

# THE *OBRIINI* OF THE JAPANESE EMPIRE (*COLEOPT.*, *CERAMBYCIDAE*)

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The tribe *O briini* is not a large one, but is distributed throughout the major regions of the world. It is essentially composed of the large genus *O brium*, which has a general distribution but with most of its species in North and Central America, the Oriental genus *Stenhomalus*, with but a few species, and a number of largely monotypic genera, many of which are found in Africa. Until the past few years only five species of the tribe were recorded from the Japanese archipelagoes, including Formosa, but in 1933 MATSUSHITA<sup>1</sup> added to the Formosan fauna two new species and a species previously known from the continent. In the present paper the author describes two new species from Formosa and one from the Loochoo (Ryu Kyu) Islands, the latter species being the type of a new genus, and also makes known a Loochooan record for one of the Japanese species.

Previous authors have accepted coarsely faceted eyes as a characteristic of the tribe *O briini*. On this basis MATSUSHITA (l. c. p. 309) transferred SCHWARZER's *Ipora ? apicale*<sup>2</sup> to the *Cleomini*, erecting for it a new genus, *O briomorpha*. (The latter name is unfortunately preoccupied by AURIVILLIUS). This genus, however, agrees much more closely with other genera of the *O briini* than with any of the *Cleomini*. This relationship is particularly emphasized by the similar coxal cavities and the characteristic development of the abdominal segment of the female. For this reason, it seems advisable to return SCHWARZER's species to the *O briini*. That other members of the tribe may have the eyes finely faceted is proven by the discovery of one of the species of *Stenhomalus* described in this paper.

## Tribe **O briini** LACORDAIRE

LACORDAIRE, Hist. Nat. Ins.: Genères Coleoptères, VIII, p. 360.

Eyes variable, generally large and coarsely faceted, exceptionally small and

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1. MATSUSHITA, M.: Journ. Fac. Agric. Hokkaido Imper. Univ., XXXIV, II, p. 307 (1933).

2. SCHWARZER, B.: Entom. Blätter, 21, Heft 1, p. 23 (1925).

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finely faceted. Anterior coxal cavities round, closed posteriorly; middle coxal cavities not open to epimera. Abdomen of female in most genera with first segment elongate, the remaining abbreviated, the second segment with a fringe of hairs which largely conceals the last three segments; abdomen of male with last four segments not abbreviated.

#### Key to Genera

1. Prothorax more or less tuberculate at sides; eyes swollen. ... .. 2  
Prothorax non-tuberculate at sides; eyes small. ... .. 3
2. Metepisternum with a deep longitudinal groove; anterior coxae conical; antennae without long hairs. ... .. *Obrium*  
Metepisternum not longitudinally grooved; anterior coxae globular; antennae with third and fourth segments with long, apical hairs internally. ... .. *Stenhomalus*
3. Eyes coarsely faceted. ... .. *Iphrobium*  
Eyes finely faceted. ... .. *Pseudiphra*

#### Genus *Obrium* CURTIS

CURT., Brit. Ent., II, t. 91 (1825).

Characterized by the strongly conical and somewhat broadened anterior coxae and the metepisternum with a deep longitudinal groove. Antennae with the basal segments clothed rather evenly with a few moderate hairs, lacking longer hairs at their apices.

Genotype: *Obrium cantharinum* LINN.

Range: All the zoögeographical regions.

#### Key to Species

1. Body unicolorous. ... .. 2  
Body bicolored, anterior portion brown. ... .. *japonicum*
2. Antennae of male twice as long as body; elytra long and parallel; color pale, testaceous. ... .. *longicorne*  
Antennae of male not twice as long as body; elytra shorter, slightly broadened behind; color deeper, pale amber colored. ... .. *formosanum*

#### *Obrium formosanum* SCHWARZER

SCHWARZER, Entom. Blätter, 21, Heft 1, p. 22 (1925).

SCHWARZER states: "Das Dresdener Museum besitzt ein Männchen dieser Art (bez. SAUTER '09, Teraso), beim welchem Fühler und Beine gelbrot sind". The author's specimen (Bukai, central Formosa, June 14, 1934, J. L. GRESSITT) has the antennae and legs reddish brown like the rest of the body. The typical form has the antennae and legs black.

Distribution: Formosa (Kosempo, Fuhosho, Teraso and Bukai).

***Obrium longicorne* BATES**

BATES, Ann. Mag. Nat. Hist., xii, p. 115 (1873).

Entirely testaceous; antennae of the male twice as long as the body, the third and fourth segments equal in length; elytra long and parallel sided.

Distribution: Japan: Honshu (Nikko).

***Obrium japonicum* PIC**

PIC, Mat. Longic., V, 1, p. 22 (1904).

Anterior portion of body dull brown, remainder testaceous; third antennal segment shorter than fourth; antennae in the male less than twice as long as the body.

Distribution: Japan: Honshu (Sado Island).

**Genus *Stenhomalus* WHITE**

WHITE, Cat. Col. Brit. Mus. VIII, p. 243 (1855).

Anterior coxae more or less globular; mesepisternum not grooved longitudinally; antennae with the third, fourth and sometimes also the fifth segments clothed only internally with hairs except for a few moderate external ones at apices, the apical internal ones longer, often very long and thickened, sometimes several appearing as one; the eyes are generally swollen and closely approximate above and below, but there appear to be exceptions to this rule, including one of the new species from Formosa herein described, which has the eyes finely faceted, but is otherwise apparently a true member of the genus.

Genotype: *Stenhomalus fenestratus* WHITE

Range: N. India, Ceylon, Burma, China, Japan, Loochoo Is., Formosa and Malay Archipelago.

MATSUSHITA (p. 307) has described and figured (Pl. I, figs. 13 and 14) two new species of *Stenhomalus* from Formosa. I have seen neither of the species, so have based my key on the characters shown in his figures, since little but color is mentioned in the descriptions. I am inclined to believe, however, that the figures are not very accurate, because of some discrepancies. MATSUSHITA's *S. taiwanus* would seem to be at the most but a variety of *cleroides* BATES, and I have a specimen of the latter from the southern Loochoo Islands which I cannot separate from the Japanese form. Possibly *taiwanus* MATSUSH. is the same as the Loochooan form. However, I hesitate to reduce the former to subspecific standing without seeing a specimen.

**Key to Species**

1. Eyes closely approximated below, coarsely faceted. ... .. 2

- Eyes not closely approximated below, finely faceted. ... .. *ruficollis*
2. Hairs at apices of third to fifth antennal segments not very long; elytra without rounded spots.  
     ... .. 3  
 Hairs at apices of third to fifth antennal segments very long; each elytron with two pale oval spots. ... .. *fenestratus*
3. Chestnut brown, the elytra with oblique testaceous bands. ... .. 4  
 Unicolorous: testaceous. ... .. *pallidus*
4. Lateral prothoracic tubercle at middle. ... .. 5  
 Lateral prothoracic tubercle behind middle. ... .. *baibarensis*
5. Prothorax broader at apex than base. ... .. *cleroides*  
 Prothorax not broader at apex than base. ... .. *taiwanus*

***Stenomalus fenestratus* WHITE**

WHITE, Cat. Cal. Brit. Mus, Longic., VIII, p. 243, pl. 8, fig. 2 (1855).

Dark chestnut brown; the elytra largely dull, each elytron with two oval pale testaceous spots, one near the middle and the other towards the apex and smaller. The Formosan individuals have the spots smaller and the posterior one more posteriorly placed than in the typical forms from the continent.

Distribution: N. China; N. India; Formosa (Suisha, Baibara, Taihorin).

***Stenomalus pallidus* GRESSITT, new species**

Small, subparallel; elytra, antennae and legs testaceous, the scape dark, head and prothorax subrufo-castaneous, ventral surface intermediate in color, the abdomen lighter, eyes silvery black; elytra thinly clothed with short, reclining hairs, remainder of body sparsely clothed with moderately long erect or suberect hairs, a few on basal portion of elytra, those on ventral surface mostly obliquely inclined, antennae with a very few hairs on the inner side of basal segments.

Head broad; eyes strongly swollen, coarsely faceted, nearly meeting above and below, strongly indented behind antennae; interantennal area slightly concave, finely sulcate from posterior margin of eyes to near apex of frons; clypeus short, a transverse concavity between it and frons; labrum and mandibles short. Antennae nearly half again as long as body, with very few hairs; scape subpedunculate and arched; second segment slightly longer than broad; third and fourth segments subequal, each slightly shorter than scape; fifth, one-half again as long as fourth, equal to the following; the apical ones slightly shorter. Prothorax narrow, twice as long as width at base; broader at apex than base; moderately strongly and bluntly tuberculate at sides before middle, constricted before and behind swelling; surface hardly punctate. Scutellum narrow. Elytra nearly twice as broad as base of prothorax, very slightly broadened posteriorly; apices rounded; surface moderately punctate except at apices. Abdomen (♂)

with the first segment slightly shorter than remaining segments combined, second to fourth segments consecutively shorter; (♀) first segment long, the remainder abbreviated and fringed as is typical in the *Obrini*. Legs with the femora swollen and somewhat flattened, those of the middle and hind pairs somewhat arched; tarsi with the first segment shorter than the following two segments combined. Length 4.3-6 mm.; breadth 1.1-1.4 mm.

Holotype, ♂ (Calif. Acad. Sci., San Francisco), taken at Suisha, beside Lake Candidius, central Formosa, at an alt. of 750 meters on June 2, 1934, and allotype, ♀, in the author's collection, taken at Hassenzan, north-central Formosa, at an alt. of 1,200 meters, on June 24, 1934 by the author.

This species differs from the other known members of the genus in being entirely testaceous.

***Stenhomalus cleroides* BATES**

BATES, Ann. Mag. Nat. Hist., xii, p. 155 (1873).

Dark chestnut brown with the antennae and legs paler, the apices of antennal segments and middle portion of femora darker; each elytron with two oblique testaceous bands which turn posteriorly near suture, one commencing near base, the other near middle, a narrow dark band behind the second light one and the remaining portion testaceous except for a transverse apical band which is dark.

Distribution: Japan: Honshu (Ippongi, Mt. Takao, Yokohama), southern Loochoo Islands (Miyako Id., July 14, 1934, H. YASHIRO, collector).

***Stenhomalus taiwanus* MATSUSHITA**

MASTUSH., Journ. Fac. Agric. Hokkaido Imp. U., XXXIV, II, p. 307, Pl. I, fig. 13 (1933).

The markings apparently the same as in *cleroides* B. The drawing shows the prothorax to be no broader at apex than base, the lateral tubercles slightly stronger, and the hairs of the antennae somewhat different.

Distribution: Formosa (Baibara, Hozan).

***Stenhomalus baibarensis* MATSUSHITA**

MASTUSH., Journ. Fac. Agric. Hokkaido Imp. U., XXXIV, II, p. 307, Pl. I, fig. 14 (1933).

The drawing shows the prothorax to be narrower and the tubercles placed behind the middle of sides, and the markings to be similar to *cleroides* B., but with the posterior portion of elytra largely dark instead of largely testaceous; also the scape seems abnormally swollen and legs very hairy.

Distribution: Formosa (Baibara).

***Stenhomalus ruficollis*** GRESSITT, new species

♀. Elongate, narrow, subparallel; black, the elytra dull caramel brown anteriorly with the suture and posterior portion nearly black, prothorax and head orange-red, except for eyes and mouthparts which are black and palpi castaneous, the concave posterior margin of second abdominal segment with a broad, dense fringe of buff hairs; body clothed with moderately long erect hairs, antennae basally with long hairs below, and internally with longer hairs at the apices of third to seventh segments, the last four segments naked.

Head not quite as broad as long, barely broader than prothorax, two-thirds as broad as elytra at shoulders; eyes finely faceted, lateral, mediocre, not greatly swollen, deeply constricted above and below, nearly divided, the dorsal lobes very narrow, not closely approximated above, distant below; antennal tubercles broadly swollen, distant, longitudinally sulcate between the two; occiput, vertex and frons microgranulose, last named broad and short, transversely sulcate apically; clypeus and labrum short; mandibles broadly inserted; maxillary palpi with the last segment long, fusiform and subobliquely truncated. Antennae one-fourth longer than body; scape swollen, slightly arched; second segment as broad as long; third segment swollen at apex, the fourth less so, the former slightly shorter than the latter; fifth to seventh subequal, each one and one-half times as long as fourth; eighth and ninth subequal; tenth slightly less; the last still shorter. Prothorax twice as long as width at base, strongly swollen in middle, bluntly tuberculate at sides, a lesser tubercle above at each side near lateral tubercle; apical portion strongly swollen, higher than, and nearly as broad as middle portion, surface with a very few small punctures. Scutellum minute, squarish. Elytra nearly twice as broad as base of prothorax, long, very slightly broadened posteriorly, sides nearly straight; surface moderately punctured in irregular rows for basal two-thirds; apices rounded. Legs with the fore femora strongly swollen, the middle and hind pairs progressively less so, the hind pair reaching to elytral apices; tibiae fine; hind tarsi with the first segment subequal to following two segments united, the third cleft to base. Length 5.7 mm.; breadth 1.5 mm.

Holotype, ♀, a unique, in the author's collection, taken at Mizuho, east coast of Formosa, at alt. of 100 meters, on April 22, 1932 by the author.

A rather aberrant species with very narrow and meagerly swollen eyes, which are distant below and relatively finely faceted. The last character would place the species outside the tribe *Obrini* according to previous restrictions, but this does not seem justified, for the other characters agree with *Stenhomalus*,

***Iphrobium*** GRESSITT, new genus

Anterior coxae subconical, their acetabula round and closed behind; middle coxal cavities closed; prothorax non-tuberculate, its sides even; antennae with fourth segment considerably shorter than third, third approximating fifth in length; form flattened, narrowed in middle portion, elytra expanded in posterior half.

Head nearly horizontal; frons large, very slightly deflexed, subrectangular, slightly broader between antennae and slightly longer than broad, with a deep transverse slightly arched groove near base of clypeus; vertex and occiput as broad as frons; eyes small, moderately coarsely faceted, very narrow and only slightly swollen, lobes very distant both dorsally and ventrally; maxillary palpi long, last segment swollen and obliquely truncate at apex. Antennae very fine, filiform, third and fourth segments slightly swollen at apices, three apical segments slightly flattened; naked, except for a single row of a few very short, suberect hairs on ventral surface of basal segments; scape pedunculate and arched, equal in length to second and third segments combined; second segment one and one-half times as long as broad; fourth segment three-fourths as long as third; fifth longest, subequal to scape, nearly twice length of fourth, only slightly longer than sixth; sixth and seventh equal; remainder slightly shorter and subequal. Prothorax long, very plain; base three-fourths as broad as apex; apex slightly more and base slightly less than one-half of length; base two-thirds as broad as base of elytra, not constricted, but gradually narrowed from middle; very slightly narrowed between apex and middle portion, which is only very slightly swollen. Elytra flat above, deflexed at sides, parallel for basal two-fifths, then markedly broadened to one and one-half their basal width in posterior half and broadly rounded externally at apices, the sutural angles nearly right angles; surface neatly marked with about ten rows of small punctures which disappear after middle. Front coxae contiguous, inserted near posterior margin of prosternum, subconical. Legs fine; femora swollen, fusiform, pedunculate; hind tibiae slightly arched; tarsi with first segment shorter than following two segments in middle pair, equal in hind pair; third segment somewhat dilated; last segment short, the claws very fine.

♂, first abdominal segment nearly as long as others combined, succeeding segments gradually shorter.

♀, abdomen with first segment as long as rest combined; second segment with its posterior margin strongly concave, with a fringe of fine hairs, very short in middle and half as long as first at sides; third very short, hidden under fringe of second except at sides; fourth short, posterior margin transverse, fifth very short and narrow.

Genotype: *Iphrobrium dilatipenne* GRESSITT, new species.

Range: Southern Loochoo Islands (Iriomote Island).

This genus is related to the following one and to *Iphra* PASCOE<sup>1</sup>, differing from the former in its narrower, and coarsely, instead of finely, faceted eyes, its flatter form and its antennae having shorter hairs, and from the latter in its prothorax not constricted basally, and from both in its broadened elytra and less clavate femora.

***Iphrobrium dilatipenne* GRESSITT, new species**

Small, flattened, shoulders narrow, elytra expanded posteriorly, prothorax non-tuberculate, antennae nearly naked; color testaceous and dull chestnut brown; dorsal surface dull chestnut brown except for the following pale buff areas; front and sides of upper portions of head, an interrupted mid-longitudinal line on pronotum, and four sets of bands or spots on the elytra, the first the largest, forming a transverse band at end of first quarter, narrow in the middle of each elytron and expanded at suture into a diamond shaped longitudinal spot, and at sides into a longitudinal stripe which extends broadly along margin to behind middle and narrowly anteriorly to humerus; the second fascia consists of a suboblique rounded spot placed just behind middle near suture on each elytron; the third consists of a similar pair of spots which are smaller, more rounded and placed directly behind the former; last fascia consists of a broad oblique apical band; palpi, antennae, prosternum, sides of prothorax, mesosternum and legs, except middle portion of hind femora, pale testaceous; abdomen deep ochraceous, metasternum darker; body practically naked, a thin fringe of very short hairs on underside of antennal segments; surface fairly smooth, head microgranulose, pronotum more minutely corrugated transversely elytra with slightly more than the basal half deeply punctured in fairly regular, compact rows, broadened portion impunctate, abdomen glabrous, the female having the posterior margin of the second segment with a broad fringe of hairs.

Head as broad as long, broader than prothorax and practically as broad as elytra at shoulders; eyes very small, coarsely faceted, rounded and somewhat prominent laterally, strongly constricted, the dorsal lobe narrow and curved; occiput, vertex and frons equal in width and parallel sided; antennal tubercles rather distant and insignificant; frons with a slightly curved transverse sulcature before apex; labrum minute, setiferous; maxillary palpi long, with the last segment swollen and obliquely truncated. Antennae one-fourth longer than body, very fine; scape pedunculate and swollen, slightly arched; second segment longer than broad; third segment three-fourths as long as scape and fifth

1. PASCOE: Trans. Ent. Soc. Lond., 3rd ser., III, p. 502.



segment; fourth two-thirds as long as third; sixth subequal to fifth; seventh to tenth gradually shorter; eleventh equal to ninth. Prothorax one-half again as long as broad, narrowed basally, middle broadest, but not swollen, the sides even; base three-fourths as broad as elytra at shoulders. Scutellum minute, bluntly triangular. Elytra but one-third longer than head and prothorax united, narrow and parallel for basal half, markedly broadened behind middle, and rounded posteriorly. Legs with the femora somewhat swollen and flattened. Abdomen with the first segment long, the succeeding segments greatly abbreviated in the female. Length 5-4.9 mm.; breadth .9-1 mm.

Holotype, male (Calif. Acad. Sci., San Francisco), taken by the author at an alt. of 50 meters near the southern part of Iriomote Island, Sakishima group, southern Loochoo (Riu Kiu) Islands (N. Lat.  $24^{\circ}20'$ , E. Long.  $123^{\circ}40'$ ), on Aug. 24, 1934, and allotype, female, taken the same day, in the author's collection.

This species appears to be very closely related to *Iphra quadriguttata* HELLER<sup>1</sup> from Borneo, and the latter may very likely fall in this genus.

#### Genus *Pseudiphra* GRESSITT, new name

*Obrimorpha* MATSUSHITA, Journ. Fac. Agr. Hokkaido Imp. Univ., XXXIV, II, p. 309 (1933); (nec. AURIVILLIUS, Ark. Zool., 10, No. 23, p. 20 (1917).

Eyes small and finely faceted, fore coxae subglobular, slightly conical, their cavities rounded externally; prothorax non-tuberculate, but slightly swollen in the middle, twice as long as breadth at base, the apex broader than the base; femora pedunculate clavate; abdomen as in *Stenhomalus*.

Genotype: *Pseudiphra apicale* (SCHWARZER).

Range: Formosa, Philippines.

MATSUSHITA places this genus in the *Cleomini* because of its finely faceted eyes, but I see no justification for this, so I return it to the *Obrini*. The sexual dimorphism in the abdomen and the structure of the middle coxal cavities and other characters agree well with the *Obrini*.

#### *Pseudiphra apicale* (SCHWARZER)

*Iphra* ? *apicale* SCHWARZER, Ent. Blätter, 21, Heft I, p. 23 (1925).

Pale castaneous brown, the apical third of elytra, head, scape, and legs, except basal portion of femora, black; apices of antennal segments dark.

Distribution: Formosa (Baikéi, Koshun, Kosempo, Hozan); P. I. (Luzon, Mindanao).

HELLER: Entomolog. Mitteilungen, XIII, Nr. 4/5, p. 196, Pl. 2, fig. 7 (1924).

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 WHITE, A.: Cat. Col. Brit. Mus., VIII, Longicornia II.

## Japanese Names

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|-----|--|-----|-----|-----|--------------------|
| 1.  | <i>Obrium formosanum</i> SCHWARZER                   | ... | ... | ... | チビアナカミキリ           |
| 2.  | <i>O. longicorne</i> BATES                           | ... | ... | ... | ニツコウアナカミキリ (新稱)    |
| 3.  | <i>O. japonicum</i> PIC                              | ... | ... | ... | サドアナカミキリ (新稱)      |
| 4.  | <i>Stenhomalus fenestratus</i> WHITE                 | ... | ... | ... | ヨツボツアナカミキリ (新稱)    |
| 5.  | <i>S. pallidus</i> GRESSITT (n. sp.)                 | ... | ... | ... | ウスアナカミキリ (新種、新稱)   |
| 6.  | <i>S. cleroides</i> BATES                            | ... | ... | ... | カツコウアナカミキリ (新稱)    |
| 7.  | <i>S. taiwanus</i> MATSUSHITA                        | ... | ... | ... | タイワンアナカミキリ (新稱)    |
| 8.  | <i>S. baibarensis</i> MATSUSHITA                     | ... | ... | ... | バイバラアナカミキリ (新稱)    |
| 9.  | <i>S. ruficollis</i> GRESSITT (n. sp.)               | ... | ... | ... | アカクビアナカミキリ (新種、新稱) |
| 10. | <i>Iphrobrium</i> (n. gen.)                          |     |     |     |                    |
|     | <i>dilatipenne</i> GRESSITT (n. sp.)                 | ... | ... | ... | リウキウアナカミキリ (新種、新稱) |
| 11. | <i>Pseudiphra</i> (n. n.) <i>apicale</i> (SCHWARZER) | ... | ... | ... | カンカウアナカミキリ         |