Stenaptinus (Coleoptera: Carabidae: Brachininae) of Vietnam. Note 3

Stenaptinus (Coleoptera: Carabidae: Brachininae) Вьетнама. Сообщение 3

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ABSTRACT. The tripustulatus species group of the genus Stenaptinus Maindron, 1906 is briefly reviewed. It is represented by the only oligotypic species, S. occipitalis (Macleay, 1825), in Vietnam. Stenaptinus siamensis (Chaudoir, 1876), syn.n., and S. nebulosus (Chaudoir, 1876) (=formosanus (Dupuis, 1912)), syn.n., are only recognized to be similar colour morphs, and S. obiensis (Hrdlička, 2015) and S. talaudensis (Hrdlička, 2015) are supposed to be another colour morph of S. occipitalis. Stenaptinus o. jessoensis (A. Morawitz, 1862), stat.n., S. o. indicus (Venugopal et Thomas, 2019), stat.n., and probably also S. o. nigerrimus Jelíčka, 1935 (?) = S. talaobanensis Lassalle et Schnell, 2019, are the other subspecies. Stenaptinus occipitalis and S. catoirei (Dejean, 1825) are supposed to be a superspecies combined, and S. catoirei, S. sobrinus (Dejean, 1826) and S. chaudoiri (Arrow, 1901) are treated as conspecific taxa, as they have the internal sacs of aedeagi very similar to each other and hardly different from that of S. occipitalis. Relations between S. o. occipitalis, S. o. indicus and S. catoirei sensu lato are discussed. Other synonyms established are S. hilaris (Fabricius, 1798) = S. devagiriensis (Venugopal et Thomas, 2019), syn.n., and S. catoirei (Dejean, 1825) = S. malaisei (Landin, 1955), syn.n.

Introduction

In this paper we review the tripustulatus species group of the genus Stenaptinus Maindron, 1906 (Brachinini, Brachininae, Carabidae) from the Oriental region, chiefly Vietnam. It is widespread in the Palearctic realm up to Australia, being especially species-rich and probably originates in the Afrotropical region. Out of ca. 20 Oriental species of this group, 15 were listed by Andrewes [1930] and most of the other six have been contributed to the group just recently [Jedlička, 1935; Hrdlička, 1935; Lassalle, Schnell, 2019; Venugopal, Thomas, 2019]. All of them were described based on particular colour patterns, sometimes combined with slight differences in body proportions, i.e., longer or shorter pronotum and/or elytra. These species otherwise are very similar in many characters, including male and female genitalia, while vary greatly, both individually and geographically, in body pattern, including particulars of the head, pronotum and elytra. This suggests that some species names currently recognized as valid may have come from this variation, thus...
being subspecific or infrasubspecific only. Their relations are briefly discussed below.

Acronyms used are as follows: MNHN — Museum National d’Histoire Naturelle, Paris; MPSU — the Moscow Pedagogical State University; SIEE — the author’s reference collection at A.N. Severtsov Institute of Ecology & Evolution, Russian Academy of Sciences, Moscow; ZISP — Zoological Institute, Russian Academy of Sciences, St. Petersburg; ZMMU — Zoological Museum of the Moscow State University; ZSM — Siberian Zoological Museum, Novosibirsk.

The following parameters and ratios (Table 2) were analyzed: maximum body length measured between apices of closed mandibles and sutureal angle of elytra (BL); length of elytron, measured from the highest point of basal margin to sutural angle (EL); maximum width of elytra (EW); width of head across eyes (HW); width of pronotum between apical (PA) or basal (PB) angles; length of pronotum along median line (PL); distance between pronotal apex and level of maximum width of pronotum, measured along mid-line (PLw); maximum width of pronotum (PW). The measurements were taken using an eyepiece micrometer, to two decimal places. The means are given in round brackets for the ratios. All labels are printed unless otherwise specified in square brackets. Data on labels of type specimens are in quotes; slash shows new line.

Male aedeagi were examined dried or with internal sac everted and maximally inflated with air and then air-dried; female genitalia were examined either dried or placed in glycerin, after being boiled for two minutes or dried; female genitalia were examined either dried or with internal sac everted and maximally inflated with air and then air-dried; female genitalia were examined either dried or placed in glycerin, after being boiled for two minutes or put for a day in a diluted KOH solution and then rinsed.

Results

Stenaptinus Maindron, 1906

The tripustulatus species group.

DIAGNOSIS. Body macropterous to apterous, variegated (Figs 1–19), often with forebody pale, sometimes entirely black or almost so. Head without or with a black patch. Elytral transverse median band mostly wide and moderately dentate at ridge 4 or 5, or 4-to-5, anteriorly and posteriorly, often elavate toward suture or in form of a large spot. Pronotum with rather sparse yet distinct coarse punctures toward apex and often also along both sides and base. Prosternum and often also propleura distinctly and more or less densely pilose in apical half in addition to several stronger setae between procoxae. Elytra subparallel-sided to much broader apically than basally, with humeri either distinct or missing, respectively. In female, tergite VII with 17–38 and sternite VIII sometimes seven, long setae; interval 5 with a long seta at apex; interval 8 with about ten strong yet rather short setae; sternite VIII with multiple pores bearing short setae; these arranged in an uneven row and almost reaching apex; interval 2 with 5–6, sometimes seven, long setae; interval 5 with a long seta at base.

Proferm in dorsal view more or less distinctly tumid in male.

Sternite VII bisetose to quadrisetose in both sexes.

Median lobe of aedeagus (Figs 20–39): internal sac membranous and very gentle, more so apically, consisting of a large dorsal basal bulb and an oblong body which directly extends into an apical bulb while abruptly curved ventrad at acute to obtuse angle just before. Basal bulb rarely subdivided into two short and rounded bulbs that project dorsal and lateral; apical bulb more or less developed, tapered, slightly dorsoventrally flattened toward tip, apically truncate and indistinctly bifid in dorsal view.

GEOGRAPHIC DISTRIBUTION. Throughout the Paleotropical realm east to the Australian region, and adjacent parts of the southern Palearctic subregion from Spain to Japan.

HABITATS AND HABITS. Most species of this group are rather common. In open habitats at ca. 10–650 m altitudes and less frequent in mountains up to 1,800 m elevation. Adults of *S. occipitalis* (Macleay, 1825) are carnivorous polyphages [Habu, 1967] of diurnal activity in at least laboratory experiments [Frank et al., 2009], but many specimens collected in nature have been taken at night. Larvae of *S. jessoensis* (A. Morawitz, 1852) specialize in feeding on eggs of mole crickets (Orthoptera, Gryllotalpidae), such as *Gryllotalpa* Lateaill, 1802 while survive on eggs of *Neocurtilla* Kirby, 1906 and *Scapteriscus Scudder*, 1868 under laboratory conditions [Frank et al., 2009].

COMMENTS. It follows from a comparative morphological analysis across the group that the Oriental region east of India is largely populated by the only polytypic species, *S. occipitalis*. Andrews [1919, 1930] considered it to range from India and Sri Lanka to the Andamans, Myanmar, the Malay Peninsula and the Sunda Isles. He also reported this species from Hong Kong and Taiwan, while noting [Andrews, 1931] no specimen seen from northwestern India or Indochina. Except for Hong Kong and Taiwan, this pattern largely coincides with distribution pattern of the nominotypical subspecies. In its most populations from northwestern Thailand to Sumatra, those colour morphs dominate that are defined by the elytral pale pattern consisting of rather a wide median band, narrow lateral margin, and very narrow to indistinct apical margin, with only apices of elytral costae pale. Black pronotal pattern includes lateral beads (following
black notopleura), base, apex, and a subtriangular median stripe in between, this latter being wide, much more so apically than basally, with its sides more or less distinctly angulate at or just before the middle. The black patch on the head is well-developed, generally consisting of a large posterior spot extending into a narrower anterior spot that covers...
the clypeus and anterior half of the frons (Figs 1, 9). Variants mostly include pale lateral margins of the elytra, which are absent from basal half, and/or the entirely black pronotum, except for a minute, oblong, usually double, pale sublateral spot. The anterior capital spots is not seldom absent or separated from the posterior spot, the latter ranging considerably in size, from slender, only touching the pronotal apex just medi ally, to occupying the entire neck.

In many adults from Java and the island of Bali, the body tends to be nearly black, with pale colour undeveloped on the head, absent from the pronotum or almost so, and reduced to a small elytral humeral spot and to a very narrow, sometimes vague, median transverse band separated from the head, absent from the pronotum or almost so, and reduced in size, from slender, only touching the pronotal apex.

Specimens from Sumatra and, especially, Java are not or hardly different from Indian ones of which many (Fig. 8) have the pale median band larger (longer) and separate from lateral margin of the elytron, the posterior capital spot wider and often slightly concave (vs. truncate or slightly convex) at anterior margin, and the pronotum mostly black. These specimens belong to S. indicus (Venugopal et Thomas, 2019), described just recently based on its differences from S. occipitalis sensu Venugopal et Thomas, 2019. This latter is certain to be different from S. occipitalis because Figure 2E in Venugopal et Thomas [2019] shows a specimen of S. jessoensis from China, misidentified by the authors as a ‘verified specimen of S. occipitalis’. This confusion also obscures all the records of ‘S. occipitalis’ in Tamil Nadu and Kerala, southern India, listed in that paper.

On the other hand, S. indicus has the internal sac of aedeagus reduced much in size except at the base. This peculiarity makes differences between S. indicus and S. occipitalis (compare Figs 27–28 with Figs 20–25, 29–32) more prominent than those between S. occipitalis and S. catoirei (Dejean, 1825), which points rather to separate species or subspecies status of S. indicus and S. occipitalis. The latter alternative is more likely because the internal sac with an underdeveloped body as an occasional variation has also been observed in specimens of S. o. occipitalis from northern Thailand.

An opposite evolutionary trend brought most adults from Indochina into being distinctly paler in colour than those discussed above. As a result, the specimens from Thailand (except in the north), Laos, Cambodia and Vietnam have the head generally pale but an oblong black spot between the eyes; pronotal lateral spots are large and reach the lateral edges; and black elytral pattern is isolated, consisting of two transverse bands, anterior and posterior, which are narrowly connected along the suture. This paler form was described under the names S. siamensis (Chaudroi, 1876) and S. nebulosus (Chaudroi, 1876) of which the latter additionally had the pronotum black along the base and along the apex only. This pale form prevails throughout the region discussed, with melanistic specimens being less frequent there while common in Taiwan and in the southernmost Japan. These specimens were assigned [Dupuis, 1913, 1914] to S. fascicollis var. formosanus (Dupuis, 1912) as distinct among the others in having pale pattern consisting of a minute sublateral spot on the pronotum and a small median spot, along with a normally developed humeral spot, on the elytron.

Stenaptinus jessoensis is here recognized as hardly more than a northeastern subspecies of S. occipitalis. It is rather well-defined morphologically, with body pattern less varying than in the nominotypical subspecies. Stenaptinus o. jessoensis and S. o. occipitalis, especially its forma siamensis, are otherwise very similar in most characters, including male genitalia (Figs 20–25), so that black capital patch of particular shape only allows diagnosing their some specimens; vicariant distribution patterns of the two subspecies serve for the purpose, too.

The other Oriental species are Indian in distribution, some of them ranging east to Myanmar. Among species with distinct elytral humeri and a contrasting bicoloured head, S. bimaculatus (Linneaus, 1771) and S. tripustulatus (Fabricius, 1792), are confined to southern India. Very distinctive internal sac of aedeagus (Figs 26, 33) and a peculiar body pattern, the latter due to the presence of a very large elytral pale spot (Fig. 14), justify species status of S. bimaculatus, but S. tripustulatus still remains enigmatic. It is similar to S. bimaculatus in many points except that the elytral median band is narrower, clavate toward the suture, with lateral margin pale (vs. black in the examined specimens of S. bimaculatus), which is more characteristic of S. o. occipitalis. Having no specimens other than two digital images, including that of the holotype (J. Banks Collection, British Museum of Natural History, London: flickr.com/photos/nhm_beetle/id/29775838283), of S. tripustulatus seen, I failed to deduce whether S. tripustulatus is separate species or a colour morph of S. bimaculatus, or a local colour morph of S. occipitalis which lacks the anterior black spot on the head. The latter choice is more likely because S. tripustulatus and specimens of S. o. occipitalis from northern Thailand are very similar not only in body pattern, but also in fairly short elytra (see below). On the other hand, Andrewes [1921, 1924], [1924b,c] doubted Siamese origin of S. tripustulatus by appealing to his experience of seeing no specimens of this species from regions beyond southern and Central India.

The following species of the group are distinctive in having the head and the pronotum constantly pale, yellow to deep red, with pronotal base and apex more or less infuscated in some of them (Figs 15–19). These are: S. catoirei, S. sobrinus (Dejean, 1826), including S. hilaris auct. (non Fabricius, 1798), S. chaudoiri Arrow, 1901, and S. malaisei (Landin, 1955). Their distinctive features only include details of the elytral pale pattern, such as the combination of distinct humeral spot and wide apical margin in the first species; minute or absent humeral spot, combined with pronotal base and/or apex either infuscated (S. hilaris auct.) or not, in the second; and rather a narrow apical margin, coupled with more or less widely brown lateral margins of the pronotum, in S. chaudoiri. All these differences seem to be slight, and trans-
tional patterns do exist. For instance I have failed to discriminate between seven specimens of S. catoirei and S. chaudoiri from Nepal, including the holotype of the latter (Fig. 1F in Venugopal and Thomas [2019]). These have the elytral transverse median band more or less wide, reaching lateral margin or not, and pronotal pattern varying between those characteristic of either S. catoirei or S. chaudoiri. Besides, one female specimen (Fig. 17) has the pronotum not only distinctly brownish along sides towards the base, but also widely brownish along the base except at middle, as is characteristic of S. hilaris auct. Aedeagi, including internal sacs, are hardly if at all different from one another in all specimens determinable as either S. catoirei or S. sobrinus, or S. hilaris auct., or S. chaudoiri (Figs 31–32, 35). This makes me only consider all the names conspecific, probably particular colour morphs. Stenaptinus malaisei is most likely to be the same, since all features indicated in the original description are within variation range of S. o. catoirei s. lato, even though Landin [1955] stressed species status of his species.

Stenaptinus catoirei is not unlikely to be conspecific with S. africanaus (Dejean, 1825) and/or S. arabicus Arrow, 1901, which are known to range combined in North Africa to Iran, thus having distribution pattern vicariant to that of S. catoirei s. lato. They are only distinguished from ‘S. sobrinus’ or S. hilaris auct., respectively, by pale lateral margin generally absent from the elytra, and from S. catoirei s.str. by having no elytral humeral spot. But the body pattern has been found [Britton, 1948; Felix, 2009; Felix et al., 2012] to vary considerably between local populations of these species, examined from Morocco to India. For the reason, Bedel [1914] noted similarity between S. africanaus and S. desbordesi, Britton [1948] recognized S. africanaus and S. arabicus as conspecific, and Lorenz [2005] listed S. arabicus and S. persicus as synonymous with S. africanaus.

Another species, S. lineifrons (Chaudoir, 1850) was described based on more than one specimen, which follows from the variation range 7–7.5 lines indicated for BL in the original description. Accordingly the specimen termed ‘holotype’ [Venugopal, Thomas, 2019: Fig. 1 1] should be referred to as a syntype. This species is somewhat intermediate between those of S. o. occipitalis and S. o. catoirei in body pattern, while being much closer to the latter. The pronotum is coloured same as that of S. catoirei, but the head and the elytra are similar to those of S. o. occipitalis, except only that the forebody is pale coloured but dark anterior spot on the head. Greater similarity between S. lineifrons and S. o. occipitalis may suggest their synonymy (yet, formal synonymy is not proposed here, since no male specimen of S. lineifrons has been dissected).

Another probable member of the group, S. assamensis (Chaudoir, 1876), is distinctive in the combination of distinct elytral humeri, pronotal pattern much like that of S. hilaris, and ‘Siam’ indicated as the type locality. Without seeing the type, Arrow [1901] synonymized S. assamensis with the West African species S. palmarum (Chaudoir, 1876), even though Chaudoir [1876] had mentioned in the descriptions,
as well as in the key, that S. assamensis had, while S. palmarum had no, black spot on the head. The fact that these character states graduate into one another in no species of the group except S. hilaris, combined with unproved falsity of 'Siam' as the type locality of S. assamensis, may suggests this synonymy being wrong. If true, the elytron with a strongly dentate median fascia only discriminates S. assamensis from S. o. occipitalis forma siamensis.

The remaining species have no elytral humeri and supposedly also wings, which peculiarity may explain their limited distribution patterns. These appears to be S. infantulus Bates, 1892 and S. nanodes Bates, 1892, the latter of which seems to be closer to S. o. jessoenesis. Another species, S. hilaris (Fabricius, 1798) = S. discicollis (Dejean, 1825) = S. affinis (Dejean, 1825) has recently been demonstrated [Venugopal, Thomas, 2019] to be not conspecific with S. sobrinus (= hilaris auct.). It is hardly different from S. devagiriensis (Venugopal et Thomas, 2019) in virtually all characters, including body shape, proportions and pattern, notably prontal one, and at least two of totally six diagnostic features mentioned in the description of the latter species, the entirely yellow head and the laterally black pronotum, are inconsistent with what is indeed observed. In particular, the elytra are examined, or both.

Relations between of S. catoirei s. lato, S. o. occipitalis and S. o. indicus are interesting yet not quite clear. The range of the former and the range of the latter two combined widely overlap in India except Tamil Nadu (Venugopal and Thomas, 2019), which seems to be closer to S. assamensis S. affinis (Venugopal et Thomas, 2019) being restricted accordingly.

MATERIAL. Holotype of Pheropsophus siamensis (MNHN, digital images), with two handwritten labels: 'Ex Musaeo/ Chaudoir'. Additional material includes 89 specimens: (SIEE), Thai- land, Pang Ng a Prov., Phang Nga Bay, Ko Yao Noi Is., 27.VI.-7.VII.2017 (D. Khaydarov & I. Malykh); (SIEE), Chiang Rai Prov., env. Mae Suai, 19°39´16´N/ 99°32´54´E, h=250 m, 19–24.V.2012, 7–12.VIII.2013 (A.V. Korshunov); (SIEE), Sa Kaeo Prov., Ta Phraya Distr., La Lu Natn. Park, 14º02´2´N, 102º34´5.6´E, h=130 m, at light, 24.V.2010 (V.K. Zinchenko); 36 spms. (ZSM), Prov. Nong Bun Nak, marginal deciduous forest, h=200 m, 14º41´25´N, 102º26´E, 24–30.VII.2012, 7–12.VIII.2013 (A.V. Korshunov); 7 spms. (ZSM), Prov. Nakhon Ratchasima (Korat), Saeng Sang, Lam Sae Dam, Natn. Park Tha Plan, h=250 m, 14º14´60´N/ 102°25´28.5´E, 7–8.VI.2010, 24–30.VII.2012, 7–12.VIII.2013 (A.V. Korshunov); 7 spms. (ZSM), Prov. Nong Bun Nak, marginal deciduous forest, h=200 m, 11º41´25´N, 102°27´45.7´E, 19–24.V.2010 and 26–31.X.2011 (A.V. Kor- shunov); (SIEE), same locality, h=240 m, 14º14´33´N, 102°27´3.6´E, 24.V.2010 (V.K. Zinchenko); (SIEE), Sa Kaeo Prov., Ta Phraya Distr., La Lu Natn. Park, 14º02´2´N, 102°34´5.6´E, h=130 m, at light, 16.V.2010 (V.K. Zinchenko); (SIEE), Laos, Prov. Vientiane, env. Van Vieng, 18º55´12´N/ 102°26´E, h=230 m, at light, 7–9.XI.2015 (I. Melnik); 4ºCÔ, 2ºCÔ, 5ºCÔ (SIEE), Cambodia, Kratie Prov., 7 km S of Kratie, Mekong River, Prey Reay vil., 5–6.XI.2013
examine in 20 males and three females. 

| Species | locality | n | number of apical setae |
|---------|----------|---|------------------------|
| o. occipitalis: Vietnam, Cambodia, Thailand | Sumatra | 9 | 17–22 |
| indicus: | India | 3 | 20–23 |
| N-Thailand (Mae Hong Son) | 6 | 21–30 |
| catoirei: | Nepal | 3 | 24–37 |
| | India (Rajasthan) | 2 | 28 |
| | Pakistan | 1 | 29 |
| o. jessoensis: China | 2 | 28–30 |
| NE-Vietnam | 2 | ~35 |

Elytra subrectangular, with rounded yet distinct humeri, not or barely broader apically than basally.

Abdomen: Tergite VII in female with rather sparse apical setae, 28–35 in number (Table 1).

Aedeagus (Figs 20–23, 29–30, 36, 38–39): internal sac with the body well-developed, dorsal bulb large, projecting both laterad and dorsad, not or indistinctly subdivided into two large and rounded lateral bulbs so that basal margin in dorso-apical view is straight or almost so; apical bulb at a slightly acute angle with the body.

GEOGRAPHIC DISTRIBUTION. Indochina (except for northeastern Vietnam), Taiwan, southern Japan (Ryukius), Malay Peninsula, Sunda Isles (Sumatra, Java, Bali; no records in Borneo).

COMMENTS. Pale specimens (forma siamensis and forma nebulosus) are much more frequent than darker coloured ones in most populations of the species from Indochina, except in the northernmost and probably also westernmost parts of the Peninsula. Differences between them are too slight and inconstant and thence insufficient to maintain species or subspecies status for both.

[1b. Stenaptinus occipitalis indicus (Venugopal et Thomas, 2019), stat.n.]

Figs 8, 27–28, 34.
Figs 20–33. Median lobe of aedeagus with everted and inflated internal sac: 20–23, 29–30 — Stenaptinus o. occipitalis; 24–25 — S. o. jessoensis; 26, 33 — S. bimaculatus; 27–28 — S. o. indicus; 31–32 — S. catoirei; 20, 22, 24, 26, 27, 29, 31 — left aspect; 21, 23, 25, 28, 30, 32–33 — ventro-apical aspect; ab — apical bulb; bb — basal bulb; bd — body of internal sac; gp — gonopore; vc — ventral convexity. Scale bars: 1 mm.

Рис. 20–33. Средняя доля эдеагуса с вывернутым и надутым внутренним мешком: 20–23, 29–30 — Stenaptinus o. occipitalis; 24–25 — S. o. jessoensis; 26, 33 — S. bimaculatus; 27–28 — S. o. indicus; 31–32 — S. catoirei; 20, 22, 24, 26, 27, 29, 31 — слева; 21, 23, 25, 28, 30, 32–33 — вентро-апикально; ab — апикальный пузырь; bb — базальный пузырь; bd — тело внутреннего мешка; gp — гонопор; vc — вентральная выпуклость. Масштаб: 1 мм.
erately wide to occupying entire neck; anterior spot large, extended onto labrum, to small, only touching posterior spot and clypeus. Pronotal pale spots mostly very small and double, sometimes divided into two minute spots, or large yet separated from lateral margin.

Abdomen: Tergite VII in female with 20–23 apical setae (Table 1).

Aedeagus (Figs 27–28, 34) as for S. o. occipitalis except that the body of the internal sac is reduced much in size, with apical bulb being at obtuse angle with the body.

GEOGRAPHIC DISTRIBUTION. India and probably Sri Lanka; ?Andaman Islands.

COMMENTS. The are no pale lateral margins of the elytra in all specimens examined, which may be due to very limited material. This feature is deemed to be characteristic of this subspecies, while being observed also in some specimens of S. o. occipitalis from Sumatra.

A senior synonym of the subspecies appears to be S. o. nigricollis (Arroll, 1901) which supposedly represents its paler colour morph defined by extensive pale pattern on the head and very large transverse median band on the elytron.

1c. *Stenaptinus occipitalis jessoensis* (A. Morawitz, 1862), stat.n. 
Figs 11–13, 24–25, 37.

Morawitz, 1862: 238 (Pheropsophus; Hakodate); Chaudoir, 1876: 35; Andrews, 1930: 273; Habu, 1967: 284; 1984: 120; Hdlüčka, 2017: 480. — *occipitalis*: Venugopal et Thomas, 2019: 76, 78.

MATERIAL. 2♂ (ZISP, MPSU), Japan, Chiba Pref., Ojagake, 14.Ⅲ.1982 (S. Morita); ♂ (SIEE), China, Jiangxi Prov., 10 km NE of Jingan, h=150–200 m, 29.V.2009 (L. Ovsyannikov); 2♂♂, Gansu Prov., Lunan Mts, 10 km W of Shangguan, 35°03´N, 106°29´E, VL2005 (V. Sinaev team); ♂, Sichuan, Xiling Mts., 6.VIII.1996 (D. Fedorenko); 1♂ (SIEE), Vietnam, 40 km W of Cao Bang, Phia Oac Mt., E Slope, h=1600–1800 m, 22°36´237´ ´N/ 105°52´0´ ´E (A. Abramov); 2♂♂, 1♀ (ZISP), Cao Bang Province, Nguen Binh Distr., Quang Ranh vill., V.1998 (N.L. Orlov); ♂ (ZISP), 40 km NE of Thai Nguyen, 800 m, 30.X.1962 (O.N. Kabakov); ♂, 1♀, same data except 30 (♂) or 50 (♀) km NE... , 360 m, 8.III.1963. — Gentitalia examined in four males and one female.

DIAGNOSIS. Hardly different from the nominotypical subspecies in the following points: Head without anterior black spot, posterior black spot rather small, subcordate, anteriorly truncate or slightly concave, or long hourglass, extended toward and reaching pronotum; pronotum mostly with black median stripe not or slightly wider apically than basally, sometimes interrupted or entirely black. Pronotum cordate, broadest not quite a third from apex, base and apex subequally wide, sides well rounded, distinctly sinate in front of basal angles. Elytra slightly shorter and wider apicallly than basally; ridges convex and narrow, mostly narrower than intervals; these with shorter and sparser longitudinal carinules.

REDESCRIPTION. Body mostly macropterous. BL 10.5–18 mm (14.5–16.5 mm in specimens from Vietnam). Dorsal pattern as in Figs 11–13, pale apical margin often broadened at outer angles, being reduced to a small, preapical, sublateral spot in melanistic forms (Figs 11–12).

Pronotum cordate, as wide as or barely wider than long, sides subvertise a fifth from base and rounded in front. Base and apex truncate, basal angles mostly right, blunt or slightly pointed; apical angles as in the nominotypical subspecies.

Abdomen: Tergite VII in female with dense apical setae, 17–23, sometimes up to 30, in number (Table 1).

Aedeagus (Figs 24–25, 37) same as in the nominotypical subspecies except that internal sac in dorso-apical view has basal bulb indistinctly sinate at basal margin.

GEOGRAPHIC DISTRIBUTION. China (supposedly, except in the south): Gansu, Sichuan, Jiangxi, ‘Manchuria’; Korea; Japan south to Satsunan Islands; northeastern Vietnam. The only record in Hong Kong is based on single specimen [Aston, 2016].

COMMENTS. Melanistic specimens from Cao Bang Province, Vietnam, are distinctive (Fig. 11) in having the pronotum, tibiae, tarsi, antennomeres 2–5 infuscated to black and the scape partly so; some of these specimens have a minute, vague, pale pronotal spot.

While normally developed wings being reported by Habu [1967] for the species, some local populations from China and northern Vietnam have been found to be at least polymorphic in this characters. For instance, all the three examined specimens from Gansu are apertorous.
Table 2. Body ratios in species of *Stenaptinus*.
Таблица 2. Пропорции тела видов *Stenaptinus*.

| Species/locality                  | n  | PW/HW | mean   | PW/PL | mean   | PLw/PL | mean   | PB/PA | mean   | EW/PW | mean   | EL/EW | mean   |
|----------------------------------|----|-------|--------|-------|--------|--------|--------|-------|--------|-------|--------|-------|--------|
| *S. occipitalis indicus*          | 6  | 1.04–1.10 | 1.06  | 1.03–1.13 | 1.07 | 0.31–0.34 | 0.33 | 1.03–1.11 | 1.06 | 1.87–1.98 | 1.92 | 1.51–1.55 | 1.53 |
| *S. o. occipitalis*               |    |        |        |        |        |        |        |        |        |       |        |       |        |
| Java                             | 2  | 1.11  | 1.11  | 1.06–1.08 | 1.07 | 0.34–0.38 | 0.36 | 1.07–1.16 | 1.12 | 1.73–1.79 | 1.76 | 1.56–1.60 | 1.58 |
| Sumatra                          | 5  | 1.04–1.07 | 1.06  | 1.03–1.09 | 1.06 | 0.31–0.36 | 0.33 | 1.03–1.07 | 1.06 | 1.86–1.97 | 1.90 | 1.48–1.59 | 1.54 |
| *S. o. occipitalis forma siarensis* |    |        |        |        |        |        |        |        |        |       |        |       |        |
| Vietnam                          | 7  | 1.04–1.16 | 1.12  | 0.98–1.04 | 1.02 | 0.32–0.42 | 0.37 | 1.01–1.12 | 1.07 | 1.73–1.89 | 1.81 | 1.51–1.64 | 1.57 |
| Cambodia                         | 5  | 1.03–1.12 | 1.07  | 1.01–1.08 | 1.05 | 0.36–0.38 | 0.36 | 1.03–1.11 | 1.08 | 1.72–1.92 | 1.81 | 1.58–1.70 | 1.64 |
| Thailand                         | 3  | 1.05–1.15 | 1.09  | 1.01–1.03 | 1.02 | 0.35–0.37 | 0.36 | 1.03–1.11 | 1.09 | 1.79–1.86 | 1.83 | 1.48–1.63 | 1.54 |
| in toto                           | 15 | 1.03–1.16 | **1.10**  | 0.98–1.08 | **1.03**  | 0.32–0.42 | **0.36**  | 1.01–1.12 | **1.08**  | 1.72–1.93 | **1.81**  | 1.48–1.70 | **1.59**  |
| *S. occipitalis* N-Thailand      | 5  | 1.02–1.14 | **1.05**  | 0.99–1.07 | **1.03**  | 0.36–0.38 | **0.37**  | 1.02–1.09 | **1.05**  | 1.78–1.93 | **1.84**  | 1.40–1.50 | **1.45**  |
| *S. o. jessoiensis*              |    |        |        |        |        |        |        |        |        |       |        |       |        |
| N-Vietnam                        | 7  | 1.05–1.09 | 1.06  | 1.01–1.10 | 1.06 | 0.27–0.32 | 0.30 | 1.01–1.07 | 1.04 | 1.86–1.92 | 1.89 | 1.45–1.56 | 1.49 |
| Japan                            | 2  | 1.08–1.09 | 1.09  | 1.07–1.18 | 1.13 | 0.26–0.31 | 0.29 | 0.97–1.02 | 1.0 | 1.78–1.79 | 1.79 | 1.42–1.53 | 1.48 |
| China                            | 6  | 1.03–1.11 | 1.08  | 1.06–1.11 | 1.08 | 0.28–0.30 | 0.29 | 0.98–1.07 | 1.02 | 1.77–1.94 | 1.84 | 1.42–1.56 | 1.49 |
| in toto                           | 15 | 1.03–1.11 | **1.08**  | 1.01–1.18 | **1.08**  | 0.26–0.32 | **0.29**  | 0.97–1.07 | **1.03**  | 1.77–1.94 | **1.86**  | 1.42–1.56 | **1.49**  |
| *S. catoiarei*                   |    |        |        |        |        |        |        |        |        |       |        |       |        |
| Pakistan                         | 2  | 1.11–1.15 | 1.13  | 1.05–1.08 | 1.07 | 0.31–0.32 | 0.32 | 1.06–1.07 | 1.07 | 1.81–1.83 | 1.82 | 1.49–1.51 | 1.50 |
| India: Uttarakhand               | 3  | 1.08–1.16 | 1.13  | 1.02–1.08 | 1.04 | 0.30–0.33 | 0.32 | 1.02–1.04 | 1.03 | 1.75–1.79 | 1.77 | 1.39–1.52 | 1.44 |
| Nepal                            | 6  | 1.06–1.14 | 1.11  | 1.03–1.18 | 1.09 | 0.29–0.33 | 0.31 | 1.01–1.06 | 1.04 | 1.74–1.89 | 1.83 | 1.43–1.51 | 1.46 |
| India: Rajasthan; Chennai        | 5  | 1.04–1.13 | 1.09  | 1.08–1.14 | 1.12 | 0.30–0.33 | 0.31 | 1.04–1.12 | 1.06 | 1.76–1.97 | 1.86 | 1.39–1.50 | 1.44 |
| in toto                           | 16 | 1.04–1.16 | **1.11**  | 1.02–1.18 | **1.09**  | 0.29–0.33 | **0.31**  | 1.01–1.12 | **1.05**  | 1.74–1.97 | **1.83**  | 1.39–1.52 | **1.46**  |
| *S. bimaculatus*                 | 3  | 1.06–1.12 | 1.07  | 1.10–1.13 | 1.11 | 0.32–0.34 | 0.33 | 1.01–1.03 | 1.02 | 1.75–1.79 | 1.77 | 1.43–1.55 | 1.49 |
| *S. tripustulatus*               | 2  | 1.06  | 1.06  | 1.08–1.11 | 1.10 | 0.30–0.35 | 0.33 | 1.02–1.03 | 1.03 | 1.72–1.78 | 1.75 | 1.46–1.49 | 1.48 |
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