ♂ 10 ♀, Nishiki, Kisei-cho, Watari, Mie Pref., 1. ii. 1997, F. Ichikawa leg.; 4 ♂ 9 ♀, Nishiki, Kisei-cho, Watari, Mie Pref., 1. ii. 1997, A. Amagasu leg.; 3 ♂ 2 ♀, Mt. Minamimata, Ohuchiyama, Mie Pref., 4. xi. 1996, K. Kanno leg.

Distribution. Honshu (Mie Pref.).

Remarks. *Stenus amagasui* sp. nov. is related to *S. cephalotes* Sharp, 1889. The shape of median lobe and the structure of apical sclerotized area of median lobe are similar in these two species. *Stenus amagasui* may be separated from the latter by the more strongly pointed apex of median lobe, the narrower median longitudinal bands of endophallus, the much thinner and smaller posterior plate of median hook, the thinner basal tube of endophallus, and by the much strongly pointed apices of parameres.

Etymology. Patronymic. The species is named in honour of Mr. A. Amagasu (Mie Pref.).

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The coleopterologists cited in the type-series have done extensive surveys on the *Stenus*-fauna of Mie Prefecture since 1980th, resulting in the discovery of as many as 20 new species. I sincerely thank Mr. A. Amagasu, Mr. H. Ichihashi, Mr. F. Ichikawa and Mr. H. Yokozeki of Mie Prefecture for their significant contribution to the clarification of the *Stenus*-fauna of the southeastern part of Kinki district.

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日本産メダカハネカクシ属 (甲虫目,
ハネカクシ科) の 2 新種の記載

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日本産メダカハネカクシ属 (*Hypostenus* 亜属) に属する 2 新種, *S. productus* sp. nov. (三重県), および *S. amagasui* sp. nov. (三重県) を記載した. *S. productus* はやはり三重県から発見・記載された *S. coiffaitiellus* に近縁な種であるが, 雄交尾器中央片の後方側縁部が明瞭に角張り, 雄交尾器の内袋の基部管の後方が著しくしゃもじ状に広がり, 雄交尾器側片がより長く, 後方において内側に緩やかに湾曲するという特徴で, 容易に区別できる. *S. amagasui* は, 雄交尾器, 特に中央片の先端硬化部の形状が良く似ていることなどから, 九州北部から記載された *S. cephalotes* に近い種であると考えられる. しかし, *S. amagasui* は後者より, 雄交尾器がやや幅広く, 雄交尾器中央片の先端部がより鋭く尖り, 内袋の中央縦バンドおよび中央ホックが著しく小さく, 内袋の基部管がより細く, 若干湾曲するなどの点で異なる.