

GYRINIDAE:
New species of *Orectochilus* DEJEAN, 1833
subgenus *Patrus* AUBÉ, 1838
(Coleoptera)

P. MAZZOLDI

Abstract

Four new Chinese species of *Orectochilus* subgen. *Patrus* AUBÉ (Coleoptera: Gyrinidae) are described: *O. jaechi* [Hainan], *O. jilanzhui* [Hainan], *O. schillhammeri* [Guangxi], and *O. wangi* sp.n. [Anhui, Zhejiang].

Key words: Coleoptera, Gyrinidae, *Orectochilus*, *Patrus*, China, taxonomy, new species.

Introduction

Since 1993 I have been working on a revision of the genus *Orectochilus* DEJEAN, a very long work, since the genus contains about 200 species at present. During the course of these studies I had the opportunity to examine the rich material collected by the China Water Beetle Survey (CWBS), deposited in the NMW and CASS. Amongst this material, four new species of the subgenus *Patrus* AUBÉ were discovered and are described below.

Material and methods

This paper is based almost exclusively on the study of the material collected by the CWBS.

All the specimens were examined with a Wild M3C stereoscopic microscope with a maximum magnification of 96X; such a high magnification is indispensable for a clear observation of the microsculpture, sometimes very fine, which is a fundamental character for the taxonomy of *Orectochilus*.

The illustrations were made with the help of a drawing tube attached to the microscope. The measurements were taken with the same microscope using an eyepiece graticule. The length of the specimens was measured from the anterior margin of the clypeus to the tip of the elytra, thus excluding from measurement the labrum and the last abdominal segments; width was measured at the widest point of the body, generally just behind the pronoto-elytral suture.

For the extraction of male genitalia, the beetles were placed in a 75% acetone solution (75% acetone, 25% distilled water) for about 12 hours, then the genitalia were extracted with the help of a mounted micro-pin. The aedeagus was then either glued directly to a card on the same pin as the insect or placed in a drop of water-soluble resin (DMHF; see BAMEUL 1990) on the card. The aedeagi are all drawn in dorsal view, but sometimes the tip of the central lobe is also drawn in ventral view to show structures near the gonopore.

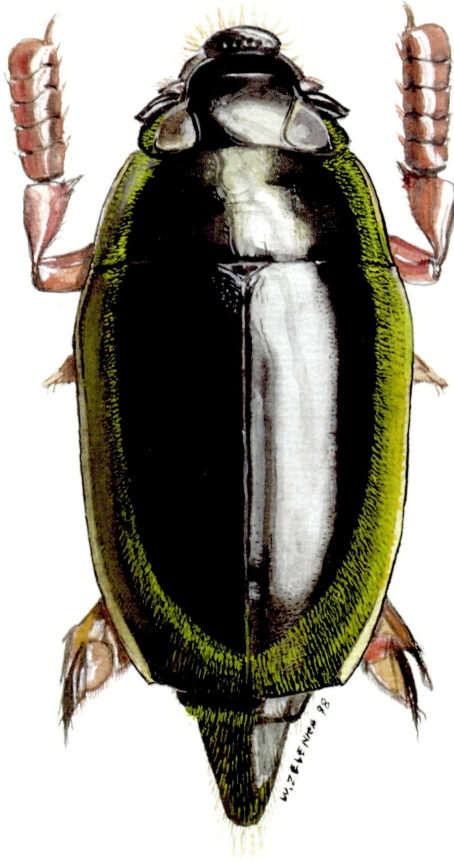


Fig. 1: Habitus of *Orectochilus wangi* sp.n.

The extraction of the female genitalia requires more caution since these structures are more fragile than those of the male. When the specimens are fresh and fluid-preserved, the extraction is relatively straightforward: the last 3 urites are detached with a micro-pin, then working in a drop of water the tergites are carefully separated from the sternites and the whole mass of female genitalia is extracted; the mass is then cleaned from the surrounding tissues with the same micro-pin and then placed on a card in a drop of DMHF, so that gonocoxae and spermatheca are clearly visible; the detached part of the abdomen is glued back in place or is also glued to the genital card. With dry specimens the procedure is slightly more complex, in such cases the whole mass, once extracted, is placed in a KOH solution for some hours (either 10% solution for 10-12 hours or 30% solution for 2-3 hours), after which the genitalia can be usually rinsed in distilled water and prepared as described above.

Acronyms & CWBS localities:

- CASS Chinese Academy of Sciences, Institute of Applied Ecology, Shenyang
- NMW Naturhistorisches Museum, Wien
- PMB coll. Paolo Mazzoldi, Brescia

- CWBS loc. 46: **Guangxi Autonomous Region**; Yülin Prefecture; Liuwan Da Shan; ca. 15 km E of Liuwan Forest Station; very small stream, ca. 0.2 - 0.3 m wide, scanty riverside vegetation, ca. 200 m a.s.l.; 18.XI.1993; leg. Schönmann, Schillhammer & Ji.
- CWBS loc. 188: **Hainan Province**; Qiongzong County; Baihua Ling [= Hundred Flowers Mountain], ca. 7 km W Qiongzong City [= Yinggen]; river, ca. 5 m wide, flowing through degraded forest, large boulders, sand, cataracts, ca. 300 m a.s.l.; 16.I.1996; leg. Jäch, Ji & Wang (see JÄCH & JI 1998: Fig. 2).
- CWBS loc. 192: **Hainan Province**; Qiongzong County; Maoyang Town; Changhua River, ca. 40 m wide (river bed ca. 80 m wide), potamal, banks with gravel and sand, ca. 100 m a.s.l.; 17.I.1996; leg. Jäch, Ji & Wang (see JÄCH & JI 1998: Fig. 4).
- CWBS loc. 193: **Hainan Province**; Qiongzong County; Wuzhi Shan [= Five Finger Mountain] Resort, ca. 2 km from Wuzhi Shan Village, ca. 30 km E Maoyang Town; small stream, ca. 2 - 3 m wide, shaded, flowing through degraded primary forest, below Wuzhi Shan Resort, ca. 600 m a.s.l.; 17./18.I.1996; leg. Jäch, Ji & Wang (see JÄCH & JI 1998: Fig. 3).
- CWBS loc. 194: **Hainan Province**; Qiongzong County; stream, ca. 5 m wide, densely shaded, flowing partly through deep gorge, through primary forest, above Wuzhi Shan Resort; ca. 700 - 800 m a.s.l.; 18.I.1996; leg. Jäch, Ji & Wang.
- CWBS loc. 205: **Hainan Province**; Ledong County; Jianfeng Mountains; Jianfeng Forest Reserve, ca. 5 km NE Tian Chi Village; river, ca. 5 m wide, flowing through very dense primary forest, banks with stones and sand, ca. 800 m a.s.l.; 22.I.1996; leg. Jäch, Ji & Wang (see JÄCH & JI 1998: Figs. 7, 9).
- CWBS loc. 208: **Hainan Province**; Ledong County; Jianfeng Mountains; ca. 5 km E Tian Chi Village; two small streams, ca. 3 m wide, flowing through degraded primary forest and shrubs, ca. 800 m a.s.l.; 23.I.1996; leg. Jäch, Ji & Wang.
- CWBS loc. 284: **Anhui Province**; Weizhou Prefecture; Huang Shan [= Yellow Mountains] National Park; Qi Yun Shan [= Cloudy Mountains] near Yan Qian, 30 km W Huang Shan City [= Tunxi]; stream, < 0.5 m wide, running over conglomerate rock in a gorge, densely shaded, more or less dried out, rest water pools, 500 m a.s.l.; 24.X.1997; leg. Schönmann & Wang.

Orectochilus jaechi sp.n.

TYPE LOCALITY: Hainan (CWBS loc. 188).

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Hainan (188) 7km W Qiongzong Baihua Ling, 300m 16.I.1996, leg. Jäch". **Paratypes** (NMW): 1 ♂: "CHINA: Hainan (208) Jianfeng Mts., 800m 5km E Tian Chi 23.I.1996, Ji & Wang"; 1 ♀: "CHINA: Hainan (194) 30km E Maoyang, 18.I. Wuzhi Shan Resort 1996 700-800m, leg. Jäch".

DESCRIPTION: Medium-sized species: length 8.6 - 9.2 mm; width 4.7 - 5.2 mm. Body shape regularly oval, moderately convex, with maximum width at about the middle of the body length. Upper side black.

Head: black; labrum wide and short, more than 3 times as wide as long, with anterior margin convex, weakly curved. Surface of labrum smooth, covered by a very weak microreticulation of small polygonal and transverse meshes, amongst which very fine punctures are scattered. In the posterior part of the labrum the surface is also covered by a strong punctation in which yellow hairs are inserted; spaces between the punctures smaller than the diameter of the punctures. Clypeus wide and short, with anterior margin weakly, almost imperceptibly, concave; clypeo-frontal suture weakly impressed but distinct. Clypeal surface smooth due to obliteration of the microreticulation and covered by rather large and scattered punctures, and a thick striolation. Surface of frons smooth due to almost complete obliteration of the microreticulation, which is formed by small, transverse or slightly oblique polygonal meshes: the reticulation is distinctly visible only in the two weak antero-lateral depressions before the eyes, elsewhere only faint traces can be seen at high magnification. The surface is also covered by a rather thick striolation

(formed by short, transverse or slightly oblique striae), which is obliterated on the vertex. Interorbital area rugose and furry.

Pronotum short and wide, regularly attenuated from base to apex, with sides weakly curved; both anterior and posterior margin distinctly sinuous. Lateral pubescence strongly reduced, anteriorly reaching only the first 1/4 of the eyes, to the rear gradually narrowed at first then briefly dilated just before the pronoto-elytral suture. Surface of pronotal glabrous area smooth due to complete obliteration of the reticulation, only faint traces of which are visible, especially at the sides, where it is formed by small elongate, transverse or slightly oblique polygonal meshes. Scutellum wide and short.

Elytra black; lateral pubescence anteriorly as wide as pronotal one, to the rear first briefly narrowed then regularly dilated in a weakly sinuous line, reaching the suture shortly before the truncature, so that the pronoto-elytral glabrous area resembles a very regular oval, terminating posteriorly with an acute tip and weakly, almost imperceptibly cordiform in its posterior part (Fig. 2a). Surface of elytral glabrous area smooth due to almost complete obliteration of the reticulation, only faint traces of which are visible at high magnification: these show that the reticulation itself is formed by very narrow, transverse or oblique polygonal meshes, which are more oblique anteriorly and more transverse posteriorly. Truncature slightly oblique, almost straight. Epipleural angle obtuse, widely rounded, almost obliterated; sutural angle close to 90°, rounded at the tip.

Front legs short, dark ferruginous, equipped with slender, sickle-shaped tarsal claws; middle and posterior legs ferruginous.

Underside dark ferruginous, with last abdominal sternites lighter.

♂: front tarsi of very characteristic shape, unique in *Orectochilus*: first tarsal article strongly dilated, with dilation forming a lateral process directed downwards; remaining tarsal articles weakly dilated, parallel-sided. The lateral process has adhesive hairs on its internal side, so that the adhesive organ on the lower face of the tarsus is not formed, as usual, by a single surface, but by two, with an obtuse angle between them. Front tibiae rather short and stout, regularly dilated from base to apex, triangular, with only a weak constriction at the base; antero-external angle obtuse and widely rounded, equipped with a group of 7-8 denticles, distinctly visible from above (Fig. 2b). Aedeagus as in Figs. 2c, 2d.

♀: front tarsi not dilated, parallel-sided. Front tibiae slightly more slender and less dilated than in males; antero-external angle less widely obtuse, rounded, weakly but distinctly produced, more clearly so than in males (which is the reverse of the situation normally found in *Orectochilus*). Surface of elytra with microreticulation slightly more impressed than in males, hence slightly rougher; elytra in the posterior lateral region showing traces of 4-5 weak longitudinal ribs. Spermatheca very characteristic, as in Fig. 2e.

DIAGNOSIS: Due to its peculiar characters, the species cannot be confused with any other in *Orectochilus*: the males are unmistakable due to the dilation of the first tarsal article, and in the females the spermatheca has a unique shape.

DISTRIBUTION: Endemic to the island of Hainan.

Orectochilus jilanzhui sp.n.

TYPE LOCALITY: Hainan (CWBS loc. 205).

TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA: Hainan (205) Jianfeng Mts., 800m 5km NE Tian Chi 22.1.1996, leg. Jäch"; **Paratypes** (NMW, PMB): 38 specimens with the same locality data as holotype; 22 exs.: "CHINA: Hainan (208) Jianfeng Mts., 800m 5km E Tian Chi 23.1.1996, Ji & Wang"; 3 exs.: "CHINA: Hainan (192) Maoyang, 100m Changhua river 17.1.1996, leg. Jäch"; 1 ex.: "CHINA: Hainan (193) 30km E Maoyang, 600m Wuzhi Shan Resort, 1996

17/18.1., Ji & Wang"; 10 exs.: "CHINA: Hainan (193) 30km E Maoyang, 600m Wuzhi Shan Resort, 1996 17/18.1., leg. Jäch".

DESCRIPTION: Small species: length 4.1 - 4.9 mm, width 2.0 - 2.5 mm; body shape oval, strongly convex. Upper side black very shiny, weakly iridescent, with yellow lateral borders on pronotum and elytra.

Head black: labrum on average 2.5 times as wide as long, semicircular; surface of labrum smooth, covered by a weak microreticulation formed by small polygonal meshes and, except along its anterior border, by a strong punctation, with yellow hairs inserted in the punctures. Spaces between the punctures smaller than the diameter of the punctures. Clypeus with anterior margin weakly concave; clypeo-frontal suture distinctly impressed. Clypeal surface covered by a distinct microreticulation formed by polygonal meshes, which are almost isodiametric in the central part of the clypeus and slightly transversely elongate along its anterior and posterior margins. A few punctures are also present, especially in the anterior part of the clypeus. Surface of frons covered by a microreticulation which is distinctly impressed only in a narrow belt along the clypeo-frontal suture. Meshes polygonal, almost isodiametric in two weak lateral depressions, before the eyes, where some middle-sized punctures are also visible; transversely elongate in the central part of the belt. Immediately behind this belt, the microreticulation becomes much less impressed and the meshes become narrow and transversely elongate, with only very fine punctures interspersed. This kind of microreticulation covers all the rest of the frontal surface, becoming progressively weaker the more one proceeds backwards, until on the vertex it is completely obliterated. Interorbital area rugose and furry.

Pronotum strongly convex, regularly attenuated, with lateral margins weakly curved, shiny black with yellow lateral borders. Lateral pubescence anteriorly reaching the external 1/3 of the eye, backwardly narrowed in a weakly concave oblique line. Surface of pronotal glabrous area completely smooth and shiny, without any trace of microreticulation or punctation. Both anterior and posterior margins of pronotum distinctly sinuous.

Elytra black with yellow lateral borders; lateral pubescence strongly reduced, anteriorly as wide as pronotal one, abruptly reduced towards the rear to a very narrow strip which follows the elytral border until the last 1/3 of the elytra, then rather abruptly dilated and reaching the suture with a regularly concave line immediately before the truncature. This situation and the strong convexity of the beetle cause the lateral pubescence to be practically invisible from above, except in the anterior angles of the pronotum and in the posterior angles of the elytra (Fig. 3a). Surface of elytral glabrous area very smooth and shiny, due to complete obliteration of the microsculpture: as on pronotum, no traces of microreticulation or punctation can be seen. Truncature slightly oblique and weakly convex; epipleural angle obtuse and widely rounded, almost obliterated, sutural angle obtuse, almost 90°, briefly rounded at the tip.

Last abdominal tergites black.

Underside dark brown, almost black, except: epipleura, yellow; anterior part of mesosternum, reddish; abdominal sternites, lighter brown with posterior part yellow (the last one and the fused gonocoxosternites completely yellow).

Legs yellow, the anterior ones relatively slender.

♂: front tarsi strongly dilated, attenuated from base to apex, piriform. Antero-external angle of front tibiae almost straight, rather widely rounded, with row of denticles formed by 8 - 9 elements, distinctly visible from above (Fig. 3b). Aedeagus as in Fig. 3c, with the two parameres completely fused in their basal 1/3.

♀: front tarsi not dilated, parallel-sided. Antero-external angle of front tibiae more widely rounded than in male, practically obliterated, with row of denticles formed by 10 - 14 elements, distinctly visible from above. Spermatheca as in Fig. 3d, formed by a long and narrow tube, strongly coiled.

DIAGNOSIS: This species belongs to a homogeneous group, which includes many similar species, the only reliable characters to differentiate these being the shape of the pronoto-elytral glabrous area and especially the aedeagus. In this case, the aedeagus is clearly distinct from the aedeagi of all the species of Indochina. Some species from Borneo have a rather similar aedeagus, but on the basis of biogeographical considerations this is most probably due to convergence. Furthermore, the peculiarity mentioned above (parameres strongly fused in their basal third) is found in no other species, although this represents an extreme development of a character which is already present in other species of the group, in which the parameres are always more strongly connected than in the other species groups.

DISTRIBUTION: endemic to the island of Hainan, southern China.

***Orectochilus schillhammeri* sp.n.**

TYPE LOCALITY: Guangxi (CWBS loc. 46).

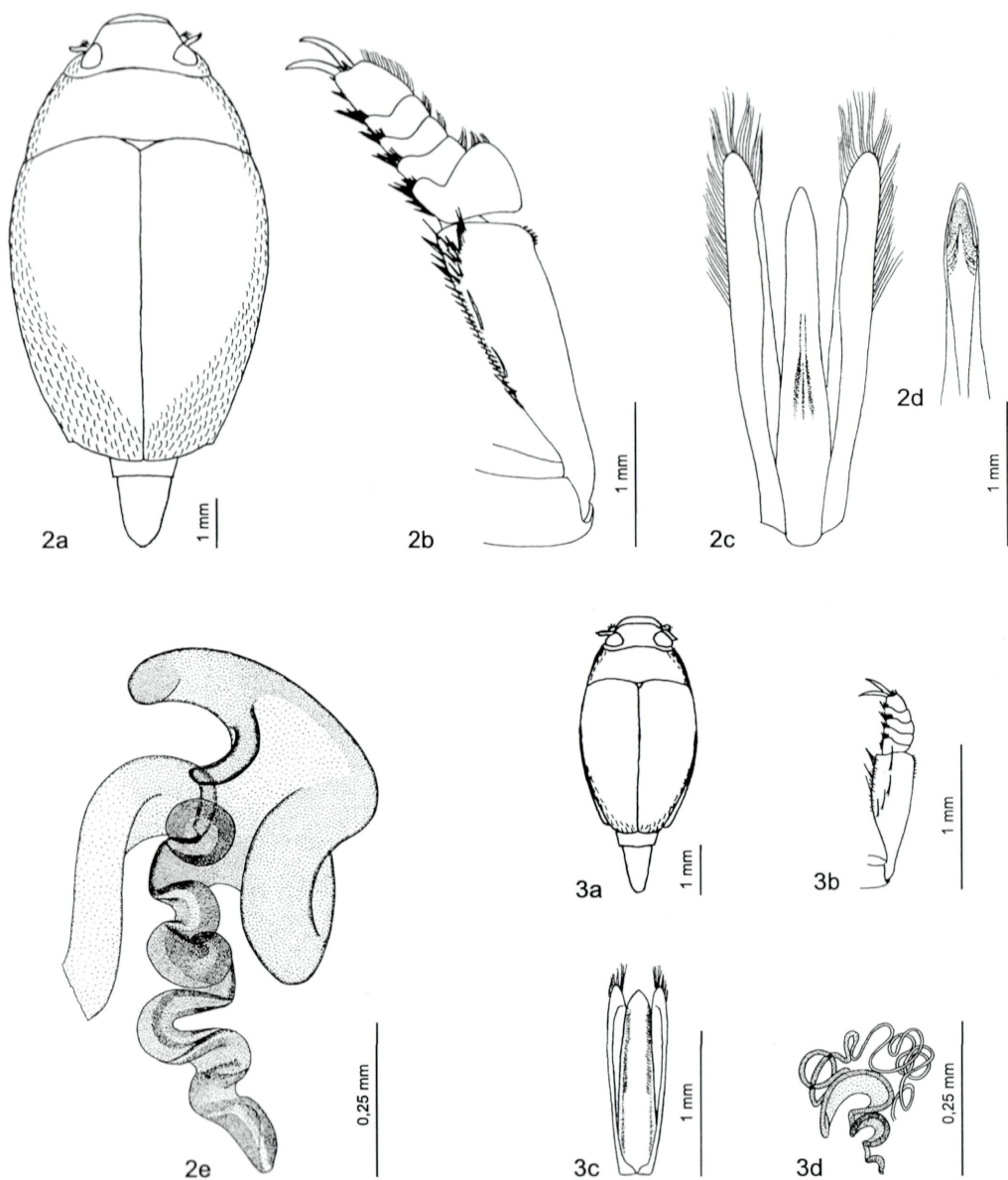
TYPE MATERIAL: **Holotype** ♂ (CASS): "CHINA, SE Guangxi Distr. Yulin Liuwan Mts. SW Yulin / 18.11.1993 200m leg. Schillhammer (24)"; **Paratypes** (NMW, PMB): 6 ♂♂, 6 ♀♀ with the same locality data as holotype.

DESCRIPTION: Medium-sized, moderately convex: length 5.7 - 6.7 mm; width 3.0 - 3.8 mm. Upper side bronzed with yellow lateral borders on pronotum and elytra.

Head: black with bronzy sheen. Labrum wide and short, more than three times as wide as long, with anterior margin weakly convex; labral surface along the anterior margin smooth, covered by traces of a microreticulation formed by transversely elongate polygonal meshes, posteriorly covered by a strong punctation (spaces between the punctures smaller than the diameter of the punctures) in which yellow hairs are inserted. Fronto-clypeal suture distinct. Clypeus with anterior margin weakly concave; clypeal surface anteriorly and laterally smooth, due to almost complete obliteration of the microreticulation, covered by an irregular punctation, with punctures of different sizes (spaces between the punctures generally 2 - 3 times greater than the diameter of the punctures); a narrow strip along the central part of the fronto-clypeal suture is instead covered by a distinct microreticulation formed by isodiametric polygonal meshes. Frons covered by a microreticulation of isodiametric polygonal meshes, evident anteriorly, especially before the eyes, while towards the rear it becomes gradually obliterated until the vertex is completely smooth. Irregular-shaped punctures are scattered amongst the meshes of the microreticulation (spaces between the punctures on average 2 - 3 times greater than the diameter of the punctures) and sometimes 2 - 3 punctures merge in rows, but no wrinkles are visible on the surface.

Pronotum regularly attenuated from base to apex, with margins weakly convex, black with distinct bronzy sheen and yellow lateral borders. Surface of pronotal glabrous area covered by a weak microreticulation, formed by isodiametric polygonal meshes and by punctures which merge in rows forming weakly impressed but distinct wrinkles which delineate secondary meshes. Lateral pubescence anteriorly reaching only the external 1/4 of the eye, narrowed in a concave line towards the rear.

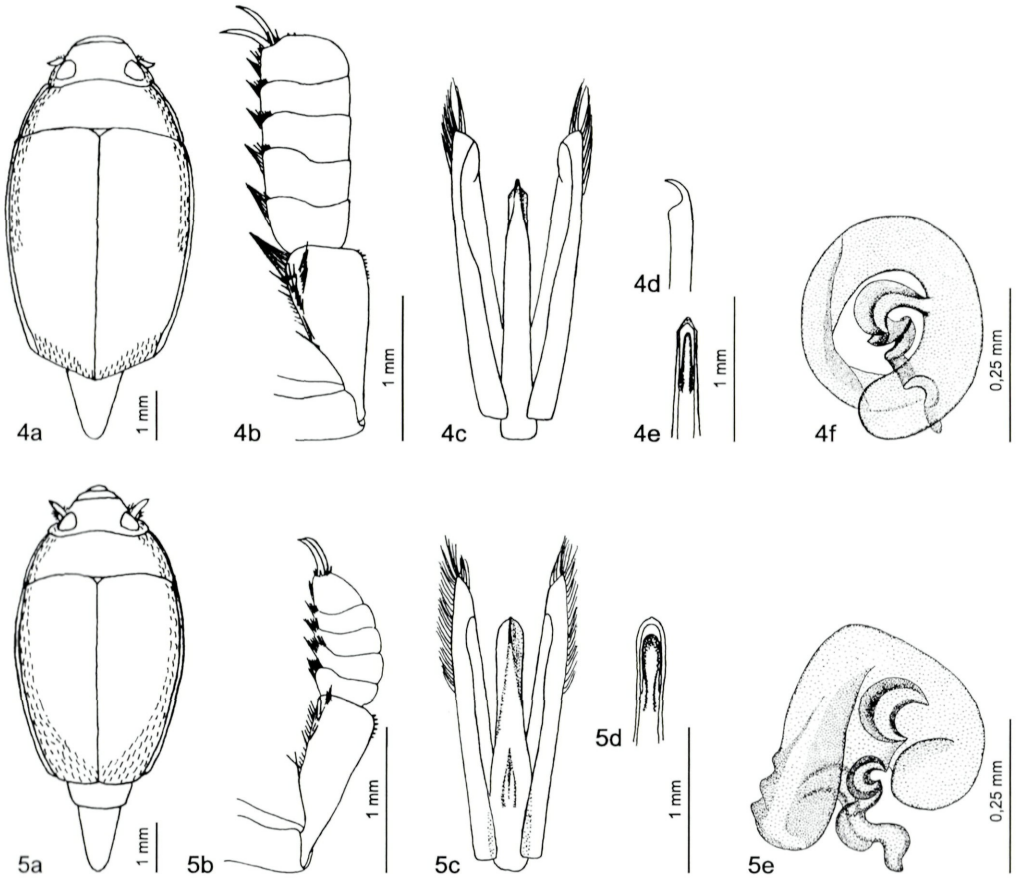
Elytra bronzed with yellow lateral borders; surface of elytral glabrous area covered by a microreticulation, weakly impressed and inconspicuous, formed by small slightly transversely elongate polygonal meshes, and by a distinct striolation formed by short transverse or slightly oblique striae. Lateral pubescence anteriorly as wide as pronotal one, running parallel to the elytral border until the last 1/5 of the elytra, then dilated in a concave line to reach the suture shortly before the truncature, so that the pronoto-elytral glabrous area forms a very regular oval, terminating posteriorly with an obtuse angle (Fig. 5a). Sutural angle of elytra almost 90°, briefly rounded at the tip; epipleural angle obtuse and widely rounded, almost obliterated.



Figs. 2- 3: 2) *Orectochilus jaechi* sp.n.: a) habitus, ♂; b) front leg, ♂; c) aedeagus; d) tip of penis in ventral view; e) spermatheca; 3) *Orectochilus jilanzhui*: a) habitus, ♂; b) front leg, ♂; c) aedeagus; d) spermatheca.

Last abdominal tergites black; underside dark ferruginous almost black with yellow epipleura and last abdominal sternites slightly lighter, ferruginous.

Legs ferruginous.



Figs. 4 - 5: 4) *Orectochilus wangi*: a) habitus, ♀; b) front leg, ♂; c) aedeagus; d) tip of penis in lateral view (dorsal side to the left); e) tip of penis in ventral view; f) spermatheca; 5) *Orectochilus schillhammeri* sp.n.: a) habitus, ♂; b) front leg, ♂; c) aedeagus; d) tip of penis in ventral view; e) spermatheca.

♂: front legs with tarsi strongly dilated, distinctly oval shaped, almost as long as front tibiae (Fig. 5b); pronoto-elytral glabrous area terminating posteriorly with an obtuse but not very wide angle (Fig. 5a). Aedeagus as in Figs. 5c, 5d.

♀: front legs with tarsi not dilated, parallel-sided; pronoto-elytral glabrous area terminating posteriorly with an obtuse angle, much wider than in ♂. Spermatheca as in Fig. 5e.

DIAGNOSIS: This species is characterized by the relative length of front tarsi and front tibiae in ♂♂: the tarsi are distinctly longer than in most species of the *O. chinensis* RÉGIMBART group, but shorter than in *O. wangi*, *O. wui* OCHS and *O. grandipes* OCHS.

DISTRIBUTION: Endemic to China (Guangxi).

Orectochilus wangi sp.n.

TYPE LOCALITY: Anhui (CWBS loc. 284).

TYPE MATERIAL: **Holotype** ♂ (CASS): "China: Anhui, Huang Shan, 30 Km W Tunxi, 24.10.1997, Qi Yun Shan, 500 m, leg. M. Wang (CWBS 284)". **Paratypes** (NMW, PMB): 4 ♂♂, 1 ♀ with the same locality data as holotype; 1 ♀: "China: Zhejiang prov., Anji County, 1000 m, Long Wang Shan N.R., 13.5.1996, stream pool".

DESCRIPTION: Habitus (Fig. 1). Medium-sized species, moderately convex; length 6.6 - 7.2 mm, width 3.4 - 3.8 mm. Upper side distinctly bronzed with yellow lateral margins on pronotum and elytra. In this species ♂ and ♀ are so different that it is more convenient to describe them separately.

♂: Head bronzed. Labrum wide and short, on average three times as wide as long. Labral surface in its anterior part very smooth, due to almost complete obliteration of the microreticulation: only at very high magnification is it possible to see faint traces of a reticulation formed by transversely elongate polygonal meshes, with fine punctures interspersed. Posteriorly, instead, the surface is covered by a narrow transverse strip of strong punctures (spaces between the punctures equal to or smaller than the diameter of the punctures) in which yellow hairs are inserted. Fronto-clypeal suture distinct, clypeus with anterior margin weakly concave. Clypeal surface smooth due to almost complete obliteration of the microreticulation but covered by an irregular punctation, formed by rather strong punctures of different sizes; spaces between the punctures on average equal to or greater than the diameter of the punctures. Frontal surface anteriorly (especially before the eyes) covered by a weak microreticulation of polygonal, isodiametric meshes, which becomes progressively obliterated backwards, so that the posterior half is very smooth. The whole surface is also covered by a strong punctation (spaces between the punctures on average 2 - 3 times as wide as the diameter of the punctures); the punctures become progressively finer in the posterior part of the frons and disappear on the vertex.

Pronotum rather strongly attenuated from base to apex, black with bronzy sheen and yellow lateral borders. Surface of pronotal glabrous area smooth due to almost complete obliteration of the microreticulation formed by polygonal isodiametric meshes, of which only faint traces can be seen. The surface is covered by a distinct punctation, with many punctures merging in rows to form weakly impressed but distinct wrinkles, which delineate incompletely closed secondary meshes. The wrinkles are almost obliterated on a narrow transverse strip in the centre of the pronotal disc. Lateral pubescence anteriorly reaching the external 1/3 of the eye, weakly reduced backwards in a concave line. Scutellum short and wide.

Elytra black with bronzy sheen and yellow lateral borders. Surface of elytral glabrous area covered by a weak microreticulation formed by small transversely elongate polygonal meshes and by a strong striolation, formed by short transverse or oblique striae. The striae are slightly shorter in the periscutellar area and near the suture and longer at the sides. Lateral pubescence anteriorly as wide as pronotal one, parallel to the elytral margin backwards until the last 1/4 of the elytron, then regularly dilated in a concave line, reaching the suture shortly before the truncature, so that the pronoto-elytral glabrous area forms a very regular oval, terminating posteriorly with an obtuse but not very wide angle (Fig. 1). Sutural angle obtuse, almost 90°, briefly rounded at the tip, epipleural angle obtuse, widely rounded, almost obliterated.

Last abdominal tergites black; underside dark ferruginous almost black, with last abdominal sternites slightly lighter.

Legs ferruginous; front legs with tibiae short and wide, triangular; row of denticles on antero-external angle of front tibiae formed by 6 - 7 elements, visible from above. Front tarsi strongly dilated, enormous, longer than front tibiae, parallel-sided, rectangular, terminating with two slender sickle-shaped claws (Fig. 4b). Aedeagus as in Figs. 4c - 4e, terminating with a thin hook-like process, turned upwards (dorsally).

♀: head and pronotum as in ♂. Surface of elytral glabrous area with microreticulation, at least in the periscutellar area and along the suture, strongly impressed, almost granular. Reticulation formed of polygonal meshes, almost isodiametric on the elytral disc, more transversely elongate at the sides. Striation thicker than in ♂, the single striae being wider and more irregular. The combination of stronger microreticulation and thicker striation makes the surface very rough, almost granular, so that even with the naked eye the elytral surface looks distinctly duller than in the ♂. Elytral lateral pubescence anteriorly as wide as pronotal one, at first parallel to the elytral border until almost half the elytron, then suddenly reduced to a very narrow strip, not visible from above, and then in the last 1/5 of the elytron again dilated and reaching the suture immediately before the truncature with a slightly sinuous line, so that the pronoto-elytral glabrous area assumes a very characteristic shape, with two postero-lateral expansions (Fig. 4a).

Last abdominal tergites and underside as in ♂.

Front legs, front tibiae in particular, more slender than in the ♂, front tarsi not dilated, parallel-sided, shorter than front tibiae. Row of denticles on antero-external angle of front tibiae formed by 22 - 23 elements, distinctly visible from above. Spermatheca as in Fig. 4f, with tank forming a complete ring.

DIAGNOSIS: This species is unmistakable, the ♂♂ being characterized by their enormous front tarsi, the female by the shape of the glabrous area and by the extremely rough microreticulation. It belongs to what may be considered as a subgroup within the *O. chinensis* group, formed also by *O. schillhammeri*, *O. wui* and *O. grandipes*, and characterized by the very large front tarsi of ♂♂, which are almost as long as or, in this case, even longer than the front tibiae.

DISTRIBUTION: Endemic to China (Anhui, Zhejiang).

Acknowledgements

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