

## Overview of the genus *Oxygnathus* Chaudoir, 1879 with description of two new species from Myanmar (Coleoptera: Carabidae: Scaritinae: Clivinini)

Petr BULIRSCH

Milánská 461, CZ-109 00 Praha 111, Czech Republic  
e-mail: p.bulirsch@seznam.cz

**Taxonomy, new species, key, Coleoptera, Carabidae, Scaritinae, Clivinini, *Oxygnathus*, Myanmar**

**Abstract.** *Oxygnathus ferrugineus* sp. nov. and *O. myanmarensis* sp. nov., from Myanmar, are described, illustrated and compared with both hitherto known members of the genus. Two to date known taxa are redescribed and all species are keyed.

### INTRODUCTION

The genus *Oxygnathus* Dejean, 1826 is endemic to the Oriental Region. Two species have been described to date: *O. elongatus* (Wiedeman, 1823) and *O. aboranus* Andrewes, 1929. Andrewes (1929) appropriately redescribed the genus and also redescribed and keyed both to date known species. Since 1929, according to Lorenz (2005) and author's private database, no new species has been established.

In the recently studied material author discovered two new species, each in the female type only, and their description is the main purpose of the present article.

### MATERIAL AND METHODS

The specimens were dry-mounted and studied, including measurements and examination of the microsculpture, under a magnification of 56×. All specimens were studied and measured. Length and width of body is given with 0.05 mm accuracy; to be comparable with the data in different articles, length of all specimens was measured with as well as without the mandibles; other measurements including ratios and means are rounded down to two decimal places.

For comparison both to date known taxa of the genus were studied including the types and few non-type specimens from BMNH and ZMUC.

Label locality data of all specimens are quoted verbatim except standardized dates.

The following abbreviations are used to indicate the depository of specimens:

BMNH      Natural History Museum, London, United Kingdom;  
PBPC      collection of Petr Bulirsch, Praha, Czech Republic;  
ZMUC      Zoologisk Museum København, Copenhagen, Denmark.

Other abbreviations:

HT: Holotype(s); PT: Paratype(s) / Syntype(s); BSP: basal (prescutellar) setiferous puncture(s); DSP: dorsal setiferous puncture(s); SP: setiferous puncture(s); /, // by locality labels: end of line, label; spec.: unsexed specimen(s); pr: printed; hw: handwritten.

## RESULTS

### Genus *Oxygnathus* Dejean, 1826

*Oxygnathus* Dejean, 1826: 473.

*Oxygnathus* Dejean, 1826: Andrewes (1929): 340.

**Type species:** *Oxygnathus elongatus* (Wiedemann, 1823).

**Diagnosis.** The genus was well characterised by Andrewes (1929) and later partially refined by Perrault (1994). The body is medium-sized to large within the tribe Clivinini. The mandibles are very long, falcate and slender; the labrum is wide, very short, with a single SP at each lateral margin; the antennomere 1 (the scape) is asetose; the palpi are very long and thin; the maxillary palpomere 4 (ultimate) is about 1.5 times longer than 3, the palpomere 2 about as long as 3-4 combined; the labial palpomere 3 almost 1.5 times longer than 2. The prosternal process is without setae, with beaded posterior margin; the metasternal process is bordered between the mesocoxae, without setae; the metasterna are distinctly longer than hind coxae; the metepisterna are rather long, its anterior part is distinctly narrower than the episterna.

The combination of the above mentioned characters is very peculiar within the Oriental Clivinini, especially the asetose scape is, together with the genus *Oxygnathopsis* Louwerens, 1953, unique within the Oriental Clivinini. The latter genus is monotypic, with a single species *O. javana* described by Andrewes (1938) within the genus *Oxygnathus* from the Java Island. The latter species can be distinguished from all species of the genus *Oxygnathus* by the head having the maxillary palpomere 4 (ultimate) gently shorter than 3, only one (posterior) pair of facial SP, rudimental frontal SP without distinct seta, the antennae with the antennomere 1 (scape) as long as 2-3 combined and with the antennomeres 8-10 gently longer than broad, and finally, by the paragenes being only gently elevated posteriorly, without lateral longitudinal tooth. The pronotum has only posterior pair of SP and its lateral channel from the dorsal view is crossed by an unusual, distinct, flat, not laterally protruding tooth, with its top directed forwards and with basis bearing the posterior SP, placed below reflexed lateral margin.

The taxonomical position of both latter genera within the tribe Clivinini is unclear. Whereas Balkenohl (2001) did not include the genus *Oxygnathus* in his 'Key and Catalogue of the Tribe Clivinini from the Oriental Realm' and considered it for 'a genus traditionally placed in Oxystomina (= Forcipatorina)'; Perrault (1994) within his study of Forcipatorina placed this genus to the subtribe Clivinina. Moreover both authors completely omitted the poorly known genus *Oxygnathopsis*.

## *Oxygnathus elongatus* (Wiedemann, 1823)

*Scarites elongatus* Wiedemann, 1823: 38.

*Oxygnathus elongatus* (Wiedemann, 1823): Dejean (1826), 474: revised generic placement.

*Oxygnathus elongatus* (Wiedemann, 1823): Andrewes (1929), 341: redescription, figured specimen.

**Type material examined.** Holotype. [pr on red label ] Type // Mus. / Westerm. // [hw] Bengal / vi.1809 // Elongatus / Wied. // zmuc / 00027834, (ZMUC).

**Next material examined.** (1 ♂): Toungoo // H.E. Andrewes Coll. // B.M.1945-97. // *Oxygnathus elongatus* Wied. / det. Dr. A. Dostal 1998; (1 spec.): Burma / Tarrawaddy // H.E. Andrewes / Coll B.M.1945-97.; (2 spec.): Rangoon / Corbett // H.E. Andrewes Coll / B.M.1945-97; (1 spec.): Toungoo // *Oxygnathus / elongatus* Wied. / H.E. Andrewes det. // *Oxygnathus / elongatus* / (Wied., 1823) / Reichardt det. 1976 // F. van Emden / Bequest / B.M.1960-129., (all in BMNH).

**Redescription** (based on HT). Colour entirely black, antennae, mouthparts and partially tarsi fuliginous. Measurement (n=6): total length in HT 11.20 mm (10.15 mm without mandibles), in non-types 6.60-9.40 mm, mean 8.90 mm; (6.20-8.85 mm, mean 8.17 mm without mandibles); width in HT 2.80 mm, in non-types 1.65-2.25 mm (mean 2.16 mm). Pronotum in HT 0.95, in non-types 0.95-1.00 (mean 0.97) times as broad as long, elytra in HT 2.02, in non-types 2.03-2.15 (mean 2.08) times as long as broad.

Head. Mandibles rather strongly curved, inner keel rather sharp in apical half, diminished in basal part; surface moderately shiny, with irregular reticulation and dense micropunctures, without wrinkles. Eyes moderately large and slightly vaulted; genae about 1.5 times as long as eyes, rather broadly rounded apically; very slightly broader than eyes, with few short and rough wrinkles below posterior margin of eyes, divided from vertex by broad and deep facial furrows; latter direct posteriorly, roughly rugose at bottom, regularly broadening apically, with two facial SP, anterior at midlength of eyes, posterior at level of posterior margin of genae. Frontal furrows very deep and rather narrow, posteriorly diminishing at about midlength of genae; from midlength slightly divergent posteriorly and equally anteriorly, its anterior margin with frontal SP, without transverse furrow. Supraantennal plates distinctly, narrowly beaded, strongly broadened, with rounded angle at midlength. Anterior clypeal margin with indistinct lateral teeth, very slightly, regularly concave, divided from suprantennal plates by broad notch. Surface on each side with deep and narrow longitudinal furrow at middle of interval between frontal and facial furrows, beginning at about level of anterior margin of eyes, superficially connected posteriorly by deep transverse furrow, latter broader and deeper posteriorly. Surface moderately shiny, with indistinct rests of reticulation, with fine micropunctures and few larger punctures on neck and with small and deep pit at middle between eyes. Antennomere 1 (scape) gently longer than 2-4 combined, 4-10 gradually shortened (5-6 slightly longer than broad, 9-10 gently transverse).

Pronotum. Moderately vaulted in lateral view, outline parallel between lateral SP, not narrowed posteriorly, anterior angles small, sharp, slightly protruding, posterior angles with indistinct, very small and rounded tooth; lateral parts of base rather slightly convex, connected with indistinctly protruding median part (flange) at irregular, obtuse angle. Basal inclination and flange with rough transverse wrinkles. Anterior transverse furrow deeply impressed, finely punctate, median line rather broad and very deep, irregularly punctate,

with very fine, irregular longitudinal median keel, anteriorly very shortly prolonged above anterior furrow, posteriorly connected with basal transverse furrow. One anterior and one posterior lateral SP in broad lateral channel; latter slightly narrowed between anterior angles and anterior SP, then broad, narrowly interrupted just above posterior SP and connected with lateral margin of flange. Surface rather shiny, with irregular rests of fine reticulation, with fine micropunctuation and few irregular, rather deep transverse wrinkles. Basal foveae strongly moved medially, small, rounded, superficial, with gently deeper reticulation.

Elytra. Surface shiny, without reticulation on disk, slightly reticulate on base and along lateral margin. Disk slightly vaulted from lateral view, very broadly and superficially concave below humeri in lateral view; outline subparallel, almost directly, slightly divergent posteriorly from humeri to anterior three fifths, fine crenulate below humeri, regularly, rather narrowly rounded posteriorly; base narrow, distinctly margined above intervals 6-8, slightly concave medially, then slightly convex to short humeral ridge; humeri moderately distinct, rather narrowly rounded, without humeral tooth; elytra broadest distinctly below midlength. Base with very sharp, distinctly elevated, longitudinal tubercle above indistinct, rudimental BSP; basal inclination rectangular in lateral view. Striae 1-7 deeply and rather broadly impressed, stria 7 distinctly broader; all striae punctate, inner ones finely, lateral more distinctly, especially stria 7 distinctly and roughly punctate, intervals 1-7 vaulted; inner ones moderately vaulted apically, more distinctly very basally, 6 and especially 7 strongly narrowed basally, forming very narrow and very short to short keel; interval 8 about twice narrower than 7, forming distinct keel, sharper and narrower basally and apically; lateral channel broad, and deep, with distinct tubercles; stria 8 gently recognizable in basal two thirds. Third interval with 5-6 DSP in whole length of stria 3.

Lower surface. Mentum with obtuse postero-lateral angles, outline very slightly margined laterally, slightly convex to very blunt anterior lateral tooth; anterior margin with very blunt anterior tooth; surface very roughly wrinkled, with indistinct reticulation; paragenes peculiar; anteriorly forming long, flat and narrow protuberance, with subparallel lateral margins and narrowly rounded anterior margin, postero-laterally with very short longitudinal keel, forming in lateral view anteriorly excised, distinct and sharp tooth. Head latero-basally, proepisterna, mesoepisterna, ventrites laterally and terminal one on whole surface with rough punctuation.

Legs. Anterior tibiae with three gradually decreasing, rather sharp lateral teeth below final tooth. Connection between terminal tooth and anterior margin of first lateral tooth gently above level of lower margin of protibiae.

Aedeagus (based on non-type male). Median lobe 1.35 mm long, 0.31 times as long as elytra; in lateral view moderately long and moderately broad, rather slightly curved; in ventral view moderately broad, in apical third distinctly narrowed, apex rather short, rather narrowly rounded; left paramere very broad, very abruptly narrowed to thin and short apical part, right paramere thin, rather slightly narrowed apically.

**Distribution.** Eastern India, Myanmar.

## *Oxygnathus aboranus* Andrewes, 1929

*Oxygnathus aboranus* Andrewes, 1929: 342.

**Type material examined.** 2 PT: (1 spec.): Rotung / Kemp, 1400m / Abor Exp. / 30.xii.1911 / Ind. Mus. // [pr on circle label with green borders] Cotype // under / stones // figured (specimen / Indian Mus. / Calcutta // H.E. Andrewes Coll. / B.M.1945-97. // *Oxygnathus aborranus* Andr. / Cotype / Reichardt det. 1976; (1 ♂): 2000-3500 ft. / Abor Exp. / 14-18.iii.1912 / Ind. Mus. // [pr on circle label with green borders] Cotype // H.E. Andrewes Coll. / B.M.1945-97. // *Oxygnathus aborranus* Andr. / Cotype / H.E. Andrewes det., (both in BMNH).

**Redescription.** Colour entirely black, legs fuliginous, antennae and mouthparts dark ferruginous. Measurement (n=2): total length 11.75-13.30 mm (10.80-12.60 mm without mandibles); width 3.25-3.75 mm. Pronotum 1.06-1.13 times as broad as long, elytra 1.71-1.76 times as long as broad.

Head. Mandibles very long, narrow, regularly, rather strongly curved, inner keel rather sharp in apical half, diminishing in basal part; surface shiny, without reticulation and with very dense micropunctures, without wrinkles. Eyes rather small and moderately vaulted; genae about 2.0-2.5 times as long as eyes length, rather broadly rounded apically; very slightly broader than eyes, with few short and rough wrinkles below posterior margin of eyes, divided from vertex by broad and moderately deep facial furrow; latter direct posteriorly, not rugose at bottom, regularly broadening apically, with two facial SP, anterior at level of posterior margin of eyes, posterior at level of posterior margin of genae. Frontal furrows very deep and rather narrow, posteriorly diminishing at level or slightly below posterior margin of eyes; from its midlength indistinctly diverging posteriorly and equally anteriorly, its anterior margin with frontal SP, without transverse furrow. Supraantennal plates distinctly, narrowly beaded, strongly broadened, with broadly rounded angle at midlength. Anterior clypeal margin with indistinct lateral teeth, rather slightly, regularly concave, divided from supraantennal plates by broad notch. Surface on each side with deep and narrow longitudinal furrow in middle of interval between frontal and facial furrows, beginning at about level of anterior margin of eyes, superficially connected posteriorly by rather fine transverse furrow, latter almost diminish medially. Surface shiny, without reticulation, with fine and very dense micropunctures, with fine pit in middle between eyes. Antennomere 1 (scape) longer than 2-4 combined, 4-10 gradually, gently shortened (5-6 very slightly longer than broad, 7-10 slightly transverse).

Pronotum. Slightly vaulted in lateral view, outline slightly concave between lateral SP, not narrowed posteriorly, anterior angles rounded, very slightly protruding, posterior angles with distinct, rather sharp, narrowly rounded tooth; lateral parts of base slightly concave, connected with rather distinctly protruding median part (flange) in irregular, obtuse angle. Basal inclination and flange without transverse wrinkles, divided by deep transverse furrow. Anterior transverse furrow deeply impressed, rather gently punctate, shortly interrupted in middle, median line rather narrow and very deep, impunctate, without longitudinal median keel, anteriorly very shortly prolonged above anterior furrow, posteriorly connected with basal transverse furrow. One anterior and one posterior lateral SP in moderately broad lateral channel; latter narrowed between anterior angles and anterior SP, then moderately broad, distinctly interrupted just above posterior SP and connected with lateral margin of

flange. Surface moderately shiny, with fine micropunctuation, latero-basally with distinct reticulation, and with several, rather deep and broad transverse wrinkles. Basal foveae deep, strongly prolonged medio-laterally, forming anteriorly strongly divergent furrows in apical fourth.

Elytra. Surface almost entirely rather dull with rather rough reticulation, especially in striae and latero-apically; inner intervals basally rather shiny, with indistinct reticulation. Disk moderately vaulted, very slightly convex below humeri in lateral view; outline rather strongly convexly broadened posteriorly from humeri to anterior three fifths, regularly, rather broadly rounded posteriorly, not crenulate below humeri; base rather narrow, moderately concave medially, then very shortly and slightly convex to short humeral ridge; humeri broadly rounded, without humeral tooth; elytra broadest distinctly below midlength. Base without tubercles and without BSP. Striae 1-7 deeply and very broadly impressed, latero-basally very distinctly punctate, not duplicated; punctures finer medio-apically; intervals 1-7 narrow, very strongly vaulted, lateral ones strongly narrowed basally; 6-7 forming short and blunt keel below humeri, 8 forming distinct keel, sharper and narrower basally and apically; lateral channel very broad and deep, with distinct tubercles; stria 8 indistinct; interval 3 without DSP.

Lower surface. Mentum latero-basally slightly deepened, excised before rather sharp posterior teeth, without sublateral carina, very slightly, regularly narrowed medio-anteriorly to moderately large, rather blunt antero-lateral teeth; inner surface oblique, very roughly wrinkled, with indistinct reticulation; paragenes peculiar, anteriorly forming strongly deepened, long, flat and narrow protuberance, with narrowly rounded anterior top, postero-laterally with long longitudinal, very strongly and abruptly elevated keel with gently excised anterior margin, forming in lateral view anteriorly protruding, moderately sharp tooth. Prosternal process and metasterna without setae, latter almost twice longer than hind coxae; metepisternum rather long, its anterior part gently narrower than episterna. Head latero-basally with fine punctures, proepisternum and mesoepisternum impunctate, ventrites laterally and whole surface of terminal one with few fine striae and indistinct punctuation.

Legs. Anterior tibiae with three gradually decreasing, moderately sharp lateral teeth below final tooth. Connection between terminal tooth and anterior margin of first lateral tooth moderately distinctly above level of lower margin of protibiae.

Aedeagus. Median lobe 2.75 mm long, 0.50 times as long as elytra; in lateral view very long and very thin, regularly and strongly curved; in ventral view very narrow, apical third very slightly narrowed before apex, latter long, narrowly rounded, gently long spoon-shaped; left paramere broad, very abruptly narrowed to thin, rather short apical part, right one unusually very thin, slightly narrowed apically.

**Distribution.** Myanmar.

*Oxygnathus ferrugineus* sp. nov.

(Fig. 1)

**Type material.** Holotype (♀): Myanmar, Sagaing State / Htamanthi Wildlife Reserve / Base Camp, BBC Expedition / N 25°17'40.3'', E 95°27'43.3'' / 10-21.iii.2013, Dr. RW Phipper Coll. // BMNH(E) / 1516547, (BMNH).

**Description.** Habitus as on Fig. 1. Colour uniformly dark ferruginous, mouthparts slightly lighter. Measurement: total length 8.80mm (8.00 mm without mandibles); width 2.00 mm. Pronotum 0.87 times as broad as long, elytra 2.04 times as long as broad.

Head. Mandibles typical to genus, regularly, moderately strongly curved, inner keel rather sharp in apical half, diminishing in basal part; surface shiny, without reticulation, with dense micropunctures, without wrinkles. Eyes reduced to remnants, discernable as small, not protruding, nearly unfacetted field in antero-lateral margin of very long, very slightly vaulted genae, latter about eight times as long as eyes length, rather broadly rounded apically; narrowly rounded in lateral view, strongly narrowed anteriorly, without wrinkles, divided from vertex by very broad and deep facial furrow, latter rather rough rugose at bottom, not broadening apically, with two facial SP, anterior one below eye remnant and posterior at level of posterior margin of genae. Frontal furrows very deep and rather broad, posteriorly diminishing just below midlength of genae, its anterior margin with frontal SP, without transverse furrow. Supraantennal plates rather slightly, broadly beaded, strongly, irregularly broadened laterally. Anterior clypeal margin with indistinct lateral teeth, very slightly, regularly concave, divided from suprantennal plates by broad notch. Surface on each side with deep and narrow longitudinal furrow at middle of interval between frontal and facial furrows, beginning at about level of eyes, superficially connected posteriorly by fine, medially strongly shortened transverse furrow, latter very broadly diminishing medially. Surface shiny, with indistinct rests of reticulation, with moderately deep micropunctures and with small, superficial pit at middle between eyes. Antennomere 1 (scape) just longer than 2-4 combined, 4-10 gradually gently shortened (5-6 very slightly longer than broad, 7-10 slightly transverse).

Pronotum. Moderately vaulted in lateral view, outline subparallel between lateral SP, very slightly convex in posterior third, anterior angles small, sharp, slightly protruding, posterior ones with very small, very blunt tooth; lateral parts of base not convex, connected with indistinctly protruding median part (flange) in irregular, obtuse angle. Basal inclination and flange with rough transverse wrinkles. Anterior transverse furrow deeply impressed, finely punctate, abruptly, shortly interrupted at middle, median line moderately broad and very deep, impunctate, without longitudinal median keel, anteriorly very shortly prolonged above anterior furrow, posteriorly connected with basal transverse furrow. One anterior and one posterior large lateral SP in moderately broad lateral channel; latter slightly narrowed between anterior angles and anterior SP, then moderately broad, narrowly interrupted just above posterior SP and connected with lateral margin of flange. Surface rather shiny, with irregular, rather fine reticulation, with fine micropunctuation and few irregular, rather deep transverse wrinkles. Basal foveae not moved medially, rather large, rounded, superficial, with deeper reticulation.

Elytra. Surface rather shiny, intervals with indistinct rests of reticulation, latter more



Fig. 1. *Oxygnathus ferrugineus* sp. nov. Habitus (HT). Actual length 8.8 mm.



distinct in striae. Disk distinctly vaulted, not concave below humeri in lateral view; outline slightly vaulted, slightly broadened posteriorly from humeri to anterior three fifths, then regularly, rather broadly rounded posteriorly; rather distinctly crenulate from humeri to anterior three fifths; base narrow, rather strongly concave medially, then very shortly convex to short humeral ridge; humeri strongly projected anteriorly, oblique, without humeral tooth; elytra broadest distinctly below midlength. Base indistinctly margined above intervals 6-8, with very sharp, distinctly elevated, shortly longitudinal tubercle above indistinct, rudimental BSP and with another, more or less distinct, blunt elevations in prolongation of intervals 2-3(4). Striae 1-7 deeply and very broadly impressed, distinctly punctate, strongly broadened and more or less duplicated latero-basally; punctures finer medio-apically; intervals 1-7 strongly vaulted, lateral ones strongly narrowed basally; 5 forming very short, 6-7 longer keel below humeri, 8 forming distinct keel, sharper and narrower basally and apically; lateral channel very broad, and deep, with distinct tubercles; stria 8 indistinct; interval 3 with 2 (left elytron) to 3 (right elytron) fine DSP in apical fourth (left) or half (right) of stria 3.

Lower surface. Mentum latero-basally slightly deepened, moderately convergent to small postero-lateral angles, with moderately strongly elevated sublateral carina, roundly, regularly narrowed medio-anteriorly to moderately large, rather blunt median teeth; posterior angles small, rather blunt; inner surface transversely, rather roughly wrinkled, with fine reticulation; paragenes peculiar; anteriorly forming long, flat and narrow protuberance, with



subparallel lateral margins and apex transversely sliced off; postero-laterally with very short longitudinal keel, forming in lateral view anteriorly indistinctly excised, narrowly rounded tooth. Prosternal process without setae, with distinct reflexed transverse margin; metasterna without setae, distinctly longer than hind coxae; metepisterna rather long, its anterior part distinctly narrower than episterna. Head latero-basally, proepisterna, mesoepisterna, ventrites laterally and terminal one on whole surface with rather rough punctuation.

Legs. Anterior tibiae with three gradually decreasing, moderately sharp lateral teeth below final tooth. Connection between terminal tooth and anterior margin of first lateral tooth moderately distinctly above level of lower margin of protibiae.

**Differential diagnosis.** *O. ferrugineus* sp. nov. can be especially distinguished from both to date known taxa redescribed above, by the body being ferruginous and by the head having strongly reduced eyes. The next differences among all species of the genus *Oxygnathus* are quoted in the key below.

**Name derivation.** In accordance with the unique colour of the type specimen.

**Distribution.** Myanmar, Sagaing State, known only in type specimen.

***Oxygnathus myanmarensis* sp. nov.**

(Fig. 2)

**Type material.** Holotype (♀): Myanmar, Shan State / 14 km NW of Kalaw, 9.vi.2015 / N 20.702915°, E 96.51690° / 895 m, Walter Gresser lgt., (PBPC).

**Description.** Colour of upper surface and anterior legs dark fuliginous, remaining legs and outer antennomeres fuliginous, mouthparts and three basal antennomeres dark ferruginous. Total length 9.60 mm (8.75 mm without mandibles); width 2.15 mm. Pronotum 0.82 times as broad as long, elytra 2.08 times as long as broad.

Head. Mandibles very long, narrow, regularly, moderately strongly curved, inner keel rather sharp in apical half, diminish in basal part; surface moderately shiny, with irregular, fine reticulation, with dense micropunctures, without wrinkles. Eyes reduced to remnants, discernable as small, not protruded, finely faceted field in anterolateral margin of long, rather slightly vaulted genae, latter about four times as long as eyes length, rather broadly rounded apically; broadly rounded in lateral view, gently narrowed anteriorly, without wrinkles, divided from vertex by very broad and deep facial furrow, latter rather roughly rugose at bottom, gently broadening apically, with two facial SP, anterior one at level of posterior margin of eyes, posterior at level of posterior margin of genae. Frontal furrows very deep and moderately broad, subparallel, posteriorly diminish distinctly below midlength of genae, its anterior margin with frontal SP, without transverse furrow. Supraantennal plates distinctly, broadly beaded, strongly broadened. Anterior clypeal margin with indistinct lateral teeth, slightly, regularly concave, divided from suprantennal plates by rather narrow notch. Surface on each side with rather superficial, posteriorly slightly deeper longitudinal furrow in middle of interval between frontal and facial furrows, beginning below level of eyes, not distinctly connected posteriorly by transverse furrow, latter laterally very

Fig. 2. *Oxygnathus myanmarensis* sp. nov. Habitus (HT). Actual length 9.6 mm.



superficial, almost indistinct, very broadly diminishing medially. Surface moderately shiny, with indistinct rests of reticulation, with moderately deep micropunctures and with small and very superficial pit in middle between eyes. Antennomere 1 (scape) longer than 2-4 combined, 4-10 gradually gently shortened (5-6 just longer than broad, 7-10 moniliform to very slightly transverse).

Pronotum. Moderately vaulted in lateral view, outline subparallel between lateral SP, not narrowed in posterior third, anterior angles very small, sharp, slightly protruded, posterior angles with small, rather blunt tooth; lateral parts of base very slightly convex, connected with indistinctly protruded median part (flange) in irregular, obtuse angle. Basal inclination and flange with rough transverse wrinkles. Anterior transverse furrow deeply impressed, rather roughly punctate, not interrupted in middle, median line very broad and very deep, with sparse, rather rough punctures and with irregular, very fine longitudinal median keel, anteriorly very shortly prolonged above anterior furrow, posteriorly connected with basal transverse furrow. One anterior and one posterior, large lateral SP in broad lateral channel; latter strongly narrowed between anterior angles and anterior SP, then moderately broad, indistinctly interrupted just above posterior SP and connected with lateral margin of flange. Surface rather shiny, with very irregular, fine reticulation, with fine micropunctuation and several irregular, rather deep transverse wrinkles. Basal foveae slightly moved antero-medially, rather small and deep, irregularly rounded, without deeper reticulation.

Elytra. Surface rather shiny, intervals almost without, striae with indistinct rests of reticulation. Disk moderately vaulted, not concave below humeri in lateral view; outline slightly convex, slightly broadened posteriorly from humeri to anterior three fifths, then regularly, rather broadly rounded posteriorly, rather gently crenulated from humeri to anterior two fifths; base narrow, moderately strongly concave medially, then very shortly convex to short humeral ridge; humeri moderately projected anteriorly, oblique, without humeral tooth; elytra broadest distinctly below midlength. Base gently margined above intervals 6-8, with moderately sharp, rather distinctly elevated, shortly longitudinal tubercles above indistinct, rudimental BSP, without distinct elevation in prolongation of intervals 2-4. Striae 1-7 deeply and rather broadly impressed, strongly broadened, not duplicated latero-basally; distinctly, rather roughly punctate, punctures finer medio-apically; intervals 1-7 rather strongly vaulted, lateral ones strongly narrowed basally; 5 forming very blunt, 6-7 narrow and sharp keel below humeri, 8 forming blunt keel; lateral channel broad, and deep, with distinct tubercles; stria 8 indistinct; interval 3 with two fine DSP in apical third of stria 3.

Lower surface. Mentum latero-basally deepened, moderately converging to rather small postero-lateral angles, with moderately strongly elevated sublateral carina; roundly, regularly narrowed medio-anteriorly to moderately large, rather blunt median teeth, posterior angles moderately large, rather sharp; inner surface transversely, roughly wrinkled, with very fine reticulation; paragenes peculiar; anteriorly forming long, flat and narrow protuberance, with subparallel lateral margins and narrowly rounded anterior top, postero-laterally with very short longitudinal keel, strongly elevated posteriorly, postero-laterally with very short longitudinal keel, forming in lateral view anteriorly excised, distinct and sharp tooth. Prosternal process without setae, with distinct reflexed transverse margin; metasterna without setae, distinctly longer than hind coxae; metepisterna rather long, its anterior part distinctly narrower than episterna. Head latero-basally, proepisterna, mesoepisterna, ventrites laterally and terminal one on whole surface with moderately rough punctation.

Legs. Anterior tibiae with three gradually decreasing, rather sharp lateral teeth below final tooth. Connection between terminal tooth and anterior margin of first lateral tooth distinctly above level of lower margin of protibiae.

**Differential diagnosis.** *O. myanmarensis* sp. nov. can be especially distinguished from the most similar species, *O. ferrugineus* sp. nov., by the body being dark fuliginous, the head having less strongly reduced eyes and the humeri being less protruded anteriorly. The next differences among all species of the genus *Oxygnathus* are quoted in the key below.

**Name derivation.** In accordance with the origin of the type specimen.

**Distribution.** Myanmar, Shan State, known only in type specimen.

## KEY TO SPECIES OF GENUS *OXYGNATHUS*

- 1(2) Pronotum with distinct lateral sulcus on each side of base and with sharp posterior angles; elytra shorter (ratio about 1.75), with strongly broadened outline; stria 3 without DSP Larger species, length 11.7-13.3 mm. .... *O. aboranus*
- 2(1) Pronotum without lateral sulcus on each side of base and with indistinct to blunt posterior angles; elytra much longer (ratio over 2.00), with slightly broadened outline. Smaller species, length 6.6-11.2 mm.
- 3(4) Eyes moderately large, genae about 1.5 times as long as eyes; elytra with humeri rounded, slightly protruding anteriorly; stria 3 with 5-6 DSP. Length 6.6-11.2 mm. .... *O. elongatus*
- 4(3) Eyes strongly reduced, genae about 4-8 times as long as eyes; elytra with humeri obtuse, moderately to strongly protruding anteriorly and stria 3 with 2-(3) DSP.
- 5(6) Eyes very small, with few slightly differentiated ommatidia, genae about eight times as long as eyes; elytra with humeri strongly protruding anteriorly and with basally duplicated lateral striae. Body dark ferruginous, length 8.8 mm. .... *O. ferrugineus* sp. nov.
- 5(6) Eyes small, genae about four times as long as eyes; elytra with humeri moderately strongly protruding anteriorly and with basally not duplicated lateral striae. Body dark fuliginous, length 9.6 mm. .... *O. myanmarensis* sp. nov.

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