Redescriptions of *Scirtes sericeus* Waterhouse, 1880, *bona species* and *Scirtes aequalis* Waterhouse, 1880
(Coleoptera: Scirtidae)

**Rafal Ruta**
Department of Biodiversity and Evolutionary Taxonomy, Zoological Institute, Wrocław University, Przybyszewskiego 63/77, 51-148 Wrocław, e-mail: scirtes@biol.uni.wroc.pl

**Abstract.** *Scirtes sericeus* Waterh. is removed from synonymy, redescribed and illustrated. *Scirtes aequalis* Waterh. is redescribed and illustrated.

Key words: entomology, taxonomy, Coleoptera, Scirtidae, *Scirtes sericeus, Scirtes aequalis*, redescription, Thailand, Borneo.

*Scirtes sericeus* Waterhouse, 1880 was described from Siam (Thailand) without detailed locality given. In 1918 G. Champion synonymized it with *Scirtes canescens* Motschulsky, 1863.

Examination of the holotype, deposited in the Natural History Museum (London) revealed that the species is distinct from *S. canescens*, although belongs to the same group of species widely distributed in SE Asia, characterized by uniformly testaceous body and symmetrical male genitalia of peculiar structure (penis and tegmen symmetrical, penis with parameres and centema, tegmen subcylindrical with lateral processes). This group resembles the *Scirtes japonicus* group (Nyholm 2002) in having symmetrical genitalia of similar morphology. However, it differs in having more oval body (not strikingly elongate with subparallel sides), and many details of genital morphology: parameroides undivided (parameroides cleft longitudinally in two parts in the *S. japonicus* group), narrower and more elongate pala (pala short and broad in the *S. japonicus* group) and short centema (centema very long and slender in the *S. japonicus* group).

According to the original description (Waterhouse 1880) *Scirtes sericeus* is most nearly allied to *Scirtes aequalis* Waterhouse, 1880, described from Borneo. Exami-
nation of the holotype of *Scirtes aequalis* and 4 additional specimens (all deposited in the Natural History Museum, London) revealed, however, that the species belongs to a very distinct group of *Scirtes Illiger*. Redescription of *Scirtes aequalis* is provided in the present paper.

**Scirtes sericeus** Waterhouse, 1880, redescription
(Figs. 1, 3-9)

**Examined material**

1, 2. habitus (holotype) and holotype labels: 1 – *Scirtes sericeus* Waterhouse, 2 – *Scirtes aequalis* Waterhouse, habitus (holotype) and holotype labels
REDESCRIPTIONS OF SCIRTES SERICEUS

DIAGNOSIS

*Scirtes sericeus* is externally very similar to a number of uniformly testaceous representatives of *Scirtes illig.* distributed throughout SE Asia and. It can be distinguished from allied species on the base of genital morphology, i.e. penis with bifid apex of centema (median part of penis).

DESCRIPTION

**Male.** Body oblong oval, slightly depressed, covered with yellowish suberect hairs. Body brownish, elytra lighter, pronotum brown with anterior margin lighter, head brown with yellowish clypeus. Legs and antennae testaceous, mouthparts yellowish. Ventrum brown. Total length 3.8 mm, greatest pronotral width 1.6 mm, greatest elytral width 2.3 mm, greatest depth of body 1.25 mm. Body 1.67 times as long as broad.

The greatest width of head 0.95 mm, head 0.68 times as long as broad, 1.7 times wider than width of interocular space, with distinct punctuation and protuberant eyes. Antennae filiform, scape with remnant of a sharp ridge on apical 1/3, length ratio of antennomeres 1.86 : 1.14 : 1 : 2.14 : 2.14 : 2.14 : 2.14 : 2.14 : 1.86 : 1.86 : 2.29; L/W ratio of antennomeres 1.86, 1.6, 1.75, 3, 3, 3, 3, 3, 3, 3, 2, 6, 2, 6, 3, 2. Anterior clypeal margin with a very subtle emargination, anterolateral angles rounded and slightly explanate. Labrum reduced, membranous, hidden under clypeus. Apical maxillary palpmere fusiform, apical labial palpmere arises at middle of preapical palpmere. Mandibles symmetrical, subtriangular, short, without denticles, with regularly curved mesal edges. Punctuation of head consists of small punctures separated by a single diameter.

Pronotum 2.5 times as broad as long, widest at posterior angles. Disc of pronotum with punctuation slightly stronger than on head, separated by a single diameter. Posterior margin of pronotum slightly bisinuate; anterior angles explanate, lateral margins subtly curved.

Scutellum subtriangular, as long as wide, punctuation similar like on pronotum. Base of elytra slightly wider than base of pronotum. Elytra 1.4 times as long as broad and 4.8 times as long as pronotum, with obscure remnants of three longitudinal ridges. Sides rounded, regularly converging to apex in posterior third. Humeri clearly evident. Punctuation dense, stronger than on pronotum, punctures separated by 0.5 diameter. Epipleura yellowish, narrowed near base of abdomen. Hind wings fully developed. Hind femora about 5.7 times wider than maximal width of hind tibia. Two tibial spurs present on apices of hind tibia. The longer spur slightly curved, reaching about 2/3 of the 1st tarsomere. The shorter spur curved, reaching almost half the length of longer spur.

Prosternal process very narrow, laminar. Mesocoxae separated by a very narrow (ca. 4 times as long as wide) process with bilobed apex, metaventral discrimen present in posterior 2/3. Ratio of ventrites’ lengths: 1.0 : 1.8 : 1.5 : 1.5 : 1.3. Last ventrite with subtriangular emargination at apex.

Male genitalia. Penis (L 0.80, W 0.10) symmetrical, parameroides blunt at apices, longer than centema; apex of centema evenly emarginated, bifid; tegmen (L 0.70, W 0.38) elongated, with long tempered lateral appendages, Sternite IX lyre-shaped (L 0.55, W 0.33) consisting of two hemisternites, each with few setae at apex. Tergite VIII

Scale bar (for 2, 4-7) = 0.5 mm
REDESCRIPTIONS OF *SCIRTES SERICEUS*

(L 0.55, W 0.43) subrectangular, with row of short setae at apical margin, apodemes long. Tergite IX (L 0.45, W 0.38) with basally diverging apodemes and somewhat rounded apical portion.

**Remarks**

*Scirtes canescens* MOTSCULSKY seems to be smaller and broader than *Scirtes sericeus* WATERHOUSE. The most striking differences can be observed in the morphology of penis and tegmen (Fig. 10-11). Differences between both species are summarized in the following key:

1. Smaller (TL 3.3-3.4 mm), body oval, centema regularly tempered, lateral processes of tegmen shorter, straight ........................................... *Scirtes canescens* MOTSCH.
2. Bigger (TL 3.8 mm), body more elongate, centema widened and emarginated at apex, lateral processes longer, sinuate .................................... *Scirtes sericeus* WATERH.

The zoogeographical range of *Scirtes canescens* is probably restricted to Sri Lanka (RUTA 2007). *Scirtes sericeus* is known only from its *terra typica*.

Detailed redescription of *Scirtes canescens* and other Scirtidae described by MOTSCULSKY will be published in a separate paper.

Examine Material

Holotype (male): [round label, printed] Type / [blue round label, handwritten] Borneo (57/81 on the other side) / [handwritten label] Scirtes aequalis (Type) C. Waterh.

Male: [blue round label, handwritten] Borneo (57/81 on the other side) / [handwritten label] Scirtes aequalis Waterh.

Male & female: [printed label] SARAWAK: 4th Divi-

12-18. *Scirtes aequalis* Waterhouse, male: 12 – penis; 13 – tegmen; 14 – aedeagus (specimen from Singapore); 15 – sternite VIII; 16 – sternite IX; 17 – sternite VIII; 18 – sternite IX. Scale bar (for 12, 13, 15-18) = 0.5mm
DESCRIPTION

Scirtes aequalis is characterised by the bicolor body with yellow elytra and brown head, pronotum and scutellum. It can be distinguished from allied species on the base of genital morphology (asymmetrical penis and modified tegmen).

M. Body oval, depressed, covered with yellowish hairs. Elytra yellow, pronotum, scutellum and head brown. Mouthparts, legs and ventral side yellowish-brown. Antennomeres 1-3 yellow, remaining brown. Total length 5.5 mm, greatest pronotal width 2.4 mm, greatest elytral width 3.35 mm, greatest depth of body 1.45 mm. Body 1.64 times as long as broad.

The greatest width of head 1.3 mm, head 0.65 times as long as broad, 1.6 times wider than width of interocular space, with distinct punctuation and protuberant eyes. Antennae filiform, scape semicylindrical, length ratio of antennomeres 1.8 : 1 : 1.6 : 2.4 : 2.4 : 2.4 : 2.4 : 2.4 : 2.4 : 2.4 : 2.6; L/W ratio of antennomeres 1.5, 1.25, 2.67, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4. Anterior clypeal margin slightly emarginated, anterolateral angles

explanate. Labrum reduced, membranous, semicircular, hidden under clypeus. Apical maxillary palptomere fusiform, apical labial palptomere arises at middle of preapical palptomere. Mandibles symmetrical, subtriangular, short, without denticles on inner sides. Punctuation of head dense, consists of punctures separated by a 0.5-1.0 diameter.

Pronotum 2.5 times as broad as long, widest at posterior angles. Disc of pronotum with punctuation similar like on head, separated by a 0.5 diameter. Posterior margin of pronotum slightly bisinuate; anterior angles explanate, lateral margins curved.

Scutellum subtriangular, as long as wide, with strong punctuation similar like on pronotum. Base of elytra slightly wider than base of pronotum. Elytra 1.37 times as long as broad and 5.1 times as long as pronotum, with obscure remnants of three longitudinal ridges. Sides rounded, regularly converging to apex in posterior third. Humeri clearly evident. Punctuation dense, punctures larger than on pronotum, punctures separated by 0.5 diameter. Epipleura yellowish, narrowed near base of abdomen, reduced in apical part. Hind wings fully developed. Hind femora about 5 times wider than maximal width of hind tibia. Two tibial spurs present on apices of hind tibia. The longer spur curved, reaching about 2/3 of the 1st tarsomere. The shorter spur curved, measuring less than half the length of longer spur.

Prosternal process very narrow, laminar. Mesocoxae separated by a very narrow (ca. 5 times as long as wide) process with bilobed apex, metaventral discrmen present in posterior 3/4. Ratio of ventrites’ lengths: 1.0 : 1.4 : 1.2 : 1.2 : 1.2. Ventrite I with sharp ridge along medial line, as long as 1/3 the length of ventrite. Ventrite II with several strong punctures along median area of anterior margin. Last ventrite emarginated.

Male genitalia. Penis (L 1.40, W 0.85) large, asymmetrical, inner projections of unequal lengths, left being distinctly longer than right one; outer projections broad, left one longer, with subapical denticule. Tegmen (L 0.98, W 0.40) strongly modified, elongate U-shaped with articulate teeth-like appenadages. Sternite VIII (L 0.13, W 0.40) reduced, u-shaped. Sternite IX (L 0.55, W 0.58) consisting of two plate-like hemisternites, each with few setae at apex. Tergite VIII (L 0.67, W 0.55) subovate, with few setae on apical margin. Tergite IX (L 0.60, W 0.50) with long apodemes and very short setation on apical margin.

Female. TL 5.2 mm (n=1), externally undistinguishable from male. Prehensor (L 0.93, W 0.35) tubular, with two apical hooks in anterior part. Bursal sclerite (L 0.38, W 0.27) with two inner straight spines and two outer curved projections.

Variability. TL 4.8-5.5 mm (n=4), a single studied specimen from Singapore, has slightly modified penis, although it was interpreted as an element of infraspecific variation. Inner projections are of similar length, left outer projection is distinctly thinner than in holotype.

Distribution. Borneo (Sarawak), Malay Peninsula (Singapore).

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