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Revision of *Cerabilia* Laporte, 1867 (Carabidae: Abacetini) of Australia and New Caledonia

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ABSTRACT

Cerabilia Laporte, 1867 of Australia and New Caledonia are revised. Biliacera, a new subgenus is described for the New Caledonian species. 50 species are newly described bringing the total for the genus to 61 species. From Queensland, Australia 26 species are described in the subgenus Feronista Moore, 1965: Cerabilia (Feronista) australiensis sp. nov., C. (F.) bellensis sp. nov. C. (F.) blatta sp. nov., C. (F.) danbullaensis sp. nov., C. (F.) gigas sp. nov., C. (F.) haigensis sp. nov., C. (F.) iridescens sp. nov., C. (F.) kalkajaka sp. nov., C. (F.) lewisensis sp. nov., C. (F.) loxandroides sp. nov., C. (F.) montivaga sp. nov., C. (F.) moorei sp. nov., C. (F.) mudda sp. nov., C. (F.) oodiformis sp. nov., C. (F.) parva sp. nov., C. (F.) prolixa sp. nov., C. (F.) prosopogmoides sp. nov., C. (F.) reflexa sp. nov., C. (F.) securilata sp. nov., C. (F.) spinifer sp. nov., C. (F.) spuh sp. nov., C. (F.) storeyi sp. nov., C. (F.) stylata sp. nov., C. (F.) tipica sp. nov., C. (F.) uncata sp. nov., and C. (F.) wunduensis sp. nov. The four existing species of Feronista are also redescribed. From New Caledonia 24 Biliacera species are described: Cerabilia Biliacera aite sp. nov., C. (B.) amieuensis sp. nov., C. (B.) apicesecta sp. nov., C. (B.) discosetosa sp. nov., C. (B.) dominatrix sp. nov., C. (B.) drupa sp. nov., C. (B.) edentata sp. nov., C. (B.) espee sp. nov., C. (B.) francisca sp. nov., C. (B.) inversa sp. nov., C. (B.) kanakorum sp. nov., C. (B.) klingonorum sp. nov., C. (B.) koghisensis sp. nov., C. (B.) letalis sp. nov., C. (B.) mouensis sp. nov., C. (B.) nana sp. nov., C. (B.) neocaledonica sp. nov., C. (B.) orbiculata sp. nov., C. (B.) paniensis sp. nov., C. (B.) rubrica sp. nov., C. (B.) ruginosa sp. nov., C. (B.) sternovillosa sp. nov., C. (B.) vitalis sp. nov., and C. (B.) wisei sp. nov. A key to adult beetles of all species, distributional maps, illustrations of the male genitalia, the pronota, and other diagnostic features are provided. Images of all holotype specimens and their labels are provided in an appendix.

☐ Loxandrina, Rainforest beetles, inverted aedeagus, Queensland endemic beetles

The genus *Cerabilia* was described in 1867 by Laporte (using one of his pseudonyms, Compte de Castelnau) for *C. maori* from New Zealand. Subsequently, Broun, over several papers, described the bulk of the New Zealand species in the genus *Zabronothus* Broun, 1893. These two genera were brought into synonymy by Larochelle and Larivière (2007). Up to 2011 all the New Zealand *Cerabilia* were classified in Platynini (Will 2011; Larochelle & Larivière 2016). This traditional placement was based on

the lack of the elytral plica and general facies that is similar to some sphodrines such as members of *Calathus* Bonelli, 1810, or perhaps a stout form of Platynini. That *Cerabilia* might have been misplaced, was brought to my attention in 2008 (J.K. Liebherr pers. comm.) and, study of several New Zealand species clarified that they should be included in Abacetini (Will 2011, 2015). Moore (1965) described the genus *Feronista* for three Australian rainforest species that also share the characteristic form

and absence of the plica. Moore placed these in Pterostichitae and in his informal "abacetine series." The final species described prior to this contribution was *C. monteithi* (Baehr 2007), which was mistakenly placed in Masoreini based on the lack of the plica, spiny tibiae and relatively long metatibial spurs. Small-sized *Cerabilia*, like Baehr's species, can easily be mistaken for a masoreine or perigonine. Given the frequent absence of the elytral plica in abacetines (Straneo 1991) caution and detailed examination is required to appropriately place these taxa.

Examination of the male genitalia and female reproductive tract, together with features of the external morphology (Will 2011, 2015) and DNA data (Will unpublished) confirm that Moore's placement in Abacetini is correct and within the tribe, *Cerabilia* is placed in Loxandrina Erwin and Sims, 1984. Additionally *Cerabilia* and *Feronista* are closely related with the genus previously reported to occur in New Caledonia (Will 2011). The species listed here are newly described.

This contribution only treats species from Australia and New Caledonia. At the present time there is insufficient material available to revise the New Zealand taxa. Among the handful of specimens from there that I have examined, there appeared to be many individuals that do not fit the original descriptions of the seven species currently recognised, suggesting there is a significant undescribed diversity. Additionally, the morphological character states among the handful of New Zealand taxa that I have examined do not resolve the relationship of these species relative to the Australian and New Caledonian species. Evidence does support the Australian and New Caledonian taxa as reciprocally monophyletic. It is for convenience and as a working-hypothesis, that the New Zealand species are placed with the type species for the genus in Cerabilia sensu stricto. It is possible that they form a grade rather than a monophyletic group, but testing this remains to be done and will be part of a future phylogenetic analysis.

Specimens of Australian and New Caledonian Cerabilia have been collected in wet forests and rainforests, typically in leaf litter. A few specimens were taken using pyrethrum spray of tree trunks and logs. The most consistent method of collection, and the means by which the largest series have been collected, is to search and rake leaf litter at night. These flightless beetles appear to be hypogeal during the day and are found rarely under woody debris, rocks, or other large surface cover situations where one typically would look for Carabidae. I have observed beetles in Australia and New Caledonia emerging from the cracks and small burrows in the soil after full-dark arrives. Specimens taken on trunks and logs using pyrethrum spray were cases of extreme wet, where beetles are probably moving up to avoid water-saturated soils. Pitfall traps also are somewhat effective in collecting specimens of Cerabilia, though usually not large numbers of any one species. My observations suggest that the nocturnal, epigeal activity of the beetles is limited and patchy and so the opportunity for beetles to enter traps is limited.

Despite the challenge of acquiring specimens of *Cerabilia*, a sufficient number have been collected and studied to make a substantial advance in the understanding of the diversity of the group. While the Queensland fauna has been reasonably well sampled, primarily through the efforts of Geoff Monteith (QM), the fauna of New Caledonia is probably still tremendously under-sampled, particularly in the North Province. Given the current reality and future threat of habitat modification and loss due to humans modifying habitats and the changing climate, it is critical to discover and describe baseline biodiversity. This contribution is a small step in that grand effort.

The male genitalia and female reproductive tracts are significantly diverse among *Cerabilia* species. In comparison to related abacetines, e.g., *Loxandrus* LeConte, 1853 and *Pediomorphus* Chaudoir, 1878, the diversity of forms and differences between species is much greater. The general body form among species of *Cerabilia* does not vary as widely, all are flightless, convex, and have a very compact thorax (Figs

1–9). However, in addition to the remarkable variation of reproductive structures, there are a number of external morphological characters—typically stable in most groups—that vary among the species of *Cerabilia*. For example, the presence or absence of setae on the elytral disc and pronotal lateral margins, the presence, size, and setae of mentum pits, presence and absence of the mentum tooth, and the development of tarsal sulci, all vary. The extent of variation may be due to the antiquity of the genus, a distinct possibility given its distribution, or more recent, relatively rapid diversification.

MATERIAL AND METHODS

Material examined. A total of 275 specimens of Cerabilia were examined from the following collections: ANIC- Australian National Insect Collection, Canberra; CAS- California Academy of Sciences, San Francisco; EMEC-Essig Museum of Entomology, Berkeley, California; MNHN-Museum National d'Histoire Naturelle, Paris; NMHW- Naturhistorisches Museum, Wien; NZAC- New Zealand Arthropod Collection, Auckland; QM-Queensland Museum, Brisbane; QDAF- Queensland Department of Agriculture and Fisheries, Brisbane. For species described herein, all specimens examined are listed under the type material. For previously described species, type material information is listed and any additional specimens examined are reported in a section following the redescription.

Specimen deposition. Holotypes are deposited per instructions from all pertinent collecting permits issued to K.W.Will, information received from collectors regarding their permits, and explicit instructions from source institutions. Recent material from New Caledonia is covered by permits that require holotypes be lodged in MNHN, Paris. These list the place for deposition and also credit the source institution as they have borne all the costs facilitating loans, curating, and maintaining specimens.

Label information. Locality information for holotype specimens of species described here are presented verbatim. Text as it appears on

the labels is contained in quotation marks. The text for each label is delimited by double forward slash marks. For specimens other than the holotypes of newly described species the presented label information is normalised and condensed. Specimens bearing tags with "EMEC###" have these unique identification numbers for data entered in the publically available Essig database (essigdb.berkeley. edu) and do not represent the specimen deposition or ownership. Label text in the form of "KWW###" represents gDNA sample vouchers held at UC, Berkeley. Type localities are based on the holotype labels and clarified and described in more detail where possible. Images of all holotypes, dorsal and left lateral views, and labels, for all species treated here are included in Appendix A, available as an online supplement.

Dissection methods. For routine morphological study, the female reproductive tracts and the male aedeagus samples were cleared using a pancreatin solution (Alvarez-Padilla & Hormiga, 2007 (2008)), held in a warming oven at 37° C overnight or in a 10% KOH solution, warmed on a hotplate. For samples that were used to generate gDNA samples (Will unpublished) from soft tissue, digestion was done with proteinase-K using the standard methods for the DNeasy Tissue Kit® (Qiagen, Valencia, CA). Dissections digested in KOH were neutralised in 10% acetic acid, and those treated with pancreatin and proteinase-K were washed in distilled water. Median lobes were then moved to glycerin for study and storage. Female reproductive tracts were stained in chlorazol black and processed using the same methods as used by Liebherr and Will (1998) and then stored in glycerin.

Measurements. External structures were examined using a dissecting stereo-microscope at magnification of 100x or less. Measurement were made using an ocular reticle in a stereomicroscope. Standard body length (SBL) is the sum of the distance from the base of the labrum to just anterior of the occipital suture + the length of the pronotum along its midline + the length of the left elytron from basal margin

where it meets the scutellum to the apex of the elytron. Generally SBL will be slightly greater than an apparent length, which is the whole length as viewed from above, due to the fact that the head and in some cases the pronotum, is flexed ventrally. The width of the elytra is the widest point viewed dorsally. The ocular ratio is the width over the eyes divided by the width between the eyes, measured at the level of the anterior supraocular setae, viewed dorsally.

Images. Pronotal, habitus, and other images were taken as digital image stacks that were aligned and assembled with Helicon Focus version 5.3. Composite image files were edited to enhance clarity and to digitally excise the pronotum using standard image editing software. Holotypes and their associated label images were taken as single images using a high-depth of field lens and were not edited further. Line drawings of the male genitalia and female reproductive tract were created by imaging the cleared and stained (staining only for females tracts) structures that were temporarily mounted in K-Y®, glycerin-based lubricant. These images were used as the basis for drawing the vector files.

Descriptions. Descriptions were initially generated using Lucid Builder, ver. 3.6. Features and states were scored in Lucid and a draft "natural language" description output from the program. This text was then edited for readability. Characteristics that are uniform at the genus and subgenus level are only included under those in the characteristics sections. Using Lucid generated descriptions has the advantage of producing complete and parallel descriptions, however they are more verbose than traditional descriptions. While any state that is uniform across all species in a genus-

group is summarised under the higher taxon and not repeated, if even one species has an alternative state the feature must be included in all descriptions. In more tradition taxonomic works, such a feature might be discussed and variation noted in a summary elsewhere, perhaps under the genus, and then only the rare states explicitly described, requiring the reader to carefully intuit the states when not explicit.

Diagnoses and Identification. Characters given in the key and structures of the male genitalia can be used to differentiate all species treated here. When possible male genitalia should be used to confirm identifications. Differential diagnoses focus on distinguishing between similar species and, to avoid redundancy, typically do not refer to characteristics of the male genitalia or those covered in the key. Rather, diagnoses provide an additional set of attributes that can help with identification.

Terminology. Descriptions and keys used are standardardised from scientific literature and as defined in glossaries such as Torre-Bueno (1989). However, the complexity of the forms of ventral macrosculpture in Cerabilia requires the use of some particular, less familiar, terms. The surface of the ventral sclerites, particularly of the thorax, may be smooth or have various degrees of sculpturing that can vary in depth and regularity. The following terms: scabriculous- having a lightly impressed, rather irregular network or series of lines; rugulose- lines are deeper and more regularly parallel; rugose- still more deeply impressed in part, but varies in depth and is less regular in form; rugosissimus- very deep, dense, and parallel impressions, typically covering the entire sclerite when present.

Revision of Cerabilia

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SYSTEMATICS

Abacetini Chaudoir, 1873 Loxandrina Erwin and Sims, 1984

Cerabilia Laporte, 1867: 116

Type species Cerabilia maori Laporte, 1867:116, by monotypy. Republished description Laporte, 1868:202.

= *Nelidus* Chaudoir, 1878: 49; type species *Nelidus australis* Chaudoir, 1878: 50, by monotypy. Synonymized by Will (2015).

- = Zabronothus Broun, 1893: 1327; type species Zabronothus striatulus Broun, 1893:1327, designation by Larochelle & Larivière (2001). Synonymized by Larochelle and Larivière (2007).
- = *Australomasoreus* Baehr, 2007: 6; type species *Australomasoreus monteithi* Baehr, 2007:6, by original designation. Synonymized by Will (2015).

Subgenus *Feronista* Moore, 1965: 25; type species *Feronista amaroides* Moore, 1965: 26, by original designation. Moved to *Cerabilia* by Will (2015).

Subgenus *Biliacera* Will, subgen. nov.; type species *Cerabilia vitalis* sp. nov.

Published references to the genus: Bowie, 2008b, 2008a; Guéorguiev & Sciaky, 2015; Liebherr & Will, 2015; Monteith, 2018; Moore *et al.*, 1987; Larochelle & Larivière, 2001, 2005, 2007, 2016; Lorenz, 2005a, 2005b, 2018; Will, 2011, 2015; Watts *et al.*, 2014.

Cerabilia sensu lato

Characteristics. Piceous or brown, rarely with paler markings on elytra, medium to small sized beetles. Range of 3.4-11.5 mm, greatest width over elytra 1.2-4.4 mm. Head with frontal impressions absent or at most represented by very shallow, ill-defined punctiform marks. Antennae: filiform, antennomere 1 with one large dorsal seta, antennomere 2 with ring of fine small setae at apex, antennomeres 5-11 pubescent except for medial glabrous strip on wide face. Clypeus with one pair of setae near anterior margin. Glossal sclerite with two large setae near apex on ventral side, paraglossal apices glabrous. Mentum shape clearly broader than long, moderately emarginate, sides of sinus divergent, lobes rather angular, with a single pair of fine setae paramedially near anterior margin. Suture between mentum and submentum present and clearly impressed. Maxilla with apical and medial setae of stipes absent, basal seta of stipes present, lacinia large with thick, curved apical digitus and medial field of spines and setae. Eyes relatively small or very small, flat or prominent. Pronotum with overall shape typically transverse, greatest width slightly to significantly greater than length. Flight wings absent. Elytra fused. Elytron with two setigerous punctures beyond umbilicate primary puncture near humeral angle in interval 9. Plica absent. Parascutellar setigerous punctures present at base of stria 2. Elytral parascutellar stria present, joined to stria 1. Angular base of stria 1 absent. Metepisternum form short, width of anterior margin about 2x lateral length. Legs rather stout and spinose. Metatrochanter seta present at basal third to near middle of length. Anterior tarsi of male with three basal segments obliquely dilatate and squamose beneath. Tarsal claws smooth. Abdominal sternites not sulcate. Ventrites III-V

each with one pair paramedial setae. Aedeagus with parameres conchoid, the lower (in repose) smaller than the upper. Defensive gland reservoir shape simple ovoid.

Geographic Distribution. Northeastern Australia, New Caledonia, and New Zealand.

Subgenus Cerabilia sensu stricto

Characteristics. Preliminary character states presented here are modified from the description by Larochelle and Larivière (2007). As for the genus above, relatively robust (Fig. 1) with size range length 5.0-11.0 mm; body form stout, oblong. Eyes small, convex. Mentum with median tooth entire; paramedial pits small. Submentum with four setae. Pronotum very or moderately transverse, trapezoidal or rectangular; base wider than apex, or base and apex subequal in width; usually two (rarely one, anteriorly) setigerous punctures on each side. Prosternal process not margined. Protibiae with dorsal longitudinal grooves. Metatibiae curved. Tarsi glabrous dorsally; metatarsomere 5 glabrous ventrally; meso- and metatarsomeres dorsally grooved, not carinate-sulcate. Shoulders broad, obtuse, with a prominent tooth. Parascutellar puncture absent. Elytral interval 3 with or without discal setigerous punctures. Umbilicate series with 15–18 setigerous punctures.

Geographic Distribution. New Zealand. The New Zealand species have not yet been studied in detail. As a working-hypothesis they are placed in *Cerabilia sensu stricto* as *incertae sedis*. It is possible that they form a grade rather than a monophyletic group relative to *Feronista* and *Biliacera*.

Included species: Cerabilia maori Laporte, 1867

Included incertae sedis: Cerabilia aphela (Broun, 1912); Cerabilia major (Broun, 1912); Cerabilia oblonga (Broun, 1910); Cerabilia rufipes (Broun, 1893); Cerabilia striatula (Broun, 1893); Cerabilia australis (Chaudoir, 1878).

Subgenus Feronista Moore, 1965: 25

Characteristics. As for the genus SBL range of 3.9–11.5 mm, greatest width over elytra 1.5–4.4 mm. Supra- and postorbital region smooth or with slight depressed areas around setae. Ocular ratio 1.09–1.47. Labral apical

margin with six setae. Mentum with paramedial pits deep, sharply defined, very small, diameter much less than 1/2 width between pits, paramedial pits glabrous. Maxillary antepenultimate palpomere glabrous or with 1-2 small apical setae, penultimate palpomere glabrous. Pronotum with margins bisetose, posterolateral setae present. Elytron interval 3 without setigerous punctures. Prosternum smooth. Proepisternum smooth. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture smooth or very lightly scabriculous. Dorsal surface of meso- and metatarsomeres glabrous. Ventrites IV-VI glabrous. Pygidial gland secretions (known from two species (Will & Attygalle unpub. data)) consisting primarily of formic acid, which is mixed with smaller amounts of decane, undecane, 2-tridecanone, 2-pentadecanone, or 1-pentadecene.

Geographic Distribution. Found only in eastern Queensland, Australia (Figs 81–90).

SPECIES TREATMENTS

Cerabilia (Feronista) amaroides (Moore, 1965: 26) (Figs 2, 29, 55, 77, 90)

Feronista amaroides Moore, 1965

Type material. HOLOTYPE, ♂. "S. QUEENSLAND: Gladstone district, Mt. Jacob [=Bulburin State Forest], c2000 feet, iii.58 (Darlingtons)". ANIC.

Specimens examined. Holotype and three additional males (QM) and two females (EMEC), all from type locality.

Diagnosis. Very distinctive large, broad and robustly built beetles (Fig. 2) with color and luster as in the smaller species, *C.* (*F.*) *mudda* below.

Redescription. Size. SBL 9.5-10.5 mm, greatest width over elytra 3.9-4.4 mm. Head. Dorsal microsculpture not apparent at 50x magnification. Eyes average size, convex. Ocular ratio 1.35. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical

palpomeres plurisetose, with scattered short setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt and triangular. Maxilla: apical palpomere glabrous or plurisetose with short, scattered setae, palpomeres 2-4 length subequal. *Thorax*. Pronotum (Fig. 29): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to hind angle or ended well apicad hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with ten intervals, form of intervals slightly convex in apical third, flat in basal third, widths all approximately equal, interval 9 with 17 or 18 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification or sculpticells transversely elongate, longitudinally short relative to body axis, luster glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed deeply, where impressed, very small, shallowly punctate. Prosternum rugose along apical margin. Metepisternum macrosculpture rugulose or lightly scabriculous. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-3 with lateral and medial sulci, 4–5 without sulci. Metatibia of male arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-3 with lateral and medial sulci, 4–5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1-3 dorsally with fine, short, scattered setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Defensive gland chemical compounds from defensive glands formic acid, decane, undecane, 2-tridecanone, 2-pentadecanone or 1-pentadecene. Male genitalia (Fig. 55): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract (Fig. 77): apical margin of gonocoxite-1 glabrous, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 elongate, falcate, narrowly rounded apex, bursa long, left directed curved form, common oviduct inserted near apex, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca short, width at middle 2/3 total length, spermatheca duct very short, about 2/3 length of reservoir, spermathecal gland duct connected at base of spermatheca, gland duct length very elongate, gland duct diameter increasing apically, without notable expansion, gland form spherical, portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) australiensis **sp. nov.** (Figs 15, 70, 81)

Etymology. The specific epithet *australiensis* is based on the Australian provenance of these beetles and it is treated as an adjective.

Type material. HOLOTYPE, ♀. "Cardwell Range, N.E. QLD. Mt Macalister, 900 m 18–20 Dec 1986 Monteith, Thompson & Hamlet, Pitfall traps"//"QM Reg. No. T20037"//"EMEC1012229". Deposited

QM. PARATYPE. Cardwell Range, Upper Broadwater Ck. Valley 17–21 Dec 1986, 700–800 m. G.B. Monteith, G. Thompson, Hamlet, Pitfall traps, QM Reg. No. T20036, EMEC1012230, ♀, QM.

Type locality. Queensland, Mt. Macalister. Estimated coordinates: 18° 18'S 145° 56'E.

Diagnosis. The notably emarginate basal margin, narrower form, and obtusely angled hind angles of the pronotum (Fig. 15) distinguish this species from *C. (F.) iridescens* and other similar species.

Description. Size. SBL 4.3-4.7 mm, greatest width over elytra 2.1(-2.2) mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes average size, somewhat flattened. Ocular ratio 1.24. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres plurisetose, with scattered short setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 15): microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins convergent in basal half, lateral marginal bead well defined from apical angle ended well apicad hind angle, basal margin smoothly, moderately emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, slightly more convex near apex, widths all approximately equal, interval 9 with 15 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous, macrosculpture

smooth, microsculpture not apparent at 50x magnification, luster moderately glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed moderately, where impressed, impunctate. Metepisternum macrosculpture very lightly scabriculous, almost smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatrochanter form longer than half femur length, acuminate to rounded point. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of female with two pairs setae, ventrite VI, apical margin in female entire. Male genitalia: male unknown. Female genitalia and reproductive tract (Fig. 70): apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 with one ensiform seta, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 elongate, falcate, narrowly rounded apex, bursa right side significantly longer than left, overall relatively stout, cupshaped, right lateral portion of bursa with relatively short pouch, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length moderately elongate, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) bellensis sp. nov. (Figs 39, 64, 78, 83)

Etymology. The specific epithet *bellensis* is based on the type locality Bell Peak and is treated as an adjective.

Type material. HOLOTYPE, & "AUST: QLD: NE: Graham Range, 9 Apr 1979, G.B.Monteith, QM BERLESATE NO. 4, 17.17S 145.57E, Rainforest, 100–200 m"//"QM Reg. No. T20038"//"EMEC1012233". Deposited QM. PARATYPES. North Bell Peak, via Gordonvale, 16 Sept 1981 G.Monteith & D.Cook, Q.M. Berlesate No. 300 Rainforest, 900–1000 m Sieved Litter and Moss, QM Reg. No. T19992, EMEC1012181,

same with QM Reg. No. T19991, EMEC1012180; QM Reg. No. T19990, EMEC1012179 and QM Reg. No. T19989, EMEC1012178, 4♀♀, QM. North Bell Peak, 22 Nov 1990, G.Monteith & G.Thompson, Q.M. Berlesate No. 845, Rainforest, 600 m, Sieved Litter, QM Reg. No. T20046, EMEC1012182, ♀, QM. Bellenden Ker Range, 1 km S of Cable Tower, 6 Nov 3,1981, 500 m, EARTHWATCH/QLD MUSEUM, QM Berlesate 365, Rainforest, Sieved litter, QM Reg. T19997, EMEC1012204, ♀, QM.

Type locality. Queensland, Graham Range, 17° 17'S 145° 57'E.

Diagnosis. Nearly as small as *C.* (*F.*) parva but with shallowly crenulate elytral striae and the lateral bead of the pronotal not distinct in the basal third and entirely absent before reaching the basal seta (Fig. 39).

Description. Size. SBL 4.0-4.5 mm, greatest width over elytra 1.5-1.8 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes small, flattened. Ocular ratio 1.26-1.33. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 length subequal. Thorax. Pronotum (Fig. 39): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner impressions absent, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly, shallowly emarginate, apical angles scarcely produced, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, widths all approximately equal, interval 9 with 13 or 14 setigerous punctures, two setigerous punctures

near apex of interval 7. Elytra: color rufopiceous, macrosculpture a few scattered punctulae, microsculpture not apparent at 50x magnification, luster glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed shallowly, where impressed, impunctate. Metepisternum macrosculpture very lightly scabriculous, almost smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1 with lateral sulcus, 1 medially and 2-5 without sulci or 1 with lateral and medial sulci, 2-5 without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-3 with lateral and medial sulci, 4–5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1–3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articuloseta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of female with two pairs setae, ventrite VI, apical margin in female entire. Male genitalia (Fig. 64): orientation of median lobe of aedeagus in repose left side up. Female genitalia and reproductive tract (Fig. 78): apical margin of gonocoxite-1 with one seta, lateral edge of gonocoxite-2 with one ensiform seta, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 long, very slightly curved, narrowly rounded apex, bursa straight elongate, common oviduct inserted in apical cup, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form spherical, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) blatta sp. nov. (Figs 14, 44, 81)

Etymology. The specific epithet *blatta* is based on the Latin for "a little insect", often referring to one that is cockroach-like in general form, which is appropriate for these beetles given their form and scuttling movement through the leaf litter. It is treated as a noun in the nominative singular standing in apposition.

Type material. HOLOTYPE, 3. "Bellenden Ker Range, NQ Cable Tower, 1054 m Nov 1-7, 1981 EARTHWATCH"//"QLD MUSEUM. Pitfall trap in rainforest. QM Reg. No. T19998"//"EMEC1012202". Deposited QM. PARATYPES. Mount Bellenden Ker, eastern slope 1192 m. 8.xi.2009 K.Staunton [BK12K2A], EMEC1000448, Q. QM. Same locality with 11.viii.2009 [BK12K2A], kww841, EMEC1000450, ♀, QM. Same locality with 1166 m. 15.ix.2009 [BK12K1B] kww838, EMEC1000449, ♀, QM. Bellenden Ker Range, Summit TV Stn 29 Apr - 2 May 1983 G.B.Monteith, D.K.Yeates QM Berlesate No. 571 17.16S 145.51E rainforest, 1560 m sieved litter QM Reg. T20021, EMEC1012201, ♀, QM. Bellenden Ker Range, Cable Tower 3, 1054 m Oct 17–24 1981 EARTHWATCH, QLD MUSEUM Pitfall trap in rainforest, QM Reg. T19995, EMEC1012203, Ç, QM. Mt. Bellenden Ker, R.S.Storey, Pitfall Nov 1977 to Jan 1978 5200', EMEC1000328, ♀, ANIC. Mt. Bellenden Ker R.S.Storey, Nov 1977–Jan 1978 5200', EMEC1012208, 3, QDAF. Bellenden Ker, Cable tower No. 3 12 Apr 1979 G.B.Monteith, QM Berlesate 21, 17.16S, 145.52E Rainforest, 1000 m Sieved litter, QM Reg. T19985, EMEC1012205, ♂, QM. Bellenden Ker range, Cable tower No. 3, 1054 m Oct.25- 31,1981 EARTHWATCH, QLD MUSEUM QM Berlesate No. 326, 17.16S, 145.52E Rainforest, 1000 m, Sieved litter, QM Reg. T19996, EMEC1012206, 3, QM.

Type locality. Queensland, Bellenden Ker Range. Estimated coordinates: 17° 16'S 145° 52'E.

Diagnosis. Fairly small sized beetles with a general form similar to the larger *C.* (*F.*) *iridescens* with a more extensive basolateral depressed region on the pronotum (Fig. 14).

Description. *Size.* SBL 4.7–5.8 mm, greatest width over elytra 1.9–2.2 mm. *Head.* Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes small, flattened. Ocular ratio 1.20–1.34. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1–2 small apical setae,

apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 14): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions absent or present, short, shallow, broad, not well delimited, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to hind angle or to just apicad hind angle, basal margin smoothly, moderately emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, slightly more convex near apex, widths all approximately equal, interval 9 with 14 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous or first interval slightly paler brunneous, especially near apex, margins slightly paler brunneous, otherwise deep brunneous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, luster glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed moderately, where impressed, impunctate. Metepisternum macrosculpture smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatibia of male arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large

articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Male genitalia (Fig. 44): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal with slight rotation to left, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view right angled, blade of median lobe in ventral view styliform throughout, apex of median lobe in lateral view erect dorsal hook, apex of median lobe in dorsal view narrowly rounded point. Female genitalia and reproductive tract: apical margin of gonocoxite-1 with one seta or with two setae, lateral edge of gonocoxite-2 with one ensiform seta, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 moderately long, slightly curved, broadly rounded apex, bursa long, left directed curved form, common oviduct inserted near apex, right lateral portion of bursa with very large pouch, base broadly joined to bursa, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length very elongate, gland duct with notable expanded region near base of gland, gland form elongate ovoid, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) *danbullaensis* sp. nov. (Figs 19, 47, 82)

Etymology. The specific epithet *danbullaensis* is based on the type locality near Mt. Haig in Danbulla National Forests and is treated as an adjective.

Type material. HOLOTYPE, β . "QLD, 1140 m nr. Mt Haig 30/vi/1971, Taylor Feehan"//"Berlesate ANIC. 349 rainforest 17.06x145.35"// "EMEC1000303", ANIC.

Type locality. Queensland, Mt Haig. Estimated coordinates: 17° 6'S 145° 35'E.

Diagnosis. Small size, notably elongate-oval shaped elytra, and flatly rounded anteroventral mesepisternum distinguish these beetles from other species. *Cerabilia Feronista haigensis* is sympatric with and very similar to, but notably larger than *C. danbullaensis*. While only subtly different in microsculpture (see key) the male genitalia (Figs 47, 54) are strikingly different between these species.

Description. Size. SBL 5.4 mm, greatest width over elytra 2.0 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes average size, somewhat flattened. Ocular ratio 1.30. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1–2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, acutely pointed. Maxilla: apical palpomere glabrous, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 19): microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle ended well apicad hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, slightly more convex near apex, widths all approximately equal, interval 9 with 14 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, luster moderately glossy.

Humeri rounded or slightly angulate, without denticle. Elytral striae impressed moderately, where impressed, impunctate. Metepisternum macrosculpture smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatibia of male straight. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI apical margin in male entire. Male genitalia (Fig. 47): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view right angled, blade of median lobe in ventral view broadly narrowed apex turned to left, apex of median lobe in lateral view broader at apex, reflexed ventrally, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract: female unknown.

Cerabilia (F.) gigas **sp. nov.** (Figs 27, 52, 73, 74, 82)

Etymology. The specific epithet *gigas* is based on the Latin for a giant, one of the fabled offspring of Earth and Tartarus. It draws attention to the relatively large size of these beetles, and is treated as a noun in the nominative singular standing in apposition.

Type material. HOLOTYPE, \circlearrowleft . "NE QLD, Upper Boulder Ck via Tully, 900 m 25–27 Oct 1983 Monteith, Yeates & Thompson, Dung trap in R[ain] F[orest]"//"QM Reg. No. T20024"//"EMEC1012222". Deposited QM. PARATYPES. Upper Boulder Ck., 1000 m, 11 km NNW of Tully, 16–19 Nov 1984. Cook, Monteith & Thompson, QM Reg. No. T20029, EMEC1012218, \circlearrowleft , QM. Same with QM Reg. No. T20030, EMEC1012219 and QM Reg. No. T20031, EMEC1012220, 2\$\bar{P}\$, QM. Upper Boulder Ck via Tully, 27 Oct 1983, Monteith, Yeates & Thompson, QM Berlesate No. 618, Rainforest, 900 m, Sieved litter, QM Reg. No. T20026, EMEC1012221, \$\bar{P}\$, QM.

Upper Boulder Ck via Tully, 900 m, 25–27 Oct 1983 Monteith, Yeates & Thompson, QM Reg. No. T20025, EMEC1012223, 3, QM.

Type locality. Queensland, Upper Boulder Creek. Estimated coordinates: 17° 50'S 145° 54'E.

Diagnosis. Largest beetles in the genus. The narrow almost parallel-sided pronotum (Fig. 27) and dense micropunctulae across the elytral intervals distinguishes these beetles from other *Cerabilia* species.

Description. Size. SBL 9.1-11.5 mm, greatest width over elytra 3.1-4.0 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes small, flattened. Ocular ratio 1.31–1.52. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and few small scattered setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2–4 length subequal. Thorax. Pronotum (Fig. 27): microsculpture not or scarcely apparent at 50x magnification or sculpticells transversely elongate, longitudinally short relative to body axis, macrosculpture with very fine, scattered micropunctulae, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with ten intervals, form of intervals flat, slightly more convex near apex, widths all approximately equal, interval 9 with 16 or 17 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous, macrosculpture distinct, dense irregularly punctulate, microsculpture not apparent at 50x magnification, luster dull. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed deeply, where impressed, impunctate. Metepisternum macrosculpture shallowly punctate or rugulose or lightly scabriculous. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Male genitalia (Fig. 52): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view flattened with a clockwise twist, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view thick margin rounded not flexed, apex of median lobe in dorsal view blunt and slightly rounded. Female genitalia and reproductive tract (Figs 73–74): apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 with one ensiform seta, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 long, very slightly curved, narrowly rounded apex, bursa long, left directed curved form, common oviduct inserted near apex, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct

length very elongate, gland duct with notable expanded region near base of gland, gland form spherical, dorsal portion of bursa elongate, narrow diverticula with bulbous apex, ventral modification of bursa absent.

Cerabilia (F.) haigensis sp. nov. (Figs 25, 54, 84)

Etymology. The specific epithet *haigensis* is based on the type locality Mt. Haig and is treated as an adjective.

Type material. HOLOTYPE, & "Mt. Haig, QLD, 145.35S 17.06E, 30 June 1971, Taylor & Feehan" / / "EMEC1000301". ANIC.

Type locality. Queensland, Mt. Haig, 17° 6'S 145° 35'E.

Diagnosis. Similar to *C.* (*F.*) tipica but smaller, with a narrower, more elongate form, and no basal impressions on the pronotum (Fig. 25). Cerabilia Feronista danbullaensis is sympatric with and very similar to *C.* (*F.*) haigensis. While subtly different in microsculpture (see key) the male genitalia are strikingly different (Figs 47, 54).

Description. Size. SBL 7.4 mm, greatest width over elytra 2.7 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes average size, somewhat flattened. Ocular ratio 1.27. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, acutely pointed. Maxilla: apical palpomere glabrous, palpomeres 2–4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 25): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to just apicad hind angle, basal

margin smoothly, moderately emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with ten intervals, form of intervals flat, widths all approximately equal, interval 9 with 16 or 17 setigerous punctures, two setigerous punctures three. Elytra: color rufopiceous, macrosculpture distinct, dense irregularly punctulate, microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, luster moderately glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed moderately, where impressed, impunctate. Metepisternum macrosculpture very lightly scabriculous, almost smooth or smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatibia of male straight. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatrochanter form elongate, extended to half femur length, apically pointed, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1–3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI apical margin in male entire. *Male* genitalia (Fig. 54): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller and blunt, median lobe in lateral view right angled, blade of median lobe in ventral view broadly narrowed apex turned to left, apex of median lobe in lateral view simple taper reflexed ventrally, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract: female unknown.

Cerabilia (F.) intermedia (Moore, 1965: 26) (Figs 31, 58, 83)

Feronista intermedia Moore, 1965

Type material. Holotype, & "N. QUEENSLAND: Mt. Bartle Frere, W. slope. 3-5000' [914–1524 m], Dec 57 (Darlingtons)". ANIC.

Specimens examined. Holotype and male paratype and three males and five females from the type locality examined (MCZ, ANIC, QM).

Diagnosis. Recognisable combination of medium to large size for genus with distinct spectral iridescence dorsally. Legs are pale except for the distinctly infuscated base of the femur.

Redescription. Size. SBL 7.0-8.8 mm, greatest width over elytra 3.1-3.3 mm. *Head*. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes average size, somewhat flattened. Ocular ratio 1.29-1.31. Antennae: overall length moderately long, antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres plurisetose, with scattered short setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 length subequal. Thorax. Pronotum (Fig. 31): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions present, short, shallow, broad, not well delimited, outer basal impressions present as a shallow, poorly defined, broad depression, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to beyond hind angle and onto base nearly to inner impression, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles nearly right angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with ten intervals, form of intervals flat, slightly more convex near apex, widths all approximately equal, interval 9 with 15 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed deeply, where impressed, impunctate. Metepisternum macrosculpture very lightly scabriculous, almost smooth smooth. Mesofemur posterior macrosculpture smooth. Mesotarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1–3 with lateral and medial sulci, 4–5 without sulci, rarely 1-4 with lateral and medial sulci, 5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1–3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Male genitalia (Fig. 58): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract: apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 moderately long, slightly curved, broadly rounded apex, bursa straight, relatively stout, cup-shaped, right lateral portion of bursa elongate, ended in a spherical pouch, dorsal

development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) iridescens **sp. nov.** (Figs 16, 45, 67, 81)

Etymology. The specific epithet *iridescens* is from Latin and refers to the iridescent dorsal surface of these beetles, and is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, \circlearrowleft . "NEQ: 16°55′Sx145°40′E Mt Williams, 900–1000 m 2–3 Dec 1993. Cook, Monteith & Janetzki"//"QM Reg. No. T20051"//"EMEC1012169", QM. PARATYPE. Same data as holotype and QM Reg. No. T20050, EMEC1012171, \updownarrow , QM. AUS14 kww542.

Type locality. Queensland, east of Mt. Williams. 16° 55'S 145° 40'E.

Diagnosis. *Cerabilia Feronista iridescens* is distinguished from similar species above (*C.* (*F.*) *blatta*, *C.* (*F.*) *australiensis*) in that the male is more brilliantly iridescent than the female and the basolateral area of the pronotum (Fig. 16) has a smaller depressed region than these similar appearing species.

Description. Size. SBL 6.2-6.8 mm, greatest width over elytra 2.3-2.6 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes average size, convex. Ocular ratio 1.30–1.39. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2–4 length subequal. *Thorax*. Pronotum (Fig. 16): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions absent or absent, but with

broad, very shallow depressions, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin smoothly, moderately emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, slightly more convex near apex, widths all approximately equal, interval 9 with 15 setigerous punctures, two setigerous punctures near apex of interval 7. *Elytra*: color rufobrunneous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed deeply, where impressed, impunctate. Metepisternum macrosculpture smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1–3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articuloseta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Male genitalia (Fig. 45): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, blade of median lobe in ventral view broadly tapering, apex of median lobe in dorsal view blunt and slightly rounded. Female genitalia and reproductive tract (Fig.

67): apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 with one ensiform seta, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 long, very slightly curved, narrowly rounded apex, bursa straight, relatively stout, cup-shaped, right lateral portion of bursa relatively short and ended in a small rounded pouch, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form elongate, rounded and slightly expanded apically, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) kalkajaka sp. nov. (Figs 20, 48, 71, 82)

Etymology. The specific epithet *kalkajaka* is based on the name given by the eastern Kuku Yalanji Aboriginal people for the type locality (Black Mt., Qld.) and is treated as an adjective.

Type material. HOLOTYPE, ♂. "Black Mtn, 17 km ESE of Julatten, N.Qld 29 Apr. 1982 Monteith, Yeates & Cook"//"Q.M. BERLESATE No. 413, 16.39S 145.29E, Rainforest, 1000 m Sieved litter & moss"//"QM Reg. No. T20008"//"EMEC1012163". QM. PARATYPES. Same data as holotype, with 29–30 Apr. 1982, 800–1000 m Monteith, Yeates & Cook, QM Reg. No. T20009, EMEC1012164, ♂, QM, and QM Reg. No. T20010, EMEC1012165, ♀, QM.

Type locality. Queensland, Black Mtn. 16° 38'S 145° 29'E.

Diagnosis. Brilliantly iridescent, mediumsized beetles with rounded pronotum (Fig. 20) that lacks or has only a slight indication of a depressed basolateral region. These features and the prominently raised region of the anteroventral mesepisternum distinguishes these beetles from similar species.

Description. *Size.* SBL 6.7–7.3 mm, greatest width over elytra 2.4–2.6 mm. *Head.* Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes average size, convex. Ocular ratio 1.38–1.47. Antennae: overall length moderately

long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1–2 small apical setae, apical palpomeres plurisetose, with scattered short setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 20): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin shallowly emarginate in middle, anterior margin medially broadly, shallowly emarginate, apical angles scarcely produced, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, widths all approximately equal, interval 9 with 14 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous or brunneous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed shallowly, where impressed, very small, shallowly punctate. Metepisternum macrosculpture very lightly scabriculous, almost smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1–3 with lateral and medial sulci, 4-5 without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin obtusely angulate. Metatarsomeres 1 with lateral sulcus only, 2-3 with lateral and medial sulci, 4-5 without sulci. Metatrochanter form longer than half femur length, acuminate to rounded point. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two

rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Male genitalia (Fig. 48): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view right angled, blade of median lobe in ventral view styliform throughout, apex of median lobe in lateral view appressed dorsal hook, apex of median lobe in dorsal view blunt. Female genitalia and reproductive tract (Fig. 71): apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 with one ensiform seta, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 elongate, falcate, narrowly rounded apex, bursa long, left directed curved form, common oviduct inserted near apex, right lateral portion of bursa elongate, ended in a spherical pouch, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length very elongate, gland duct diameter increasing apically, without notable expansion, gland form elongate, rounded and slightly expanded apically, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) *lewisensis* **sp. nov.** (Figs 3, 35, 62, 79, 87)

Etymology. The specific epithet *lewisensis* is based on the type locality Mt. Lewis and is treated as an adjective.

Type material. HOLOTYPE, ♂. "QLD: 16.511°S x 145.296°E, Mt. Lewis Rd., hut, 12 km NW Julatten, 1187 m., 22 Nov 2009. Sieved Litter, Monteith & Turco. 18633"//"EMEC1000451". QM. PARATYPES. Same data as holotype with EMEC1000327 and EMEC1000300, 2♀♀, QM. Same data as holotype with EMEC1000452 and EMEC1012207 AUS27 kww 843, 2♂♂, QM. Mt Lewis 29 km from Hwy, 29 Nov 1997

D.J. Cook, QM BERLESATE 964, Rainforest, 1210 m leaf litter, QM Reg. No. T66693, EMEC1012150, \$\,\text{Q}\$, QM.

Type locality. Queensland, Mt. Lewis, 16° 30'S 145° 17'E .

Diagnosis. Distinct from all other species by the combination of the broad pale region laterally, apically, and along the length of interval 1 of the elytra (Fig. 3) and the well impressed, stretched microsculpture on the pronotum and elytra.

Description. Size. SBL 4.7 mm, greatest width over elytra 1.7 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eves small, flattened. Ocular ratio 1.26. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 length subequal. Thorax. Pronotum (Fig. 35): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin smoothly, moderately emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, widths all approximately equal, interval 9 with 16 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color first interval distinctly paler brunneous, broadly pale along apex, margins slightly paler, otherwise castaneous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, luster moderately glossy.

Humeri rounded or slightly angulate, without denticle. Elytral striae impressed moderately, where impressed, impunctate. Metepisternum macrosculpture smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1 with lateral sulcus only, 2-3 with lateral and medial sulci, 4-5 without sulci. Metatarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Male genitalia (Fig. 62): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller and narrowly pointed, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view small ventral tooth, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract (Fig. 79): apical margin of gonocoxite-1 with one seta, lateral edge of gonocoxite-2 with one ensiform seta, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 moderately long, slightly curved, broadly rounded apex, bursa long, right directed curved form, common oviduct inserted near apex, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length short, gland duct with notable expanded region near base of gland, gland form elongate, rounded and slightly expanded apically, dorsal

portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) loxandroides sp. nov. (Figs 23, 72, 85)

Etymology. The specific epithet *loxandroides* draws attention to the similar form of these beetles to some species of *Loxandrus*. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, $\ \$ 2. "NE. Q: 16°22′S x 145°13′E, 7 km N. Mt Spurgeon (Camp 2), 17–19 Oct 1991, 1200–1250 m, Monteith, Janetzki, Cook & Roberts"//"QM Reg. No. T20049"//"EMEC1012135". QM.

Type locality. Queensland, Mt. Spurgeon, 16° 22' E 145° 13'S.

Diagnosis. Large, dull beetles. Larger and with a more quadrate pronotum (Fig. 23) than *C.* (*F.*) *moorei*. The distinct, dull, isodiametric elytral microsculpture separate this species from others that are of similar size or larger, e.g. *C.* (*F.*) *gigas* and *C.* (*F.*) *intermedia*.

Description. Size. SBL 9.0 mm, greatest width over elytra 3.2 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes small, slightly convex. Ocular ratio 1.26. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 length subequal. Thorax. Pronotum (Fig. 23): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly, shallowly emarginate, apical angles scarcely

produced, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with ten intervals, form of intervals flat, widths all approximately equal, interval 9 with 18 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous, macrosculpture smooth, microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, luster dull. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed deeply, where impressed, impunctate. Metepisternum macrosculpture smooth, rarely very lightly scabriculous, almost smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of female with two pairs setae, ventrite VI, apical margin in female entire. Male genitalia: male unknown. Female genitalia and reproductive tract (Fig. 72): apical margin of gonocoxite-1 with one seta, lateral edge of gonocoxite-2 with two ensiform setae, gonocoxite-2 elongate, falcate, narrowly rounded apex, bursa left to right recurved, oviduct inserted near apex in posterior facing groove, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form elongate ovoid, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) minor (Moore, 1965: 26) (Figs 12, 42, 81)

Feronista minor Moore, 1965

Type material. HOLOTYPE, ♂. "N. QUEENSLAND: Mt. Spec Plateau, 2–3000 feet, xi.57 (Darlingtons)". ANIC

Diagnosis. Small beetles with a form and size similar to *C.* (*F.*) blatta. Recognisable from that species and other small *Cerabilia* by the much more narrowly angled (though still obtusely so) hind angles of the pronotum (Fig. 12).

Redescription. Size. SBL 5.5-5.8 mm, greatest width over elytra 2.1 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes small, flattened. Ocular ratio 1.26. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1–2 small apical setae, apical palpomeres plurisetose, with scattered short setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2–4 length subequal. *Thorax*. Pronotum (Fig. 12): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, slightly more convex near apex, widths all approximately equal, interval 9 with 14 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster glossy. Humeri rounded or slightly

angulate, without denticle. Elytral striae impressed moderately, where impressed, impunctate. Metepisternum macrosculpture smooth. Tarsomere 5 on all legs ventrally glabrous. Mesotarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire. Male genitalia (Fig. 42): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal or dorsal with slight rotation to left, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view narrowly rounded point. Female genitalia and reproductive tract: female unknown.

Cerabilia (F.) monteithi (Baehr, 2007: 6) (Figs 38, 63, 89)

Australomasoreus monteithi Baehr, 2007

Type material. HOLOTYPE, & "Forest Station, 2000 feet, Bulburin State Forest via Many Peaks, Qld. 12–15.iv.1974 G.B.Monteith"//"UQIC Reg. #90482 (QM T123808)" QM.

Specimens examined. A total of 11 specimens from the type locality examined, seven males and four females, EMEC.

Diagnosis. This species is similar to, but much smaller than the sympatric *C.* (*F.*) amaroides and it lacks the elytral humeral tooth found in *C.* (*F.*) amaroides. It is notably less oval than the similar looking *C.* (*F.*) oodiformis. The elytral striae are very shallowly impressed and usually only represented by punctures for most of their length.

Redescription. SBL 5.2-5.6 Size.greatest width over elytra 2.2-2.3 mm. Head. Dorsal microsculpture not apparent at 50x magnification. Eyes average size, somewhat flattened. Ocular ratio 1.22-1.32. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 pubescent in apical 1/3–1/2. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres plurisetose, with scattered short setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 38): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to beyond hind angle, onto base to near midline, basal margin very shallowly emarginate in middle, anterior margin medially deeply, broadly emarginate, apical angles large, prominent, hind angles completely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, widths all approximately equal, interval 9 with 16 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster moderately glossy or glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed very shallow or not impressed, except near apex and apical third of 5-8, where impressed, shallow, elongate punctulae. Metepisternum macrosculpture rugulose or lightly scabriculous. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1 with lateral sulcus, 1 medially and 2-5 without sulci or 1 with lateral and medial sulci, 2-5

without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1 with lateral sulcus only, 2-5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Defensive gland chemical compounds from defensive glands formic acid, decane, undecane or 2-pentadecanone. Male genitalia (Fig. 63): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller and blunt, median lobe in lateral view arcuate and curved ventrally, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view blunt. Female genitalia and reproductive tract: apical margin of gonocoxite-1 with three setae, lateral edge of gonocoxite-2 with two ensiform setae, gonocoxite-2 elongate, falcate, narrowly rounded apex, bursa very short, right lateral portion of bursa with very large pouch, base broadly joined to bursa, dorsal development of bursa lacking, spermatheca very short sessile, on common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form elongate, rounded and slightly expanded apically, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) montivaga sp. nov. (Figs 13, 43, 66, 81)

Etymology. The specific epithet *montivaga* is based on the Latin for "mountain-roaming" and indicates the habitat where this species is found. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, ♂. "Mt. Father Clancy, 9 km S. Milla[a] Milla[a], N.Qld. 6-14 Dec 1988, 800 m Monteith & Thompson, Pitfall Traps"//"QM Reg. No. T20038"//"EMEC1012232". QM. PARATYPES. Vine Creek, Majors Mt. 4-6 Feb 1999. 1060 m G.Monteith & D.Cook, fish pitfall, rainforest, QM Reg. No. T78990, EMEC1012216 AUS11 kww539, ♂, QM. Mt Kooroomooi, summit 7 kms. 3-4 Dec 1998 Monteith, Cook & Bouchard, 1050 m, Rainforest, QM Reg. No. T69248, EMEC1012217, ♀ OM.

Type locality. Queensland, Mt. Father Clancy. Estimated coordinates 17° 35'S 145° 38'E.

Diagnosis. Beetles of this species are fairly small, similar in size and body form to *C.* (*F.*) minor and *C.* (*F.*) blatta. Cerabilia Feronista montivaga has a more broadly rounded pronotum (Fig. 13) than these species and rounded hind angles, distinct from the obtusely angled hind angles in *C.* (*F.*) minor (Fig. 12).

Description. Size. SBL 4.5-5.2 mm, greatest width over elytra 2.1-2.2 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eves average size, convex. Ocular ratio 1.25–1.27. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 apical distinctly longer than penultimate. *Thorax*. Pronotum (Fig. 13): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle,

anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, widths all approximately equal, interval 9 with 13 or 14 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous or brunneous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed deeply, where impressed, impunctate. Metepisternum macrosculpture rugulose or lightly scabriculous. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. *Male* genitalia (Fig. 43): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view right angled, blade of median lobe in ventral view short and broad, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract (Fig. 66): apical margin of gonocoxite-1 with two setae, lateral edge of

gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 elongate, falcate, narrowly rounded apex, bursa straight, relatively stout, cup-shaped, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca very short sessile, on common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form elongate ovoid, dorsal portion of bursa without modifications, ventral modification of bursa large, somewhat sclerotized pouch set in a depression.

Cerabilia (F.) moorei **sp. nov.** (Figs 24, 51, 86)

Etymology. The specific epithet *moorei* is treated as a noun in the genitive case and is in honor of Dr. B.P. Moore, biochemist and carabidologist who described the genus *Feronista* and took me on my first trip up Mt. Lewis Road in 2004, where I collected my first specimen of *Cerabilia*, which is part of the type series

Type material. HOLOTYPE, ♂. "29 km up Mt Lewis Rd. via Julatten, N. Qld., 9–23.xi.1982, Morgan, Brown, Storey. MDPI Intercept Trap, Site No. 4"//"QM Reg. No. T20012" //"EMEC1012142". QM. PARATYPES. Mount Lewis Road, pitfall 940 m., 23.vi-30.vii.2008 K.Staunton, CU10A6, 346181, EMEC1000469; same data with CU10A6, C 3455B1, EMEC1000470, 299, QM. Mount Lewis Road, 1160 m. 3.i.2009 K.Staunton, [CU12A6C], EMEC1000479, J, QM. Mount Lewis Road, pitfall 23.vi-30.vii.2008, K.Staunton, CU10A6C, EMEC1000474, ♂, QM. Mount Lewis, Road, baited pitfall, 4.viii-31.viii.2007, K.Staunton, CH12A2, ÈMEC1000475, ♂, QM. Mount Lewis Road, baited pitfall 4.viii-31.viii.2007, K.Staunton, CH12A2, EMEC1000476, & QM. Mount Lewis Road, pitfall 1016 m. 23.vi-30.vii.2008, K.Staunton, CU10A2 C 3437B2, EMEC1000497, & QM. 7.5 km N Mt Lewis, via Julatten, 8 Sept 1981, G.Monteith & D.Cook, Q.M. BERLESATE No. 279, Rainforest, 1200 m, Sieved Litter, QM Reg. No.T19988, EMEC1012143, 3, QM. Mt Lewis 1000 m, 15.iv.90, B.P. Moore, EMEC1000478 and EMEC1000495, 233, ANIC. Mt. Lewis via Julatten, 8 Mar. 1985, A.Walford-Huggins, mine site, ex leaf litter, EMEC1000477, ♀, ANIC. 29 km up Mt Lewis Rd. via Julatten, 9-23.xi.1982, Morgan, Brown, Storey, MDPI Intercept Trap, Site no. 4, EMEC1012139, 3, QPID. Same locality with EMEC1012138; EMEC1012140 and EMEC1012141,

3♀♀, QPID. Mt. Lewis, 29.x.1980, R.Storey, G. Strickland, Berleseate, EMEC1012144, ♀, QPID. Mt. Lewis Rd., hut, 12 km NW Julatten, 1187 m., 22 Nov 2009, Sieved Litter, Monteith & Turco, 18633, in EtOH, EMEC1000499, ♀, EMEC. Mount Lewis Road, hut, 12 km northwest of Julatten, 1187 m. 8.viii.2004, K.Will & B.P.Moore, in EtOH, EMEC1000498 AUS2 kww250, ♂, EMEC. Same locality with, 1200 m, leaf litter, EMEC1012146 and EMEC1012147, 2♀♀, EMEC.

Type locality. Queensland, Mt. Lewis. Estimated coordinates 16° 30'S 145° 16'E.

Diagnosis. Large sized beetles with distinct dorsal microsculpture (shallower in males) and in most specimens the first elytral interval, and narrowly along the lateral margins, paler. Similar in form, but smaller than *C.* (*F.*) loxandroides and with a notably narrower pronotum (Fig. 24).

Description. Size. SBL 6.1-7.4 mm, greatest width over elvtra 2.2-2.6 mm. Head. Dorsal microsculpture not apparent at 50x magnification. Eyes average size, convex. Ocular ratio 1.24-1.32. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1–2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere plurisetose with short, scattered setae, palpomeres 2–4 length subequal. *Thorax*. Pronotum (Fig. 24): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin smoothly, moderately emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with ten intervals, form of intervals flat, slightly more convex near apex, 7 and 8 distinctly

convex, subcarinate in apical third, widths all approximately equal, interval 9 with 16 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color first interval distinctly paler brunneous, margins slightly paler brunneous, otherwise infuscated black or deep brunneous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, luster dull. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed deeply, where impressed, impunctate. Metepisternum macrosculpture very lightly scabriculous, almost smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin obtusely angulate. Metatarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Male genitalia (Fig. 51): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view arcuate, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view erect dorsal hook, apex of median lobe in dorsal view narrowly rounded point. Female genitalia and reproductive tract: apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 elongate, falcate, narrowly rounded apex, bursa left to right recurved, oviduct inserted near apex in posterior facing groove, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form elongate ovoid, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) mudda **sp. nov.** (Figs 30, 57, 82)

Etymology. The specific epithet *mudda* is based on an abbreviated form of Muddamuddanaymy the Bandjin Aboriginal word for the type locality (Hinchinbrook Island) and is treated as a noun in apposition.

Type material. HOLOTYPE, ♂. "Hinchinbrook Is. NE Qld. Upper Gayundah Ck. 850 m 9–11 Nov 1984. R.F. G.Monteith & D.Cook"//"QM Reg. No. T20028"//"EMEC1012231". QM.

Type locality. Queensland, Hinchinbrook Island, Upper Gayundah Creek. Estimated coordinates 18° 21'S 146° 14'E.

Diagnosis. Piceous to black, smooth, iridescent with piceous legs and antennae. Similar in luster and color to *C.* (*F.*) amaroides, but smaller, much narrower, and more convex form.

Description. Size. SBL 8.2 mm, greatest width over elytra 3.2 mm. *Head*. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes small, flattened. Ocular ratio 1.25. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres plurisetose, with scattered short setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 30): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle ended well apicad hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with ten intervals, form of intervals flat, widths all approximately equal, interval 9 with 15 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed moderately, where impressed, impunctate. Metepisternum macrosculpture smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior macrosculpture smooth. Mesotarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin obtusely angulate. Metatarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI apical margin in male entire. Male genitalia (Fig. 57): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal or dorsal with slight rotation to left, form of left paramere conchoid, larger, right smaller and blunt, median lobe in lateral view right angled, blade of median lobe in ventral view styliform at tip, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view broadly rounded.

Female genitalia and reproductive tract: female unknown.

Cerabilia (F.) oodiformis **sp. nov.** (Figs 5, 34, 61, 80, 90)

Etymology. The specific epithet *oodiformis* is a Latin compound word drawing attention to the eggshaped form of these beetles and that they are similar to beetles in the genus *Oodes* Bonelli. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, & "MEQ: 21°36'S ×148°58′E, Blue Mt., 0.6 km SE, 3-4 Oct 1999, 800-1058 m, Monteith, Cook, Burwell, Evans. Rain forest, 7801"//"EMEC1012245". QM. PARATYPES. Blue Mt. summit, 1058 m, 30 May 2000. Burwell, Cook & Monteith, rainforest, 9275, EMEC207006, ♀, QM. Blue Mt. 0.6 km SE 3-4 Oct 1999, 800-1058 m, Monteith, Cook, Burwell & Evans. rainforest, 7801, EMEC1012243, 3, QM. Blue Mt. 0.6 km SE, 930 m 23 Mar-30 May 2000 Monteith & Cook, rainforest, pitfall 9422, EMEC1012244, ♀, QM. Blue Mt. 0.6 km SE 3-4 Oct 1999. 800-1058 m Monteith, Cook, Burwell & Evans. Rainforest 7801 QM Reg. No. 94946, EMEC214586, ♀, QM. Same data with QM Reg. No. 94947, EMEC214588; QM Reg. No. 94948, EMEC214587 and QM Reg. No. 94945, EMEC214589, 333, QM. Eungella, about 3 km S., about c.780 m, 26.iii.1975, R.W.Taylor, EMEC1000472, 3, ANIC. Eungella National Park, Peases Lookout rainforest, 820 m, 13.i.2008, K.Will [AUS2008.i.13.2] in EtOH, AUS5 EMEC207007 kww494, 3, EMEC. Eungella NP rainforest 1020 m. 13.i.2008 K.Will [AUS2008.i.13.3], EMEC1000494, ♀, EMEC.

Type locality. Queensland, Blue Mt., 21° 36'S 148° 58'E.

Diagnosis. The distinctly oodine-like body form (Fig. 5) and very prominent elytral humeral tooth distinguishes this species from all others in the genus.

Description. Size. SBL 5.9–7.5 mm, greatest width over elytra 2.6–3.0 mm. Head. Dorsal microsculpture not apparent at 50x magnification. Eyes small, flattened. Ocular ratio 1.22–1.29. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1–2 small apical setae, apical palpomeres plurisetose, with scattered short setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin

moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 34): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, broader across base than apex, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, widths all approximately equal, interval 9 with 16 setigerous punctures, two setigerous punctures near apex of interval 7 or three. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster glossy. Humeri distinct denticle. Elytral striae impressed shallowly apically and not impressed in basal 5th, 5–7 very shallow on disc, where impressed, very small, shallowly punctate. Metepisternum macrosculpture smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres without sulci. Metatibia of male slightly arcuate. Metatarsomeres 1 with lateral sulcus only, 2-5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articuloseta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Male genitalia (Fig. 61): orientation of median lobe of

aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller and blunt, median lobe in lateral view arcuate, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract (Fig. 80): apical margin of gonocoxite-1 with one seta or with two setae, lateral edge of gonocoxite-2 with one ensiform seta, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 elongate, falcate, narrowly rounded apex, bursa short, left directed, common oviduct inserted near apex, right lateral portion of bursa with very large pouch, base broadly joined to bursa, dorsal development of bursa lacking, spermatheca not evident, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected to common oviduct, gland duct with notable expanded region near base of gland, gland form elongate, rounded and slightly expanded apically, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) parva sp. nov. (Figs 18, 69, 81)

Etymology. The specific epithet *parva* is Latin for small and this refers to the very small size of these beetles. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, ♀. "QLD. 730 m Mt Tiptree 29/vi/1971 Taylor Feehan"//"EMEC1000471". ANIC.

Type locality. Queensland, Mt. Tiptree. Estimated coordinates 17° 5' S 145° 37'E.

Diagnosis. Recognisable by the minute size. These are the smallest beetles in *Feronista* and as small as any species in the genus. The elytra are rather convex and relatively short.

Description. *Size.* SBL 3.9 mm, greatest width over elytra 1.7 mm. *Head.* Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes average size, somewhat flattened. Ocular ratio 1.25. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not

pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2–4 length subequal. *Thorax*. Pronotum (Fig. 18): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin straight, anterior margin medially broadly, shallowly emarginate, apical angles scarcely produced, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, widths all approximately equal, interval 9 with 14 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous, macrosculpture smooth, microsculpture not apparent at 50x magnification, luster glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed deeply, where impressed, impunctate. Metepisternum macrosculpture very lightly scabriculous, almost smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of female with two pairs setae, ventrite VI, apical margin in female entire. Male genitalia (Fig. 18): male unknown. Female genitalia and reproductive tract (Fig. 69): apical margin of gonocoxite-1 with one seta, lateral edge of gonocoxite-2 glabrous, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 elongate, falcate, narrowly rounded apex, bursa short, left directed, common oviduct inserted near apex, right lateral portion of bursa with relatively short pouch, dorsal development of bursa lacking, spermatheca short, width at middle 2/3 total length, spermatheca duct as wide as reservoir and twice reservoir length, spermathecal gland duct connected at base of spermatheca, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form spherical, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) prolixa **sp. nov.** (Figs 33, 60, 88)

Etymology. The specific epithet *prolixa* is from the Latin for "wide" and refers to broad form of the body in these beetles, and is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, ♂. "Devil's Thumb - Paul Luck, 12 km WNW Mossman, NQ, 27 Dec 1989 - 15 Jan 1990, ANZSES Expedition, Site 11, 1240 m, pitfall"//"QM Reg. No. T20044"//"EMEC1012151". QM.

Type locality. Queensland, 12 km west-northwest of Mossman. Estimated coordinates: 16° 24'S 145° 17'E.

Diagnosis. These distinctive beetles are similar to *C.* (*F.*) *prosopogmoides*. See the diagnosis under that species.

Description. Size. SBL 6.0 mm, greatest width over elytra 2.3 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes average size, convex. Ocular ratio 1.32. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum

(Fig. 33): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions absent, but with broad, very shallow depressions, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, broader across base than apex, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles nearly right angled, rounded not sharp, anteriolateral setae distant from lateral margin, about 2x width of setal pore from lateral margin. Elytron with ten intervals, form of intervals flat, slightly more convex near apex, widths widest point of 3rd notably wider than 2nd, approximately 1.6x width of 2nd, 9 with 15 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed deeply, where impressed, impunctate. Metepisternum macrosculpture shallowly punctate. Tarsomere 5 on all legs ventrally glabrous. Mesofemur face macrosculpture posterior smooth. Mesotarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatibia of male straight. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatrochanter form obtusely truncate with rounded point. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI apical margin in male entire. *Male* genitalia (Fig. 60): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in

dorsal view broadly rounded. Female genitalia and reproductive tract: female unknown.

Cerabilia (F.) prosopogmoides sp. nov. (Figs 32, 59, 88, 147)

Etymology. The specific epithet *prosopogmoides* draws attention to the similar form of these beetles to some species of *Prosopogmus* Chaudoir. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, β . "16°32′32.3″S /145°17′03.7″E, AUSTRALIA: Queensland, Mt. Lewis, headlamp search, 974 m., 19.xii.2010, K.Will [AUS2010.xii.19.2]" //"EMEC207000". QM. PARATYPES. Same data as holotype with EMEC1000466 and EMEC207001, $2\beta\beta$, EMEC; EMEC207003, β , ANIC; EMEC207004, β , QM. Same data as holotype with EMEC1000467, EMEC1000468, EMEC215152 AUS16 kww842, $3\beta\beta$, EMEC; EMEC1005896, β , ANIC; EMEC207002 and EMEC207005, $2\beta\beta$, QM. Mount Lewis Road, pitfall 1181 m., 23.vi-30.vii.2008, K.Staunton CU12A4 B 3424B2, EMEC1000496, β , QM.

Type locality. Queensland, Mount Lewis, 16° 32'S 145° 17'E.

Diagnosis. This species and *C. (F.) prolixa* share a body form distinct in the genus. Both are broad across the elytral humeri and pronotal base. The pronotum (Fig. 32) is widely depressed from the base, narrowing to the midpoint of the pronotal length. The anterior lateral punctures are set far from the margin. *Cerabilia Feronista prosopogmoides* males are recognisable by the deep, dorsal concavity of the meta femur (Fig. 147) lacking in *C. (F.) prolixa* males.

Description. Size. SBL 6.6-7.1 mm, greatest width over elytra 2.5-2.9 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes average size, somewhat flattened. Ocular ratio 1.30-1.43. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 length subequal. Thorax. Pronotum (Fig. 32): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions present, short, shallow, broad, not well delimited or present, short, shallow, clearly marked, outer basal impressions present as a shallow, poorly defined, broad depression, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle ended well apicad hind angle, basal margin smoothly, moderately emarginate in middle, anterior margin medially deeply, broadly emarginate, apical angles large, prominent, hind angles nearly right angled, rounded not sharp, anteriolateral setae distant from lateral margin, about 2x width of setal pore from lateral margin. Elytron with ten intervals, form of intervals flat, slightly more convex near apex, widths widest point of 3rd notably wider than 2nd, approximately 1.6x width of 2nd, 9 with 15 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, luster glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed deeply, where impressed, impunctate. Metepisternum macrosculpture shallowly punctate. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1–3 with lateral and medial sulci, 4-5 without sulci. Metatibia of male straight. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatrochanter form elongate, extended to greater than half femur length, apically pointed, dorsally deeply concave in male (Fig. 147), convex in female. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articuloseta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with

two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Male genitalia (Fig. 59): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of right paramere conchoid, larger, left smaller and blunt, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract: apical margin of gonocoxite-1 with one seta, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 short, bluntly rounded apex, bursa short, straight, common oviduct entering on left lateral side, right lateral portion of bursa elongate, ended in a spherical pouch, dorsal development of bursa lacking, spermatheca very short sessile, on common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at posterior oriented apex, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form elongate ovoid, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) reflexa **sp. nov.** (Figs 22, 50, 85)

Etymology. The specific epithet *reflexa* is from the Latin for "recurved" and refers to the form of aedeagus tip. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, ♂. "NE QLD, The Bluff, 11 km W of Mossman, 27 April 1983, G.B.Monteith, D.K.Yeates, QM BERLESATE No. 552, 16.27S 145.16E, rainforest, 1050 m, moss"//"QM Reg. No. T20013"//"EMEC1012162". Deposited QM. PARATYPES. Mossman Bluff Track, 5-10 km W Mossman, 17-31 Dec 1988, Monteith, Thompson & ANZSES Site 10, 1300 m, flight intercept, QM Reg. No. T20040, EMEC1012156, ♀. QM. Mossman Bluff, summit 10 km W Mossman, 18 Dec 1988, 1300 m, G.Monteith & G.Thompson, pyrethrum/trees & rocks, QM Reg. No. T20041, EMEC1012159, ♀, QM. 7.5 km N Mt Lewis, via Julatten, 8 Sept 1981 G.Monteith & D.Cook, Q.M. BERLESATE No.

279 Rainforest, 1200 m Sieved litter, QM Reg. No. T19986, EMEC1012148, ♂. QM. Same locality with QM Reg. No. T19987, EMEC1012149, ♀, QM.

Type locality. Queensland, The Bluff, 11 km west of Mossman, 16° 27'S 145° 16'E.

Diagnosis. Small parallel-sided beetles with distinctly dull elytral microsculpture and contrastingly pale legs that usually have the tibiae infuscated. In form and size similar to *C.* (*F.*) *lewisensis*, though the color and microsculpture are distinctively different.

Description. Size. SBL 4.2-5.4 mm, greatest width over elvtra 1.6-1.8 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes average size, somewhat flattened. Ocular ratio 1.20. Antennae: overall length long, with antennomeres 10–11 reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 apical distinctly longer than penultimate. *Thorax*. Pronotum (Fig. microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin smoothly, moderately emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with ten intervals, form of intervals flat, slightly more convex near apex, 7 and 8 distinctly convex, subcarinate in apical third, widths all approximately equal, interval 9 with 15 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color first interval

distinctly paler brunneous, margins slightly paler brunneous, otherwise infuscated black or deep brunneous, macrosculpture smooth, microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, luster dull or moderately glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed moderately, where impressed, impunctate. Metepisternum macrosculpture very lightly scabriculous, almost smooth or smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1–3 with lateral and medial sulci, 4-5 without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1–3 with lateral and medial sulci, 4–5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Male genitalia: orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view arcuate, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view erect dorsal hook, apex of median lobe in dorsal view narrowly rounded point. Female genitalia and reproductive tract: apical margin of gonocoxite-1 with one seta or with two setae, lateral edge of gonocoxite-2 with one ensiform seta, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 short, bluntly rounded apex, bursa long, right directed curved form, common oviduct inserted near apex, right lateral portion of bursa not differentially developed, dorsal development of bursa

lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length very elongate, gland duct with notable expanded region near base of gland, gland form elongate ovoid, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) securilata **sp. nov.** (Figs 10, 40, 65, 81)

Etymology. The specific epithet *securilata* is based on the Latin for "in form of a hatchet", from Plinius' Natural History, and refers to the hatchet-shaped sclerite on spermatheca, and is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, ♂. "Upper Boulder Ck., 11 km NNW of Tully, N. Qld. 17–18 Nov 1984, Davies, Monteith, Gallon, Cook & Thompson. Pitfalls 850–1000 m"//"QM Reg. No. T20033"//"EMEC1012224". Deposited QM. PARATYPES. Same data as holotype with EMEC1012225, QM Reg. No. T20034, ♀, QM. EMEC1012226, QM Reg. No. T20034, ♀, QM, EMEC1012227, 10 km N of Tully, 4–5 Dec 1989, 800 m Monteith, Thompson & Janetzki, QM Reg. No. T20042, EMEC1012228, ♀, QM; 1000 m, 16–19 Nov 1984. Cook, Monteith & Thompson, QM Reg. No. T20032, ♂, QM.

Type locality. Queensland, Upper Boulder Creek. Estimated coordinates 17° 49'S 145° 54'E.

Diagnosis. Beetles of this species are of similar, elongate form as found in *C.* (*F.*) spuh, *C.* (*F.*) blatta, and *C.* (*F.*) iridescens. They are much larger than *C.* (*F.*) blatta and *C.* (*F.*) iridescens and also not as brilliantly iridescent as the latter. The relatively narrower pronotum (Fig. 10), with distinct basal impressions, separates this species from the similarly sized *C.* (*F.*) spuh (Fig. 11).

Description. Size. SBL 7.2–7.8 mm, greatest width over elytra 2.6–2.8 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes average size, convex. Ocular ratio 1.30–1.44. Antennae: overall length long, with antennomeres 10–11 reaching beyond pronotal base, antennomere 3 pubescent in apical 1/3–1/2. Labial penultimate palpomere with two large medial setae and 1–2 small apical setae, apical palpomeres plurisetose,

with scattered short setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 length subequal. Thorax. Pronotum (Fig. 10): microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, macrosculpture smooth, rarely with very fine, scattered micropunctulae, inner basal impressions absent, present, shallow, but defined medially, not delimited laterally, blending into broad depression or present, short, shallow, clearly marked, outer basal impressions absent or present as a shallow, poorly defined, broad depression, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles completely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, widths all approximately equal, interval 9 with 15 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color first interval slightly paler brunneous, especially near apex, margins slightly paler brunneous, otherwise deep brunneous, macrosculpture distinct, dense irregularly punctulate or irregular mix of slightly larger and many smaller punctulae, microsculpture not apparent at 50x magnification, lustre moderately glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed moderately, where impressed, impunctate. Metepisternum macrosculpture very lightly scabriculous, almost smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna.

Male protarsomeres 1-3 dorsally with fine, short, scattered setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Male genitalia (Fig. 40): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller and blunt, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper reflexed ventrally, apex of median lobe in dorsal view blunt.

Female genitalia and reproductive tract (Fig. 65): apical margin of gonocoxite-1 with one seta or with two setae, lateral edge of gonocoxite-2 with one ensiform seta, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 moderately long, slightly curved, broadly rounded apex, bursa straight elongate, common oviduct inserted in apical cup, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca very short sessile sclerotized, crestshaped, on common oviduct, spermatheca duct not apparent, spermatheca broadly attached, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form spherical, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) spinifer sp. nov. (Figs 37, 86)

Etymology. The specific epithet *spinifer* is from the Latin "to bear thorns" and alludes to the spiny meso- and metatibiae in this and other *Cerabilia* species. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, ♀. "NEQ: 16°27′S ×145°11′E, Mt Spurgeon, 3 km S 19–23 Nov 1997, 1632

Monteith, Cook & Burwell, Sclerophyll Forest"//"QM Reg. No. T66694"//"EMEC1012137", QM.

Type locality. Queensland, Mt. Spurgeon, 16° 27'S 145° 11'E.

Diagnosis. Somewhat dull reflectance due to prominent microsculpture on the upper surface. Compact ovoid form like *C.* (*F.*) wunduensis, but with distinctly, though only slightly, narrowed pronotal width in the basal third (Fig. 37).

Description. Size. SBL 5.0 mm, greatest width over elytra 2.0 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eves average size, convex. Ocular ratio 1.35. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 37): microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins convergent in basal half, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles nearly right angled, rounded not sharp, anteriolateral setae distant from lateral margin, about 2x width of setal pore from lateral margin. Elytron with nine intervals, form of intervals flat, widths all approximately equal, interval 9 with 15 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster moderately glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed moderately, where impressed, impunctate. Metepisternum macrosculpture rugulose or lightly scabriculous. Tarsomere 5 on all legs ventrally glabrous. Mesofemur face macrosculpture Mesotarsomeres 1 with lateral sulcus only, 2–3 with lateral and medial sulci, 4-5 without sulci. Metatarsomeres 1 with lateral sulcus only, 2-3 with lateral and medial sulci, 4-5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Female protarsomeres 1-4 dorsally glabrous form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of female with two pairs setae, ventrite VI, apical margin in female entire. Male genitalia: male unknown. Female genitalia and reproductive tract: apical margin of gonocoxite-1 with one seta, lateral edge of gonocoxite-2 with one ensiform seta, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 short, falcate, narrowly rounded apex, bursa straight elongate, common oviduct inserted in apical cup, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) spuh **sp. nov.** (Figs 11, 41, 81)

Etymology. The specific epithet "spuh" is an arbitrary combination of letters treated as a noun in apposition.

Type material. HOLOTYPE, ♂. "NEQ 17°23′S ×145°46′E Bartle Frere. W Base 25 Nov 1994–10 Jan 1995 Monteith & Hasenpusch, Pitfall traps, 700 m"//"QM Reg. No. T22454″// "EMEC1012209". QM. PARATYPES. Mt Bartle Frere. West Slopes, 800–1000 m, 30 Dec 1989, G.B.Monteith, QM Reg. No. T20045, EMEC1012210, ♂, QM. NE Mt Bartle Frere, upper boulder caves, 25 Nov 1994. G.Monteith, QM BERLESATE No. 880, Rainforest, 1000 m, Sieved litter QM Reg. No. T22455, EMEC1012211, ♀, QM.

Type locality. Queensland, west base of Mt. Bartle Frere, 17° 23'S 145° 46'E.

Diagnosis. Similar to *C. (F.) securilata* (see diagnosis under that species). The broadly rounded lateral margins of the pronotum with reflexed basolateral area and lack of impressions is distinctive (Fig. 11).

Description. Size. SBL 7.6–8.9 mm, mm, greatest width over elytra 2.6-2.9 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eves average size, somewhat flattened. Ocular ratio 1.13-1.37. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 pubescent in apical 1/3-1/2. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres plurisetose, with scattered short setae. Glossal sclerite form truncate at apex, edge shelf-like, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2–4 length subequal. *Thorax*. Pronotum (Fig. 11): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin smoothly, moderately emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles completely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, slightly more convex near apex, widths all approximately equal, interval 9 with 15 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous, macrosculpture irregular mix of slightly larger and many smaller punctulae, microsculpture not apparent at 50x magnification, luster glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed moderately, where impressed, impunctate. Metepisternum macrosculpture smooth. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur posterior face macrosculpture

smooth. Mesotarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1–3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Male genitalia (Fig. 41): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller and blunt, median lobe in lateral view arcuate, blade of median lobe in ventral view styliform throughout, apex of median lobe in lateral view erect dorsal hook, apex of median lobe in dorsal view blunt. Female genitalia and reproductive tract: apical margin of gonocoxite-1 glabrous, lateral edge of gonocoxite-2 glabrous, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 short, bluntly rounded apex, bursa straight elongate, common oviduct inserted in apical cup, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca very short sessile sclerotized, crest-shaped, on common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form elongate ovoid, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (F.) storeyi **sp. nov.** (Figs 4, 17, 46, 68, 82)

Etymology. The specific epithet *storeyi* is treated as a noun in the genitive case and is in honor of the

late Dr. Ross I. Storey, of Queensland, Australia for his contributions to entomology and as a collector of specimens in the type series.

Type material. HOLOTYPE, 3. "Bellenden Ker Range, NQ. Summit TV station 29 Apr – 2 May 1983, G.B. Monteith & D.K.Yeates"//"QM Berlesate No. 565, 17.16S 145.51E, 1560 m litter"//"QM Reg. T20017"//"EMEC1012187". QM. PARATYPES. Reg. No. T20015, EMEC1012191, ♀, QM. Bellenden Ker, eastern slope 1192 m. 16.xii.2009 K.Staunton [BK12K2B], EMEC1000465, ♀, QM. Eastern slope 1479 m. 14.ix.2009 K.Staunton [BK14K2B], EMEC1000462, m. 14.ix.2009 K.Staunton [BK14K2B], EMEC1000462, ♀, QM. Eastern slope 1509 m. 6.x.2009 K.Staunton [BK14K3B], kww839, EMEC1000463, ♀, QM. Eastern slope baited pitfall, 1479 m. 2.i.2007–8. ii.2007 K.Staunton [BK14K2], EMEC1000454, same EMEC1000455, 2♂♂, QM. Eastern slope baited pitfall 1479 m. 2.viii.2007–30.viii.2007 K.Staunton [BK14K2], EMEC1000453, same EMEC1000458, 2♀♀, CM. Eastern slope baited pitfall 1470 m. 6 i 2007. 8 QM. Eastern slope baited pitfall 1479 m. 6.i.2007–8. ii.2007 K.Staunton [BK14K2], EMEC1000456, same EMEC1000457 and EMEC1000459, 2\$\pi\$, 1\$, QM. Massey Range, 12 km S of Gordonvale, 2 May 1983, G.B.Monteith & D.Cook, QM Berlesate No. 573, rainforest, 1300 m sieved litter QM Reg. No. T20022, EMEC1012199 and same with OM Reg. No. T20023, EMEC1012200, 233, QM. Bellenden Ker Range, Summit TV Stn Apr-2 Oct 1982, 1560 m, S.Montague, Rainforest Pitfall trap, QM Reg. T20004, EMEC1012196 and same with QM Reg. No. T20005, EMEC1012195, QM Reg. No. T20006, EMEC1012194, QM Reg. T20007, EMEC1012193, 433, QM. Mount Bellenden Ker Ridge 1535 m. 6.x.2009 K.Staunton [BK16K1A], kww837, EMEC1000461, ♀, QM. Mt. Bellenden Ker Centre Peak summit, 10-12 Apr 1979 1500 m, G.B.Monteith, QM Reg. No. T19984, EMEC1012197, 3, QM. Mt. Bellenden Ker Range, summit 1560 m, 1–30 Apr 1982, S. Montague, pitfall trap, QM Reg. No. T20003, EMEC1012198, ♀ॅ, QM. East of Massey Range, 4 km W of Centre Bellenden Ker, 9–11 Oct 1991. 1250 m, Monteith, Janetzki & Cook, QM Reg. No. T20047, EMEC1012183, 3, QM. Same with QM Reg. No. T20048, EMEC1012184, \$\opi\$, QM. Mt. Bellenden Ker R.S.Storey, Pitfall Nov 1977 to Jan 1978, 1584 m, EMEC214451, $^{\circ}$, QDAF. Bellenden Ker Range, Summit TV station 29 Apr – 2 May 1983, G.B. Monteith & D.K. Yeates, QM Berlesate No., 1560 m litter, EMEC1000460, $\up3mu$, ANIC. Mt. Bellenden Ker E. side, 1371 m, Jan 58, P.J. Darlington, EMEC1000464, ♀, ANIC.

Type locality. Queensland, Bellenden Ker Range, 17° 16'S 145° 51'E.

Diagnosis. Beetles of this species are distinguished by the relatively large, distinctive, slightly transverse pronotum with narrowly rounded, but obtuse, hind angles, and well-impressed, linear basal pronotal impressions (Fig. 17).

Description. Size. SBL 7.0-8.0 mm, greatest width over elvtra 2.5-3.1 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eves average size, somewhat flattened. Ocular ratio 1.23–1.28. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and few small scattered setae, apical palpomeres glabrous. Glossal sclerite form truncate at apex, edge shelf-like, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 17): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions present, linear, sharp, straight, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals slightly convex, widths all approximately equal, interval 9 with 15 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color brunneous, macrosculpture distinct, dense irregularly punctulate or many very small punctulae just visible at 50x, microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, luster moderately glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed moderately,

where impressed, impunctate. Metepisternum macrosculpture smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. *Abdomen*. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Male genitalia (Fig. 46): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view arcuate, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract (Fig. 68): apical margin of gonocoxite-1 with one seta, lateral edge of gonocoxite-2 with one ensiform seta, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 elongate, falcate, narrowly rounded apex, bursa long, left directed curved form, common oviduct inserted near apex, right lateral portion of bursa elongate, horn-shaped, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form spherical, dorsal portion of bursa

without modifications, ventral modification of bursa absent.

Cerabilia (F.) stylata sp. nov. (Figs 26, 56, 82)

Etymology. The specific epithet *stylata* is from the Greek *styl-*, "in the form of a pillar" and *-ata*, "to have" and this refers to the form of the males' aedeagus. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, 3. "Kirrama Rge. v[ia]Cardwell, NQ 2-3000' Dec57 Darlingtons" //"EMEC1000302. ANIC.

Type locality. Queensland, Kirrama Range, near Cardwell. Estimated coordinates: 18° 6'S 145° 42'E.

Diagnosis. Small, convex beetles similar to *C.* (*F.*) wunduensis and *C.* (*F.*) danbullaensis but with distinct, though stretched and iridescently reflective, microsculpture.

Description. Size. SBL 5.6 mm, greatest width over elytra 2.2 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes average size, somewhat flattened. Ocular ratio 1.33. Antennae: overall length long, with antennomeres 10–11 reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres plurisetose, with scattered short setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, acutely pointed. Maxilla: apical palpomere glabrous, palpomeres 2-4 length subequal. Thorax. Pronotum (Fig. 26): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin smoothly, moderately emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with

ten intervals, form of intervals flat, widths all approximately equal, interval 9 with 15 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color brunneous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, luster glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed moderately, where impressed, impunctate. Metepisternum macrosculpture very lightly scabriculous, almost smooth. Tarsomere 5 on all legs ventrally glabrous. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI apical margin in male entire. *Male* genitalia (Fig. 56): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal with slight rotation to left, form of left paramere conchoid, larger, right smaller and blunt, median lobe in lateral view right angled, blade of median lobe in ventral view styliform throughout, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view narrowly rounded point. Female genitalia and reproductive tract: female unknown.

Cerabilia (F.) *tipica* **sp. nov.** (Figs 28, 53, 75, 76, 83)

Etymology. The specific epithet *tipica* is from Latin alluding to this being a very typical looking species in the genus. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE. ♂. "Lambs Head, 10 km W Edmonton, N. Qld. 10–12 Dec 1989, 1200 m Monteith, Thompson, Janetzki"//"QM Reg. No. T20043"//"EMEC1012174". QM. PARATYPES. Emerald Creek, Lamb range, 11 Oct 1982, 950 m, Monteith, Yeates & Thompson, QM Reg. No. T20011, EMEC1012175, ♂, QM. Kauri Ck, Lamb range, 22 Apr 1997, 1000 m, G.B.Monteith, QM Reg. No. T69247, EMEC1012177, ♀, QM. Lamb Range, 19 km SE Mareeba, 11 Dec 1988, 1200 m, Monteith, Yeates & Thompson, QM Reg. No. T20039, EMEC1012176, ♀, QM.

Type locality. Queensland, Lambs Head, Estimated coordinates 17° 1'S 145° 38'E.

Diagnosis. Distinctive beetles that are large size, robustly built, with broadly rounded pronotal margins (Fig. 28) and distinct, stretched or transverse mesh microsculpture.

Description. Size. SBL 7.8–8.7 mm, greatest width over elytra 2.8-3.2 mm. Head. Dorsal microsculpture not apparent at 50x magnification. Eyes small, flattened. Ocular ratio 1.26-1.31. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 length subequal. Thorax. Pronotum (Fig. 28): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions absent, but with broad, very shallow depressions, outer basal impressions absent, rarely present as a shallow, poorly defined, broad depression, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with ten intervals, form of intervals flat, slightly more convex near apex, widths all approximately equal, interval 9 with 15 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color brunneous, macrosculpture distinct, dense irregularly punctulate, microsculpture not apparent at 50x magnification, luster moderately glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed moderately, where impressed, impunctate. Metepisternum macrosculpture very lightly

scabriculous, almost smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire. Male genitalia (Fig. 53): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract (Figs 75–76): apical margin of gonocoxite-1 with one seta, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 long, very slightly curved, narrowly rounded apex, bursa straight, relatively stout, cup-shaped, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca very short sessile, on common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form elongate ovoid, dorsal portion of bursa with short pouch, ventral modification of bursa absent.

Cerabilia (F.) uncata sp. nov. (Figs 21, 49, 82)

Etymology. The specific epithet *uncata* is from the Latin for "hooked" and refers to the form of aedeagus tip. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, 3. "AUST:QLD:NE Mt Murray Prior, 8 Dec 1998 G.B. Monteith QM BELESATE 984, 16°56′S×145°51′E Rainforest, 770 m Sieved litter"//"QM Reg. No. T69249"//"EMEC1012173". OM.

Type locality. Queensland, northeast of Mt. Murray Prior, 16° 56′S 145° 51′E.

Diagnosis. Like *C.* (*F.*) kalkajaka above, this species has a prominently raised region of the anteroventral mesepisternum but is distinguished by its smaller size, darker piceous color and prominently depressed basolateral region of the pronotum (Fig. 21) that extends about a third of the pronotum length forward.

Description. Size. SBL 5.3-5.9 mm, greatest width over elytra 2.0-2.2 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes average size, convex. Ocular ratio 1.25–1.38. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 21): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, broader across base than apex, lateral marginal bead well defined from apical angle to hind angle, basal margin straight, anterior margin medially broadly, shallowly emarginate, apical angles scarcely produced, hind angles obtusely rounded, anteriolateral setae very

near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, widths all approximately equal, interval 9 with 14 setigerous punctures, two setigerous punctures near apex of interval 7. Elytra: color rufopiceous or brunneous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster moderately glossy or glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed deeply, where impressed, impunctate. Metepisternum macrosculpture very lightly scabriculous, almost smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1-4 with lateral and medial sulci, 5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articuloseta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI apical margin in male entire. Male genitalia (Fig. 49): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller and narrowly pointed, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view small ventral tooth or dorsal ridge, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract: female unknown.

Cerabilia (F.) wunduensis sp. nov. (Figs 36, 85)

Etymology. The specific epithet *wunduensis* based on the eastern Kuku Yalanji Aboriginal people's name for the type locality Wundu (Thornton Peak) and is treated as an adjective.

Type material. HOLOTYPE, ♀. "N.E. Qld. Thornton Peak. 11 km N.E. Daintree. 1000–1200 m, 30 Oct - 1 Nov 1983, Monteith, Yeates & Thompson"//"QM Reg. No. T20049"//"EMEC1012136". QM.

Type locality. Queensland, Thorton Peak. Estimated coordinates 16° 10'S 145° 22'E.

Diagnosis. Small beetles with a compact, somewhat ovoid form. Smaller than the somewhat similar *C.* (*F.*) spinifer. Also darker piceous, with almost no trace of microsculpture.

Description. Size. SBL 4.6 mm, greatest width over elytra 1.8 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Eyes average size, somewhat flattened. Ocular ratio 1.09. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae, apical palpomeres glabrous. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin shallowly emarginate, tooth simple, blunt, triangular. Maxilla: apical palpomere glabrous, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 36): microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, widths all approximately equal, interval 9 with 14 setigerous punctures,

two setigerous punctures near apex of interval 7. Elytra: color rufopiceous, macrosculpture a few scattered small punctulae, microsculpture not apparent at 50x magnification, luster glossy. Humeri rounded or slightly angulate, without denticle. Elytral striae impressed moderately, where impressed, impunctate. Metepisternum macrosculpture smooth. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1 with lateral sulcus only, 2-3 with lateral and medial sulci, 4–5 without sulci. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of female with two pairs setae, ventrite VI, apical margin in female entire. Male genitalia: male unknown. Female genitalia and reproductive tract: apical margin of gonocoxite-1 with one seta, lateral edge of gonocoxite-2 with two ensiform setae or with three ensiform setae. apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 short, falcate, narrowly rounded apex, bursa very short, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermathecal gland duct connected at base of spermatheca, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Biliacera subgen. nov.

Type species. *Cerabilia Biliacera vitalis* sp. nov., (Fig. 7) here designated.

Characteristics. As for the genus and range of SBL 3.4-9.6 mm, greatest width over elytra 1.2-3.6 mm. Ocular ratio 1.04-1.37. Labial apical palpomeres plurisetose, with scattered short setae. Pronotum margins unisetose with posterolateral setae absent. Elytra with two setigerous punctures near apex of interval 7 and the third interval with one to five discal punctures. Humeri rounded or slightly angulate, without denticle.

Geographic Distribution. Found only in New Caledonia (Figs 143–146).

Cerabilia (Biliacera) aite **sp. nov.** (Figs 107, 143)

Etymology. The specific epithet, treated as a Latinized noun in the nominative case, is from Até the Greek goddess of mischief, ruin, and folly. Até also refers to acts of hubris that leads to the downfall of a hero.

Type material. HOLOTYPE, ♀. "Table d'Union b.Col d'Amieu, Neu-Kaledonien", NMHW.

Type locality. Col d'Amieu Table Unio, estimated vicinity 21° 38'S 165° 49'E.

Diagnosis. Only *C.* (*B.*) aite and three other species (*C.* (*B.*) discosetosa, *C.* (*B.*) edentata, and *C.* (*B.*) koghisensis) have the anterior marginal seta of the pronotum positioned very far from the margin; 3–5x the width of the setal pore distant (Fig. 107). See diagnoses under those species.

Description. Size. SBL 6.5 mm, greatest width over elytra 3.0 mm. Head. Dorsal microsculpture visible as irregular mesh. Supra- and postorbital region smooth. Eyes small, flattened. Ocular ratio 1.25. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae. Glossal sclerite form truncate at apex, edge shelf-like, sloping ventrally. Mentum anterior margin shallowly emarginate, tooth simple, acutely pointed, with single pair of fine setae paramedially near anterior margin. Paramedial pits deep, sharply defined, very small, diameter much less than 1/2 width between pits, paramedial pits glabrous. Maxilla: palpomere glabrous, penultimate palpomeres shorter than 2 and 4. Thorax. Pronotum (Fig. 107): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, overall shape transverse, greatest width slightly to significantly greater than length, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, broader across base than apex, lateral marginal bead well defined from apical angle to hind angle, basal

margin very shallowly emarginate in middle, anterior margin medially deeply, broadly emarginate, apical angles large, prominent, hind angles obtusely angled, rounded not sharp, anteriolateral setae very distant from lateral margin, about 4x width of setal pore from lateral margin. Elytron with nine intervals, form of intervals flat, slightly more convex near apex, widths all approximately equal, interval 3 with two setigerous punctures, 9 with 17. Elytra: color piceous, microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, luster glossy. Elytral striae impressed deeply, impunctate. Prosternum smooth. smooth. Proepisternum Metepisternum macrosculpture rugulose lightly or scabriculous. Metepimerion macrosculpture smooth. Mesosternum macrosculpture smooth or very lightly scabriculous. Metatarsomeres 1 with lateral sulcus only, 2-4 with lateral and medial sulci, 5 without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Metatrochanter form elongate, extended to half length of femur, rounded at apex, dorsally slightly flattened, fitted to sterna. Female protarsomeres 1–4 dorsally glabrous. *Abdomen*. Sternites: ventrite VI of female with two pairs setae, apical margin entire, ventrites IV-VI glabrous. Male genitalia: male unknown. Female genitalia and reproductive tract: female type not dissected.

Cerabilia (B.) amieuensis **sp. nov.** (Figs 101, 122, 144)

Etymology. The specific epithet *amieuensis* is based on the type locality Col d' Amieu and is treated as an adjective.

Type material. HOLOTYPE, 3. "21°34′29″S/165°45′19″E, NEW CALEDONIA, Prov.Sud. Cold'Amieu, 510 m el., 16:iii:2007, coll. KWill, leaf litter, logs"//"EMEC61814". Source EMEC, MNHN.

Type locality. New Caledonia, Southern Province, Col d'Amieu, 21° 34'S 165° 45'E.

Diagnosis. This species is only known from a male specimen, which is very similar to *C.* (*B.*) *inversa* males except for the much larger profemur and more pronounce arcuate form of the hind tibia in the latter species. Male genitalia are distinctly different (Figs 122, 123).

Description. Size. SBL 4.1 mm, greatest width over elytra 1.8 mm. *Head*. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region with two to several well marked sulci. Eyes average size, somewhat flattened. Ocular ratio 1.16. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, very small and blunt. Paramedial pits deep, well defined, large, diameter equal to 1/2 width between pits or larger, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2–4 apical distinctly longer than penultimate. *Thorax*. Pronotum (Fig. 101): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions present, linear, sharp, straight, outer basal impressions absent, shape of lateral margins convergent in basal half, basal margin straight, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals slightly convex in apical third, flat in basal third, interval 3 with one setigerous puncture, 9 with 15 setigerous punctures. Elytra: color rufopiceous, macrosculpture smooth, microsculpture sculpticells slightly transversely elongate, or somewhat irregular, forming mesh, luster moderately glossy. Elytral striae impressed moderately. Prosternum rugosissimus across entire apical half. Proepisternum rugosissimus. Metepisternum macrosculpture rugosissimus. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture rugosissimus. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur posterior face macrosculpture smooth. Mesotarsomeres without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI apical margin in male entire, ventrites IV-VI glabrous. Male genitalia (Fig. 122): orientation of median lobe of aedeagus in repose right side up, orientation of ostium dorsal, form of right paramere conchoid, larger, left smaller and blunt, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view blunt. Female genitalia and reproductive tract: female unknown.

Cerabilia (B.) apicesecta **sp. nov.** (Figs 91, 115, 143)

Etymology. The specific epithet *apicesecta* is a compound Latin word for "pinked apically," in reference to the excavation at the aedeagal apex. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, ♂. "NEW CALEDONIA Ningua, nr summit, 13 Nov 2001, G.B.Monteith, QM Berlesate 1052, 21°45′S×166°09E, Rainforest, 1300 m, Sieved litter"//"EMEC1012129". Source QM, MNHN. PARATYPE. Pic Ningua summit, G.Hunt Sep 1993, 1350 m, EMEC207008, ♂, CAS.

Type locality. New Caledonia, Southern Province. Pic Ningua, 21° 45'S 166° 9'E.

Diagnosis. Relatively large and more elongate form than other species with sulci above and behind the eyes. The pronotum (Fig. 91) converges basally and basal impressions are very shallow and slightly oblique as opposed to straight and linear in other, similar species.

Description. Size. SBL 5.5 mm, greatest width over elytra 2.5 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region with numerous well marked sulci. Eves small, prominently convex. Ocular ratio 1.22. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and few small scattered setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin shallowly emarginate, tooth very low, broad, almost absent. Paramedial pits deep, well defined, large, diameter equal to 1/2 width between pits or larger, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 91): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions absent, but with broad, very shallow depressions, outer basal impressions present as a shallow, poorly defined, broad depression, shape of lateral margins convergent in basal half, lateral marginal bead well defined from apical angle to hind angle, basal margin straight, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals slightly convex in apical third, flat in basal third, interval 3 with one setigerous puncture, 9 with 15 setigerous punctures. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, luster moderately glossy. Elytral striae impressed moderately. Prosternum

rugosissimus across entire apical half. Proepisternum rugosissimus. Metepisternum macrosculpture rugosissimus. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture rugosissimus. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur posterior face macrosculpture with medial transverse ridge or smooth. Mesotarsomeres 1 with lateral and medial sulci, 2-5 without sulci. Metatibia of male arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1 with lateral sulcus only, 2-5 without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Male protarsomeres 1-3 dorsally with fine, short, scattered setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI apical margin in male entire, ventrites IV-VI glabrous. Male genitalia (Fig. 115): orientation of median lobe of aedeagus in repose right side up, orientation of ostium dorsal, form of right paramere conchoid, larger, left smaller and blunt, median lobe in lateral view right angled, blade of median lobe in ventral view broad, widening to apex, apex of median lobe in lateral view thick and reflexed ventrally, apex of median lobe in dorsal view broad and pinked medially. Female genitalia and reproductive tract: female unknown.

Cerabilia (B.) discosetosa **sp. nov.** (Figs 6, 104, 125, 135, 146)

Etymology. The specific epithet *discosetosa* refers to the pronotal setae, which are positioned far from the margin, on the lower edge of the disc. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, ♂. "22°09′00″S/166°41′12″E, NEW CALEDONIA, Prov.Sud. Riviére Bleue Pk, Houp Géant trail, 330 m el., 13:iii:2007. coll. KWill headlamp search"//"EMEC61769". Source EMEC, deposited MNHN. Same data as holotype with EMEC61771, NC1, kww435, ♂, EMEC and EMEC61770, ♀, EMEC.

Type locality. New Caledonia, Southern Province, Riviére Bleue Park, 22° 9'S 166° 41'E.

Diagnosis. Only *C.* (*B.*) discosetosa and three other species (*C.* (*B.*) edentata, *C.* (*B.*) koghisensis, and *C.* (*B.*) aite) have the anterior marginal seta of the pronotum positioned very far from the margin; 3–5x the width of the setal pore distant (Fig. 104). Cerabilia Biliacera discosetosa is easily separated from the other three species by having four to five setigerous punctures on elytral interval 3, compared to one (rarely two) in the other species and its relatively large size (Fig. 6).

Description. Size. SBL 7.6-9.0 mm, greatest width over elytra 2.9-3.3 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region smooth or with slight depressed areas around setae. Eyes average size, somewhat flattened. Ocular ratio 1.29–1.37. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 pubescent in apical 1/3-1/2. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form truncate at apex, edge shelf-like, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Paramedial pits deep, sharply defined, very small, diameter much less than 1/2 width between pits, paramedial pits glabrous. Maxilla: antepenultimate palpomere glabrous or with 1-2 small apical setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered palpomeres 2-4 length subequal. Thorax. Pronotum (Fig. 104): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner impressions absent, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin with medial third quadrate emarginate, anterior margin medially deeply, broadly emarginate, apical angles large, prominent, hind angles obtusely rounded, anteriolateral setae very distant from lateral margin, about 3x width of setal pore from lateral margin. Elytron with nine intervals, form of intervals

convex in apical third, nearly flat in basal third, interval 3 with four setigerous punctures, rarely with five setigerous punctures, 9 with 15 setigerous punctures. Elytra: color rufopiceous, microsculpture not apparent at 50x magnification, luster glossy. Elytral striae impressed deeply or moderately. Prosternum smooth or slightly, irregularly rugulose. Proepisternum smooth or slightly, irregularly rugulose. Metepisternum macrosculpture rugulose or lightly scabriculous. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture smooth or very lightly scabriculous. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatibia of male arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1 with lateral sulcus only, 2-4 with lateral and medial sulci. 5 without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Male protarsomeres 1-3 dorsally with fine, short, scattered setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire, ventrites IV-VI glabrous. Male genitalia (Fig. 125): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller and blunt, median lobe in lateral view arcuate, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract (Fig. 135): apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 moderately long, slightly

curved, broadly rounded apex, bursa short, left directed, common oviduct inserted near apex, right lateral portion of bursa with very large pouch, base broadly joined to bursa, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct with notable expanded region near base of gland, gland form elongate, rounded and slightly expanded apically, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) dominatrix **sp. nov.** (Figs 111, 130, 145)

Etymology. The specific epithet is based on *dominatrix*, Latin for a female ruler, and is treated as a noun in the nominative singular standing in apposition.

Type material. Holotype, ♂. "NEW CALEDONIA, 11097, 21°53′S×166°25′E, 1600 m Mt Humboldt summit, 5 Nov 2002, Monteith & Burwell, pyreth, trees & logs, H/19″//″EMEC1012126″. Source QM, deposited MNHN.

Type locality. New Caledonia, Mt. Humboldt summit, 21° 52′S 166° 25′E.

Diagnosis. Very large beetles. In New Caledonia only *C. (B.) francisca* approaches the same size. These two are readily separated by the narrow, rounded form of the pronotum, with broad, flat regions laterad of the basal impressions in *C. (B.) dominatrix* (Fig. 111) compared to the low convexity separating the impressions from the margin in *C. (B.) francisca* (Fig. 110). The dorsal surface of the pronotum in *C. (B.) dominatrix* is smooth and in *C. (B.) francisca* it has distinct, irregular, scattered micropunctulae.

Description. Size. SBL 9.6 mm, greatest width over elytra 3.3 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region smooth or with slight depressed areas around setae. Eyes average size, somewhat flattened. Ocular ratio 1.30. Antennae: overall length long, with antennomeres 10–11 reaching beyond pronotal

base, antennomere 3 pubescent in apical 1/3-1/2. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin shallowly emarginate, tooth simple, blunt, triangular. Paramedial pits deep, well defined, large, diameter equal to 1/2 width between pits or larger, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2–4 length subequal. *Thorax*. Pronotum (Fig. 111): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions present as a broad, deep, poorly defined depression that is continuous with broad flat area and reflex at hind angles, outer basal impressions absent, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to slightly beyond hind angle and onto base, basal margin straight, anterior margin medially broadly, shallowly emarginate, apical angles scarcely produced, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals slightly convex, interval 3 with three setigerous punctures, 9 with 16 setigerous punctures. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster glossy. Elytral striae impressed deeply or moderately. Prosternum smooth. Proepisternum smooth. Metepisternum macrosculpture very lightly scabriculous, almost smooth. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture smooth or very lightly scabriculous. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur posterior face macrosculpture smooth. Mesotarsomeres without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Male protarsomeres 1–3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI apical margin in male entire, ventrites IV-VI glabrous. Male genitalia (Fig. 130): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view blunt. Female genitalia and reproductive tract: female unknown.

Cerabilia (B.) drupa sp. nov. (Figs 98, 139, 143)

Etymology. The specific epithet *drupa*, Latin for a wrinkled olive, refers to the ventral rugosities on the body of these beetles, and is treated as a noun in the nominative singular standing in apposition.

Type material. HOLOTYPE, ♀. "NEW CALEDONIA Mandjelia, 12 May 1984, G.Monteith & D.Cook, Q.M. BERLESATE No. 646, 20.45S × 164.32E, Rainforest, 700 m Litter"//" EMEC1012133". Source QM, deposited MNHN. PARATYPE. Mandjelia, 580 m, lower creek 11–12Dec2004, Rainforest, 11950 G.Monteith, dung trap, EMEC1012134, ♀, QM.

Type locality. New Caledonia, Northern Province, Mandjelia, 20° 24'S 164° 32'E.

Diagnosis. Distinctively elongate body form, smoothly arcuate shape of the pronotum, and mentum with small pits, distinguish this species from others any of the other medium or small sized beetles in the subgenus

Description. *Size.* SBL 4.7 mm, greatest width over elytra 1.5 mm. *Head.* Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region with two to several well marked sulci. Eyes average size, somewhat flattened. Ocular ratio 1.19–1.21. Antennae: overall length moderately long, with antennomere 11 just

reaching beyond pronotal base, antennomere 3 pubescent in apical 1/3-1/2. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Paramedial pits deep, sharply defined, very small, diameter much less than 1/2 width between pits, paramedial pits glabrous. Maxilla: antepenultimate palpomere glabrous or with 1-2 small apical setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2-4 apical distinctly longer than penultimate. *Thorax*. Pronotum (Fig. 98): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin straight, anterior margin medially broadly, shallowly emarginate, apical angles scarcely produced, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals slightly convex, interval 3 with one setigerous puncture, 9 with 16 setigerous punctures. Elytra: color brunneous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells slightly transversely elongate, or somewhat irregular, forming mesh, luster moderately glossy. Elytral striae impressed moderately. Prosternum rugosissimus laterally, irregularly rugulose smooth anteromedially. Proepisternum rugosissimus. Metepisternum macrosculpture rugosissimus. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture rugosissimus. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres without sulci. Metatarsomeres 1 with lateral sulcus only, 2-5 without sulci. Dorsal surface

of meso- and metatarsomeres glabrous. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of female with two pairs setae, ventrite VI, apical margin in female entire, ventrites IV-VI glabrous. Male genitalia: male unknown. Female genitalia and reproductive tract (Fig. 139): apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 elongate, falcate, narrowly rounded apex, bursa straight elongate, common oviduct inserted in apical cup, right lateral portion of bursa with very large pouch, narrow at base, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, gland duct length moderately elongate, gland duct diameter increasing apically, without notable expansion, gland form elongate ovoid, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) edentata **sp. nov.** (Figs 105, 126, 136, 145)

Etymology. The specific epithet *edentata* derived from the Latin, "to be without teeth" and refers to the absence of the mentum tooth in this species. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, ♂. "22°09′00″S/166°41′12″E, NEW CALEDONIA, Prov.Sud. Riviére Bleue Pk, Houp Géant trail, 330 m el.,13:iii:2007. coll. KWill, headlamp search"/″EMEC61772″. Source EMEC, deposited MNHN. PARATYPES. Same data as holotype with EMEC61775, ♀, EMEC; EMEC61777, EMEC617783 NC2 kww436, EMEC61774, 3♂♂, EMEC; EMEC61773, ♂, QM; EMEC61776, ♀, QM.

Type locality. New Caledonia, Southern Province, Riviére Bleue Park, 22° 9'S 166° 41'E.

Diagnosis. Only *C.* (*B.*) edentata and three other species (*C.* (*B.*) discosetosa, *C.* (*B.*) koghisensis, and *C.* (*B.*) aite) have the anterior marginal seta of the pronotum positioned very far from the margin; 3–5x the width of the setal pore distant (Fig. 105). Cerabilia Biliacera edentata is easily separated from the other three species

by its small size and the absence of the mentum tooth.

Description. Size. SBL 4.4-6.0 mm, greatest width over elytra 1.7-2.1 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region smooth or with slight depressed areas around setae. Eyes average size, somewhat flattened. Ocular ratio 1.21-1.26. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and few small scattered setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth absent. Paramedial pits deep, sharply defined, very small, diameter much less than 1/2 width between pits, paramedial glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 105): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions present, linear, sharp, slightly divergent, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very distant from lateral margin, about 3x width of setal pore from lateral margin. Elytron with nine intervals, form of intervals slightly convex in apical third, flat in basal third, interval 3 with one setigerous puncture. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster glossy. Elytral striae impressed moderately. Prosternum smooth. Proepisternum smooth. Metepisternum macrosculpture rugulose lightly or

scabriculous. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture smooth or very lightly scabriculous. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-2 with lateral and medial sulci, 3-5 without sulci. Metatibia of male arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1 with lateral sulcus only, 2-4 with lateral and medial sulci, 5 without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Male protarsomeres 1–3 dorsally with fine, short, scattered setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire, ventrites IV-VI glabrous. Male genitalia (Fig. 126): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller and blunt, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view narrowly rounded point. Female genitalia and reproductive tract (Fig. 136): apical margin of gonocoxite-1 with one seta or with two setae, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 elongate, falcate, narrowly rounded apex, bursa straight elongate, common oviduct inserted in apical cup, right lateral portion of bursa not differentially developed, dorsal development of bursa large pouch, spermatheca not evident, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected to common oviduct, gland duct length short, gland duct with notable expanded region near base of gland, gland form spherical, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) espee **sp. nov.** (Figs 9, 108, 128, 144)

Etymology. The specific epithet "espee" is arbitrary combination of letters treated as a noun in apposition.

Type material. HOLOTYPE, ♂. "NEW CALEDONIA, 11131, 21°53′S×166°25′E.1350 m Mt Humboldt, refuge. Night collecting. 5–8 Nov 2002 Burwell, Monteith & Wright"//"EMEC1012117". Source QM, deposited MNHN. PARATYPES. Mt. Humboldt refuge. 7–8 Nov 2002 G.Monteith & S.Wright, QM Berlesate 1076, 21°53′S 166°25′E. rainforest, 1300 m sifted litter, EMEC1012120 and same with EMEC1012118, 2♀♀, QM; EMEC1012119, ♂, QM.

Type locality. New Caledonia, Southern Province, Mt. Humboldt, 21° 53'S 166° 25'E.

Diagnosis. Similar to *C.* (*B.*) neocaledonica but with relatively smaller and more quadrate pronotum (Fig. 108) and more elongate-ovoid elytral form (Fig. 9).

Description. Size. SBL 5.4-5.7 mm, greatest width over elytra 2.1-2.3 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region smooth or with slight depressed areas around setae. Eyes average size, somewhat flattened. Ocular ratio 1.23–1.26. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and few small scattered setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin shallowly emarginate, tooth simple, acutely pointed. Paramedial pits deep, well defined, large, diameter equal to 1/2 width between pits or larger, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum: microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, macrosculpture smooth, inner basal impressions present, linear, sharp, straight,

outer basal impressions present as a shallow, poorly defined, broad depression, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to slightly beyond hind angle and onto base, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals convex in apical third, nearly flat in basal third, interval 3 with one setigerous puncture, 9 with 16 setigerous punctures. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, luster glossy. Elytral striae impressed deeply or moderately. Prosternum smooth. Proepisternum smooth. Metepisternum macrosculpture rugulose or lightly scabriculous. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture smooth or very lightly scabriculous. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1 with lateral and medial sulci, 2-5 without sulci. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Female protarsomeres 1-4 dorsally with fine, short, sparse, scattered setae, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire, ventrites IV-VI glabrous. Male genitalia (Fig. 128): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller and blunt, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view thick and reflexed ventrally, apex of median lobe in dorsal view

blunt. Female genitalia and reproductive tract: apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 long, very slightly curved, narrowly rounded apex, bursa straight elongate, common oviduct inserted in apical cup, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca very short sessile, on common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at posterior oriented apex, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) francisca **sp. nov.** (Figs 110, 129, 137, 145)

Etymology. The specific epithet *francisca* is an allusion to a throwing axe used by the Franks in the Middle Ages and draws attention to the shape of the aedeagus tip, which is shaped like a Frankish throwing axe. It is treated as a noun in the nominative singular standing in apposition.

Type material. Holotype, J. "22°10′28″S/166°30′48″E NEW CALEDONIA, Prov. Sud. Mt. Koghis, 700 m el.coll. KWill 12:iii:2007, headlamp search"/"EMEC61786". Source EMEC, deposited MNHN. PARATYPE. Same data as holotype with EMEC61787 NC13 kww439, J. EMEC.

Type locality. New Caledonia, Southern Province, Mt. Koghis, -22.1744; 166.5133 22° 10'S 166° 30'E.

Diagnosis. Large sized beetles. In New Caledonia only *C.* (*B.*) *dominatrix* approaches the same size. See diagnosis under *C.* (*B.*) *dominatrix*.

Description. Size. SBL 9.1–10.0 mm, greatest width over elytra 3.6 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region smooth or with slight depressed areas around setae. Eyes small, flattened. Ocular ratio 1.30. Antennae: overall length short, not reaching base of pronotum, antennomere 3 pubescent in apical 1/3–1/2. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1–2 small apical setae. Glossal sclerite form truncate at apex, edge

shelf-like, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Paramedial pits deep, well defined, large, diameter greater than 1/2 width between pits, elongate, prolonged anterad, paramedial pits with numerous (about 7–12) setae on lateral face extended medially. Maxilla: antepenultimate palpomere glabrous or with 1-2 small apical setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2-4 length subequal. Thorax. Pronotum (Fig. 110): microsculpture not or scarcely apparent at 50x magnification, macrosculpture with very fine, scattered micropunctulae, inner basal impressions present, short, shallow, broad, not well delimited, outer basal impressions absent, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to beyond hind angle and onto base nearly to inner impression, wider in basal 1/4, basal margin straight, anterior margin medially broadly, shallowly emarginate, apical angles scarcely produced, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with ten intervals, form of intervals slightly convex in apical third, flat in basal third, interval 3 with two setigerous punctures or with three setigerous punctures, 9 with 16 setigerous punctures. Elytra: color rufopiceous, macrosculpture irregular mix of slightly larger and many smaller punctulae, microsculpture not apparent at 50x magnification, luster glossy. Elytral striae impressed moderately. Prosternum slightly, irregularly rugulose. Proepisternum rugosissimus. Metepisternum macrosculpture rugosissimus. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture rugosissimus. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur posterior face macrosculpture Mesotarsomeres without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly,

shallowly arcuate. Metatarsomeres 1 with lateral sulcus only, 2-5 without sulci. Dorsal surface of meso- and metatarsomeres setose. Male protarsomeres 1-3 dorsally pubescent, with numerous long setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally pubescent, with long scattered setae, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire, ventrites IV-VI glabrous. Male genitalia (Fig. 129): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view arcuate, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view blunt. Female genitalia and reproductive tract (Fig.137): apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 glabrous, gonocoxite-2 short, falcate, narrowly rounded apex, bursa long, left directed curved form, common oviduct inserted near apex, right lateral portion of bursa with very large pouch, narrow at base, dorsal development of bursa lacking, spermatheca very short sessile, sclerotized, plaquiform, on common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at posterior oriented apex, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form elongate, rounded and slightly expanded apically, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) inversa **sp. nov.** (Figs 102, 123, 134, 145)

Etymology. The specific epithet *inversa* from the Latin *inverto*, "to be upside down" and this refers to the reversed orientation of the aedeagus when in repose. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, 3. "NEW CALEDONIA, Col d'Amieu, 55 m 15 Oct 1978 G.Kuschel"//"Sifted litter and rotten wood 78/229"//"EMEC201499". NZAC. PARATYPES. Table Unio road, 600 m 14 Nov 2000, Bouchard. Burwell & Monteith, 9934, EMEC61816, ♀, EMEC. Col d'Amieu, 440 m el., 16:iii:2007, headlamp search, K.Will, EMEC61817, ♀, EMEC. Sud. Col d' Amieu, 485 m el., 14:iii:2007 coll. KWill, ex leaflitter, kww440, NC18, EMEC61815, 3, EMEC. Table Unio,900 m nr col d'Amieu, 16 Oct 1978 G.Kuschel, Sifted litter and rotten wood, 78/234, EMEC201494, ♀, NZAC. Table Unio, 800 m nr col d'Amieu 16 Oct 1978, G.Kuschel, Sifted litter and rotten wood 78/235, EMEC201497, ♀, NZAC. Col d'Amieu. 440 m 26 May 1987 R.Raven, Handsorted litter, EMEC1012128, 3, OM.

Type locality. New Caledonia, Southern Province, Col d'Amieu. Estimated coordinates: 21° 32' S 165° 45'E.

Diagnosis. Very similar to and sympatric with *C. (B.) amieuensis*. Distinguished from that species by the form of the male genitalia (Fig. 123) and features discussed under that species above.

Description. Size. SBL 5.0-5.1 mm, greatest width over elytra 1.9-2.0 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region with two to several well marked sulci. Eyes average size, somewhat flattened. Ocular ratio 1.22–1.24. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, very small and blunt. Paramedial pits deep, well defined, large, diameter equal to 1/2 width between pits or larger, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 102): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner

basal impressions present, linear, sharp, straight, outer basal impressions absent, shape of lateral margins convergent in basal half, lateral marginal bead well defined from apical angle to hind angle, basal margin straight, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals slightly convex in apical third, flat in basal third, interval 3 with one setigerous puncture, 9 with 15 setigerous punctures. Elytra: color brunneous, macrosculpture smooth, microsculpture sculpticells elongate, transversely longitudinally short relative to body axis, luster moderately glossy. Elytral striae impressed moderately. Prosternum rugosissimus across entire apical half. Proepisternum rugosissimus. Metepisternum macrosculpture rugosissimus. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture rugosissimus. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1 with lateral and medial sulci, 2-5 without sulci. Metatibia of male arcuate. Metafemur of male with ventral margin obtusely angulate. Metatarsomeres without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire, ventrites IV-VI glabrous. Male genitalia (Fig. 123): orientation of median lobe of aedeagus in repose right side up, orientation of ostium dorsal, form of right paramere conchoid, larger, left smaller and blunt, median lobe in lateral view right angled, blade of median lobe in ventral view broad, widening to apex, apex

of median lobe in lateral view thick margin rounded not flexed, apex of median lobe in dorsal view broad and emarginate. Female genitalia and reproductive tract (Fig. 134): apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 short, bluntly rounded apex, bursa straight elongate, common oviduct inserted in apical cup, right lateral portion of bursa with very large pouch, narrow at base, dorsal development of bursa lacking, spermatheca very short sessile, on common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at posterior oriented apex, gland duct length short, gland duct with notable expanded region near base of gland, gland form spherical, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) kanakorum **sp. nov.** (Figs 95, 133, 143)

Etymology. The specific epithet *kanakorum* is treated as a noun in the genitive case and honors the Kanak people of New Caledonia, where this species is endemic.

Type material. HOLOTYPE, ♀. "NEW CALEDONIA, 12264, 22°11′S × 166°31′E, Mt Koghis, track entrance, 6 May 2005. 500 m, G.B.Monteith, berlesate" / /"EMEC1012122". Source QM, deposited MNHN. PARATYPE. Mt. Dzumac road, 31 Oct 2001, G.B.Monteith, QM Berlesate 1059 Rainforest, 700 m Sieved litter, EMEC1012123 NC8 kww525, ♀, QM.

Type locality. New Caledonia, Southern Province, Mt. Koghis, 22° 11'S 166° 31'E.

Diagnosis. This species is very similar to *C. rubrica* and can be distinguished by the pronotal form as stated in the key and male genitalia. The pronotum is proportionally much smaller with less arcuate margins in *C. (B.) kanakorum*.

Description. Size. SBL 4.7–5.1 mm, greatest width over elytra 1.8–2.0 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region smooth or with slight depressed areas around setae. Eyes small, flattened. Ocular ratio 1.04–

1.16. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, acutely pointed. Paramedial pits deep, well defined, large, diameter equal to 1/2 width between pits or larger, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2–4 apical distinctly longer than penultimate. *Thorax*. Pronotum: microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, macrosculpture smooth, inner basal impressions present, linear, sharp, slightly convergent, outer basal impressions present as a shallow, poorly defined, broad depression, shape of lateral margins convergent in basal half, lateral marginal bead well defined from apical angle to hind angle or to slightly beyond hind angle and onto base, widening in basal third, basal margin straight, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, slightly more convex near apex, interval 3 with one setigerous puncture, 9 with 16 setigerous punctures. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster glossy. Elytral striae impressed moderately. Prosternum smooth. Proepisternum smooth. Metepisternum macrosculpture rugulose or lightly scabriculous. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture smooth or very lightly scabriculous. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with

several smaller setae). Mesofemur posterior face macrosculpture smooth. Mesotarsomeres without sulci. Metatarsomeres without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Female protarsomeres 1-4 dorsally form not expanded, symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of female with two pairs setae, ventrite VI, apical margin in female entire, ventrites IV-VI glabrous. Male genitalia: male unknown. Female genitalia and reproductive tract: apical margin of gonocoxite-1 glabrous or with one seta, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 short, falcate, narrowly rounded apex, bursa long, right directed curved form, common oviduct inserted near apex, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not (Figs) apex, gland duct length very elongate, gland duct with notable expanded region near base of gland, gland form spherical, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) klingonorum **sp. nov.** (Figs 8, 92, 116, 143, 148)

Etymology. The specific epithet "klingonorum" is a Latinized word that alludes to the deep head wrinkles in this species, reminiscent of the cranial structures of the Klingons of the Star Trek universe (Roddenberry 1979).

Type material. Holotype, ♂. "21°35′06″S 165°48′56″E NEW CALEDONIA, Prov. Sud. E of Table Unio, RP5 (rd from Sarraméa to Canala), 310 m el. 17:iii:2007, coll. K.Will headlamp search, leaf litter"//"EMEC61781". Source EMEC, deposited MNHN. PARATYPES. Same data as holotype with EMEC61782 and EMEC61785 NC12 kww438, 2♂♂, EMEC; EMEC61783, ♀, EMEC; EMEC61784, ♂, QM.

Type locality. New Caledonia, Southern Province, Table Unio, 21° 36'S 165° 49'E.

Diagnosis. Compared to other species with rugose heads such as *C. (B.) apicesecta* and *C. (B.) vitalis,* these beetles combine three or more sulci behind the eye (Fig. 148), tooth of mentum

triangular, and glabrous sternites. Very similar in all external characteristics (Fig. 8) to the slightly smaller *C.* (*B.*) *vitalis*. Male genitalia are decisively different, however (Fig. 116).

Description. Size. SBL 4.8-5.5 mm, greatest width over elytra 2.0-2.1 mm. *Head*. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region with numerous well marked sulci. Eves small, prominently convex. Ocular ratio 1.17-1.25. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and few small scattered setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Paramedial pits deep, well defined, large, diameter equal to 1/2 width between pits or larger, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 92): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture with very fine, scattered micropunctulae, inner basal impressions present, shallow, but defined medially, not delimited laterally, blending into broad depression, outer basal impressions absent, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin straight, anterior margin medially broadly emarginate, apical angles prominent, hind angles nearly right angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, slightly more convex near apex, interval 3 with one setigerous puncture, 9 with 15 setigerous punctures. Elvtra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, luster moderately glossy. Elytral striae impressed moderately. Prosternum rugosissimus across entire apical half. Proepisternum rugosissimus. Metepisternum macrosculpture rugosissimus. Metepimerion macrosculpture rugulose in anterior third. Mesosternum macrosculpture rugosissimus. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres without sulci. Metatibia of male arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Male protarsomeres 1–3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire, ventrites IV-VI glabrous. Male genitalia (Fig. 116): orientation of median lobe of aedeagus in repose right side up, orientation of ostium dorsal, form of right paramere conchoid, larger, left smaller and blunt, median lobe in lateral view arcuate, blade of median lobe in ventral view base with broad lobe on right side, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract: apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 glabrous or with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 elongate, falcate, narrowly rounded apex, bursa right side significantly longer than left, overall relatively stout, cup-shaped, right lateral portion of bursa with very large pouch, narrow at base, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct,

spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) koghisensis sp. nov. (Figs 106, 127, 144)

Etymology. The specific epithet *koghisensis* is based on the type locality Mt. Koghis and is treated as an adjective.

Type material. HOLOTYPE, 3. "NEW CALEDONIA, Mt Koghis, 3 Nov 2002, G.Monteith. QM Berlesate 1072, 22°11′S 166°01′E, Rainforest, 700 m sieved litter, H/20"//"EMEC1012125". Source QM, deposited MNHN. PARATYPES. Mt Koghis, 735 m, 9 Oct 1978, G.Kuschel, Sifted leaf litter 78/217, EMEC201495, 3, NZAC. Monts Koghis, forest litter, ca. 5 km N Nouméa, 550 m, 25.XI.2009, Schuh (11A), EMEC201496, 3, NMHW.

Type locality. New Caledonia, Southern Province, Mt. Koghis, 22° 11'S 166° 31'E.

Diagnosis. Only *C.* (B.) koghisensis and three other species (C. (B.) discosetosa, C. (B.) edentata, and C. (B.) aite) have the anterior marginal seta of the pronotum positioned very far from the margin; 3-5x the width of the setal pore distant (Fig. 106). See diagnoses under C. discosetosa and C. (B.) edentata for distinguishing those species. Cerabilia Biliacera koghisensis is most similar to C. (B.) aite, differing in the proportions and shape of the pronotum and elytra. Cerabilia Biliacera koghisensis has a deeply emarginate pronotal basal margin (Fig. 106) and the elytra are somewhat elongate ovoid. Cerabilia Biliacera aite has a nearly straight pronotal basal margin (Fig. 107) and the elytra are somewhat stoutly ovoid.

Description. Size. SBL 6.7 mm, greatest width over elytra 1.5 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region smooth or with slight depressed areas around setae. Eyes small, flattened. Ocular ratio 1.28. Antennae: overall length long, with antennomeres 10–11 reaching beyond pronotal base, antennomere 3 pubescent in apical 1/3–1/2. Labral apical

margin with six setae. Labial penultimate palpomere with two large medial setae and few small scattered setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, acutely pointed. Paramedial pits deep, sharply defined, very small, diameter much less than 1/2 width between pits, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2-4 apical distinctly longer than penultimate. *Thorax*. Pronotum (Fig 106): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions absent, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin smoothly, moderately emarginate in middle, anterior margin medially deeply, broadly emarginate, apical angles large, prominent, hind angles obtusely rounded, anteriolateral setae very distant from lateral margin, about 4.5x width of setal pore from lateral margin. Elytron with nine intervals, form of intervals convex in apical third, nearly flat in basal third, interval 3 with one setigerous puncture, 9 with 16 or 17 setigerous punctures. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster glossy. Elytral striae impressed deeply or moderately. Prosternum smooth. Proepisternum smooth. Metepisternum macrosculpture rugulose lightly scabriculous. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture smooth or very lightly scabriculous. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatibia of male arcuate. Metafemur of male with ventral margin obtusely angulate. Metatarsomeres 1 with lateral sulcus only, 2-4 with lateral and medial sulci, 5 without sulci. Dorsal surface of meso- and

metatarsomeres glabrous. Male protarsomeres 1-3 dorsally with fine, short, scattered setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI apical margin in male entire, ventrites IV-VI glabrous. Male genitalia (Fig. 127): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller and blunt, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract: female unknown.

Cerabilia (B.) letalis **sp. nov.** (Figs 97, 120, 145)

Etymology. The specific epithet *letalis* is from the Latin for "deadly" and is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, ♂. "21°37′14″S 165°52′16″E, NEW CALEDONIA, Prov. Sud. trail to Plateau de Dogny, 725–900 m, 15:iii:2007, coll. K.Will headlamp search, leaf litter"//"EMEC61806″. Source EMEC, deposited MNHN. PARATYPES. Same data as holotype with EMEC61808, EMEC61809; EMEC61810; EMEC61811; EMEC61813, 5♂♂, EMEC; EMEC61812 NC16 kww444, ♀, EMEC; EMEC61807, ♂, QM.

Type locality. New Caledonia, Southern Province, trail to Plateau de Dogny, 21° 37'S 165° 52'E.

Diagnosis. Very similar to *C.* (*B.*) *vitalis*, with which it is sympatric, but consistently smaller and with a notably smoother prosternum and usually smoother in other areas of the ventral surface.

Description. Size. SBL 3.5–3.8 mm, greatest width over elytra 1.4–1.5 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region with two to several well marked sulci. Eyes small, flattened. Ocular ratio 1.17–1.21. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at

apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin shallowly emarginate, tooth simple, very small and blunt. Paramedial pits deep, well defined, large, diameter equal to 1/2 width between pits or larger, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2–4 apical distinctly longer than penultimate. *Thorax*. Pronotum (Fig. 97): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions present, linear, sharp, slightly convergent, outer basal impressions absent, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals slightly convex in apical third, flat in basal third, interval 3 with one setigerous puncture, 9 with 15 setigerous punctures. Elytra: color rufopiceous, macrosculpture a few scattered small punctulae, microsculpture sculpticells slightly transversely elongate, or somewhat irregular, forming mesh, luster moderately glossy. Elytral striae impressed moderately. Prosternum rugosissimus laterally, irregularly rugulose or smooth anteromedially. Proepisternum rugosissimus. Metepisternum macrosculpture rugosissimus. Metepimerion macrosculpture rugulose in anterior third. Mesosternum macrosculpture rugosissimus. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres without sulci. Metatibia of male arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres without sulci. Dorsal surface

of meso- and metatarsomeres glabrous. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire, ventrites IV-VI glabrous. Male genitalia (Fig. 120): orientation of median lobe of aedeagus in repose right side up, orientation of ostium dorsal, form of right paramere conchoid, larger, left smaller and blunt, median lobe in lateral view arcuate and curved ventrally, blade of median lobe in ventral view broad, widening to apex, apex of median lobe in lateral view thick and reflexed ventrally, apex of median lobe in dorsal view broad and emarginate. Female genitalia and reproductive tract: apical margin of gonocoxite-1 with one seta or with two setae, lateral edge of gonocoxite-2 with one ensiform seta or with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 short, falcate, narrowly rounded apex, bursa straight, relatively stout, cup-shaped, right lateral portion of bursa with very large pouch, narrow at base, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at posterior oriented apex, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) mouensis sp. nov. (Figs 94, 118, 143)

Etymology. The specific epithet *mouensis* is based on the type locality Mt. Mou and is treated as an adjective.

Type material. HOLOTYPE, 3. "NEW CALEDONIA Mt Mou summit, 1200 m, 24 May 1984, G.Monteith & D.Cook"//"EMEC1012116". Source QM, deposited MNHN.

Type locality. New Caledonia, Southern Province, Mt. Mou. Estimated coordinates: 22° 3'S 166° 21'E.

Diagnosis. In combination, the smooth region above and behind the eyes, lack of sulci on the mesotarsomeres, and single elytral puncture in interval 3 separates this species from similar, if slightly smaller species such as *C.* (*B.*) letalis and *C.* (*B.*) vitalis.

Description. Size. SBL 6.3 mm, greatest width over elytra 2.3 mm. *Head*. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region smooth or with slight depressed areas around setae. Eyes average size, somewhat flattened. Ocular ratio 1.24. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Paramedial pits deep, well defined, large, diameter equal to 1/2 width between pits or larger, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2-4 apical distinctly longer than penultimate. *Thorax*. Pronotum (Fig. 94): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions present, linear, sharp, straight, outer basal impressions present as a shallow, poorly defined, broad depression, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals slightly convex in apical third, flat in basal third, interval

3 with one setigerous puncture, 9 with 16 setigerous punctures. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster glossy. Elytral striae impressed moderately. Prosternum smooth. Proepisternum smooth. Metepisternum macrosculpture rugulose or lightly scabriculous. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture smooth or very lightly scabriculous. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur face macrosculpture without sulci. Mesotarsomeres Metatibia of male arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Male protarsomeres 1-3 dorsally with fine, short, scattered setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI apical margin in male entire, ventrites IV-VI glabrous. Male genitalia (Fig. 118): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller with rounded point, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view thick and reflexed ventrally, apex of median lobe in dorsal view blunt. Female genitalia and reproductive tract: female unknown.

Cerabilia (B.) nana **sp. nov.** (Figs 114, 132, 146)

Etymology. The specific epithet *nana* is a Latin adjective meaning dwarf and it alludes to the small size of these beetles. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, J. "NEW CALEDONIA, 9913, 22°03'S 166°28'E, Mt Dzumac road, 700 m 1 Dec 2000., GB Monteith, Pyrethrum, trunks & logs"//"EMEC1012132". Source QM, deposited MNHN.

Type locality. New Caledonia, Southern Province, Mt. Dzumac road, 22° 3'S 166° 28'E.

Diagnosis. Smallest beetles, similar to *C.* (*B.*) *orbiculata* in having a broad bead of the lateral margin of the pronotum (Fig. 114) that widens basally, while in *C.* (*B.*) *nana*, it is narrower and less convex.

Description. Size. SBL 3.4 mm, greatest width over elytra 1.5 mm. Head. Dorsal microsculpture with sculpticells transversely elongate, longitudinally short relative to body axis. Supra- and postorbital region with two to several well marked sulci. Eyes average size, somewhat flattened. Ocular ratio 1.20. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin shallowly emarginate, tooth simple, acutely pointed. Paramedial pits deep, well defined, large, diameter equal to 1/2 width between pits or larger, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 114): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions present, linear, sharp, slightly divergent, outer basal impressions absent, shape of lateral margins convergent in basal half, lateral marginal bead well defined from apical angle to beyond hind angle and onto base nearly to inner impression, wider in basal 1/4, basal margin straight, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin.

Elytron with nine intervals, form of intervals slightly convex in apical third, flat in basal third, interval 3 with one setigerous puncture, 9 with 15 setigerous punctures. Elytra: color rufopiceous, macrosculpture smooth, microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, luster moderately glossy. Elytral striae impressed moderately. Prosternum rugosissimus laterally, irregularly rugulose or smooth anteromedially. Proepisternum rugosissimus. Metepisternum macrosculpture rugulose or lightly scabriculous. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture rugulose or scabriculous. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur posterior face macrosculpture Mesotarsomeres without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI apical margin in male entire, ventrites IV-VI glabrous. Male genitalia (Fig. 132): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller and blunt, median lobe in lateral view right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract: female unknown.

Cerabilia (B.) neocaledonica sp. nov. (Figs 109, 143)

Etymology. The specific epithet *neocaledonica* is based on this species' occurrence in New Caledonia and is treated as an adjective.

Type material. HOLOTYPE, ♀. "NEW CALEDONIA, 11787, 22°15′S×166°49′E, 280 m, Pic du Pin, site 1, rainfor. 26 Nov 2004, berlesate, G.Monteith, P.Grimbacher"

//"Photog. Spm. PS0260"//"EMEC1012124". Source QM, deposited MNHN.

Type locality. New Caledonia, Southern Province, Pic du Pin, 22° 15'S 166° 49'E.

Diagnosis. Similar to *C.* (*B.*) espee but with a relatively larger pronotum (Fig. 109) that has more arcuate lateral margins, and more ovoid elytral form.

Description. Size. SBL 7.1 mm, greatest width over elytra 2.6 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region smooth or with slight depressed areas around setae. Eyes average size, convex. Ocular ratio 1.33. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 pubescent in apical 1/3-1/2. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form apex medially, slightly emarginate, edge thin. Mentum anterior margin moderately emarginate, tooth simple, acutely pointed. Paramedial pits deep, sharply defined, very small, diameter much less than 1/2 width between pits, paramedial pits glabrous. Maxilla: antepenultimate palpomere glabrous or with 1-2 small apical setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2–4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 109): microsculpture not or scarcely apparent at 50x magnification, macrosculpture with very fine, scattered micropunctulae, inner basal impressions absent, but with broad, very shallow depressions, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to slightly beyond hind angle and onto base, basal margin straight, anterior margin medially broadly, shallowly emarginate, apical angles scarcely produced, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals

flat, slightly more convex near apex, interval 3 with three setigerous punctures, 9 with 16 or 17 setigerous punctures. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture not apparent at 50x magnification, luster glossy. Elytral striae impressed moderately. Prosternum smooth. Proepisternum slightly, irregularly Metepisternum macrosculpture rugulose or lightly scabriculous. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture smooth or very lightly scabriculous. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur posterior face macrosculpture smooth. Mesotarsomeres 1-3 with lateral and medial sulci, 4-5 without sulci. Metatarsomeres 1 with lateral sulcus only, 2-4 with lateral and medial sulci, 5 without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Female protarsomeres 1-4 dorsally with fine, short, sparse, scattered setae, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of female with two pairs setae, ventrite VI, apical margin in female entire, ventrites IV-VI glabrous. Male genitalia: male unknown. Female genitalia and reproductive tract: apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 short, falcate, narrowly rounded apex, bursa straight elongate, common oviduct inserted near apex, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length moderately elongate, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) orbiculata **sp. nov.** (Figs 113, 141–142, 146)

Etymology. The specific epithet *orbiculata* is Latin for "rounded shape" and draws attention to the overall

form of these beetles. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, ♀. "NEW CALEDONIA, 11150, 22°01′S 166°28E Mt Ouin, 1100 m. 9 Nov 2002, C.Burwell & G.Monteith, pyrethrum, trees & logs, H/21″/″EMEC1012130//″NC23 kww530. Source QM, deposited MNHN.

Type locality. New Caledonia, Southern Province, Mt. Ouin, 22° 1'S 166° 28'E.

Diagnosis. Larger, more convex and ovoid than *C.* (*B.*) *nana* that it otherwise resembles.

Description. Size. SBL 4.0 mm, greatest width over elytra 1.4 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region with two to several well marked sulci. Eyes small, flattened. Ocular ratio 1.27. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin shallowly emarginate, tooth simple, acutely pointed. Paramedial pits deep, well defined, large, diameter equal to 1/2 width between pits or larger, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 113): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture with very fine, scattered micropunctulae, inner basal impressions present, linear, sharp, straight, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, lateral marginal bead well defined from apical angle to slightly beyond hind angle and onto base to level of inner impression, basal margin straight, anterior margin medially broadly, shallowly emarginate, apical angles scarcely produced, hind angles obtusely angled, rounded not sharp,

anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals slightly convex, interval 3 with one setigerous puncture, 9 with 15 setigerous punctures. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, luster glossy. Elytral striae impressed moderately. Prosternum rugosissimus laterally, irregularly rugulose or smooth anteromedially. Proepisternum rugosissimus. Metepisternum macrosculpture rugosissimus. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture rugosissimus. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres without sulci. Metatarsomeres 1 with lateral sulcus only, 2-5 without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of female with two pairs setae, ventrite VI, apical margin in female entire, ventrites IV-VI glabrous. Male genitalia: male unknown. Female genitalia and reproductive tract (Fig. 141-142): apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 short, falcate, narrowly rounded apex, bursa right side significantly longer than left, overall relatively stout, cup-shaped, right lateral portion of bursa with very large pouch, narrow at base, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at posterior oriented apex, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form elongate ovoid, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) paniensis **sp. nov.** (Figs 100, 142, 143)

Etymology. The specific epithet *paniensis* is based on the type locality, Mt. Panie, and is treated as an adjective.

Type material. HOLOTYPE, ♀. "NEW CALEDONIA Mt Panié 16 May 1984, G.Monteith & D.Cook, QM BERLESATE No. 650, 20.35S×164.47E, Rainforest, 900 m Litter"//"EMEC1012131". Source QM, deposited MNHN.

Type locality. New Caledonia, Northern Province, Mt. Panie, 20° 35'S 164° 47'.

Diagnosis. The smallest beetles of those species with sulci above the eye. Additionally distinguished by the pubescence on the apical half of antennomere 3.

Description. Size. SBL 3.8 mm, greatest width over elytra 1.5 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region with two to several well marked sulci. Eyes average size, somewhat flattened. Ocular ratio 1.27. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 pubescent in apical 1/2. Labral apical margin with four setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin shallowly emarginate, tooth simple, very small and blunt. Paramedial pits deep, sharply defined, very small, diameter much less than 1/2 width between pits, paramedial pits glabrous. Maxilla: antepenultimate palpomere glabrous or with 1–2 small apical setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2–4 apical distinctly longer than penultimate. *Thorax*. Pronotum (Fig. 100): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions present as a broad, deep, poorly defined depression that is continuous with broad flat area and reflex at hind angles, outer basal impressions absent, shape of lateral margins smoothly, moderately

arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin straight, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, slightly more convex near apex, interval 3 with one setigerous puncture, 9 with 14 setigerous punctures. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, luster glossy. Elytral striae impressed moderately. Prosternum rugosissimus across entire apical half. Proepisternum rugosissimus. Metepisternum macrosculpture rugosissimus. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture rugosissimus. Tarsomere 5 on all legs ventrally glabrous. Mesofemur posterior face macrosculpture smooth. Mesotarsomeres without sulci. Metatarsomeres without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of female with two pairs setae, ventrite VI, apical margin in female entire, ventrites IV-VI glabrous. Male genitalia: male unknown. Female genitalia and reproductive tract (Fig. 142): apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 elongate, falcate, narrowly rounded apex, bursa straight, relatively stout, cup-shaped, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form spherical, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) rubrica **sp. nov.** (Figs 96, 119, 144)

Etymology. The specific epithet *rubrica* is from the Latin for red ochre and refers to the color of the soil in the area in which this species. It is treated as a noun in the genitive case.

Type material. HOLOTYPE, ♂. "NEW CALEDONIA, R. Bleu, main forest. 17 Nov 2001, G.B. Monteith, QM Berlesate 1047, 22°06′S x 166°40′E, Rainforest, 160 m, Sieved litter"//"EMEC1012121″. Source QM, deposited MNHN. PARATYPES. Riviére Bleue Pk, Houp Géant trail 330 m el.,13:iii:2007. coll. KWill headlamp search, EMEC61779, ♀, EMEC; same data with EMEC61780 NC5 kww437, ♂, EMEC.

Type locality. New Caledonia, Southern Province, Riviére Bleue Park, 22° 6'S 166° 40'E.

Diagnosis. Similar to *C.* (*B.*) kanakorum but can be distinguished by the pronotal form (Fig. 96) (the pronotum is proportionally much larger with more arcuate margins in *C.* (*B.*) rubrica) and male genitalia (Fig. 119).

Description. Size. SBL 4.5-5.1 mm, greatest width over elytra 1.9-2.0 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region smooth or with slight depressed areas around setae. Eyes average size, somewhat flattened. Ocular ratio 1.27-1.33. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin shallowly emarginate, tooth simple, acutely pointed. Paramedial pits deep, well defined, large, diameter equal to 1/2 width between pits or larger, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2-4 apical distinctly longer than penultimate. *Thorax*. Pronotum (Fig. 96): microsculpture not or scarcely apparent at 50x magnification, macrosculpture smooth, inner basal impressions present, linear, sharp,

straight, outer basal impressions absent, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to slightly beyond hind angle and onto base, widening in basal third, basal margin smoothly, moderately emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals slightly convex in apical third, flat in basal third, interval 3 with one setigerous puncture, 9 with 16 setigerous punctures. Elytra: macrosculpture a few scattered small punctulae, microsculpture not apparent at 50x magnification, luster glossy. Elytral striae impressed moderately. Prosternum smooth. Proepisternum smooth. Metepisternum macrosculpture rugulose lightly scabriculous. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture smooth or very lightly scabriculous. Tarsomere 5 on all legs ventrally glabrous, rarely ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur posterior face macrosculpture smooth. Mesotarsomeres without sulci. Metatibia of male arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire, ventrites IV-VI glabrous. Male genitalia (Fig. 119): orientation of median lobe of aedeagus in repose left side up, orientation of ostium dorsal, form of left paramere conchoid, larger, right smaller and blunt, median lobe in lateral view

right angled, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract: apical margin of gonocoxite-1 with one seta or with two setae, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 moderately long, slightly curved, broadly rounded apex, bursa straight elongate, common oviduct inserted near apex, right lateral portion of bursa not differentially developed, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) ruginosa **sp. nov.** (Figs 112, 131, 140, 145)

Etymology. The specific epithet *ruginosa* is Latin for wrinkled and refers to the extensive ventral rugosities in these beetles. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, ♂. "Entomology Division D.S.I.R. New Zealand"//"NEW CALEDONIA, Mt Do, 900 m, NW of Bouloupari, 22 Oct 1978, G.Kuschel"//"sifted litter and rotten wood, 78/249"//"EMEC201.498". NZAC. PARATYPE. Mt Do summit, 20 May 1984, G.Monteith & D.Cook, QM BERLESATE No. 654, 21.45S 166.00E, Rainforest, 1000 m, litter, EMEC1012127, ♀, QM.

Type locality. New Caledonia, Southern Province, Mt. Do. Estimated coordinates: 21° 45′S 165° 60′E.

Diagnosis. Among small sized-species with ventrally setose tarsomere 5 (e.g., *C.* (*B.*) nana and *C.* (*B.*) orbiculata), *C.* (*B.*) ruginosa is distinguished by the series of deep sulci above and behind the eye that are both numerous, and with at least two extended to the postocipital suture.

Description. Size. SBL 5.0 mm, greatest width over elytra 1.9 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region with numerous well marked sulci. Eyes small, prominently convex. Ocular ratio 1.30. Antennae: overall

length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Paramedial pits deep, well defined, moderate size, diameter slightly less than 1/2 width between pits, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum 112): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions present as a broad, deep, poorly defined depression that is continuous with broad flat area and reflex at hind angles, outer basal impressions absent, shape of lateral margins convergent in basal half, lateral marginal bead well defined from apical angle to slightly beyond hind angle and onto base, basal margin straight, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals slightly convex in apical third, flat in basal third, interval 3 with one setigerous puncture, 9 with 15 or 16 setigerous punctures. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells slightly transversely elongate, or somewhat irregular, forming mesh, luster moderately glossy. Elytral striae impressed moderately. Prosternum slightly, irregularly rugulose. Proepisternum rugosissimus. Metepisternum macrosculpture rugosissimus. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture

rugosissimus. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur posterior face macrosculpture smooth. Mesotarsomeres without sulci. Metatibia of male slightly arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1 with lateral sulcus only, 2–5 without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articuloseta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire, ventrites IV-VI glabrous. Male genitalia (Fig. 131): orientation of median lobe of aedeagus in repose right side up. Orientation of ostium dorsal, form of right paramere conchoid, larger, left smaller and blunt, median lobe in lateral view right angled, blade of median lobe in ventral view broad, widening to apex, apex of median lobe in lateral view thick and reflexed ventrally, apex of median lobe in dorsal view broad, with medial apex produced as rounded lobe. Female genitalia and reproductive tract (Fig. 140): apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 elongate, falcate, narrowly rounded apex, bursa short, left directed, common oviduct inserted near apex, right lateral portion of bursa with very large pouch, narrow at base, dorsal development of bursa lacking, spermatheca very short sessile, on common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at posterior oriented apex, gland duct length moderately elongate, gland duct with notable expanded region near base of gland, gland form spherical, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) sternovillosa sp. nov. (Figs 99, 121, 146)

Etymology. The specific epithet *sternovillosa* is a compound word formed from the Latin *sterna*- for the abdominal ventrites and *-villosa*, hairy, and this draws attention to the pubescent last ventrite in these beetles. It is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, ♂. "21°37′14″S/165°52′16″E NEW CALEDONIA, Prov.Sud. trail to Plateau de Dogny, 725 m 15:iii:2007, coll. KWill headlamp search, leaf litter"//" EMEC61788″. Source EMEC, deposited MNHN. PARATYPES. Same data as holotype with EMEC61791, EMEC61794 and EMEC61790, 3♂♂, EMEC; EMEC61793, ♀, EMEC; EMEC61789, ♀, QM; EMEC61792 NC14 kww441, ♂, QM.

Type locality. New Caledonia, Southern Province, trail to Plateau de Dogny, 21° 37'S 165° 52'E.

Other material examined. Two additional males and one female, all very teneral, from the same locality as the holotype were examined, but are not included in the type series.

Diagnosis. Medium sized beetles with only two or three supra- and postorbital sulci, of which, only one reaches the post postocipital suture. This in combination with the presence of setae on the abdominal ventrites distinguish this species from others in the subgenus.

Description. Size. SBL 5.7-6.0 mm, greatest width over elytra 2.2-2.3 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region with two to several well marked sulci. Eves small, prominently convex. Ocular ratio 1.21-1.27. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, very small and blunt. Paramedial pits deep, well defined, large, diameter equal to 1/2 width between pits or larger, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with

scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2-4 apical distinctly longer than penultimate. *Thorax*. Pronotum (Fig. 99): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions present, short, shallow, broad, not well delimited, outer basal impressions absent, shape of lateral margins smoothly, moderately arcuate, broader across base than apex, lateral marginal bead well defined from apical angle to hind angle, basal margin straight, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals slightly convex in apical third, flat in basal third, interval 3 with one setigerous puncture, rarely with two setigerous punctures, 9 with 15 setigerous punctures. Elytra: color brunneous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, luster moderately glossy. Elytral striae impressed moderately. Prosternum rugosissimus across entire apical half. Proepisternum rugosissimus. Metepisternum macrosculpture rugosissimus. Metepimerion macrosculpture rugulose in anterior third. Mesosternum macrosculpture rugosissimus. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur posterior face macrosculpture smooth. Mesotarsomeres without sulci. Metatibia of male arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres 1 with lateral sulcus only, 2–5 without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Male protarsomeres 1-3 dorsally with fine, short, scattered setae, broadly expanded, form asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites:

ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI, apical margin in female entire, ventrites IV-VI with short scattered pubescence. Male genitalia (Fig. 121): orientation of median lobe of aedeagus in repose right side up, orientation of ostium dorsal, form of right paramere conchoid, larger, left smaller and blunt, median lobe in lateral view right angled, blade of median lobe in ventral view broad, widening to apex, apex of median lobe in lateral view thick and reflexed ventrally, apex of median lobe in dorsal view broad and emarginate. Female genitalia and reproductive tract: apical margin of gonocoxite-1 with two setae or with three setae, lateral edge of gonocoxite-2 with two ensiform setae, apical furrow of gonocoxite-2 with two nematiform setae, gonocoxite-2 moderately long, slightly curved, broadly rounded apex, bursa right side significantly longer than left, overall relatively stout, cup-shaped, right lateral portion of bursa with very large pouch, narrow at base, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) vitalis **sp. nov.** (Figs 7, 93, 117, 138, 144)

Etymology. The specific epithet *vitalis* is from the Latin for "of life" and is treated as an adjective in the nominative singular.

Type material. HOLOTYPE, ♂. "21°37′14″S/165°52′16″E NEW CALEDONIA,Prov.Sud. trail to Plateau de Dogny 725–900 m, 15:iii:2007, coll. KWill headlamp search, leaf litter"//"EMEC61801″. Source EMEC, deposited MNHN. PARATYPES. Same data as holotype with EMEC61795, EMEC61797, EMEC61798, EMEC61800, 4♂♂, EMEC and EMEC61796, EMEC61803, EMEC61804 NC15 kww42, EMEC61805, 4♀♀, EMEC. Same with EMEC61799, ♂, QM and EMEC61802, ♀, QM.

Type locality. New Caledonia, Southern Province, Plateau de Dogny, 21° 37'S 165° 52'E.

Diagnosis. *Cerabilia Biliacera vitalis* specimens with glabrous sternites are very similar to *C.* (*B.*) *klingonorum* (Figs 7–8) but are consistently smaller with sharper and better defined

basal impressions on the pronotum (Fig. 93). Male genitalia (Fig. 117) is decisively different between these two species. *Cerabilia (B.) vitalis* with pubescent sternites are readily separated on that character state, and while similar in size and form to *C. (B.) klingonorum*, are likewise differentiated based on the pronotal impressions and male genitalia.

Description. Size. SBL 4.4-4.8 mm, greatest width over elytra 1.7-1.8 mm. Head. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region with numerous well marked sulci. Eyes small, prominently convex. Ocular ratio 1.20-1.25. Antennae: overall length moderately long, with antennomere 11 just reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Paramedial pits deep, well defined, large, diameter equal to 1/2 width between pits or larger, paramedial pits glabrous. Maxilla: antepenultimate palpomere plurisetose, with scattered short setae, penultimate palpomere plurisetose, with scattered short setae, apical palpomere plurisetose with short, scattered setae, palpomeres 2-4 apical distinctly longer than penultimate. Thorax. Pronotum (Fig. 93): microsculpture sculpticells isodiametric or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions present, short, shallow, clearly marked, outer basal impressions absent, shape of lateral margins convergent in basal half, lateral marginal bead well defined from apical angle to hind angle, basal margin straight, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely angled, rounded not sharp, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals

slightly convex in apical third, flat in basal third, interval 3 with one setigerous puncture, 9 with 15 setigerous punctures. Elytra: color rufopiceous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells slightly transversely elongate, or somewhat irregular, forming mesh, luster moderately glossy. Elytral striae impressed moderately. Prosternum rugosissimus across entire apical half. Proepisternum rugosissimus. Metepisternum macrosculpture rugosissimus. Metepimerion macrosculpture rugulose in anterior third. Mesosternum macrosculpture rugosissimus. Tarsomere 5 on all legs ventrally glabrous, rarely ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur posterior face macrosculpture smooth. Mesotarsomeres without sulci. Metatibia of male arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Female protarsomeres 1-4 dorsally glabrous, form not expanded, nearly symmetrical, ventrally with two rows of long setae on margins. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI of female with two pairs setae, ventrite VI apical margin in male entire, ventrite VI apical margin in female entire, ventrites IV-VI glabrous or VI with short scattered pubescence. Male genitalia (Fig. 117): orientation of median lobe of aedeagus in repose right side up, orientation of ostium dorsal, form of right paramere conchoid, larger, left smaller and blunt, median lobe in lateral view arcuate and curved ventrally, blade of median lobe in ventral view broadly tapering, apex of median lobe in lateral view simple taper, apex of median lobe in dorsal view broadly rounded. Female genitalia and reproductive tract (Fig. 138): apical margin of gonocoxite-1 with two setae, lateral edge of gonocoxite-2 with two ensiform setae, gonocoxite-2 short, falcate, narrowly rounded apex, bursa right side significantly longer than left, overall relatively stout, cup-shaped, right lateral portion of bursa

with very large pouch, narrow at base, dorsal development of bursa lacking, spermatheca very short sessile, at base of common oviduct, spermatheca duct not apparent, spermatheca broadly attached, spermathecal gland duct connected at base of spermatheca, gland duct length short, gland duct with notable expanded region near base of gland, gland form elongate ovoid, dorsal portion of bursa without modifications, ventral modification of bursa absent.

Cerabilia (B.) wisei **sp. nov.** (Figs 103, 124, 146)

Etymology. The specific epithet *wisei* is treated as a noun in the genitive case and is in honor of Dr. D.M. Wise, MD for his contribution to research on Cerabilia by way of his treatment of me when I was injured due to an incident in the field.

Type material. HOLOTYPE, 3. "NEW CALEDONIA, Prov. Sud., E of Table Unio, RP5, 390 m, (rd from Sarraméa to Canala) 17.iii.2007, R. Leschen"// "leaf litter, NC053, 21°33′49″S 165°45′37″E"//"kww735"//"EMEC1000447". Source NZAC, deposited MNHN.

Type locality. New Caledonia, Southern Province, east of Table Unio 21°33′S 165°45′E.

Diagnosis. Similar in size and form to *C.* (*B.*) *vitalis*. See diagnosis under that species.

Description. Size. SBL 4.1 mm, greatest width over elytra 1.6 mm. *Head*. Dorsal microsculpture with sculpticells isodiametric or somewhat irregular in form, microlines forming mesh. Supra- and postorbital region with numerous well marked sulci. Eyes small, prominently convex. Ocular ratio 1.20. Antennae: overall length long, with antennomeres 10-11 reaching beyond pronotal base, antennomere 3 not pubescent, with ring of fine small setae at apex. Labral apical margin with six setae. Labial penultimate palpomere with two large medial setae and 1-2 small apical setae. Glossal sclerite form broadly rounded at apex, edge thin, sloping ventrally. Mentum anterior margin moderately emarginate, tooth simple, blunt, triangular. Paramedial pits deep, well defined, large, diameter equal to 1/2 width between pits or larger, paramedial pits glabrous. Thorax. Pronotum (Fig. 103):

sculpticells isodiametric microsculpture or somewhat irregular in form, microlines forming mesh, macrosculpture smooth, inner basal impressions present, shallow, but defined medially, not delimited laterally, blending into broad depression, outer basal impressions absent, shape of lateral margins smoothly, shallowly arcuate, lateral marginal bead well defined from apical angle to hind angle, basal margin very shallowly emarginate in middle, anterior margin medially broadly emarginate, apical angles prominent, hind angles obtusely rounded, anteriolateral setae very near margin, touching channel of lateral margin or approximately width of setal pore distant from lateral margin. Elytron with nine intervals, form of intervals flat, slightly more convex near apex, interval 3 with one setigerous puncture, 9 with 15 setigerous punctures. Elytra: color brunneous, macrosculpture many very small punctulae just visible at 50x, microsculpture sculpticells transversely elongate, longitudinally short relative to body axis, luster moderately glossy. Elytral striae impressed moderately. Prosternum rugosissimus across entire apical half. Proepisternum rugosissimus. Metepisternum macrosculpture rugosissimus. Metepimerion macrosculpture smooth, or with rugosities just at anterior edge. Mesosternum macrosculpture rugosissimus. Tarsomere 5 on all legs ventrally setose (at least one pair of long setae, usually with several smaller setae). Mesofemur macrosculpture posterior face smooth. Mesotarsomeres without sulci. Metatibia of male arcuate. Metafemur of male with ventral margin straight or smoothly, shallowly arcuate. Metatarsomeres without sulci. Dorsal surface of meso- and metatarsomeres glabrous. Male protarsomeres 1-3 dorsally glabrous or with a few very small setae, form broadly expanded, asymmetrical, ventrally with two rows large articulo-seta, 4 with elongate apical setae. Abdomen. Sternites: ventrite VI of male with one pair of setae, ventrite VI apical margin in male entire, ventrites IV-VI with short scattered pubescence. Male genitalia (Fig. 124): orientation of median lobe of aedeagus in repose right side up, orientation of ostium dorsal, form of right paramere conchoid, larger, left smaller and blunt, median lobe in lateral

view right angled, blade of median lobe in ventral view broad, widening to apex, apex of median lobe in lateral view thick and reflexed ventrally, apex of median lobe in dorsal view blunt. Female genitalia and reproductive tract: female unknown.

Key to adults of *Cerabilia* in the subgenera *Feronista* and *Biliacera*.

The species treatments above are listed alphabetically within each subgenus as per the journal requirements. The page number for each species description is therefore included in the Key. The figures of morphological features are, for the most part, arranged in the order that the species emerge from the key to facilitate comparison of similar species.

- Elytron with rudimentary tenth interval in apical third or more. Tenth interval entire or irregularly interrupted where evident.
 .15

- 4. Antennomere 3 pubescent in apical third to half......5
- Antennomere 3 glabrous except for apical ring of long, fine setae.....

- Pronotum posteromedial impression absent (Fig. 11). . Cerabilia (F.) spuh, pg. 47
- 6. Metatarsomere 1 with lateral and medial sulci (sulci very shallow in *C.* (*F.*) *minor*) . . . 7
- 7. Elytra with 13-14 umbilicate marginal pores. Meso- and metatarsomere 4 without medial and lateral sulci
- 8. Hind angles of pronotum broadly and obtusely angled, nearly rounded (Figs 13-14)
- Hind angles of pronotum narrowly, obtusely angled, approaching right angled (Fig. 12). Cerabilia (F.) minor, pg. 34
- Abdominal sterna with a glossy luster, microsculpture stretched and scarcely evident..... Cerabilia (F.) montivaga, pg. 36
- Abdominal sterna dull along lateral third, moderately glossy medially, microsculpture conspicuous, forming a stretched and irregular mesh. . Cerabilia (F.) blatta, pg. 24
- 10. Pronotal hind angles moderately obtusely angled, slightly reflexed and flat anterad hind seta (Fig. 15) Cerabilia (F.) australiensis, pg. 19
- Pronotal hind angles broadly rounded, not reflexed and slightly convex anterad hind seta (Fig. 16). . Cerabilia (F.) iridescens, pg. 30

- 12. Pronotal margins moderately to deeply arcuate. Antennomeres 8-10 long, length about 2.5-3.0x width. SBL>5.0mm 13

- 13. Anteroventral aspect of the mesepisternum with a distinct bulge set off from the elytral epipleura and the medial portion of the mesepisternum. Proepisternum glossy with scarcely visible, irregular or slightly stretched microsculpture 14
 - Anteroventral aspect of the mesepisternum without a distinct bulge. Proepisternum somewhat dull, with visible, stretched microsculpture
 Cerabilia (F.) danbullaensis, pg. 25
- 14. Elytra marginal umbilicate pores 1-3 in contact with lateral channel. SBL>6.5 mm Cerabilia (F.) kalkajaka, pg. 31
- Elytra marginal umbilicate pores 1-6 in contact with lateral channel. SBL<6.0mm
 Cerabilia (F.) uncata, pg. 52

- 17. Metatibia with medial row of nine (range 8-10) fine setae. SBL>8.0mm Cerabilia (F.) loxandroides pg. 33

- Elytral intervals without micropunctulae or with only a few scattered punctulae 21

- 20. Posteromedial and posterolateral pronotal

Revision of Cerabilia

_	impressions apparent as very broad shallow depressions. Pronotal base slightly convex laterad posterolateral impression (Fig. 28)	_	Elytra uniformly brunneous, piceous or only vaguely paler along interval 1, the apex, and lateral margins
21.	Pronotal hind angles broadly rounded obtuse	29.	Pronotum lateral margins smoothly arcuate from apex to base (Fig. 36). Anterior seta very near or touching the lateral channel. Prosternal process rounded
_	Pronotal hind angles narrowly obtuse, nearly right angled	_	
	Stria 7 with two setigerous punctures near the apex. SBL<8.8 mm		convergent to base from just anterad mid-point (Fig. 37). Anterior seta a pore width or more from the lateral channel. Prosternal process bluntly truncate
23. —	Elytral microsculpture transverse and obvious	_	Pronotal basal seta in lateral bead. Lateral marginal bead continuous on base of pronotum, demarcating margin for about one third the basal width
24.	Pronotum (Figs 32-33) with the anterior marginal seta about 1.5-2x the pore width from the margin. Base of pronotum without	_	Pronotal basal seta not in lateral bead. Lateral marginal bead ended anterad basal seta Cerabilia (F.) bellensis, pg. 23
_	demarcated margin	_	Supra- and postorbital region with two, to many, sulcate rugosities (Fig. 148)32 Supra- and postorbital region smooth37 Prosternum rugosissumus across entire
	margin for about one the basal widthCerabilia (F.) intermedia, pg. 29	_	anterior third or more
	Male with metatrochanter with deep dorsal concavity (Fig. 147) Cerabilia (F.) prosopogmoides, pg. 43 Male with metatrochanter dorsally flat as		rugulose or smooth in the anteromedial third, when rugosities present restricted, to anterior margin in anterior third or less, laterally rugosissumus, rugulose or smooth
	typical in genus . Cerabilia (F.) prolixa, pg. 42	32.	Supra- and postorbital rugosities
26.	Humeri of elytra rounded angulate, without denticle. Overall form slightly elongate ovoid. SBL<5.7 mm		consisting of 3 or more sulci, two or more sulci in contact with the postocipital suture
_	Humeri of elytra with small, sharp denticle. Overall form distinctly ovoid SBL>5.8 mm Cerabilia (F.) oodiformis, pg. 40	_	Supra- and postorbital rugosities consisting of 2 or 3, often very short sulci, only one sulcus in contact with the postocipital suture
27. —	Elytral striae impunctate	33. —	Ventrite VI glabrous
			47

34. _	Mentum tooth prominent, form simple triangle. Metepimeron rugose36 Mentum tooth not prominent, short	_	Paramedial pits of mentum small, diameter much less than ½ the width of the space between the pits . <i>Cerabilia (B.) drupa,</i> pg. 59
	and wide, almost absent. Metepimeron smooth except near anterior edge Cerabilia (B.) apicesecta, pg. 56		Ventrites IV-VI glabrous except for fixed paramedial pair of setae
35.	Pronotum (Fig. 92) dorsally, in anterior third, with scattered very fine punctulae; basal	_	Ventrites IV-VI with short scattered pubescence . <i>Cerabilia (B.) sternovillosa,</i> pg. 78
	impressions very shallowly impressed, linear or irregularly formed. SBL >4.8 mm Cerabilia (B.) klingonorum, pg. 66	44.	Antennomere 3 glabrous except for an apical ring of fine setae
_	Pronotum (Fig. 93) dorsally smooth or with some very fine punctulae; basal impressions	_	Antennomere 3 pubescent in the apical third to half <i>Cerabilia (B.) paniensis,</i> pg. 74
	sharply impressed, linear. SBL <4.8 mm Cerabilia (B.) vitalis, pg. 79 (in part)	45.	Male profemur relatively slender, metatibia slightly, smoothly curved, aedeagus narrowing apicad. Female unknown
36.	Pronotal anteriolateral seta near, about one pore width distant at most, or touching lateral shapped or bead	_	
-	touching lateral channel or bead38 Pronotal anteriolateral seta very distant from lateral channel or bead, three pore widths or greater distance (Figs 104-107)		inflated appearance, metatibia with angulate bend, aedeagus wide at apex Cerabilia (B.) inversa, pg. 64
27	48	46.	Pronotal basal impressions sharply delimited, linear, and clearly impressed (Fig. 93)
	Mesotarsomere 1 without sulci	_	Pronotal basal impressions broad and not delimited laterally (Fig. 103)
38.	Elytral interval 3 with one setigerous		Cerabilia (B.) wisei, pg. 80
_	puncture		Elytral interval 3 with one (rarely, unilaterally two) setigerous puncture 49
39.	Pronotal basal impressions parallel with the longitudinal axis of the body 41	_	Elytral interval 3 with four to five setigerous punctures . <i>Cerabilia (B.) discosetosa,</i> pg. 57
_	Pronotal basal impression slightly divergent, parallel with the convergent		Mentum tooth absent
	lateral margins in the basal third of the pronotum Cerabilia (B.) mouensis pg. 70		Mentum tooth present
40.	Region laterad of pronotal basal impression a low convexity	17.	length, basal margin with a deep rounded emargination. Cerabilia (B.) koghisensis, pg. 68
-	Cerabilia (B.) kanakorumpg. 65 Region laterad of pronotal basal impression flat and depressed to the margin	_	Pronotum widest behind midpoint of its length, basal margin straight
41	Cerabilia (B.) rubrica pg. 75 Tarsomere 5 ventrally glabrous 43	50.	Elytral interval 3 with one setigerous puncture <i>Cerabilia (B.) espee</i> , pg. 62
_	Tarsomere 5 ventrally setose	_	Elytral interval 3 with three setigerous
42.	Paramedial pits of mentum large, diameter equal to ½ the width of the space between the pits or more <i>Cerabilia (B.) letalis</i> , pg. 69	51.	punctures <i>Cerabilia (B.) neocaledonica,</i> pg. 72 Mesosternum and metepisternum rugosissimus <i>Cerabilia (B.) francisca</i> pg. 63

- Mesosternum and metepisternum smooth or scabriculous . . Cerabilia (B.) dominatrix, pg. 58
- 52. Supraorbital region with two sulci, only one sulcus in contact with the postocipital suture. Eyes moderately convex........54
- 53. Form of elytra slightly elongate ovoid, SBL=3.4 mm.... *Cerabilia (B.) nana*, pg. 71
- Form of elytra rounded ovoid, SBL=4.0 mm
 Cerabilia (B.) orbiculata, pg. 73

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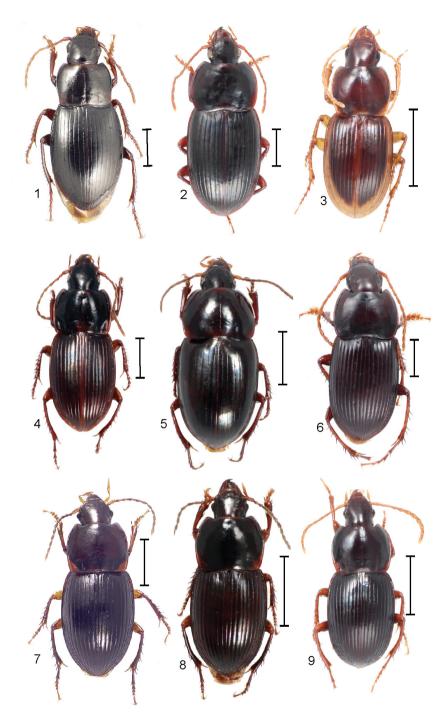
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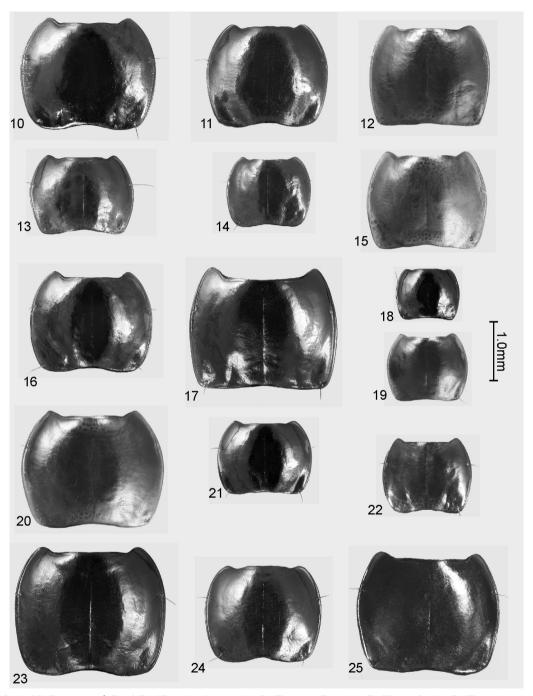
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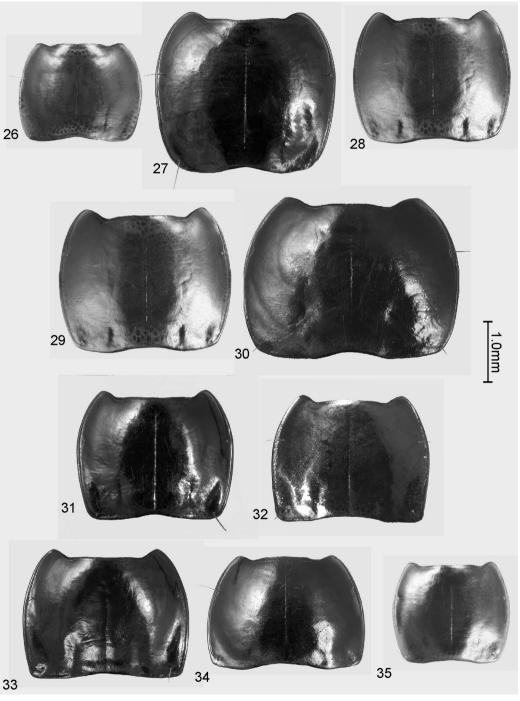
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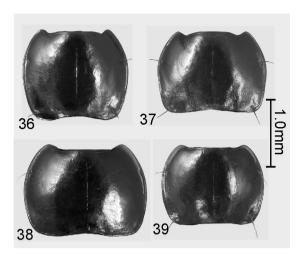
FIGS 1–9. Dorsal habitus of 1. *Cerabilia (Cerabilia) striatula;* 2. *C. (Feronista) amaroides;* 3. *C. (F.) lewisensis;* 4. *C. (F.) storeyi;* 5. *C. (F.) oodiformis;* 6. *C. (Biliacera) discosetosa;* 7. *C. (B.) vitalis;* 8. *C. (B.) klingonorum;* 9. *C. (B.) espee.* Scale bars= 2.0 mm.



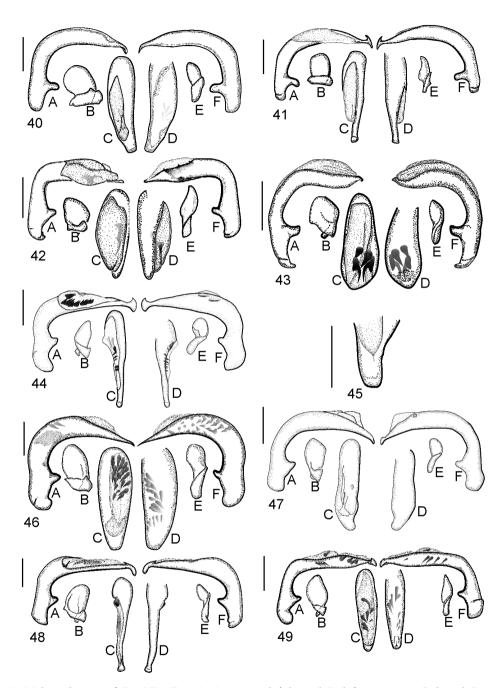
FIGS 10–25. Pronota of Cerabilia (Feronista) spp. 10. C. (F). securilata; 11. C. (F). spuh; 12. C. (F). minor; 13. C. (F). montivaga; 14. C. (F). blatta; 15. C. (F). australiensis; 16. C. (F). iridescens; 17. C. (F). storeyi; 18. C. (F). parva; 19. C. (F). danbullaensis; 20. C. (F). kalkajaka; 21. C. (F). uncata; 22. C. (F). reflexa; 23. C. (F). loxandroides; 24. C. (F). moorei; 25. C. (F). haigensis.



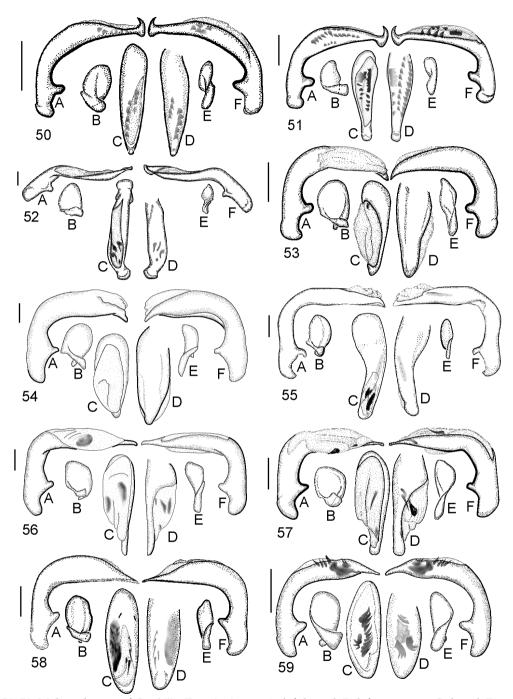
FIGS 26–35. Pronota of Cerabilia (Feronista) spp. 26. C. (F). stylata; 27. C. (F). gigas; 28. C. (F). tipica; 29. C. (F). amaroides; 30. C. (F). mudda; 31. C. (F). intermedia; 32. C. (F). prosopogmoides; 33. C. (F). prolixa; 34. C. (F). oodiformis; 35. C. (F). lewisensis.



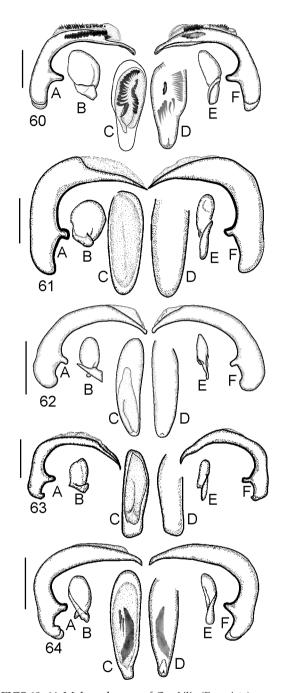
FIGS 36–39. Pronota of *Cerabilia (Feronista)* spp. 36. *C.* (*F*). wunduensis; 37. *C.* (*F*). spinifer; 38. *C.* (*F*). monteithi; 39. *C.* (*F*). bellensis.



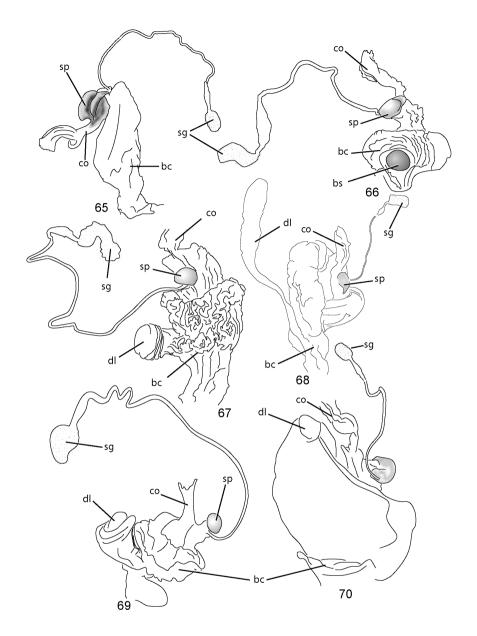
FIGS 40–49. Male aedeagus of *Cerabilia (Feronista)* spp., A- left lateral, B- left paramere, C-dorsal, D-ventral, E-right paramere, F-right lateral views. Scale bars are 0.5 mm. 40. *C. (F). securilata;* 41. *C. (F). spuh;* 42. *C. (F). minor;* 43. *C. (F). montivaga;* 44. *C. (F). blatta;* 45. *C. (F). iridescens,* Dorsal view, tip; 46. *C. (F). storeyi;* 47. *C. (F). danbullaensis;* 48. *C. (F). kalkajaka;* 49. *C. (F). uncata.*



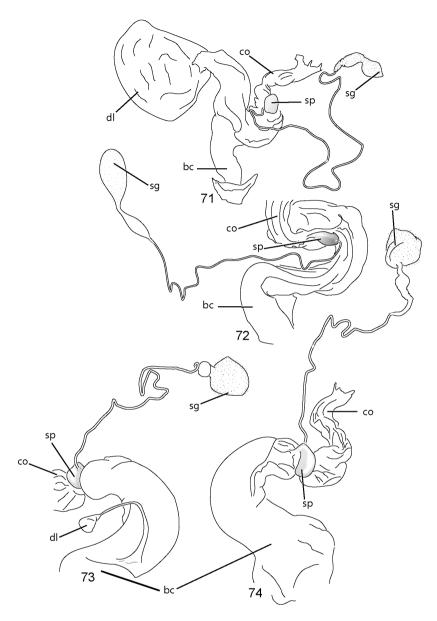
FIGS 50–59. Male aedeagus of *Cerabilia (Feronista)* spp., A- left lateral, B- left paramere, C-dorsal, D-ventral, E-right paramere, F-right lateral views. Scale bars are 0.5 mm. 50. *C. (F). reflexa;* 51. *C. (F). moorei;* 52. *C. (F). gigas;* 53. *C. (F). tipica;* 54. *C. (F). haigensis;* 55. *C. (F). amaroides;* 56. *C. (F). stylata;* 57. *C. (F). mudda;* 58. *C. (F). intermedia;* 59. *C. (F). prosopogmoides.*



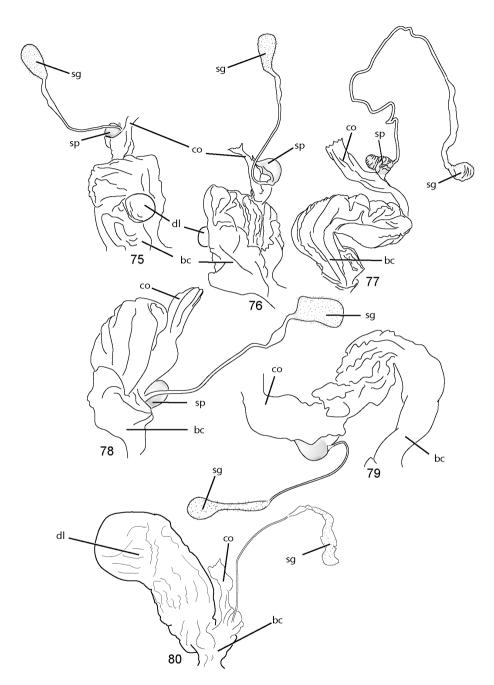
FIGS 60–64. Male aedeagus of *Cerabilia (Feronista)* spp., A- left lateral, B- left paramere, C-dorsal, D-ventral, E-right paramere, F-right lateral views. Scale bars are 0.5 mm. 60. *C. (F). prolixa;* 61. *C. (F). oodiformis;* 62. *C. (F). lewisensis;* 63. *C. (F). monteithi;* 64. *C. (F). bellensis.*



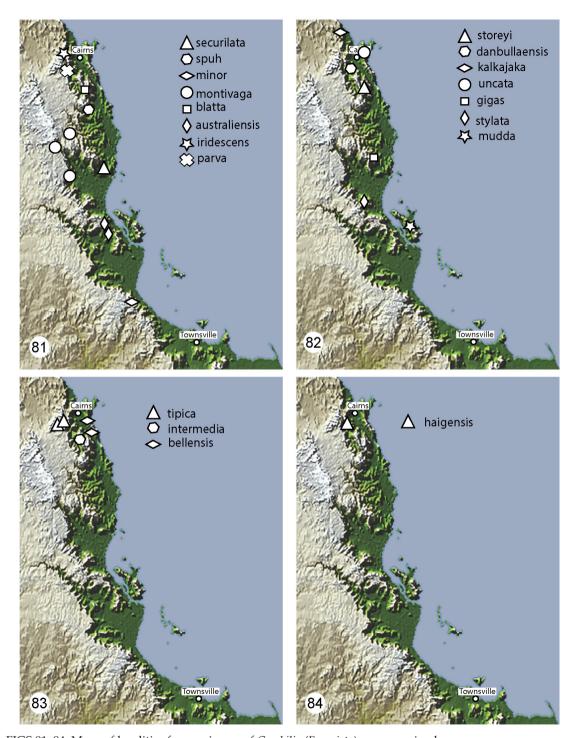
FIGS 65–70. Female reproductive tract of *Cerabilia (Feronista)* spp., ventral view. 65. *C. (F). securilata*; 66. *C. (F). montivaga*; 67. *C. (F). iridescens*; 68. *C. (F). storeyi*; 69. *C. (F). parva*; 70. *C. (F). australiensis*; bc-bursa copulatrix, bs-bursal sclerite, co-common oviduct, dl-dorsal lobe, sp-spermatheca, sg-spermathecal gland.



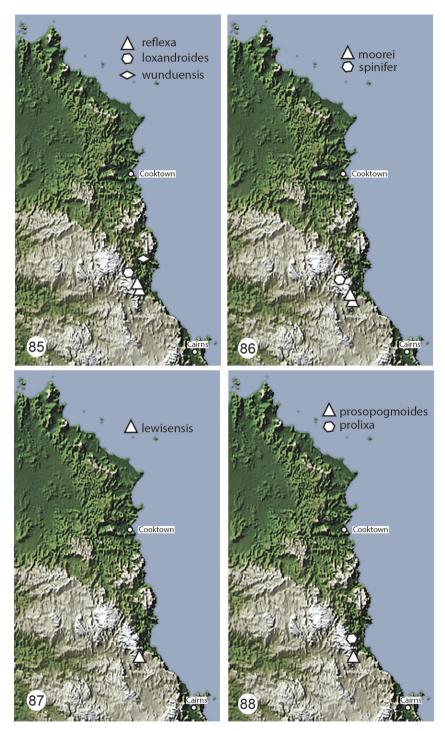
FIGS 71–74. Female reproductive tract of *Cerabilia (Feronista)* spp., 71–72,74 ventral view; 73 dorsal view. 71. *C. (F). kalkajaka*; 72. *C. (F). loxandroides*; 73–74. *C. (F). gigas*; bc-bursa copulatrix, co- common oviduct, dl-dorsal lobe, sp- spermatheca, sg- spermathecal gland.



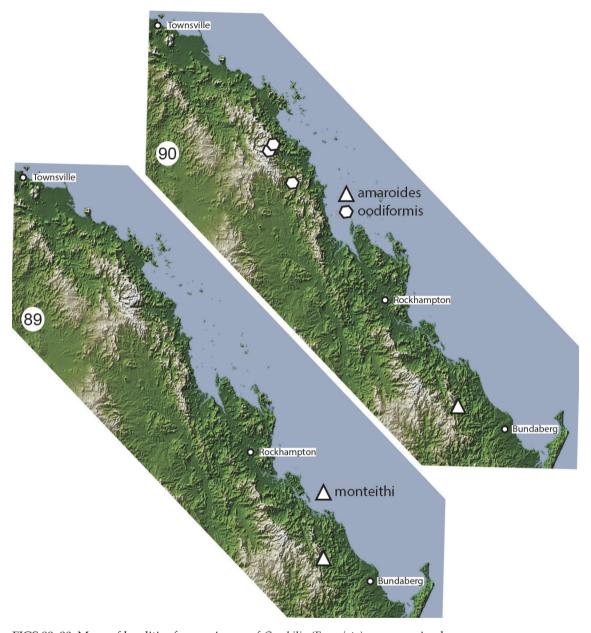
FIGS 75–80. Female reproductive tract of *Cerabilia (Feronista)* spp., 75,77–80 ventral view; 76 dorsal view. 75–76. *C. (F). tipica*; 77. *C. (F). amaroides*; 78. *C. (F). bellensis*; 79. *C. (F). lewisensis*; 80. *C. (F). oodiformis*; bebursa copulatrix, co- common oviduct, dl-dorsal lobe, sp- spermatheca, sg- spermathecal gland.



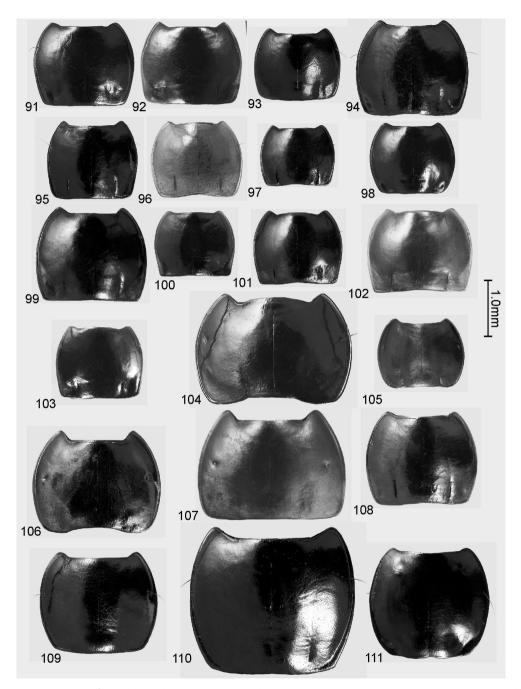
FIGS 81-84. Maps of localities for specimens of Cerabilia (Feronista) spp. examined.



FIGS 85-88. Maps of localities for specimens of Cerabilia (Feronista) spp. examined.



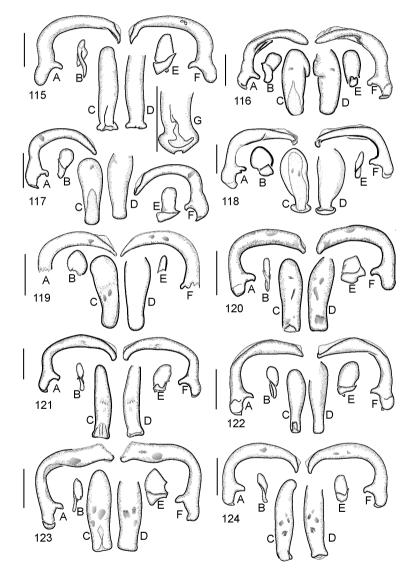
FIGS 89-90. Maps of localities for specimens of Cerabilia (Feronista) spp. examined.



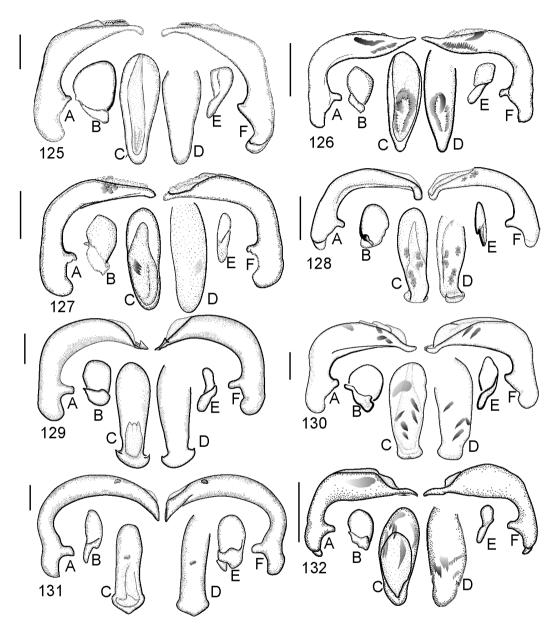
FIGS 91–111. Pronota of Cerabilia (Biliacera) spp., 91. C. (B). apicesecta; 92. C. (B). klingonorum; 93. C. (B). vitalis; 94. C. (B). mouensis; 95. C. (B). kanakorum; 96. C. (B). rubrica; 97. C. (B). letalis; 98. C. (B). drupa; 99. C. (B). sternovillosa; 100. C. (B). paniensis; 101. C. (B). amieuensis; 102. C. (B). inversa. 103. C. (B). wisei; 104. C. (B). discosetosa; 105. C. (B). edentata; 106. C. (B). koghisensis; 107. C. (B). aite; 108. C. (B). espee; 109. C. (B). neocaledonica; 110. C. (B). francisca; 111. C. (B). dominatrix.



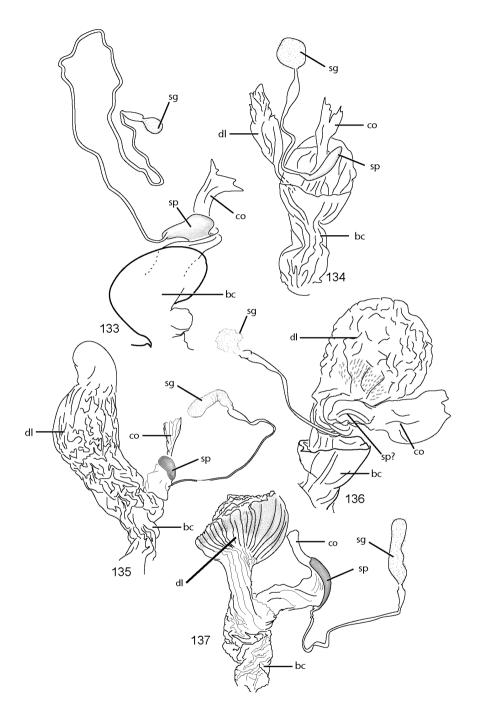
FIGS 112–114. Pronota of Cerabilia (Biliacera) spp., 112. C. (B). ruginosa; 113. C. (B). orbiculata; 114. C. (B). nana.



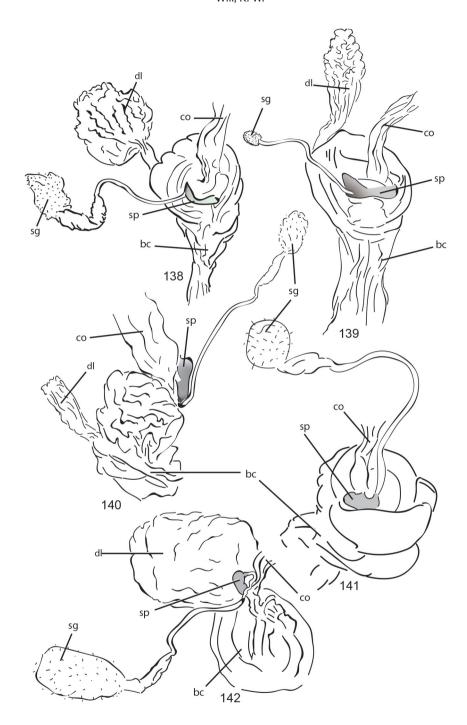
FIGS 115–124. Male aedeagus of *Cerabilia (Biliacera*) spp., A- left lateral, B- left paramere, C-dorsal, D-ventral, E-right paramere, F-right lateral views. Scale bars are 0.5 mm. 115. *C. (B). apicesecta*; 116. *C. (B). klingonorum*; 117. *C. (B). vitalis*; 118. *C. (B). mouensis*; 119. *C. (B). rubrica*, base of median lobe broken; 120. *C. (B). letalis*; 121. *C. (B). sternovillosa*; 122. *C. (B). amieuensis*; 123. *C. (B). inversa*; 124. *C. (B). wisei.*



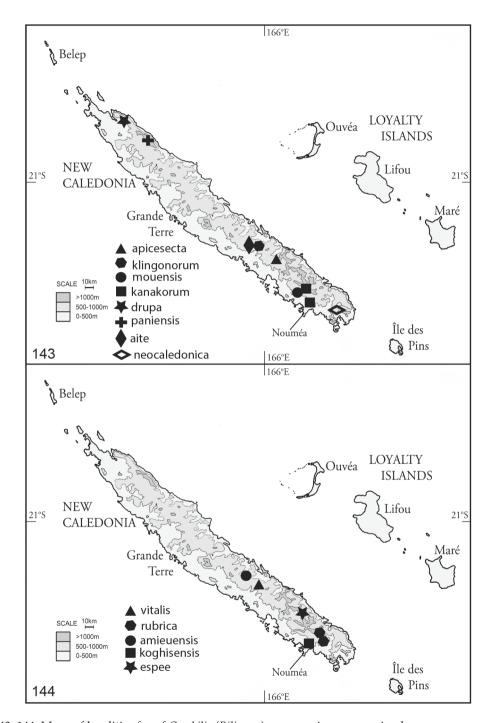
FIGS 125–132. Male aedeagus of *Cerabilia (Biliacera)* spp., A- left lateral, B- left paramere, C-dorsal, D-ventral, E-right paramere, F-right lateral views. Scale bars are 0.5 mm. 125. *C. (B). discosetosa;* 126. *C. (B). edentata;* 127. *C. (B). koghisensis;* 128. *C. (B). espee;* 129. *C. (B). francisca;* 130. *C. (B). dominatrix;* 131. *C. (B). ruginosa;* 132. *C. (B). nana.*



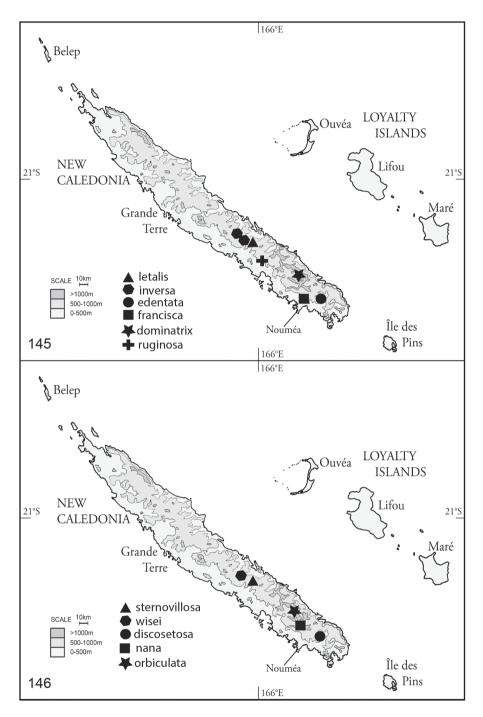
FIGS 133–137. Female reproductive tract of *Cerabilia (Biliacera*) spp., ventral view. 133. *C. (B). kanakorum;* 134. *C. (B). inversa;* 135. *C. (B). discosetosa;* 136. *C. (B). edentata;* 137. *C. (B). francisca;* bc-bursa copulatrix, cocommon oviduct, dl-dorsal lobe, sp- spermatheca, sg- spermathecal gland.



FIGS 138–142. Female reproductive tract of *Cerabilia (Biliacera*) spp., ventral view. 138. *C. (B). vitalis;* 139. *C. (B). drupa;* 140. *C. (B). ruginosa;* 141. *C. (B). orbiculata;* 142. *C. (B). paniensis;* bc-bursa copulatrix, co-common oviduct, dl-dorsal lobe, sp-spermatheca, sg-spermathecal gland.



FIGS 143-144. Maps of localities for of Cerabilia (Biliacera) spp. specimens examined.



FIGS 145-146. Maps of localities for of Cerabilia (Biliacera) spp. specimens examined.

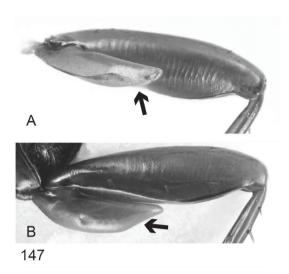


FIG. 147. Metatrochanters of *Cerabilia (Feronista)* prosopogmoides; **A**, dorsal view showing concavity; **B**, ventral view showing acuminate apex.



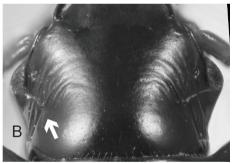


FIG. 148. Head of Cerabilia (Biliacera) klingonorum showing wrinkles around eyes. A, right lateral; B, dorsal views.

APPENDIX A AVAILABLE AS SUPPLEMENTARY MATERIAL ONLINE.