

Study on Prionine Cerambycid *Megopis*
(Coleoptera, Cerambycidae)
(Revisional Studies of the Genus *Megopis* sensu LAMEERE, 1909–9)

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Abstract The prionine cerambycid *Megopis* SERVILLE, 1832 is revised and regarded as a small genus which is distributed only in southeastern Africa and islands of western Indian Ocean. *Megopis modesta* and *M. edgerleyi* are revived as independent species, and *M. coquereli* is revived as a subspecies of *modesta*. A new species *Megopis hirticollis* sp. nov. is described from Mauritius and a key to the species of this genus is given. A new genus *Oceanomegopis* gen. nov. is proposed to receive *M. caledonica* and *M. kudrnai* which are distributed to New Caledonia.

Introduction

The genus *Megopis* SERVILLE, 1832 was erected for *M. mutica* of Mauritius Island. LAMEERE (1919) lumped 37 species, which had elongated body, narrowed to the posterior end of metepisternum, and elongated segment 3 of antennae, into the genus *Megopis*. Since then, the name *Megopis* has long been used very widely, and it has been regarded that this genus is distributed from Africa through Eurasia to islands of Oceania. LAMEERE (1909) divided the genus into five subgenera (later he recognized seven subgenera) and in the subgenus *Megopis*, he involved seven species. Then, he re-divided the subgenus *Megopis* into two groups. The first group (Premier groupe) was composed of *M. bowringi*, *M. terminalis*, *M. sulcipennis* and *M. costipennis* and the second group consisted of *M. mutica*, *M. modesta* and *M. caledonica*. Although he did not give these two groups any names as taxa, he clearly noted several differences between them as if they had been subgenera. This time, we compared every species which are involved in these two groups and found that these two groups bear a very important diversity which was not mentioned by LAMEERE (1909). The distance between under

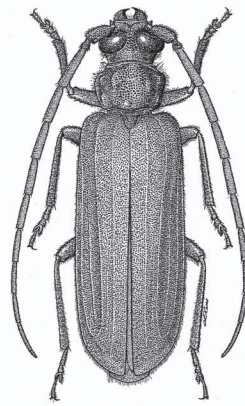
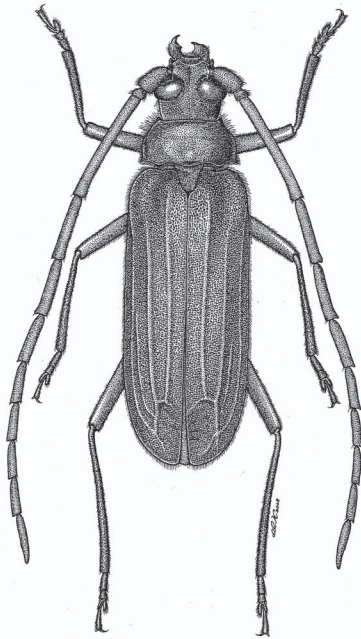
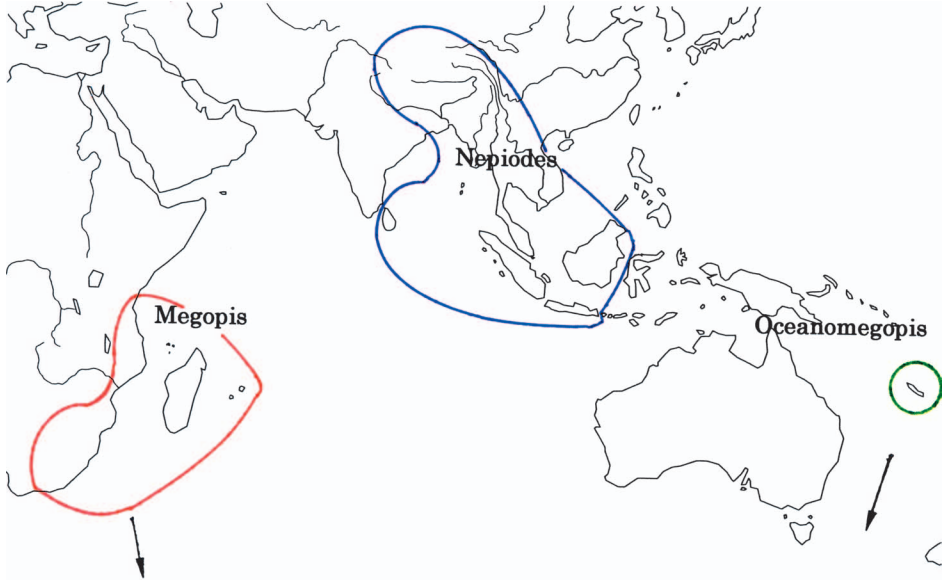
eye-lobes is very remote in the first group (Fig. 30) and very close in the second group (Fig. 19:7). This character-state is sometimes so important as to be used in the key for distinguishing the tribe Meroscelisini from Anacolini (GALILEO, 1987) and we believe that these two groups by LAMEERE (1909) should be regarded as different taxa.

However, concerning *Megopis caledonica*, which had been a member of the second group in LAMEERE (1909), characters did not smoothly agree with the others. This species had not only an intermediate state in the distance of eyes but also a quite different shape of antennae, pronotum and legs from the other members of *Megopis* (Fig. 1: 2). Meanwhile, DRUMONT and VIVES (2007) described a second species of this group, *Megopis kudrnai* (Fig. 32: 5) from New Caledonia. This species probably belongs to the same genus with *M. caledonica* but it also has some similarity to the genus *Toxeutes* NEWMAN, and this fact suggested that *Megopis* of New Caledonia could have an affinity with Australian genera and have an origin independent from *Megopis* of Africa. After a close examination, we found a series of important differences between *Megopis* of Africa and these two species from New Caledonia.

Then, we concluded that the subgenus *Megopis* sensu LAMEERE, 1909 should be divided into three genera which were the genus *Megopis*, a genus for the species group found mainly in tropical Asia (= "Premier groupe" sensu LAMEERE, 1909), and a genus for the species of New Caledonia. These results which were based on morphological diversities also well correspond to geographical distribution of them (see Fig. 1). In this paper, we are going to revise the subgenus *Megopis* sensu LAMEERE, 1909 and propose to regard it as a small genus which is distributed in southeastern Africa and islands of the western Indian Ocean. Then, we will describe a new genus *Oceanomegopis* gen. nov. to receive *Megopis caledonica* and *M. kudrnai* from New Caledonia. As for the subgenus *Megopis* sensu LAMEERE, 1909 from Asia, we will postpone to give precise revision because more investigations will be required for that but tentatively we omit them from the genus *Megopis* under an assumption of transferring them to the genus *Nepiodes* PASCOE, 1867.

The genus *Megopis* (in the sense of this paper) is rather monotypic throughout wide range from South Africa, through the Comoro to Madagascar and suddenly becomes polytypic in Mauritius. LAMEERE (1909, 1919) recognized three species of *Megopis* from Mauritius namely *M. mutica*, *M. modesta* and *M. parallela*. VINSON (1962, 1963) described *M. edgerleyi* and noted that he was unable to confirm *parallela*. QUENTIN and VILLIERS (1975) revised this genus, newly described *M. vinsoni* and regarded *M. modesta* and *M. edgerleyi* as junior synonyms of *M. mutica*. Santos FERREIRA (1980) revived *M. modesta* as independent species and DRUMONT and BJORNSTAD (2005) regarded *M. modesta* again as a synonym of *mutica*. When we started the study of

Fig. 1. Distributional map of the three genera *Megopis*, *Oceanomegopis*, nov. and *Nepiodes* (*Nepiodes* LAMEERE, 1909 + Premier groupe of *Megopis* sensu LAMEERE, 1909). — 1: 1, Habitus of *Megopis modesta modesta*, ♂, of South Africa. — 1: 2, Habitus of *Oceanomegopis caledonica* gen. nov., comb. nov., ♂.



1:1

1:2

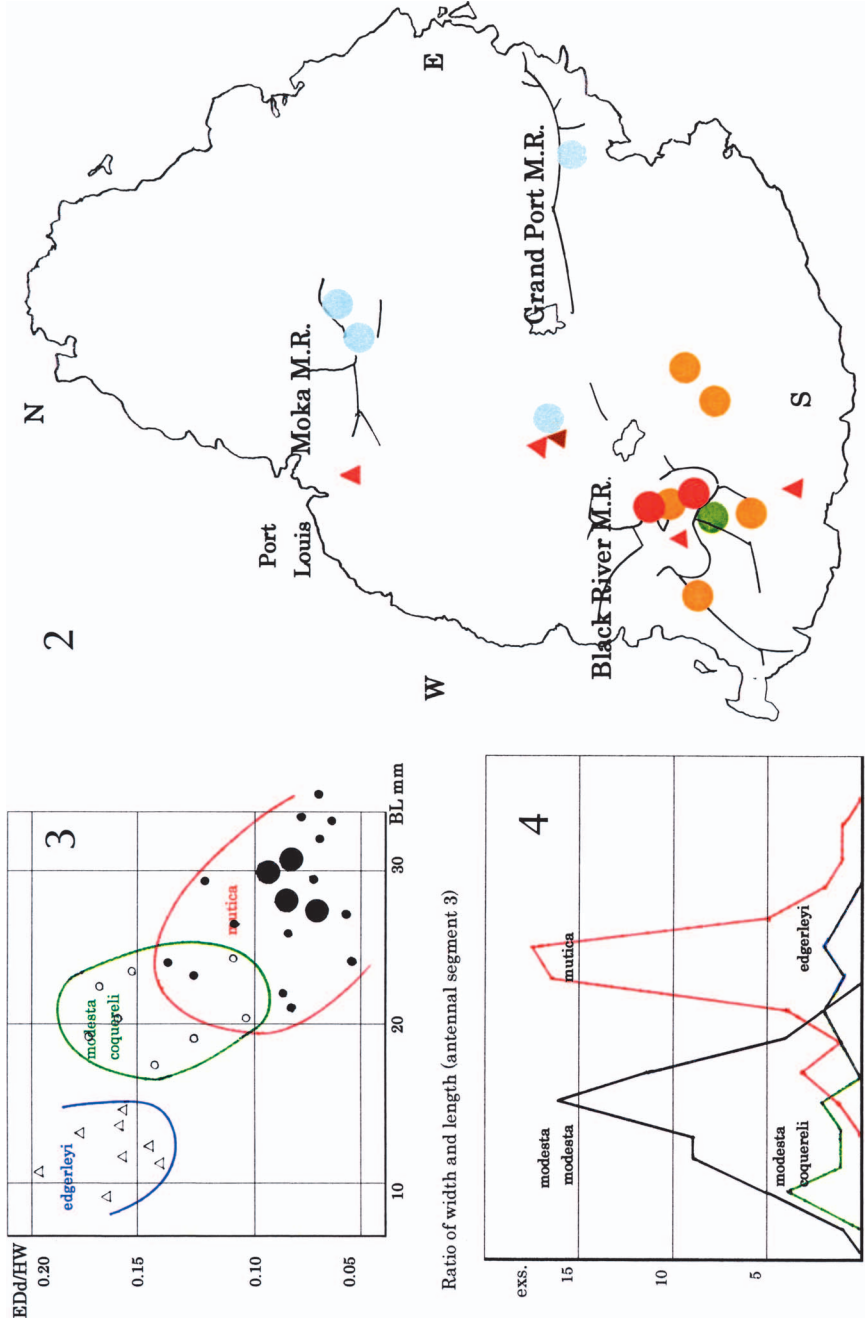


Fig. 2-4. 2, Map of Mauritius. Colored circles: newly found places, red; *Megopsis mutica*, yellow; *M. modesta coquereli*, green; *M. edgerley*, pale blue; no *Megopsis* was found after searching. Colored triangles: confirmed localities of old collection, red; *M. mutica*, brown; type locality of *M. hirticollis* sp. nov. — 3, Comparison of characters of *Megopsis* spp. newly obtained from Mauritius: black circles and red line; *M. mutica* (large circles indicate 10exs.), white circles and green line; *M. modesta coquereli*, triangles and blue line; *M. edgerleyi*. — 4, Ratio of width and length of male antennal segment 3).

Megopsis sensu LAMEERE (1909) in 2001, we considered to take up the nominotypical subgenus in an early stage, but after we examined a series of materials in European museums, we decided to postpone the revision because we found it not easy and we thought it better to do after we would obtain some more data or materials. In 2006, Mr. Ivo JENIS of Czech Republic submitted us fairly long series specimens of this genus and we were able to see in total 81 *Megopsis* spp. from Mauritius which had been obtained after 1990. We also examined 10 new examples of the same genus from Reunion and 72 from continental Africa, the Comoro and Madagascar. After examining total 215 specimens of this genus including the collections in BMNH, MNHN and IRSNB, we concluded that we should revive *M. modesta* and *M. edgarleyi* as independent species. We also proposed to revive *coquereli* FAIRMAIRE from Reunion as a subspecies of *M. modesta* and included *M. modesta* sensu LAMEERE, 1909 from Mauritius into this subspecies. We will describe a new species *M. hirticollis* sp. nov. from Mauritius and give a key to the species of the genus.

The abbreviations and special terminologies used in this paper are the same as those previously used in this series 5–8 (see KOMIYA & DRUMONT, 2007) and we will add the followings: EWd – width of each eye in dorsal view, EDd – Distance of eyes on dorsal side, EDv – Distance of eyes on ventral side.

ADC – collection of Alain DRUMONT, ZKC – collection of Ziro KOMIYA.

Genus *Megopsis* SERVILLE, 1832

Megopsis SERVILLE, 1832, Anns. Soc. ent. Fr., 1: 161. — WHITE, 1853, Cat. Coleopt. Brit. Mus., 7: 27. — THOMSON, 1861, Essai Classif. Ceramb., 289 & 309; 1864, Syst. Ceramb., 288; 1868, Syst. Ceramb., 472; — LACORDAIRE, 1868, Gen. Coleopt., 8: 155. — LAMEERE, 1909, Anns. Soc. ent. Belg., 53: 135 (pro parte); 1913, Coleopt. Cat. Junk, (52): 41 (pro parte); 1919, Gen. Ins. Wytzman, (172): 67 & 71 (pro parte). — VINSON, 1934, Contribution à l'Étude des Coléoptères des Iles Mascareignes, 36 & 37; 1962, Mauritius Ins. Bull., 4: 202. — FERREIRA & Veiga FERREIRA, 1952, Forest Entomology of Mozambique, Cerambycidae, Prioninae, 78; 1959, Mems Inst. Invest. Cient. Mozambique, 33. — GILMOUR, 1956, Longicornia, 3: 108. — QUENTIN & VILLIERS, 1975, Faune de Madagascar, 40: 236. — Santos FERREIRA, 1980, Mem. Nas. Mus. Bloemfontein, (13): 155.

Pachypleura WHITE, 1853, Cat. Coleopt. Brit. Mus., 7: 27. — THOMSON, 1861, Essai Classif. Ceramb., 288 & 308; 1864, Syste. Ceramb., 288; 1865, Syste. Ceramb., 472.

Type species: *Megopsis mutica* SERVILLE, 1832. Anns. Soc. ent. Fr., 1: 162.

M a l e. Body elongate, subcylindrical and depressed in posterior half. BL 9–36 mm, usually between 17–31 mm. Body color brown, sometimes darker or paler, rarely reddish. Most parts of body covered with hairs which are usually thinner on elytra and abdomen.

Head short and thick, usually finely granulate, sometimes punctate on vertex. Mandibles 0.3–0.4 times as long as head, each mandible acute at apex, external side steeply bent just beyond middle and internal side furnished with a tooth at about basal third. Eyes bulging, coarsely faceted, interspace between eyes very narrow, less than a third of each lobe in dorsal side and being narrower in ventral side. Antennae 11–

segmented but segment 11 usually bearing clearly recognizable fused trace of segment 12, covered with short hairs for the most part, punctured in basal two segments and the remainder usually not punctured nor granulated, AL/BL ♂, 1.0–1.3, ♀, 0.7–1.0; basal segments 1 and 2 subcylindrical and slightly depressed on ventral face; segment 3 strongly depressed and ventral face shallowly concave; segments 4–11 depressed; each corner at apical ends of segments 5 to 10 angulate, the angles more distinct in external corner than in internal one; a longitudinal edge running along external margin of segments 3–11 and a more obtuse edge appearing along internal margin; segment 3 about 3–4 times as long as segment 1, segment 4 about 0.4–0.7 times of segment 3, segment 11 as long as segment 4 or 5.

Pronotum hemicircular in dorsal view, widest at base or middle and roundly narrowed apicad, PW/PL ♂, 1.4–1.7, ♀, 1.8–2.1, PA/PB ♂, 1.3–1.6, ♀, 1.7–2.0, usually finely granulate; lateral margins strongly edged in basal half but not clear in apical half; furnished with an acute spine or angle at each basal corner, and often also with a middle spine at about basal third of lateral margin; apical angle obtuse or rounded. Prosternum furnished with a large callosity at each side anterior to coxal cavity, the shape of which is usually triangular in lateral view but very variable in the shape and the state of surface.

Elytra usually as long as three times of the united lengths of head and pronotum, thinly haired and finely punctured, sub-uniformly brown colored but basal part sometimes slightly darker; inner costae (C1, C2) mostly recognizable and often strong, outer costae (C3, C4) feeble or absent but, in *M. edgerleyi*, and *M. hirticollis* sp. nov., C5 is recognized; sutural ends angled but not forming spine.

Legs slender, covered with sparse hairs and partly finely punctured; profemora shallowly longitudinally canaliculated on the underside; tibiae depressed laterally but not so widened; metatarsi narrower than protarsi, claw shorter than united length of three tarsal segments.

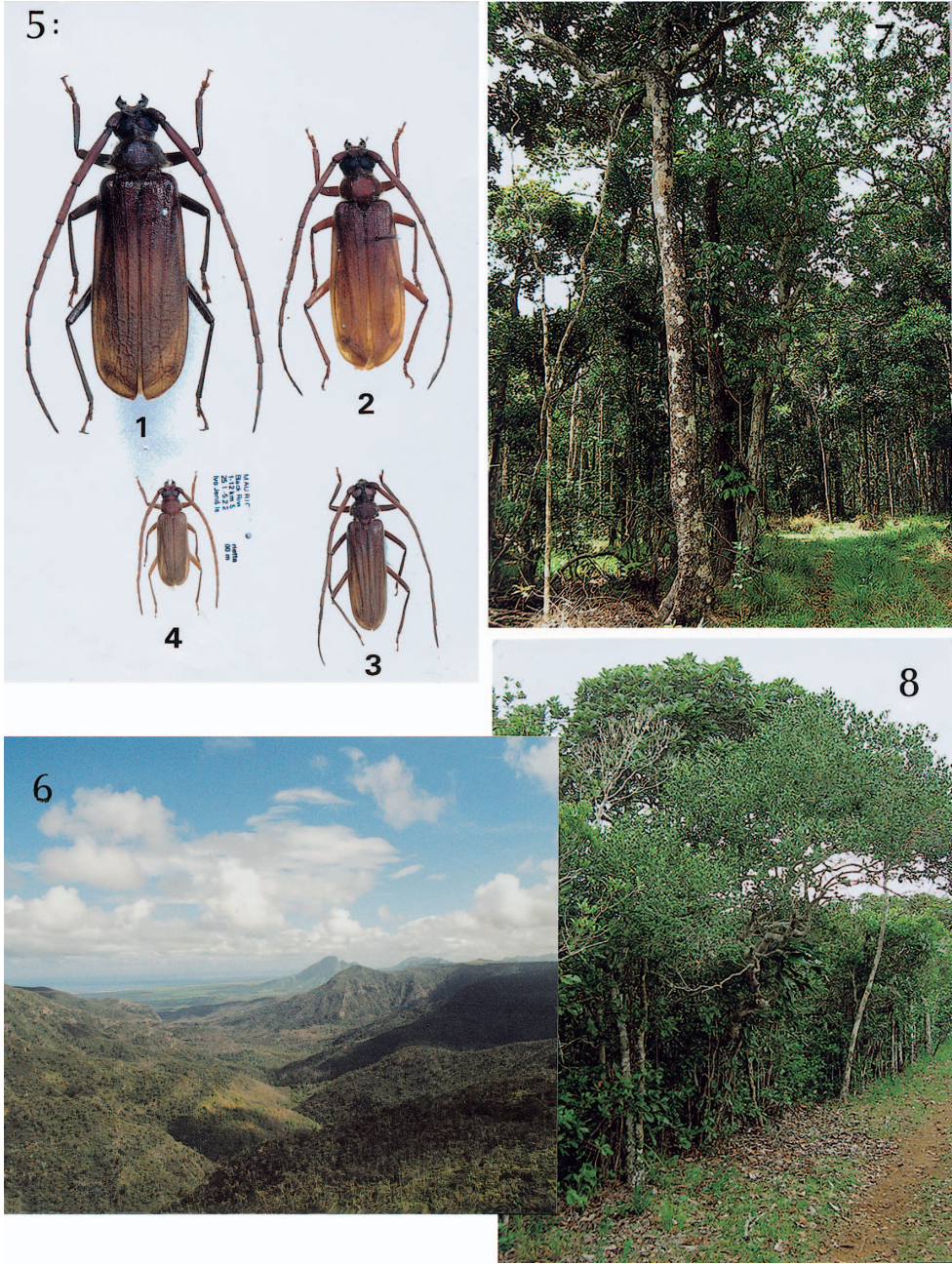
Penis long and slender but not so elongated as in the genus *Aegosoma* or *Spinimegopsis*; lateral lobe about 0.7 times as long as penis.

F e m a l e. Antennae about as long as or shorter than body, slenderer than in male, and the carina of sides is usually recognized only on several apical segments; pronotum shorter and wider than in male, PL/PW > 1.9, elytra longer.

Distribution. Mauritius, Reunion, the Archipelago of Comoro, Madagascar, south-eastern Africa (Rep. South Africa, Mozambique, Tanzania, Kenya).

Notes. This genus belongs to the genus-group with small body (mostly shorter than 32 mm), segment 3 of antennae without hair-fringes, depressed dorso-ventrally and shallowly, longitudinally concave underside. As compared with the other genera, this

Fig. 5–8. 5, *Megopsis* spp. ♂♂, newly obtained from Mauritius; 1 & 2, *M. mutica* ♂, 3, *M. modesta coquereli* ♂, 4, *M. edgerleyi* ♂. — 6, Landscape of the Black River Gorges (photo J. LORENC). — 7, Biotope of a locality where *M. mutica* and *M. coquereli* were found (photo I. JENIS) — 8, Biotope of a locality where *M. edgerleyi* was found (photo I. JENIS).



genus is very distinct in having eyes placed very close to each other especially on ventral side (see Figs. 19: 7, 22: 6, 28). In the genus *Nepiodes* (here, we include the subgenus *Nepiodes* sensu LAMEERE, 1909 and a part of the subgenus *Megopis* sensu LAMEERE, 1909 distributed to Asia, namely *bowringi* GAHAN, *terminalis* GAHAN, *sulcipennis* WHITE, *costipennis* WHITE, *multicarinata* FUCHS and *lineata* HÜDEPOHL in it); eyes widely separated especially on ventral side (see Figs. 29, 30, 31); apical end of elytron with distinct spine. The genus *Oceanomegopis* nov., the description of which will be given later, has pronotum widened at apical corner (Fig. 1: 2), segment 3 of antennae relatively shorter, legs and penis shorter.

Diagnosis of the Genus *Megopis* of Mauritius

Megopis of Mauritius was known polytypical and the taxonomic treatments have been changed many times. After the original description of *Megopis mutica* by SERVILLE (1832), THOMSON (1864) followed that. LAMEERE (1909) recorded four species from this island but he deleted one of them, *lacordairei*, by himself and finally recognized *mutica*, *modesta* and *parallela*. VINSON (1962) noted that he was unable to confirm *parallela*, recognized *mutica* and *modesta* as independent species and then described *edgerleyi*. QUENTIN and VILLIERS (1975) described *vinsoni*, and included *parallela* LAMEERE (1909) [nec SERVILLE] in it, and regarded *modesta* and *edgerleyi* as junior synonyms of *mutica*. We had a question why QUENTIN and VILLIERS regarded *M. modesta* as a synonym of *mutica* though the differences were very clearly noted by LAMEERE (1909), and this treatment was supported by VINSON (1962). The second and more confusing question was that concerning the relation of *M. edgerleyi* and *vinsoni*. Why VINSON (1962) did not describe *vinsoni* (he wrote nothing about that though every material which would be used later by QUENTIN and VILLIERS (1975) had been in his collection) and described only *edgerleyi* while QUENTIN and VILLIERS recognized *vinsoni* and regarded *edgerleyi* as a junior synonym of *mutica*.

We examined 41 males and 11 females of *Megopis* spp. from this island preserved in BMNH, IRSNB, NMHN and NSMT and after the scrutiny of these materials which had been obtained before 1975, we found the following matters.

1. In the male, we were able to separate five forms which are supposed to correspond to *mutica*, *coquereli* (we use this name for a subspecies of *modesta*), *edgerleyi*, *vinsoni* and an unnamed form (which we are going to describe in this paper under the name *Megopis hirticollis* sp. nov.) and typical examples are quite different from each other. In these typical forms, they are different from the others in many characters such as size, color, ratio of width, length and thickness of body, hairs on head, antennae, pronotum and elytra, distance between eyes, shape of pronotum, sculpture and punctures on elytra, shapes of genital organs and so on, and the diversity of these forms is large enough as compared with specific relations in the other species-groups.

2. However, when we try to draw a line between some pairs of two species, in order to distinguish by any single characterstate, there is usually found some exceptions.

3. Between *mutica* and *coquereli*, and *mutica* and *vinsoni*, there are some examples which have intermediate characters and these pairs of species look to be connected with each other by transit forms, but such examples are much fewer than typical ones.

4. In the female, *mutica* and *coquereli* are very close to each other while *edgerleyi* is fairly different from them and *vinsoni* is conspicuously different from any other.

5. *Megopis* specimens obtained before 1910 (1830? and 1910) including the syntypes of *mutica* and those between 1920 and 1963 (mainly those of VINSON's collection) are different. The latter look more various because it involves *edgerleyi* and *vinsoni* but regarding only with *mutica*, the range of variations is much wider in the former.

In 2006, Mr. IVO JENIS brought us 71 males and three females of *Megopis* spp. from this island. Before this, between 1988 and 2005, several other persons searched Mauritius and, thank to their effort, we had obtained five males and one female of this genus with some important knowledge of distribution in the island.

In these new examples, we were able to distinguish four forms (Figs. 5: 1–4) and they are *mutica* (Fig. 5: 1, 54 exs.), *modesta coquereli* (Fig. 5: 3, 6 exs.), *edgerleyi* (Fig. 4: 4, 7 exs.) and small variation of *mutica* (Fig. 5: 2, 4 exs.). In these four forms, *edgerleyi* was found from only one spot and the other three forms were collected from the forest, at an altitude of 600 m. The five male specimens which had been obtained before 2005 were all *coquereli* and they were taken at four places (Fig. 2).

The table (Fig. 3) was made by newly obtained males of *Megopis* from Mauritius and indicates body length and the ratio of interspace between upper eye-lobes and head (EDd/HW). In this table, three clusters are observed; large sized specimens with a narrower interspace of eyes are the most frequent, smaller ones with wider space form another group and the smallest ones with distant eyes form the third group. We consider that the first ones correspond to *M. mutica*, the second ones to *M. modesta coquereli* and the third ones can be regarded as *M. edgerleyi*.

Here, we conclude that *Megopis mutica*, *M. coquereli* and *M. edgerleyi* are three different species. They are clearly distinguished from others by many examples, and the table (Fig. 3) shows that each of them forms different cluster: any clearly recognizable intermediate specimens between some pairs of species were not included in these new examples though variations of each species were still rich; these three species have different pattern of micro-distribution in this island; *M. mutica* was found from the middle of the Black River Gorges mountain range (Fig. 2) and area was not wide (within 3 km around Macabé) but abundant in the habitat; *M. edgerleyi* was found from the narrowest area which was less than a hundred square meters (Fig. 8) and was allopatric from any others; only *M. modesta coquereli* was collected from wider places (five places within 20 km distance, see Fig. 2) and in one place of which it was found mixed with *M. mutica* and not abundant in any place.

Then we regarded intermediate examples between some pairs of species which appeared more often in the old collections as hybrids. For example, we believe Fig. 25 (♂, Mauritius, syntype of *M. mutica* in BMNH) is a hybrid between *M. mutica* and *M. modesta coquereli* because it has pronotum furnished with distinct lateral spine and long

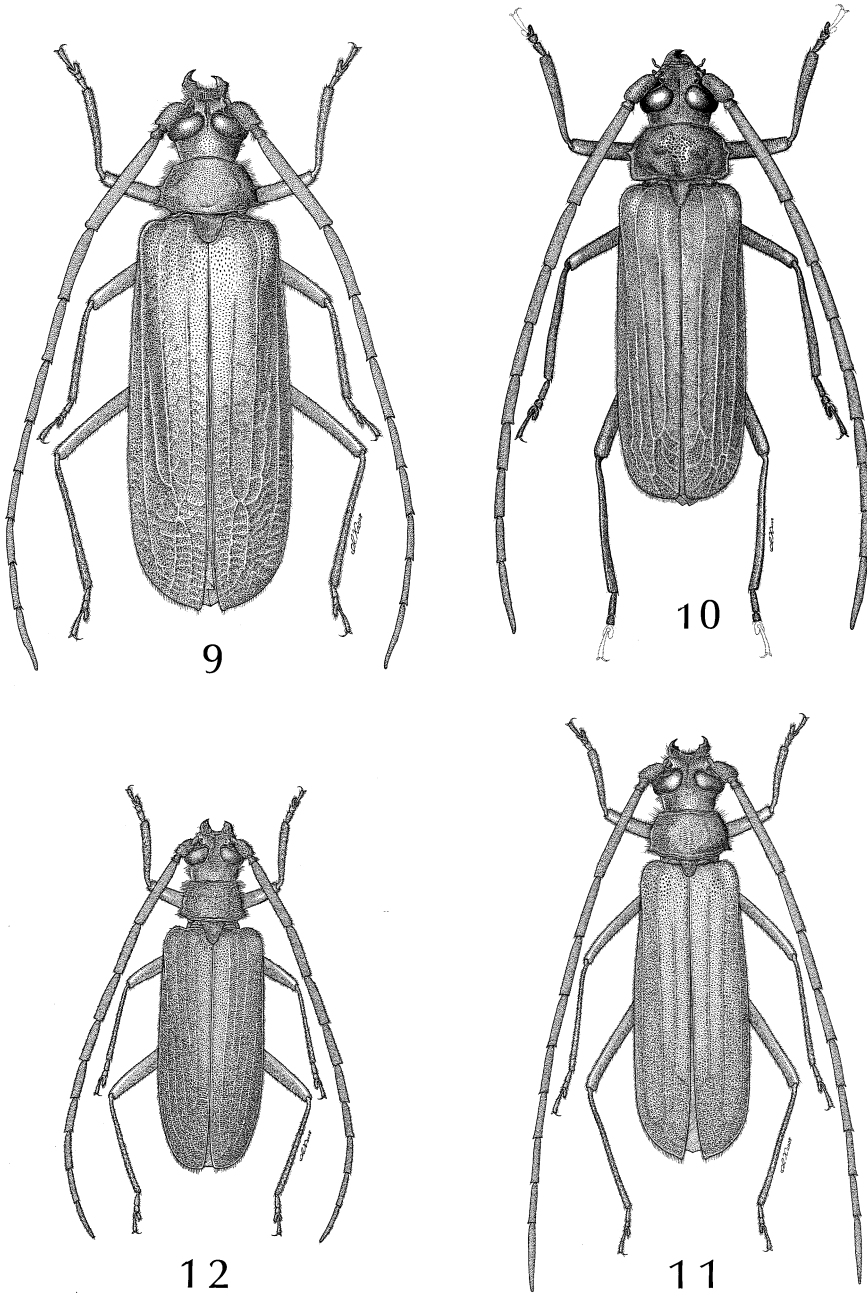


Fig. 9-12. 9, *Megopis mutica*, ♂, habitus, from Mauritius. — 10, *M. vinsoni*, ♂, habitus. — 11, *M. modesta coquereli*, ♂, habitus from Mauritius. — 12, *M. edgerleyi*, ♂, habitus.

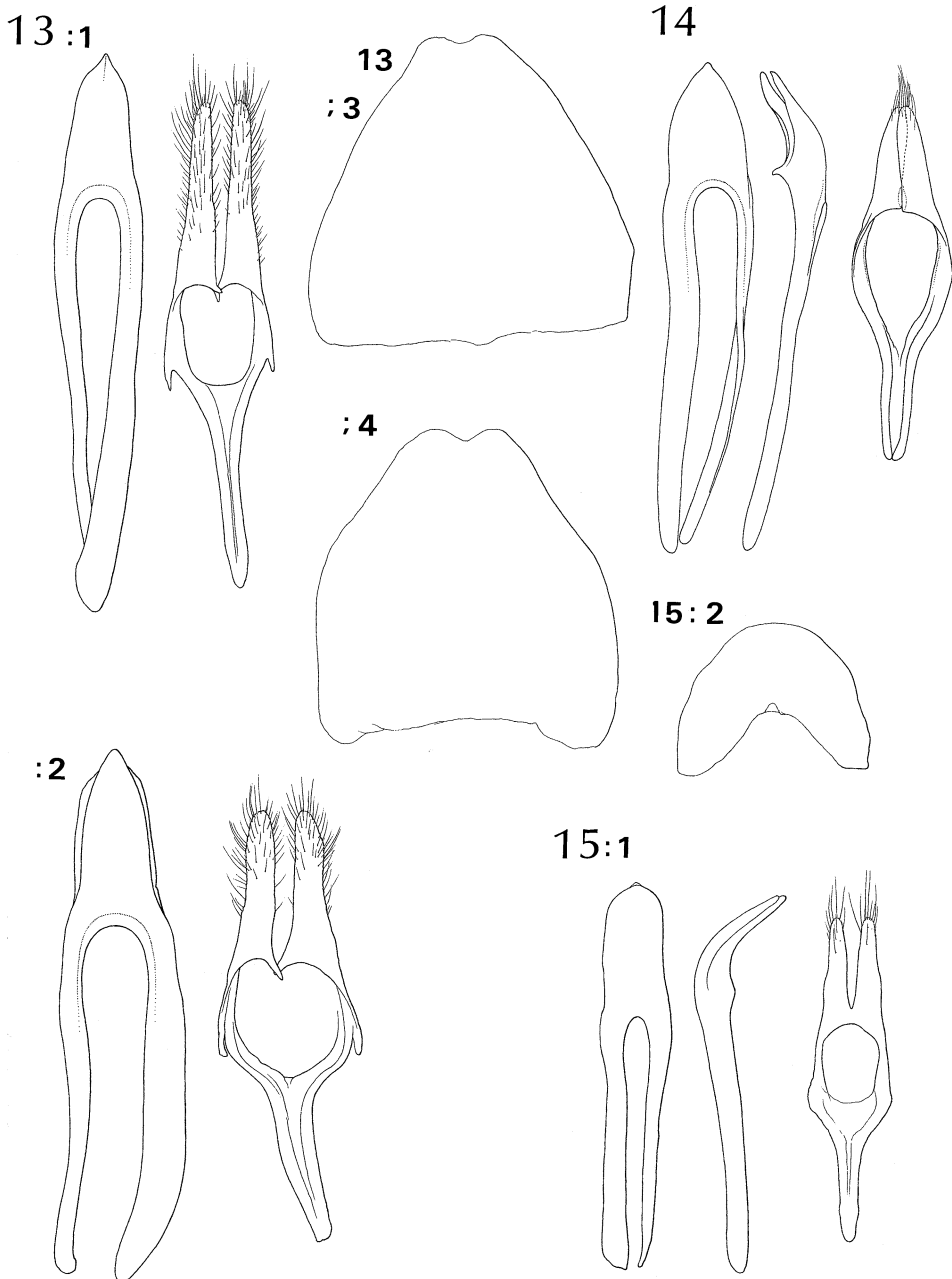


Fig. 13-15. 13: 1-4. Male genital organ of *Megopis mutica*; 1, 2, penis and lateral lobe; 3, 4, 8th tergite; 1, 3, from Mauritius; 2, 4, from Reunion. — 14, Male genital organ of *M. vinsoni*; (Holotype). — 15: 1, 2. Male genital organ of *M. edgerleyi*; 1, penis and lateral lobe; 2, 8th tergite.

hairs but other characters clearly accord to those of the latter. Similar examples were included in the syntypes of *M. mutica* and recent examples from Reunion but not included in the materials taken between 1930 and 2008 in Mauritius (in total 108). We believe Fig. 27 (♂, Macabé, 7-III-1962, J. VINSON in BMNH) is a hybrid between *M. mutica* and *M. vinsoni* because its body color and form of tarsi are intermediate, antennae and pronotum *vinsoni*-formed, but other parts are close to those of *M. mutica*. This example was obtained at Macabé where these two species were known and was obtained in the same season with them.

Megopis mutica SERVILLE, 1832

(Figs. 5: 1, 5: 2, 9, 13: 1-4, 19: 1-8)

- Megopis mutica* SERVILLE, 1832, Anns. Soc. ent. Fr., 1: 162. — WHITE, 1853, Cat. Coleopt. Brit. Mus., 7: 28. — THOMSON, 1864, Syst. Ceramb., 472. — LACORDAIRE, 1868, Gen. Col., 8: 156. — GEMMINGER & HAROLD, 1872, Cat. Coleopt., 2777. — ALLUAUD, 1900, in GRANDIDIER, Hist. Phys. Nat. pol. Madagascar, 21, 1(1): 339. — LAMEERE, 1909, Anns. Soc. ent. Belg., 53: 147, 164; — 1913, Coleopt. Cat. Junk, 52: 41; — 1919, Gen. Ins. Wytzman, (172): 75. — VINSON, 1934, Trans. roy. Soc. Arts & Sci. Mauritius, 3: 37. — DUFFY, 1957, Monogr. Immat. Stages afr. Timber Beetles, 61. — VINSON, 1962, Mauritius Inst. Bull., 4(4): 202; 1967, Mauritius Inst. Bull., 4(5): 339. — QUENTIN & VILLIERS, 1975, Faune de Madagascar, 40: 237-242 (*pro parte*).
- Aegosoma mutica* CASTELNAU, 1840, Hist. nat. Ins. Coleopt., 2: 399.
- Megopis (Aegosoma) lacordairei* LAMEERE, 1885, Anns. Soc. ent. Belg., 29.
- Megopis Lacordairei* ALLUAUD, 1900, in GRANDIDIER, Hist. Phys. Nat. Pol. Madagascar, 21, 1(1): 338.

LAMEERE (1909) precisely redescribed this species and most of important characteristics were indicated at that time. This species is usually larger than the other congeners.

Male. Body depressed, interspace between eyes narrower than a fourth of each eye-lobe in dorsal side and much narrower in ventral side. Antennae strongly depressed; segment 3 thinner than a half of width at middle, edged on each lateral sides and more or less concave underside; segment 11 often longer than segment 4, vestigial segment 12 recognized at apical three-sevenths. Pronotum thickly haired, furnished with a middle spine at each side, having basal corner acutely projected and apical corner obtusely angled; lateral margins not distinctly edged in apical half; callosity under lateral margin (on prosternum) well developed but very variable in form and structure of the surface. Elytra covered with sparse pubescence and thickly haired near base, wide and depressed, usually widest at about apical third; C1 and C2 short and weakly raised, C3 and C4 usually absent; costae branched and connected, forming mesh in apical half; sutural end obtusely angled but often rounded and without notable spine. Eighth abdominal tergite rich in variation but generally large, longer than wide, subtriangular or trapezoidal, more or less emarginate at apex (Figs. 13: 3, 13: 4). Median lobe slender, basal slit between struts about three-fourths of total length, steeply narrowed at about apical third, then becoming a bullet-form apically; dorsal plate bent about 40 degrees downwards and ventral plate a little more steeply bent downwards in lateral view. Tegmen

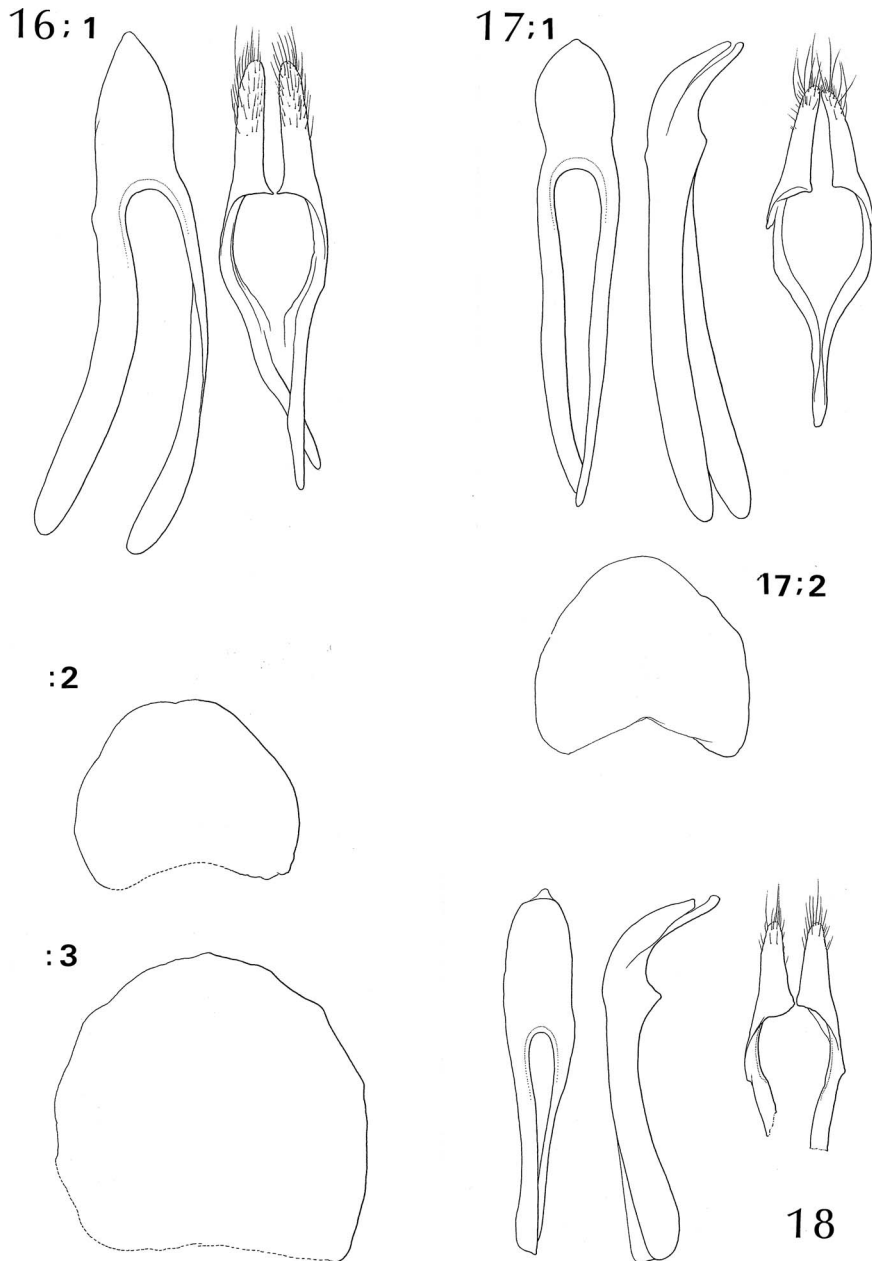


Fig. 16–18. 16: 1–3, Male genital organ of *Megopsis modesta modesta* from South Africa; 1, penis and lateral lobe; 2, 3, 8th tergites; 2, typical form, 3, large form. — 17: 1, 2, male genital organ of *Megopsis modesta coquereli* from Mauritius; 1, penis and lateral lobe; 2, 8th tergite. — 18, male genital organ of *Oceanomegopsis caledonica*.

about 0.6–0.7 times as long as median lobe, bilobed parts of paramera 0.3–0.4 times as long as the total length of tegmen, long and slender, haired on apical three-fourths. (Figs. 13: 1, 13: 2)

Female. Head and pronotum relatively smaller and less haired as compared with those of the male; antennae 0.9–1.0 times as long as body, less depressed and slenderer; pronotum wide, PL/PW 0.52–0.56, subrectangular but apical corner rounded, without lateral spine or distinct angle.

BL: ♂, 22–36 mm (usually 29–31 mm), ♀, 27–34 mm.

Distribution. Mauritius, Reunion, Comoro?

Specimens examined. (Mauritius): Lectotype ♂ (Fig. 19: 2), with labels “Lectotype”, “Ex Musaeo Mniszech”, “Mutica, Ile. de France”, in MNHN; paralectotype of *mutica* ♀ (Fig. 26), with labels “Brunner Serv. I. de France”, “Ex Musaeo Mniszech”, “Megopis mutica Serville Paralectotype, Quentin & Villiers det. 1974” in MNHN; Holotype of *M. Lacordairei* LAMEERE ♂, with labels “Megopis [= Aegosomis] sp. nov. via Lacord Vill.”, “M. Lacordairei Lam. Type, cf. Ann. Ste. Ent. Belg. 29, 1885, Bull. P. XII”, “Megopis lacordairei Lam. Holotype 1 ♂, Quentin & Villiers det. 1974, = M. mutica Serville”, in IRSNB; 1 ♂, “Ile Maurice Curepipe Carié, Janv. 1911, Achat Le Moul’t”, “Megopis mutica Serville Quentin & Villiers, det. 1974.” in IRSNB; 1 ♂, “Coll. RISCNB, Ile Maurice, Port Louis, May 10” in IRSNB; 1 ♂, with labels “Fry Col. 1905, 100.”, “Paralectotype”, “Ex. Mus Dejean”, “Mauritius”, “297s4”, “Megopis mutica paralectotype, Q. & V., det. 1974” in BMNH; 1 ♂, “Brit Mus 1972–220”, “Mauritius Macabe, 13–II–1963, Vinson”, in BMNH; 2 ♂♂, “Mauritius G. Antelme”, “Pres. by Imp. Bur. Ent. Brit. Mus. 1926–376”, “Megopis mutica Serville ♂ Quentin & Villiers det. 1974” in BMNH; 1 ♀, “Mauritius, Les Mares, 30–xii–1934, R.F. Lawrence, B.M. 1935–171”, “Megopis mutica Serville, ♀, Quentin & Villiers det. 1974” in BMNH; 1 ♂, “Mauritius. D’Emmerez de Charmoy 1913–109.”, “Megopis mutica Serville, ♂, Q. & V. det. in BMNH, 1974”; 1 ♂, Mauritius, I–1919, col. Kato in NSMT; 1 ♀, Le Pétrin vil. 610 m, X–2004, J. Lorenc leg.; 55 ♂♂, 3 ♀♀, Mauritius sw. Black River Gorges, 12 km south of Henrietta, 25–I~5–II–2006, alt. 600 m, Ivo Jenis leg. in ZKC; 1 ♂, Black River, Mare Longue area, 17~18–I–2008, leg. Jiri Moravec, in ADC.

(Reunion): 1 ♂, with labels “Coll. RISCNB, I. Bourbon = Iles de la Reunion”, A. Lameere det. *Megopis mutica* Serv.”, “sec. A. Lameere, Col. Cat. Junk, xxii, 52, 1913, p. 41, *Megopis mutica* Serv.” in IRSNB; 1 ♂, 1 ♀, Route de Maïdo, 1700–1800m, X–1992, J. Janák leg. in ZKC.

(Comoro): 1 ♂, with labels “Coll. R.I.Sc.N.B. Muséum Paris, Grande Comore Prost 1898, Achat Le Moul’t”, “Mutica Lam.”, “Megopis mutica Serv. Det. A. Lameere 1913”, “sec. A. Lameere, Col. Cat. Junk, xxii, 52, 1913, p. 41 *Megopis* (*Megopis*) *mutica* Serv.”, “Megopis mutica Serville, Quentin & Villiers det. 1974.” in IRSNB. This is the only example from Comoro we were able to examine.

Variations. In the old specimens before 1910, robust male specimens are not rare (Fig. 19: 4) but after 1920, such variation was not found. In the new examples, small exs. (Figs. 5: 2, 19: 3) which had not been found before were included. BL. 22–26 mm.

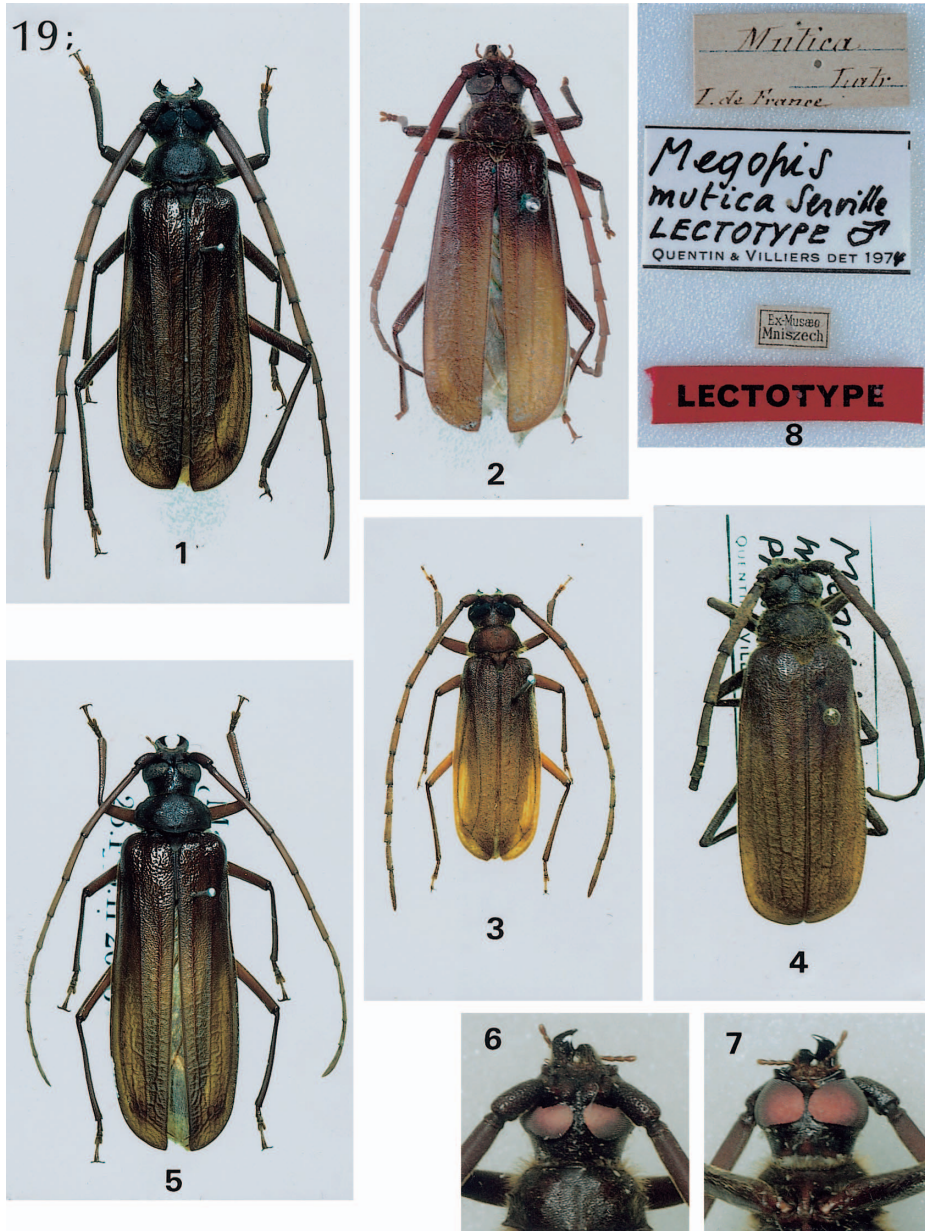


Fig. 19. 1–5, *Megopis mutica* habitus from Mauritius; 1–4, ♂, 1, typical form from Mauritius; 2, Lectotype (MNHN), 3, small form in new material; 4, robust form in paralectotype (BMNH); 5, ♀, typical form; 6, 7, ♂, head of typical form, 6, dorsal view, 7, ventral view; 8, labels on lectotype (19 : 2).

Body reddish brown, antennae 1.15 times as long as body, segment 3 wide, pronotum widest at base and without lateral spine. We regarded these examples as a variation of *M. mutica*.

M. modesta modesta (WHITE, 1853) stat. rev

(Figs. 1: 1, 16: 1–3, 20: 1–4)

Pachypleura modesta WHITE, 1853, Cat. Coleopt. Brit. Mus., 7: 27, pl. 2, fig. 1. — THOMSON, 1861, Essai Classif. Ceramb., 308.; 1864, Syste. Ceramb., 288. — FAIRMAIRE, 1871, Annl. Soc. ent. Fr., 5(1): 56. *Megopis modesta* LACORDAIRE, 1868, Gen. Coleopt., 8: 156. — GEMMINGER & HAROLD, 1872, Cat. Coleopt., 2777. — ALLUAUD, 1900 in GRANDIDIER, Hist. Phys. Nat. Pol. Madagascar, 21, 1(1): 399. — LAMEERE, 1909, Annl. Soc. ent. Belg., 53: 148, 164. (*pro parte*); 1913, Coleopt. Cat. Junk, 52: 41 (*pro parte*); 1919, Gen. Ins., Wytzman, (172): 75. (*pro parte*). — FERREIRA & Veiga FERREIRA, 1952, Forest Entomology of Mozambique, Cerambycidae, Prioninae, 79. — GILMOUR, 1956, Longicornia, 3: 109, fig. 29. — VINSON, 1962, Mauritius Inst. Bull., 4(1): 203. — FERREIRA, 1964, Rev. ent. Mozambique, 7 (2): 545. — Santos FERREIRA, 1980, Mem. Van die Nas. Mus. 13: 158–162. *Megopis mutica* QUENTIN & VILLIERS, 1975, Faune de Madagascar, 40: 238–242 (*pro parte*). — DRUMONT & BJORNSTAD, 2005, Lambillionea, (105) (3): 370.

This species was originally described on a female and LAMEERE (1909) precisely redescribed it on the males. This species is close to *Megopis mutica* but as compared with the latter, it differs as follows: body generally smaller, eyes more separated both in dorsal and ventral sides; antennae usually shorter, less depressed; in male, lateral margins of pronotum clearly edged in apical half and without middle spine, callosity under lateral margin developed; in female, pronotum usually wider, PL/PW 0.46–0.55, lateral edges developed; elytral costae developed; 8th abdominal tergite of male as long as wide and rounded apicad; median lobe of male genital organ slenderer, paramere shorter than in *M. mutica* and less haired (Figs. 16: 1–3).

BL: ♂, 15–25 mm ♀, 20–31 mm,

Distribution. Republic of South Africa, Mozambique, Tanzania, Kenya, Isl. Comoro, Madagascar.

Specimens examined. Lectotype, ♀, with labels “Port Natal”, “Lectotype”, “Pachypleura modesta White”, “Megopis modesta White Lectotype, ♀, Quentin & Villiers det. 1974 = *M. mutica* Serville” in BMNH.

(RSA): 1 ♂, Afrique du Sud. Natal, ex. coll. Bonneuil, in IRSNB; 1 ♀, with labels “coll. RIScNB.: Afrique du Sud” “Megopis modesta ♂ White Det. E. F. Gilmour” “cf. Fauna de Mdg., 40. Villiers & Quentin 1975, p. 238, modesta White 1853 = *M. mutica* Serv. 1832” in IRSNB; 1 ♂, “Coll. IRScNB Afrique du Sud, Albany Museum, Graham Town, Achat Le Moutl” “Megopis modesta White, det. E. Hintz” “*M. mutica* Serville, Quentin & Villiers, 1975” in IRSNB; 1 ♂, Sodwana Bay, Natal, I–1988, DANHENSOU leg. in ZKC; 1 ♂, Alexandra Woody Cape, Eastern Cape, 10–13–XII–1997; 2 ♂♂, Port Edward, KwaZulu-Natal, V–2006, A. VIOSSAT leg. in ADC; 4 ♂♂, same locality and collector, IX–2007, in ADC; 2 ♂♂, Umtamduna Gorge Eastern Cape, XII–2004, in ADC; 2 ♂♂, KwaZulu Natal, 20–22–III–2004, Di GENNARO coll. in ADC; 1 ♀, same

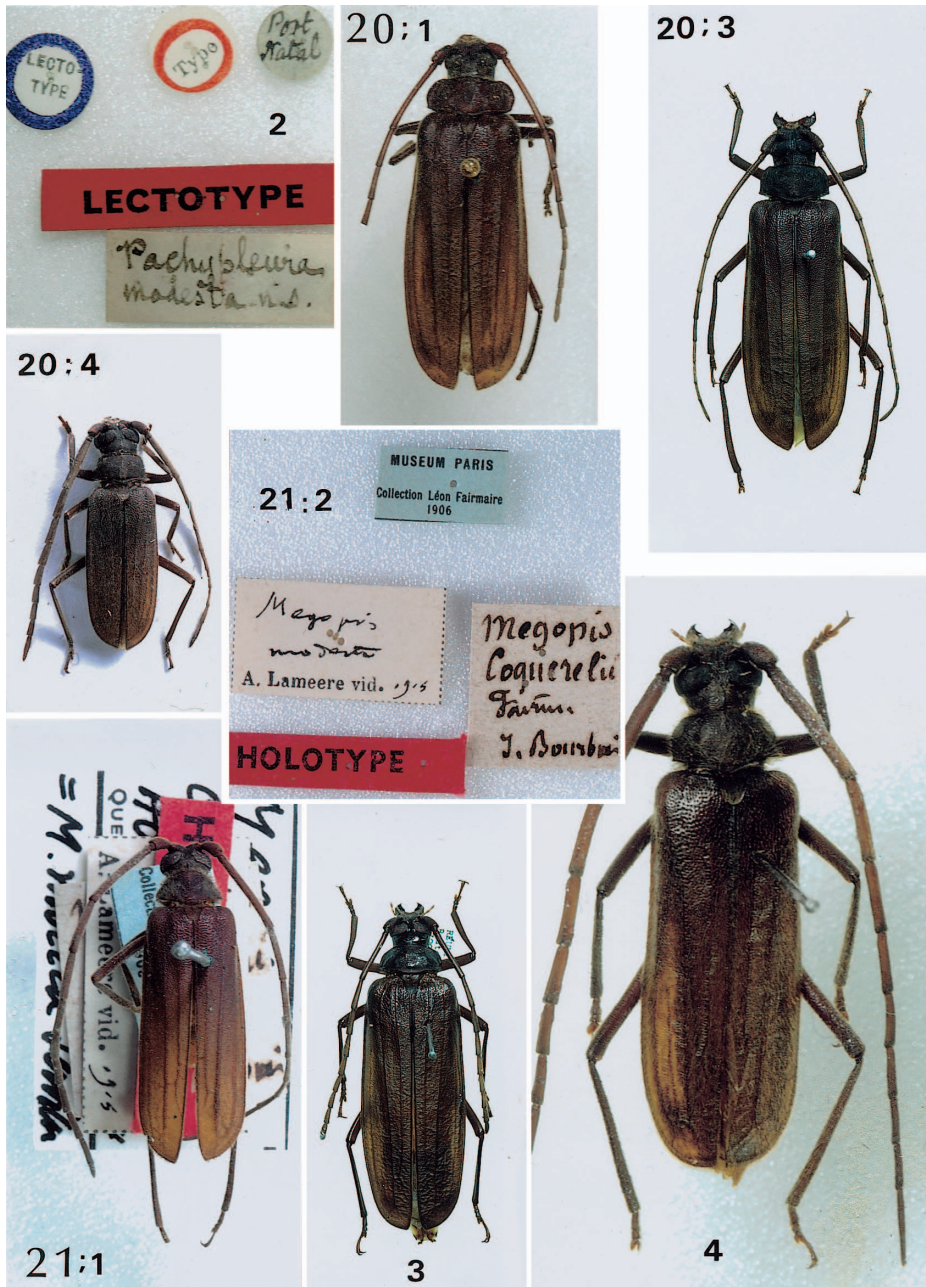


Fig. 20-21. 20: 1-4, *Megopis modesta modesta*, habitus. 1, *M. modesta modesta* (Lectotype of *Pachypleura modesta* WHITE) ♀; 2, labels attached to 1; 3, ♀, from Madagascar; 4, ♂, from Madagascar small form (16 mm.). — 21: 1-4, *Megopis modesta coquereli* habitus; 1, holotype, ♂, from Reunion; 2, labels attached; 3, ♀, from Reunion; 4, ♂ from Mauritius.

place, I-2005, leg. A. VIOSSAT in ADC; 1 ♂, same place, 12-XII-2005, in ADC; 2 ♂♂, same place, 13-XI-2007, Jiri KLIR leg. in ADC; 3 ♂♂, same place, X-2007, locals leg. in ZKC.

(Mozambique): 1 ♂, Kitoka, nr. Mt. Nymuli, 11-I-1997, H. YAMADA leg. in ZKC.

(Kenya): 1 ♂, Wundanyi, 1850m., Taita, 20-XII-1989, K. WERNER leg. in ZKC; 3 ♂♂, Taita Hills, Wundanyi, alt. 1350 m, 11-XII-1999, A. BJORNSTAD, in ADC.

(Comoro): 2 ♂♂, Mohéli, Comores, Djouma Djougha, Achat Le Moul, in IRSNB; 1 ♂, Combales, Mayotte, XI-1990; 1 ♂, Mayotte, XII-1994; 2 ♂♂, Comvalessens, Mayotte, I-1988; 2 ♂♂, same place, XII-1988, all in ZKC.

(Madagascar); 1 ♂, “Madagascar, Coll. Boucard, M. coquereli Fm = modesta White in Lameere p. 149”, “Megopis modesta White det. Lameere”, “Megopis modesta White Le Moul vend. R. Mus. Nat. Hist. I.G. 12.595”, “Megopis mutica male Serville Quentin & Villiers det. 1974”. in IRSNB; 2 ♂♂, 1 ♀, “Madagascar, Baie d’Antongil, Madag. 98. (A. Mocqucrys)”, “Megopis modesta White Det. – E. F. Gilmour, cf. Faune de Mdg., 40, Villiers & Quentin, 1975, P. 238, modesta White 1853 = M. mutica Serv. 1832”, in IRSNB; 1 ♀, “Diego Juarez, Ch. Alluaud 1893, Megopis modesta ♀ White Det. – E. F. Gilmour, cf. Faune de Mdg., 40, Villiers & Quentin, 1975, p. 238, modesta White 1853 = M. mutica Serv. 1832”, in IRSNB; 2 ♀♀, “Madagascar, without further data, ex. coll. De Moffarts”, “Megopis mutica female Serville Quentin & Villiers det. 1975”, in IRSNB; 1 ♂, Madagascar, without other data, in ADC; 2 ♂♂, Fanatova, 4-III-1962, in ZKC; 2 ♂♂, Ranomafana env. 28-I~6-II-1995, Ivo JENIS leg., in ZKC; 1 ♂, Lakato Moramanga, 19-XII-1998, Jan VVOIRAL leg. in ZKC; 12 ♂♂, 1 ♀, Anstiranana, Nat. Park “Montagne D’Ambre”, 21~25-XII-2003, DOLIN, ANDREEV, ANDREEVA leg. in ZKC.

Megopis modesta coquereli (FAIRMAIRE, 1880), stat. nov.

(Figs. 5: 3, 11, 17: 1-2, 21: 1-4)

Megopis Coquereli FAIRMAIRE, 1880, Le Natural., 2: 300. — ALLUAUD, 1900 in GRANDIDIER, Hist. Phys. Nat. pol. Madagascar, 21, 1(1): 338. — VINSON, 1934, Trans. royal Soc. Arts and Sci. of Maurit, 100 (3): 36.

Megopis modesta LAMEERE, 1909, Anns. Soc. ent. Belg., 53: 148 & 164 (*pro parte*); 1913, Coleopt. Cat. Junk, 52: 41 (*pro parte*); 1919, Gen. Ins., Wytsman, (172): 75 (*pro parte*). — DUFFY, 1953, Monogr. Inmat.

Stages British imported Timber beetles, 113, 114. — VINSON, 1962, Maurit. Inst. Bull., 4(1): 203.

Megopis mutica QUENTIN et VILLIERS, 1975, Faune de Madagascar, 40: 237-242.

Fig. 22-23. 22: 1-6, *Megopis edgerleyi*, habitus; 1, holotype, ♂; 2, labels attached; 3, ♂, large form; 4, ♀, neallotype; 5, ♂, smallest ex. (9 mm.); 6, head, ventral view. — 23: 1, *Megopis vinsoni*, holotype, ♂; 2, labels attached; 3, paratype, ♀.



LAMEERE (1909, 1919) included this subspecies in *Megopis modesta* and VINSON (1962) followed that. QUENTIN and VILLIERS considered it as a junior synonym of *M. mutica*. However, specimens of *M. modesta* from Mauritius and Reunion are distinguished from those of Africa or Madagascar and we regard them as a subspecies.

M a l e. Close to *Megopis modesta modesta* but different in having body slenderer, more cylindrical, antennae longer and slenderer (AL/BL 1.16–1.30), costa of elytra developed, penis shorter at apical part, each lobes of tegmen narrow and less hairy (Fig. 17: 1). As compared with *M. mutica*, it is different in smaller and slenderer body, separated eyes and slenderer antennae; lateral spine of pronotum usually absent (exs. from Reunion often have small tubercle) and lateral edges more developed; elytra less hairy and costae developed; penis shorter, paramere shorter, less hairy, eighth tergite wider than long.

F e m a l e. Very close to *M. modesta modesta* but pronotum usually smaller, PL/PW 0.45–0.50, carina of lateral margins developed; antennae shorter, 0.7–0.8 times as long as body.

BL. ♂, 18–22 mm, ♀, 22–25 mm.

Distribution. Reunion, Mauritius.

Specimens examined. Holotype, ♂, without collecting data and locality but we believe this ex. was brought from Reunion, with labels, “Holotype”, “Muséum Paris, Collection Léon Fairmaire, 1906”, “*Megopis modesta*, A. Lameere vid. 1916”, “*Megopis Coquerelii* Fairmaire, J. Bouchard”, “*Megopis coquereli* Frm. Holotype, Quentin & Villiers Det 1974 = *M. mutica*” in MNHN.

(Reunion): 4 ♂♂, all with same labels “Reunion”, “Coll-Le Moul, Paris”, “*Megopis modesta* White”, “Coll. R.I.Sc.N.B.”, “*Megopis mutica* Quentin & Villiers, Det. 1974”, in IRSNB; 1 ♂, Trois Bassius, III–1985, in ZKC; 1 ♂, Reunion, St. Leo, J.P.ds. Lignon leg. coll J. I. NICOLAS IV–1993, in ADC; 1 ♂ 1 ♀, Route de Maido, alt. 1700 m, 3~10-I–1992, J. JANÁK leg. in ZKC;

(Mauritius): 1 ♂, Mauritius, West of Bois Chéri, II–1994, H. YAMADA leg. in NSMT; 2 ♂♂, Le Pétrin vil. 610 m, XII–2004, Jiri LORENC leg. in ZKC; 1 ♂, 4 km south west of Nouvelle France, 3-I–1997, A. COPPAN leg. in ZKC; 1 ♂, near Chamarel, 20~22-XII–1994, K. WERNER leg. in ZKC; 5 ♂♂, 1 ♀, Black River Gorges, 12 km south of Henrietta, 25-I~5-II–2006, Ivo JENIS leg. in ZKC.

Megopis edgerleyi VINSON, 1962, sp. rev.

(Figs. 5: 4, 12, 15: 1–2, 22: 1–6)

Megopis edgerleyi VINSON, 1962, Mauritius Inst. Bull. 4(4): 204; 1963, Mauritius Inst. Bull., 5(7): 270, pls. 1–5.

Megopis mutica QUENTIN et VILLIERS, 1975, Faune de Madagascar, 40: 239 (*pro parte*).

We examined five males and two females of VINSON’s materials including the holotype, allotype and paratypes and eight newly obtained males, and found that the

characteristics which had been described by VINSON (1963) are mostly available and it is obviously a species different from *Megopis mutica* or *M. modesta*. Ivo JENIS informed us that he found this species in a forest about 1 km away from the nearest habitat of *M. mutica* or *M. modesta coquereli* and it was never found with other congeners at the same place though the habitat-forest (Fig. 5: 8) of this species did not look so special.

As compared with *M. modesta* or any other species of the genus, this species is much smaller. It can be distinguished from *M. modesta* in smaller size (BL: ♂, 9–17 mm, ♀, 17 mm) (in *M. modesta modesta*, males of 15–17 mm in size are rarely found but they always have very wide pronotum, such a small male is not known in *M. m. coquereli*); having antennae relatively shorter with the segment 3 narrowed to each end, pronotum narrower (PL/PW, ♂, 0.66–0.70, ♀, 0.70), elytra usually wider and each furnished with 3–5 feeble costae; 8th abdominal tergite slightly wider than long and lunular (see Fig. 15:2), median lobe long, distinctly bent downwards. We were unable to find any clear trace of hybrid with other species concerning this species.

BL. ♂, 9–17 mm (ex. of 9 mm, is the smallest of all Prioninae (Fig. 22: 5)), ♀, 16–17 mm.

Distribution. Mauritius (600 m alt.).

Specimens examined. Holotype, ♂, in BMNH, Mauritius, Macabé, 29–II–1962, J. VINSON, “Holotype”, “Lectotype”, “*Megopis edgerleyi* Vinson, det. J. Vinson 1962”, “*Megopis mutica* ♂, Quentin & Villiers det. 1974”. Allotype, ♀, in BMNH, same locality and collector as holotype, 19–I–1963, “Neallotype”, “Brit. Mus. 1964–188”, “*Megopis edgerleyi* Vinson, det. J. Vinson 1962”, “*Megopis mutica* ♀, Quentin & Villiers det. 1974”. Paratypes, all in BMNH, same locality and collector, 1 ♂, 29–I–1962, 1 ♂, 13–II–1963. Other old specimens in BMNH, 1 ♀, without data, with labels “*M. edgerleyi* Vins. ♀, J. Vinson, det. 1964”, “Pres. By Imp. Bur. Ent. Brit. Mus. 1926–376”, “*Megopis mutica* Quentin & Villiers, det. 1974”, 1 ♂, with labels “Mauritius G. Antelme”, “Pres. By Imp. Bur. Ent. Brit. Mus. 1926–376”, “*Megopis edgerleyi* ♂, J. Vinson det. 1964”, “*Megopis mutica* Quentin & Villiers, det. 1974”. Paratype; 1 ♂, same locality and collector as holotype, 13–II–1963, “*Megopis edgerleyi* Vins. J. Vinson det.”, “paratype”, “*Megopis mutica* Quentin & Villiers, det. 1974” in MNHN; 8 ♂♂, Mauritius sw. Black River Gorges, 12 km south of Henrietta, 25–I~5–II–2006, 600 m. Ivo JENIS leg. in ZKC.

Note. VINSON (1963) noted that this species may not be a member of the genus *Megopis* without writing the reason why he thought so. Mr. Ivo JENIS also wrote privately to KOMIYA that this species might not belong to the genus *Megopis* because it was somehow different from others when he caught them. These two persons have been the only ones who had ever caught this species by their own hand. We believe they were experienced entomologists and these recognitions based on observation of living materials may be very important. However, after close examination, we thought it better to leave this species in this genus by the body structure.

Megopis vinsoni QUENTIN et VILLIERS, 1975

(Figs. 10, 14, 23: 1-3)

Megopis vinsoni QUENTIN et VILLIERS, 1975, Faune de Madagascar, 40; 242.

Different from *Megopis mutica* in having integument dark brown, antennae provided with oblique seta on basal several segments which is more distinct underside, pronotum widest at middle or just posterior to the middle and basal angle narrower, elytra less pubescent, tarsi long and slender. This species is closer to *M. mutica* than to *M. modesta* in size, body structure especially in form of antennae, distance between eyes, lateral spine of pronotum but male genital organs is similar to *M. modesta modesta*.

BL: ♂, 22-29 mm, ♀, 25-28 mm.

Specimens examined. Holotype ♂, Mauritius Macabé, 25-III-1962, J. VINSON, in wood, "*Megopis vinsoni nobis* Holotype ♂, Quentin & Villiers det. 1974", "Muséum Paris", in MNHN. Allotype ♀, Mauritius Macabé, 18-II-1962, "*Megopis vinsoni nobis* Allotype ♀, Quentin & Villiers det. 1974", "Muséum Paris", "Collected in nymphal stage", in MNHN. Paratypes 3 ♂♂, 1 ♀, Mauritius Macabé, 25-III-1962, in MNHN and BMNH; 1 ♂, same locality and collector with the holotype, 30-II-1962, 1 ♀, 18-II-1962 in BMNH.

Notes. We examined above-mentioned 5 ♂♂, 3 ♀♀, including every type of QUENTIN and VILLIERS (1975) which originally came from VINSON's collection and captured between 18-II and 25-III of 1962 by VINSON. Three males were added labels "in wood" and two females "collected in nymphal stage" and this fact suggests that these examples were all taken from some wood when it was cut or broken.

Megopis parallera LAMEERE, 1909 [nec SERVILLE, 1832] (*incertae sedis*)

Megopis parallera LAMEERE, 1909, Anns. Soc. ent. Belg., 53: 143. — VINSON, 1962, Mauritius Inst. Bull., 4(4): 203.

Megopis vinsoni QUENTIN et VILLIERS, 1975, Faune de Madagascar, 40; 242. (*pro parte*)

This species has never been seen by anyone after LAMEERE, (1909) and QUENTIN and VILLIERS (1975) regarded it as a female of *Megopis vinsoni*. The characteristics given by LAMEERE agreed with *M. vinsoni* in the shape of antennae, pronotum and sculpture of elytra but did not agree in color and shape of elytra. We therefore surmise it could be *M. vinsoni* but it is also possible that it was an independent species as LAMEERE considered. However, it is not easy to believe that this species really belongs to the genus *Aegosoma* as LAMEERE suggested because this genus has never been found from Africa and only known from Europe or Asia. The main reason why LAMEERE regarded this species as *Aegosoma* seemed to be that it had glabrous antennae but we believe this is not a diagnostic character of *Aegosoma*. As we have been unable to find the specimen used by LAMEERE, we think it better to regard the name as an "*incertae sedis*" as VINSON considered but we believe that it must belong to the genus *Megopis* as

QUENTIN and VILLIERS considered.

Megopis hirticollis sp. nov.

(Fig. 24, 28)

M a l e. Integument chestnut brown, covered with long yellow hairs on head, pronotum, scutellum, basalmost parts of elytra and anterior half of the underside. Antennae, abdomen and legs covered with very short and dense pubescence, middle part of elytra subglabrous.

Head roughly punctured; eyes less bulging as compared with other congeners, interspace between upper eye-lobe about 0.6 times as long as each lobe; antennae 1.0 times as long as body, segment 3 as long as segments 4 + 5 combined, without oblique long hairs.

Pronotum 0.6 times as long as wide; surface of disc shiny, roughly puncto-granulate, covered with very long and thick hairs so as to conceal the surface not well observed; each side furnished with an indistinct projection at middle and basal angle not well projected.

Elytra 2.8 times as long as wide, parallel-sided; roughly puncto-granulate throughout; each elytron with five costae which are indistinct due to rough granules which are connected to each other or to costae and forming mesh; surface glabrous on costae and granules, and sparsely furnished with setae on basal and apical parts and concaved parts of intervals.

BL. 25 mm.

F e m a l e. Unknown.

Holotype. ♂, Nov.-1900 Ile. Maurice Curepipe, Carié, in IRSNB with labels, "Coll. R. I. Sc. N. B., Achat Le Moul't", "Megopis mutica, Quentin & Villiers, Det. 1974".

Distribution. Mauritius.

Notes. This species obviously belongs to this genus but quite different from any other species recognized in this paper. It is rather close to *Megopis modesta* but differs in having head, pronotum and scutellum covered with thick and very long hairs; eyes more widely separated; antennae covered with thick pubescence and without oblique long hairs; elytra roughly puncto-granulate.

**Discussion on Interspecific Relations of the
Genus *Megopis* in Mauritius**

We presume that the history of the genus *Megopis* in Mauritius was as follows.

An original species arrived to this island and after some adaptive radiation, which is sometimes observed in an isolated island, it was separated into at least six or more species. We wrote "at least" because we found in the examples from this island several

forms which had been regarded as variations of *M. mutica* (for example Figs. 19: 3, 19: 4, 25, 26), but we think they can be sibling new species, though it is difficult to verify without observation of many living materials. Such radiations were noted by QUENTIN and VILLIERS (1975) on the genus *Polybothris* DEJEAN (Buprestidae, 200 species) of the Madagascar and VINSON (1961) on the tribe Obriini (Cerambycidae, 20 species) of Mauritius. In these insects, they suggested the cases of specific exploding in islands from a few origin to many derivative forms.

We can find *Megopis* spp. only from the Black River Gorges and surrounding hills (Fig. 2). Mrs. K. WERNER (1994), A. COPPAN (1997–2000) and J. LORENC (2004) tried searching for *Megopis* at several places of the Moka Mountain Range and the Grand Port Mountain Range which are covered with forests outside of the Black River Range, but they were unable to find any *Megopis* from these areas. The old materials of museums before 1920 are mostly without data of precise locality in the island and only a few of them are attached more localities. Some of them were from the Black River Range but three *M. mutica* were from Port Louis (1904–1911) and the same species from Curepipe (1910) are preserved in IRSNB. We therefore believe that *Megopis* was distributed to the Moka Mountain Range and possibly the Grand Port Mountain Range before 1910. We presume that *Megopis* spp. were originally distributed to wider parts of the island and adapted to each place or environment. *Megopis mutica* was the most prior species, *M. modesta coquereli* the next and the others were rare. Throughout the 19th and 20th centuries, forest cover was widely lost and 98% of original forests had disappeared before 1997 (data from portal site of Mauritius, 2008). Then, many species of *Megopis* lost their original habitats and segregation systems which caused radiation were widely broken. In the results, some species became difficult to survive and, at the same time, hybridization among some pairs of species widely took place. In a small island, there may be a tendency that hybridization is easy to take place (see KOMIYA & DRUMONT, 2004). When SERVILLE (1832) obtained a series of *Megopis*, his examples (= syntypes of *M. mutica*) partly included hybrid between *M. mutica* and *M. coquereli* (Fig. 25). In the early 19th Century, the forest cover in Mauritius was very rapidly lost (cf. portal site 2008 fig. 2.5, the ratio of the forest cover were 83% in 1773, 51% in 1835, 23% in 1872) and, in our hypothesis, hybridization often took place under rapid change of the circumstances. The examples before 1910 including SERVILLE's types must have been collected in such condition and involved hybrids or polytypical specimens that appeared after hybridization. However, after 1935 when VINSON started to collect *Megopis*, no example like Fig. 25 was obtained. It is not clear why VINSON was unable to capture *M. modesta coquereli* (= *modesta*, sensu VINSON, 1962) but, in his period, this species could be very rare and it could have recovered population recently. In the new materials after 1990, *M. mutica* was less variable and became smaller and *edgerleyi* was more distinct from the other species. When we compare new materials with old ones, we cannot help regarding that they have changed in recent two centuries. At the same time, they include a series of unusual variations, though less often than in the old materials, and we guess these changes by periods and the wide variation range of these

species must be the results of introgressive hybridization in the sense of ARNOLD *et al.*, (1998). As we made up this work mostly by morphological evidences, we hope the application of gene sequencing will be made to this genus in the near future.

Key to the Species of *Megopsis*

Male

1. Body shorter than 18 mm.2.
- Body longer than 18 mm.3.
2. Pronotum narrower, PL/PW < 0.64; (Mauritius)*M. edgerleyi*.
- Pronotum wider, PL/PW > 0.65; (Comoro; Mohéli, Madagascar, Saint-Marie)····*M. modesta modesta* (small sized ex.)
3. Body dark brown, antennae furnished with long and sparse oblique setae underside, hind claw narrow; (Mauritius)*M. vinsoni*.
- Body brown or reddish brown, long and oblique setae on antennae absent or limited only in joint parts, hind claw normal4.
4. Elytra roughly punctato-granulate, antennae very thickly covered with pubescence and without long hairs; (Mauritius)*M. hirticollis* sp. nov.
- Elytra finely punctured or granulate, antennae furnished with long hairs at least in apical end of each segment5.
5. Segment 3 of antennae wider, (width/length > 0.13, usually > 0.15), elytra more depressed in apical halves and widened, tergite 8 longer than wide (Figs. 13: 3–4), median lobe of male genitalia wide in apical part, paramere slender and long (Figs. 13: 1–2); (Mauritius, Reunion, Comoro?)*M. mutica*.
- Segment 3 of antennae narrower, (width/length < 0.15, usually < 0.12), elytra less depressed and lateral margins sub-parallel at apical halves, tergite 8 semicircular and wider than long (Figs. 16: 2, 3), median lobe narrow in apical part, paramere short; (Africa, Comoro, Madagascar, Reunion, Mauritius)*M. modesta*.

Female

1. Body shorter than 17 mm; (Mauritius)*M. edgerleyi*.
- Body much longer than 17 mm2.
2. Body dark brown, elytra wider (LE/WE < 1.9), lateral side of pronotum angled at middle; (Mauritius)*M. vinsoni*.
- Body bright brown, elytra narrower (LE/WE > 2.0), pronotum rounded at middle3.
3. Elytra wider (LE/WE < 2.2), mat and without mesh in apical halves, edge of pronotum strong; (Africa, Comoro, Madagascar, Reunion, Mauritius)····*M. modesta*.
- Elytra narrower (LE/WE > 2.3), shinny and usually with mesh-pattern in apical halves, edge of pronotum obtuse; (Mauritius, Reunion, Comoro?)*M. mutica*.

Genus *Oceanomegopis* nov.

Megopis DRUMONT & VIVES, 2007, Les Cahiers Magellanes, (67): 3.

Type species: *Megopis caledonica* FAUVEL, 1906, 43.

Generic features. Integument uniformly dark brown, sometimes partly reddish or yellowish. Body cylindrical, slightly depressed. BL 17–28 mm.

Interspace between eyes wider on ventral side. Antennae 0.79–1.02 times as long as body in male and 0.62–0.97 in female; segments 3–11 depressed and carina running on each lateral side, underside flattened; segment 4 relatively shorter than in the other close genera.

Pronotum sub-rectangular, widest at apical angle and often also widened at middle but never wider than apical angle; basal angle obtuse or rounded.

Legs relatively short.

Notes. The genus *Oceanomegopis* nov. is similar to the genus *Megopis* but can be distinguished in having pronotum widest at apical angle while in the other close genera, viz., *Megopis* and *Nepiodes*, pronotum widest at basal angle or at middle spine; segment 4 of antennae longer as compared with segment 3 ($A_{14}/A_{13} > 0.85$ in *Oceanomegopis* while in *Megopis* or in *Nepiodes* $A_{14}/A_{13} < 0.75$) and shorter femora. Interspace between eyes on ventral side (Fig. 32: 4) wider than *Megopis* but narrower than *Nepiodes*. Male genital organ shorter than in the genera *Megopis* or *Nepiodes*. Two species are included in this genus and the difference between them was precisely given by DRUMONT and VIVES (2007) recently. In this paper, therefore, we will give only synonymic list and a key to the species.

Distribution. New Caledonia: Is. Grande Terre, Is. Lifou and Is Maré.

Oceanomegopis caledonica (FAUVEL, 1906), comb. nov.

(Figs. 1: 2, 32: 1–4)

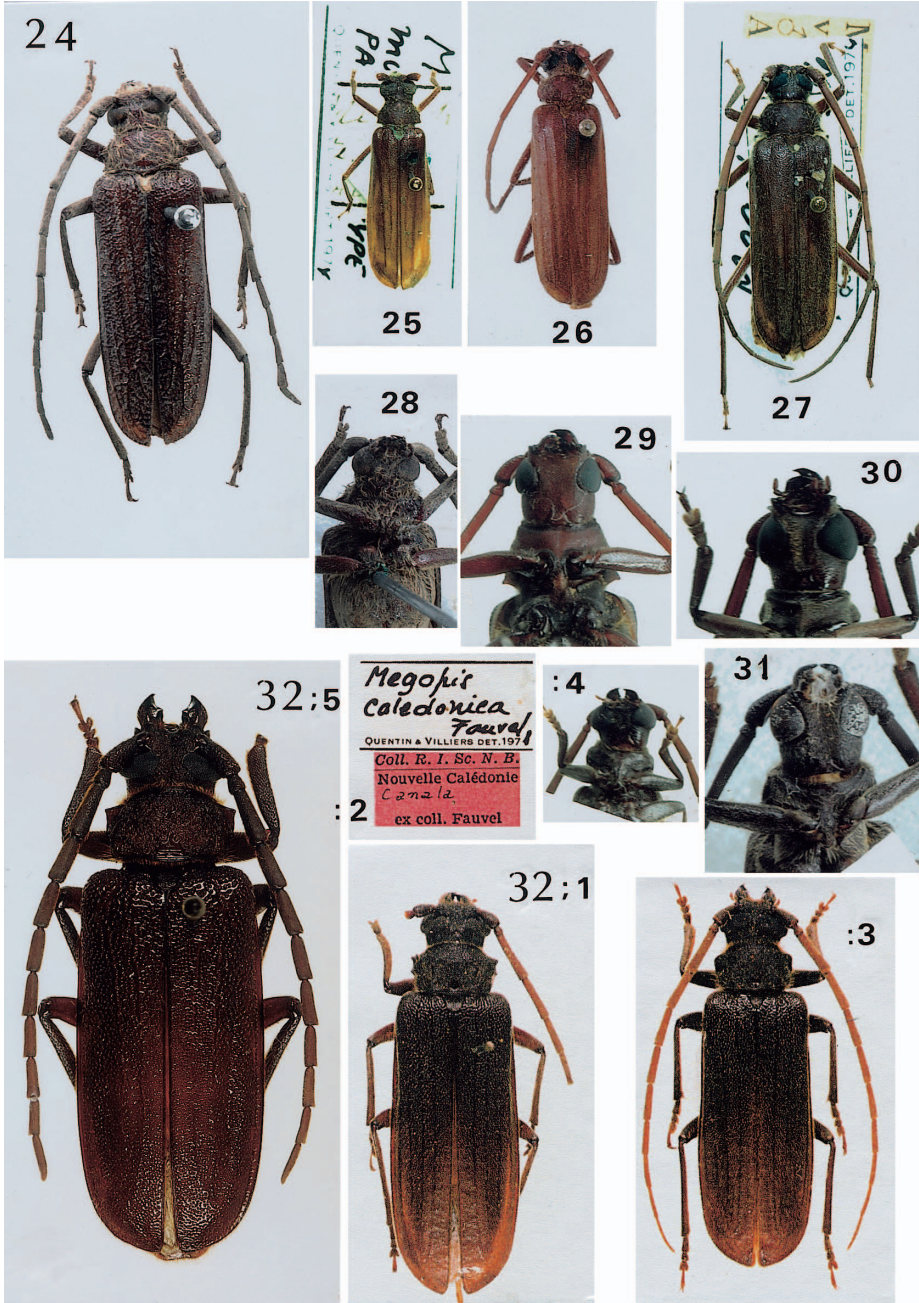
Megopis modesta MONTROUZIER, 1861 [*nec* WHITE, 1853], Anns. Soc. ent. France. 4(1): 278, 279. —

FAUVEL, 1867, Bull. Soc. ent. France, 2(1): 204.

Megopis caledonica FAUVEL, 1906, Rev. Ent., 22: 43. — LAMEERE, 1909, Ann. Soc. ent. Belg., 53: 149, 150.

— LAMEERE, 1919, Gen. Ins., Wytsman, (172): 75. — GRESSITT, 1950, Proc. Hawai ent. Soc., 14: 69. — DRUMONT & VIVES, 2007, Les Cahiers Magellanes, (67): 3.

Fig. 24–32. 24, *Megopis hirticollis* sp. nov., holotype, ♂, habitus. — 25–27, Supposed hybrid specimens; 25, *mutica* × *modesta coquereli* (syntype of *Megopis mutica*, in BMNH); 26, ditto, ♀ (paralectotype of *M. mutica*, in MNHN); 27, *mutica* × *vinsoni*, ♂ (Macabé, VINSON col. in BMNH). — 28, Head of *Megopis hirticollis* sp. nov., ventral view. — 29–31, Head of *Nepiodes* spp. (including present *Megopis*), ventral view; 29, *N. costipennis*, ♂; 30, *N. cognata*, ♂; 31, *N. sulcipennis*, ♂. — 32: 1–5, *Oceanomegopis* spp., habitus; 1, *O. caledonica* comb. nov., ♀, lectotype; 2, labels attached; 3, 4, *O. caledonica* comb. nov., ♂; 3, habitus; 4, head ventral view; 5, *O. kudrnai* comb. nov., holotype, ♂.



***Oceanomegopis kudrnai* (DRUMONT et VIVES, 2007), comb. nov.**

(Fig. 32: 5)

Megopis kudrnai DRUMONT et VIVES, 2007, Les Cahiers Magellanes, (67): 7.**Key to the Species of the Genus *Oceanomegopis* nov.**

1. Body slenderer, interspace between eyes narrower, antennae slender and about as long as body in both sexes; (Ils. New Caledonia: Grande Terre, Lifou, Maré).....*O. caledonica* comb. nov.
- Body wider, interspace between eyes wider, antennae broad, shorter than body in both sexes; (New Caledonia: Grande Terre only).....*O. kudrnai*. comb. nov.

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要 約

小宮次郎・Alain DRUMONT: *Megopis* 属の再検討. — *Megopis* 属は, SERVILLE (1832) によりモーリシャス島の *M. mutica* を基準種として記載された. LAMEERE (1909, 1919) は 37 種, 7 亜属を *Megopis* 属に含めたが, 本シリーズの一連の検討により, これらの亜属は独立の属と考えるべきものであることが順次明らかになった. 今回 *Megopis* 亜属を検討した結果, みっつの独立属に分割するべきものと判明した. そのうち複眼が体下面で近接する特徴をもち, アフリカ東部とインド洋西部に分布するのが本来の *Megopis* 属で, *M. mutica*, *M. modesta*, *M. modesta coqueleri*, *M. edgerleyi*, *M. vinsoni*, *M. hirticollis* sp. nov. の 5 種 1 亜種が含まれる. 今回新たに記載したニューカレドニアに分布する *Oceanomegopis* 属は, 複眼の間隔がやや狭く, 従来 *Megopis* 属に入れられていたが, 触角第 3 節と脚が短く, 前胸背板が前方に広がる特徴をもち, 別属とするべきであることが判明した. これまで知られていた *O. caledonica* に加えて近年発見された *O. kudrnai* が含まれ, 後者の特長により別属であることが鮮明となった. また今回われわれは LAMEERE (1909) が *Megopis* 亜属にふくめた種のうち, 東南アジアに分布し, 複眼が離れ, 上翅端に棘をもつ特徴をもつ一群 (*sulcipennis*, *costipennis*, *bowringi*, *terminalis*) を, スンダ地域から知られる *Nepiodes* 属に含まれると暫定的に考えて, この論文では *Megopis* 属から除外してある. したがって, これまでアフリカ, ユーラシア, オセアニアに広い分布圏をもつとされた *Megopis* 属は, アフリカ東部に分布する小さい属の名称となる.

モーリシャス島における *Megopis* 属は、多形的で、その扱いは何度か修正された。近年は QUENTIN & VILLIERS (1975) の提案により *M. mutica* および *M. vinsoni* を独立種と認め、*M. modesta*, *M. coquereli*, *M. edgerleyi* の3種は *M. mutica* のシノニムとされ、*M. parallela* を *M. vinsoni* のシノニムとされていたが、今回上記のごとく3種(内1種は亜種)を復活、さらに1新種 *M. hirticollis* sp. nov. を記載した。*M. pararella* を VINSON (1962) の扱いのとおり不明種 (*incertae sedis*) とし、その属は LAMEERE (1909) の考えたように *Aegosoma* 属ではなく、QUENTIN & VILLIERS の提案どおり *Megopis* 属と推定する。このような分類の混乱は、モーリシャス島からこの属が得られた初期(1830–1910)において、特殊な特徴をもつ標本群が残されているためと考えられる。それはこの時期同島における森林破壊が急速に進み、分化の初期段階にあった *Megopis* 属各種間でさまざまな異種間交雑個体が生じ、それが SERVILLE の総基準標本等に混入した結果ではないかという仮説を立てた。こうした異種交雑個体と考えられるものは1800–1910に多く、近年(1990年以降)得られた80個体以上の標本にはほとんど含まれていないが、近似種間の浸透交雑に起因すると推定される個体変異は少なくない。

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