Five new species of Oriental Scirtidae
(Coleoptera: Scirtoidea)

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Abstract. Cyphon nigroflavus (Laos), C. jaloszynskii (Malaysia), C. thailandicus (Thailand), Hydrocyphon auratus (Vietnam), and H. similis (Vietnam) are described and figured.

Key words: entomology, taxonomy, Coleoptera, Scirtidae, Cyphon, Hydrocyphon, new species, Oriental Region.

Introduction

It is believed that Scirtidae are distributed mainly in temperate zones of the Northern and Southern Hemisphere (Lawrence 1981). Recent studies on Oriental fauna (e.g. Nyholm 1981; Klausnitzer 1980a, 1980b, 1980c; Yoshitomi 2003; Yoshitomi & Satō 2003a, 2003b, 2003c) have, however, revealed, that our knowledge of the distributional patterns of Scirtidae is still very fragmentary and the species richness in the Oriental Region is only slightly lower than in the Palearctic according to the present state of knowledge (it may indeed be much higher).

In the present paper five new species collected in South-East Asia in recent years are described.
MEASUREMENTS AND METHODS

All measurements are given in millimetres. Total length (TL) is measured from above and extends from the anterior edge of pronotum to the apex of elytra. Head width (HW) is measured at its widest point and includes the eyes. Elytral length (EL) is measured from the anterior margin of scutellum to the apex of elytra, along the suture. The length of interocular space is compared to the height of the eye (when the specimen is observed from above). Explanation of other abbreviations: PW – pronotal width; PL – pronotal length; EW – elytral width.

Punctation patterns of the body is difficult to describe in Scirtidae. Punctures are granulate (usually on the head and pronotum) or “normal”, with gradually sloped sides. Their apparent size varies with the conditions of illumination and punctures often seem to be much bigger than they are in reality (e.g. observed in optical microscope with transparent light or in SEM). All descriptions in the present paper are based on observations in halogen light coming from above at an angle of about 45°. Only the details of the morphology of abdominal ventrites and genitalia were studied with an optical microscope and transparent light.

Terminology of male genital structures follows Nyholm (2000).

SYSTEMATIC PART

I. Genus: Cyphon Paykull, 1799

Large paraphyletic (Hannapel & Paulus 1987, Yoshitomi 2002a) taxon comprising over 300 species distributed worldwide. A division of Cyphon into several groups of species was proposed for the first time by Nyholm (1972). Yoshitomi (2002a) has divided Japanese species into 7 groups (with 2 subgroups in coarctatus-group and 5 subgroups in collaris-group). Over 60 species are known from Oriental Region.

chlorizans-group Klausnitzer, 1973

= sinusus-group Yoshitomi, 2002a

An artificial group (B. Klausnitzer, personal information) defined on the basis of male genital characters (Yoshitomi 2002b), consisting of 11 species distributed in South-East Asia and 6 in Japan (Yoshitomi 2002a, 2002b). External features variable, length 1.4-2.6 mm, coloration usually brownish (sometimes yellowish brown to blackish), two species (C. chlorizans Klausnitzer, 1973 and C. micans Klausnitzer, 1973) are covered with greenish (structural colour) setae. Longitudinal ridges on elytra are present in some species.
**Cyphon nigroflavus n. sp.**

(Figs 1, 5, 8-17)

**NAME DERIVATION**

The species’ name refers to the contrasting coloration of the body, a unique feature in the *chlorizans* group of *Cyphon*.

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1-4. Outline of pronotum. 1 – *Cyphon nigroflavus* n. sp.; 2 – *Cyphon jaloszynskii* n. sp.; 3 – *Cyphon thailandicus* n. sp.; 4 – *Hydrocyphon auratus* n. sp. (scale bar = 0.25 mm); 5-7. Details of central part of 1st abdominal ventrite. 5 – *Cyphon nigroflavus* n. sp.; 6 – *Cyphon jaloszynskii* n. sp.; 7 – *Cyphon thailandicus* n. sp. (scale bar for 1-4 = 0.25 mm, 5-7 = 0.1 mm)
DIAGNOSIS

*Cyphon nigroflavus* n. sp. can be easily distinguished from allied species on the base of genital characters and contrasting coloration of the body.

DESCRIPTION

**Male.** Body oval, convex, shiny, clothed in whitish suberect setae. Elytra brownish-black, scutellum dark brown, head and pronotum yellow. Underside of the head and prothorax yellow, mesosternum, metasternum, and abdomen brown. Legs yellowish with darkened femora; palpi, mandibles and antennae yellowish. TL 1.8, PW 0.8, EW 1.2. Body 1.5 times as long as broad, oblong oval.

Head crenately punctulate, eyes strongly protuberant, interocular space 3.38 times wider than height of eye. Greatest width of head 0.6 mm. Antenna filiform; length ratio of antennomeres 1-6: 1.75 : 1.25 : 1.0 : 1.5 : 1.5 : 1.5 (antennomeres 7-11 absent in holotype); length/width ratio of antennomeres: 1.4 : 1.0 : 1.33 : 1.5 : 1.5 : 1.5. Anterior clypeal margin arcuately emarginate, anterior angles somewhat explanate. Labrum subrectangular with rounded anterior angles. Mandibles symmetrical, with acute apices and denticles on inner sides. Denticle on right mandible slightly more developed.

Pronotum 2.1 times as broad as long, widest at its posterior angles. Disc of pronotum finely granulately punctured, sides of pronotum with punctuation somewhat stronger, similar to the one on the head. Posterior margin almost straight, without distinct emarginations. Posterior and lateral margins evenly margined, margination of anterior margin indistinct. Anterior angles slightly produced. Pronotal outline as in Fig.1.

Scutellum almost impunctate, triangular. Base of elytra slightly wider than base of pronotum.

Elytra with two indistinct, longitudinal ridges, 1.2 times as long as broad and 3.7 times as long as pronotum. Sides rounded, regularly converging to apex. Humeri clearly evident. Punctures larger than these on pronotum and head, separated by 1-2 diameter. Epipleura strongly narrowed near to the second ventrite and almost completely reduced in the apical region. Hind wings fully developed.

Prosternal process oval, with rounded apex. Mesocoxae separated by a process which dilates posteriorly (its length is equal to its greatest width and is twice greater than minimum width). Metasternal suture complete. Metasternal process subtriangular, strongly reduced, metacoxae touching one another. Five abdominal sternites visible. Apical margin of first ventrite somewhat crenulate in its central area (Fig. 5). Ratio of ventrites’ lengths: 1 : 1.44 : 1.67 : 2.33 : 1.89.

Male genitalia (Figs 8-14). Sternite 8 Y-shaped, bifid in its apical 2/3. Sternite 9 large, almost as long as penis, U-shaped, with blunt tubercules on inner sides of apodemes. Tergite 8 subtrapezoidal with a few relatively long setae on anterior margin. Tergite 9 semi-rectangular, without setae on its anterior margin, with relatively short apodemes. Tegmen Y-shaped, bifid in apical 4/7. Penis elongate, pala narrow, trigonium subtriangular, pointed at apex, with numerous
spines. Apical region of dorsal portion of posterior part of penis undivided, punctate, apex blunt.

**Female.** Punctation of elytra stronger, elytral longitudinal ridges better developed. Ratio of ventrites’ lengths: 1.0 : 1.68 : 1.68 : 1.58 : 1.89. Female genitalia figured (Figs 15-17). Sternite 8 with single apodeme, with row of setae on apical margin. Tergite 8 with tear-shaped hole in posterior part and row of setae on apical margin. Two apodemes are protruding from its antero-lateral corners. Sternite and tergite 8 fused together, forming a tubular structure. Ovipositor with long baculi, coxites with denticles on inner edges, prehensor absent. Measurements: TL: 1.75 – 1.99; PW 0.78 – 0.85; EW 1.17 – 1.29; HW 0.57 – 0.63; TL/EW 1.50 – 1.54; PW/PL 2.02 – 2.23; EL/EW 1.22 – 1.25; EL/PL 3.83 – 4.1.

8-14. Male genitalia of *Cyphon nigroflavus* n. sp. 8 – tergite 8; 9 – sternite 8; 10 – tergite 9; 11 – sternite 9; 12 – penis; 13 – penis, lateral view; 14 – tegmen (scale bar = 0.1 mm)
Type material
Holotype (male): Laos centr., 70 km NE Vientiane, Ban Phabat env., 150 m, 18°16’ N, 103°10’ E, leg. E. ENDEK & O. ŠAUSA, coll. Museum of Natural History, University of Wrocław (Wrocław, Poland). Paratypes (females): same data as holotype, 2 exx., author’s collection.

Remarks
Male genitalia are somewhat similar to *Cyphon reconditus* KLAUSNITZER, 1980 (described from Vietnam). Similarities concern especially the morphology of sternite 9; similar structure is known in *Cyphon hofferi* KLAUSNITZER, 1973 (described from Sumbawa Is.), but it was originally interpreted as tergite 9 (KLAUSNITZER 1973). Somewhat similar sternite 9 is also known in *Cyphon volupti-

![Diagram](image-url)

15-17. Female genitalia of *Cyphon nigroflavus* n. sp. 15 – tergite 9 and sternite 9; 16 – tergite 8; 17 – sternite 8 (scale bar = 0.1 mm)
**FIVE NEW SPECIES OF ORIENTAL SCIERTIDAE**

*ficus* KLAUSNITZER, 19809 and *Cyphon formosus* KLAUSNITZER, 1980 (both described from India). Also tergite 9 is very similar to the one of *Cyphon voluptificus*

According to NYHOLM (2000), female terminal sclerites are very similar in *Cyphon*. Female genital segments usually consist of simple plates with scleritized sides, sometimes sternite 8 is membraneous. The morphology of female terminalia of *C. nigroflavus* n. sp. is completely different. The lack of prehensor might be attributable to completed mating (abdomens of dissected females were filled with eggs). It should be stressed that of the great majority of the tropical *Cyphon* species, only males are known and the knowledge of females of oriental *Cyphon* species is very poor.

**Cyphon jaloszynskii** n. sp.

(Figs 2, 6, 18-24)

**Name derivation**

The species’ name is dedicated to the collector, Pawel JALOSZYNSKI, a specialist in the Scydmaenidae (Coleoptera).

**Diagnosis**

*Cyphon jaloszynskii* n. sp. can be easily distinguished from allied species on the basis of male genital characters.

**Description**

**Male.** Body oblong, somewhat flattened, shiny, clothed in brownish setae. Body almost black, coxa brown, trochanters paler, light brown. Femora and tibia dark brown, with exception of distal 1/5 of femora, and proximal 1/3 of tibia which are light brown. Tarsi dark brown with 4th and 5th tarsomeres lightened. Labial and maxillary palpi dark brown, almost black, palpi yellowish. Labrum and maxillae light brown. Antennomeres 1 and 4-8 brownish-black, 2-3 light brown, antennomeres 9-11 absent in holotype. TL 1.95-2.32, PW 0.76-0.88, EW 1.15-1.29. Body 1.69-1.79 times as long as broad, oblong.

Head granulately punctate, eyes strongly protuberant, interocular distance 3.47-3.63 times wider than height of eye. Greatest head width 0.56-0.63 mm. Antennae filiform. Length ratio of antennomeres: 2.0 : 1.1 : 1.0 : 1.8 : 1.5 : 1.5 : 1.5 : 1.5. Length/width ratio of antennomeres: 1.5 : 1.1 : 1.5 : 2.0 : 1.7 : 1.7 : 1.7 : 1.7. Clypeus devoid of punctures, shiny; its anterior margin straight. Labrum subtrapezoidal with broadly rounded anterior angles. Mandibles without denticles on inner sides, apices acute.

Pronotum 1.94-2 times as long as broad, widest in its posterior half. Disc of pronotum with punctuation similar to that on head. Posterior margin bisinuate, evenly margined, margination best developed on lateral sides and reduced in the middle of anterior margin, behind head. Anterior angles rounded, produced. Pronotal outline as in Fig. 2.
Scutellum with subtle punctation, subtriangular. Base of elytra wider than base of pronotum.

Elytra 1.39-1.51 times as long as broad and 4.19-4.39 times as long as pronotum, with three well developed parallel longitudinal ridges. Sides subparallel for 2/3 of their length, than regularly converging to apex. Humeri well marked. Epipleura strongly narrowed in posterior half of elytra, reduced in apical region. Punctures larger than those on pronotum, not granulate, somewhat elongated, separated by 1-(2) diameter. Hind wings fully developed. In the basal 1/3 of elytra, near suture, a small depression is situated on each elytron. In anterior part of posterior 1/2 of elytra, the adsutural region is upturned, forming a subtle ridge.

Prosternal process narrow, elongate, lanceolate, with an acute apex. Mesocoxae separated by a process which is only slightly dilated posteriorly (its length is 2.17 times greater than greatest width and 3 times greater than minimal width). Metasternal suture complete. Metasernal process strongly reduced, subtriangular, metacoaxae touching one another. Five abdominal sternites visible. Apical margin of first ventrite not crenulate, simple (Fig. 6). Apex of 5th ventrite truncate. Ratio of ventrites’ lengths: 1.0 : 1.56 : 1.63 : 1.63 : 1.56.

Male genitalia (Figs 18-24). Sternite 8 strongly reduced, U-shaped. Sternite 9 large, biramose, with pointed apices of arms. Tergite 8 subrectangular, with row of short setae on apical margin and several longer setae situated among shorter
ones. Tergite 9 with long apodemes, with a row of short setae on apical margin and shallow emargination on anterior margin. Tegmen biramose, Y-shaped, with almost parallel parameres. Penis elongate, widest in its basal 1/2, its sides regularly tapering to the apex, trigonium long, subtriangular, pointed at apex.

Female. Unknown.

**Type Material**

Holotype (male): Malaysia, Pahang Cameron Highlands, Gunung Jasar, 1600-1700 m, sweeping of low vegetation in forest, 28 XII 2003, leg. P. JALOSZYNSKI, coll. Museum of Natural History, University of Wrocław (Wrocław, Poland); paratype: same data as holotype, author’s collection.

22-24. Male genitalia of *Cyphon jaloszynskii* n. sp. 22 – penis; 23 – penis, lateral view; 24 – tegmen (scale bar = 0.1 mm)
Remarks
Penis is most similar to the one of *Cyphon reconditus* Klausițzer. Similar sternite 9 is present in *Cyphon voluptificus* Klausițzer, 1980 (described from India). Morphology of tegmen of *C. jaloszynskii* is unique – all species previously classified in the *chlorizans* group of *Cyphon* have strongly reduced parameres. Similar tergite 9 (with very long apodemes) is known in *Cyphon micans* Klausițzer, 1973 and *Cyphon paramicans* Klausițzer, 1979 (both described from New Guinea). Also penis of *C. paramicans* resembles the one of *C. jaloszynskii* n. sp. in parameroids longer than pointed apex of trigonium.

**variabilis-group Nyholm 1972**

Nyholm (1972) has included six European species in this group. The group is widely distributed throughout the world.

**Cyphon thailandicus n. sp.**
(Figs 3, 7, 25-29)

**Name derivation**
The species is named after its terra typica – Thailand.

**Diagnosis**
*Cyphon thailandicus* n. sp. can be easily distinguished from allied species on the base of male genital characters.

**Description**
*Male.* Body oblong oval, convex, shiny, clothed in yellowish setae. Colour of body light brown, legs and palpi yellowish brown. First four antennomeres yellowish, 5th and 6th somewhat darkened, remaining missing in holotype. TL 2.2, PW 0.95, EW 1.39. Body 1.58 times as long as broad.

Head finely, somewhat granulate punctate, eyes strongly protuberant, interocular distance 3.4 times wider than height of eye. Greatest head width 0.76. Antennæ filiform, only first five antennomeres present in holotype. Length ratio of antennomeres: 1.8 : 1.4 : 1.0 : 1.6 : 1.2 : 1.2. Length/width ratio of antennomeres: 1.5 : 2.0 : 2.6 : 1.7 : 1.7. First antennomere strongly transversely dilated, with sharp ridge on anterior margin. Anterior clypeal margin straight. Labrum subtrapezoidal with rounded anterior angles. Right mandible with two denticles on inner side – one larger with somewhat blunt apex and one smaller but sharp. Left mandible with one small denticle.

Pronotum 2.2 times as long as broad, widest in its posterior angles. Disc of pronotum very finely punctured, sides of pronotum with somewhat stronger
punctuation, but still much sparser than on head and elytra. Posterior margin almost straight, evenly margined, margination almost invisible in the middle of anterior margin, behind the head. Anterior angles produced. Pronotal outline as in Fig.3.

Scutellum almost impunctate, triangular. Elytral base wider than the base of pronotum.

Elytra 1.32 times as long as broad and 4.17 times as long as pronotum. Sides weakly rounded, regularly converging to apex. Humeri clearly evident. Epipleura complete to elytral apex, strongly narrowed near to the 1st ventrite. Punctures larger than those on pronotum, separated by 2 diameters, punctures somewhat longitudinally elongated. Hind wings fully developed.

Prosternal process tear-shaped, elongated, with semitriangular posterior part and blunt apex. Mesocoxae separated by posteriorlya dilated process. Metasternal suture present on posterior half of metasternum. Metasternal process strongly reduced, subtriangular, metacoxae touching one another. Five abdominal sternites visible. Anterior margin of first ventrite slightly projecting, slightly crenulate (Fig. 7). Ratio of ventrites’ lengths: 1.0 : 1.9 : 1.81 : 1.73 : 1.64.

Male genitalia (Figs 25-29). Tergite 8 composed of rod-like hemitergites, apical part with scale-like sculpture. Tergite 9 composed of rod-like hemitergites, apex with few relatively long setae. Tegmen broad, plate-like, lightly sclerotized, its greater area covered with setae. Penis smaller than tegmen, Y-shaped, its apices curved at an angle of about 90° and converging.

Female. Unknown.

25-29. Male genitalia of *Cyphon thailandicus* n. sp. 25 – tergite 8; 26 – tergite 8, lateral view; 27 – tergite 9; 28 – penis; 29 – tegmen (scale bar = 0.1 mm)
**Type material**


**II. Genus: Hydrocyphon Redtenbacher, 1858**

56 species of *Hydrocyphon* have been described to date. Of this number, 29 occur in the Oriental Region. The first division into species-groups was proposed by Nyholm in 1967. He proposed 3 species-groups (*australis*, *deflexicollis*, *pallidicollis*) for European species. Recently Klausnitzer, Yoshitomi and Sato (Klausnitzer 2002, Yoshitomi & Klausnitzer 2003, Yoshitomi & Sato 2003a) have divided *Hydrocyphon* into 9 groups of species (*australis*, *bicornis*, *deflexicollis*, *dentatus*, *kambaiticus*, *nakanei*, *pallidicollis*, *renati*, and *yoshitomii*).

*Hydrocyphon auratus* n. sp.

(Figs 4, 30-34)

**Name derivation**
The name refers to the golden vestiture of the dorsum.

**Diagnosis**

*Hydrocyphon auratus* n. sp. can be easily distinguished from allied species on the base of male genital characters.

**Description**

*Male*. Body oval, depressed, shiny, densely clothed in yellowish setae. Colour of the body yellowish brown; scutellum, posterior half of head, mesosternum, metasternum and abdominal ventrites darker brown. Legs yellowish. Labial and maxillary palpi darker, light brown. First four antennomeres yellow, 5th darker brownish, from 6-11 dark brown. TL 2.2, PW 0.9, EW 1.46. Body 1.5 times as long as broad.

Head very finely punctate, eyes strongly protuberant, interocular distance 3.3 times wider than height of eye. The greatest head width 0.61. Antennae filiform, length ratio of antennomeres: 3.0 : 2.5 : 1.0 : 3.25 : 2.5 : 3.0 : 3.5 : 3.0 : 3.0 : 3.0 : 5.0. Length/width ratio of antennomeres: 1.2 : 1.25 : 1.0 : 1.3 : 1.3 : 1.3 : 1.43 : 1.43 : 1.43 : 2.14. Anterior margin of clypeus almost straight. Labrum with rounded angles. Mandibles reduced, with obtuse apices.

Pronotum 2.47 times as long as broad, widest in its posterior angles. Disc of pronotum very finely punctured, similar to head. Posterior margin arcuate, margination very subtle, better developed on posterior and lateral margins. Anterior angles almost straight, slightly produced. Pronotal outline as in Fig. 4.
FIVE NEW SPECIES OF ORIENTAL SCIRTIDAE

Scutellum very finely punctate, subtriangular. Base of elytra wider than base of pronotum.

Elytra 1.2 times as long as broad and 4.8 times as long as pronotum. Elytra widest in anterior 2/5, then tapering to apex. Humeri rounded. Epipleura regularly narrowing, reduced in apical part of elytra. Punctures bigger than those on pronotum, puncturation dense, punctures separated by less than their diameter. Hind wings fully developed.


Male genitalia (Figs 30-34). Sternite 9 with relatively long setae on apical margin, posterior part membraneous. Tergite 8 wide, with row of short setae on apical margin. Tergite 9 with anterior and posterior apices pointed. Tegmen with broad parameres and distinct punctures on inner and apical margins. Penis asymmetrical, trigonium with single spine-like projection. Parameroids long, asymmetrical, with rounded apices.

Female. Unknown

30-34. Male genitalia of Hydrocyphon auratus n. sp. 30 – tergite 8; 31 – tergite 9; 32 – sternite 9; 33 – penis; 34 – tegmen (scale bar = 0.1 mm)
TYPE MATERIAL

REMARKS
Belongs to the pallidicollis-group NYHOLM, 1967.

Hydrocyphon similis n. sp.
(Figs 35-40)

NAME DERIVATION
The species’ name refers to its external similarity to the previous species, H. auratus n. sp.

DIAGNOSIS
Hydrocyphon similis n. sp. can be easily distinguished from allied species on the base of male genital characters.

DESCRIPTION
Male. Body oval, depressed, shiny, densely clothed in yellowish setae. Colour of the body yellowish brown, scutellum, posterior half of head, mesosternum, metasternum and abdominal ventrites darker brownish. Legs yellowish. Labial and maxillary palpi darker, light brown. First four antennomeres yellow, remaining absent in holotype. TL 2.07, PW 0.85, EW 1.37. Body 1.5 times as long as broad.

Head very finely punctate, eyes strongly protuberant, interocular distance 3 times wider than height of eye. The greatest head width 0.59. Antennae filiform, length ratio of antennomeres: 3.0 : 2.5 : 1.0 : 3.25. Length/width ratio of antennomeres: 1.2 : 1.25 : 1.0 : 1.3. Anterior margin of clypeus almost straight. Labrum with rounded angles. Mandibles reduced, with obtuse apices.

Pronotum 2.5 times as long as broad, widest in its posterior angles. Disc of pronotum very finely punctured, similar to head. Posterior margin arcuate, margination very subtle, better developed on posterior and lateral margins. Anterior angles almost straight, slightly produced. Pronotal outline identical to H. auratus n. sp. (Fig. 4).

Scutellum very finely punctate, subtriangular. Base of elytra wider than base of pronotum.

Elytra 1.29 times as long as broad and 5.14 times as long as pronotum. Elytra widest in anterior 2/5, then tapering to apex. Humeri rounded. Epipleura regularly narrowing, reduced in apical part of elytra. Punctures larger than those on pronotum, punctation dense, punctures separated by less than the diameter of a puncture. Hind wings fully developed.
Prosternal process elongate, very narrow, rod-shaped. Mesocoxae separated by a long parallel-sided process which is 4.5 times as long as wide. Metasternal suture present on posterior 3/4 of metasternum. Subtle, oval depression in adsutural area in posterior half of metasternum present. Metasternal process strongly reduced, subtriangular, metacoxae touching one another. Five abdominal sternites visible. Anterior margin of first ventrite simple, not crenulate. Ratio of ventrites’ lengths: 1.00 : 2.57 : 2.57 : 2.43 : 2.86.

Male genitalia (Figs 35-40). Sternite 8 of complex morphology, sternite 9 rod-like. Tergite 8 subtrapezoidal, with row of setae on apical margin. Tergite 9 reduced, V-shaped. Tegmen consisting of two lateral sclerites, inner ones with small sharp denticles on inner margins.

**Female.** Unknown

**Type material**

Remarks
On the base of the morphology of penis C. similis n. sp. should be classified into the *pallidicollis*-group of *Hydrocyphon*, although the morphology of tegmen and sternoite 8 is different than in any other known species of this group.

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