

ject is that *Chlamydodera maculata* makes a round, moderate-sized, cup-shaped nest, like that of the English jay (*Garrulus glandarius*), and placed among the branches of high trees.

The new species, *Chlamydodera orientalis*, is a native of Queensland, and tolerably common at Port Denison. In size it is about the same as *C. nuchalis*, whose habitat is on the opposite part of the continent. The bird figured by Jardine and Selby was from one of these western countries; it is also the bird spoken of by Capt. Grey in his travels, as well as the one mentioned by the officers Bynoe and Dring of the surveying-ship 'Beagle;' lastly, specimens were brought over to this country by the lamented Elsey, who collected them at the Victoria river.

It is not by writing ever so minutely that I can make the public perceive the difference in these two nearly allied birds; but if a series of skins from both countries are placed side by side it will be at once perceptible. The great peculiarity in the present species (*orientalis*) is the barring of the upper plumage, almost approaching to that of *C. maculata* and *C. guttata*. This new bird is less silky in its plumage than the western species, particularly the head, cheeks, throat, and under surface. Elsey's specimens are in the British Museum; and I have others in my own collection.

VIII.—*A third Contribution to the Knowledge of the Cetoniidæ of Madagascar.* By CHARLES O. WATERHOUSE.

THE British Museum has recently received some interesting additions to the collection of Cetoniidæ from Madagascar. All the species here described are from the neighbourhood of Antananarivo (with the exception of *Coptomia elegans*, which is from Fianarantsoa), and were collected by Mr. Kingdon.

Stenotarsia picta.

Elongata, subparallela, nigro-picea, supra nigra, velutina; thorace linea circumdata flava; elytris ad suturam impressis, singulis macula triangulari ante medium ferruginea lineisque duabus tenuibus flavis. ♂ ♀.

Long. 7 lin.

This species has much the appearance of some narrow species of *Macronota*; but the legs and tarsi are long and slender, as in *Stenotarsia*, and the elytra slightly embrace the abdomen. Above dull velvety black, except the head, which

is pitchy. Thorax a little broader than long, obliquely narrowed in front of the middle, subparallel posteriorly, only very slightly sinuate at the sides, broadest at the posterior angles, the base straight, with a pale yellow line all round the margins, but not touching the posterior angles. Scutellum yellow at the apex. Elytra deflexed at the sides and apex, at the shoulders much broader than the thorax, then suddenly narrowed, subparallel to the apex; each elytron with a rusty-yellow triangular spot at one third from the base; this spot is bordered posteriorly by a narrow yellow line; a little beyond this is a second yellow line, which ascends obliquely towards the suture; the apex is truncate and is bordered with yellow. The second segment of the abdomen has a greenish-yellow fascia; and the fifth segment is margined with the same colour. The anterior tibiæ are tridentate in both sexes. The pygidium in the male is oblong, rounded at the apex, and thickly punctured, the punctures each having a very short yellow hair; in the female there is a very deep ovate impression at the apex.

Sometimes the rusty spot on the elytra has a short curved line above it on the side, and there is also another line connecting the spot with the suture. The sternal process is in the form of an equilateral triangle, its sides sloping.

Note.—In the same collection with the above there was a male example of *S. discoidalis*, differing from my original type in having the discoidal patch on the thorax divided into three black spots.

Euchilia picipes.

Oblonga, nitida, viridi-olivacea; elytris striis decem nigris impressis; tibiis tarsisque piceis.

Long. $8\frac{1}{2}$ lin.

This species is very close to *E. costata*, and might be easily mistaken for it. It is, however, of a darker, more olive green, tinged frequently with blue; the thorax is less ample, rather less convex; the clypeus is less strongly punctured; the lines on the elytra are finer, and the lateral deflexed portion is not bounded above by a well-marked ridge, but is more gradual; the upper part of the femora, the tibiæ, and tarsi are deep pitchy red; the three teeth on the anterior tibiæ are less acute, extremely blunt in the female.

Euchilia costifera.

Oblonga, supra depressa, nitida, olivaceo-viridis; thorace cæruleo micante, discrete obsolete punctulato; elytris lincis nonnullis

impressis, sutura interstitiisque secundo et quarto costiformibus ; pygidio parce punctato. ♂ ♀.

Long. $7\frac{1}{2}$ lin.

General form of *E. sulcata*, but with the thorax less ample; the shoulders of the elytra are more prominent, and are more excised immediately below. Bright bluish green, shining; clypeus rather thickly and finely punctured. Thorax convex, rather obscurely and not very thickly punctured. Scutellum smooth. Elytra with the suture much raised; each elytron with four slightly sinuous impressed lines, which are very obscurely punctured; the second and fourth interstices narrow and costiform; the first and third interstices have a few large punctures in a line. Pygidium with punctures scattered over the surface. In the female the three teeth of the anterior tibiæ are a little closer together than in the male.

Euchilia cupricollis.

Viridi-olivacea, nitida; fronte, thorace, scutello, elytrorum disco, pygidio corporeque subtus plus minusve rufo-cupreis, tibiis tarsisque piceis. ♀.

Long. $7\frac{1}{2}$ lin.

Very close to *E. picipes*; but, besides the coloration, it differs from that and all the other species in having the base of the thorax gently arcuate, and not at all sinuate before the scutellum. Thorax convex, finely coriaceous, the sides subparallel and gently sinuate behind the middle. Elytra each with five black striæ, the deflexed margins not bounded above by a marked ridge. Pygidium obscurely and not very thickly punctured. Anterior tibiæ with three strong sharp teeth. The coloration closely resembles that of *E. puncticollis*, W., but that has the thorax thickly punctured, and has a slight sinuation before the scutellum.

Euchilia tarsalis.

Olivaceo-viridis, nitida; thorace crebre fortiter punctato, sat pubescente; elytris punctato-striatis, interstitiis secundo quartoque costiformibus; pygidio parce punctato, pubescente, tibiis tarsisque subtus ciliatis.

Long. 8– $8\frac{1}{2}$ lin.

Clypeus deeply incised, finely punctured; the forehead more distinctly punctured, and having black hairs arising from the punctures. Thorax convex, thickly and strongly punctured, the base very gently arcuate, not perceptibly emarginate before the scutellum. Elytra each with six well-marked impressed sinuous lines, which are strongly punctured; the suture and

the second and fourth interstices raised, this latter abbreviated; the first and third interstices with some strong punctures; the subapical callosity obtuse, the apex smooth. The pygidium with a few punctures. Tarsi black.

The male has the anterior tibiæ with three acute small teeth, the anterior tarsi short and extremely thick; the posterior tarsi as long as the tibia, moderately stout.

The female has the three teeth of the anterior tibiæ close together. The anterior tarsi are short and more slender, the posterior tarsi are much shorter than the tibia, less stout than in the male.

This species is very peculiar, and recedes somewhat from *Euchilia*, but agrees better with that genus than with *Coptomia*.

Pygora bella,

Viridi-prasina, subtus plus minusve cyaneo micans, nitidissima; clypeo piceo; thorace olivaceo, linea mediana tenui lateribusque viridibus, his cupreo tinctis; elytris octostriatis, olivaceis vel cyaneis, marginibus viridibus et cupreo-aureo tinctis; pygidio leviter convexo, cyaneo, parce punctato; pedibus pallide piceis.

Long. 6 lin.

Head and clypeus very thickly and rather strongly punctured, the latter very slightly emarginate. Thorax moderately thickly and distinctly punctured, nearly parallel at the sides to a little in front of the middle, then obliquely narrowed anteriorly, olive-green (or dark cyaneous), with a fine mesial line and the sides pale green. Scutellum smooth, pale green. Elytra each with four strong striæ; the third interstice nearly flat, the others convex; the shoulders pitchy.

The male has two acute teeth to the anterior tibiæ, with an indication of a third; and the first abdominal segment has a white spot on each side.

The female has three acute teeth to the anterior tibiæ; and the abdomen has no spots.

In the same collection with the above were two examples of rather larger size (7 lines), which have the sides of the thorax, the scutellum, and the sides of the elytra bright golden coppery; the colour of the thorax and elytra is less dark. I believe them to belong to the same species.

Pygora puncticollis.

Depressa, latior; capite crebre punctato, vertice viridi, clypeo piceo; thorace ante medium oblique angustato, postice subparallelo, nigro-cyaneo, crebre fortiter punctato, lineis tribus longitudinalibus viridibus, cupreo micantibus, scutello viridi lævi; elytris piceis, fortiter octostriatis, interstitiis convexis, sat crebre punc-

tulatis, lateribus sub humeris cyaneis, apicem versus viridibus et cupreo tinctis; pygidio piceo, medio cyaneo, sat crebre punctato; pedibus piceis; pectore abdomineque cyaneis, viridi variegatis. ♀. Long. 7 lin.

This is a much broader and flatter species than the preceding. I have not seen the male. The mesial line on the thorax is smooth.

Pygora versicolor.

Viridi-prasina, nitidissima; thorace antice parum angustato, lateribus punctatis; elytris sexies striatis, striis punctatis; pygidio punctulato.

Long. $4\frac{1}{4}$ lin.

This species varies in colour. Sometimes it is entirely green or dark olive; the elytra are generally darker at the base, sometimes green with the base purple-blue or violet, with a pale yellowish-lilac ovate spot a little way from the base; sometimes the whole elytra dark blue. The clypeus is closely and rather finely punctured, the forehead more strongly and less closely punctured. Thorax very convex, not much narrowed in front of the middle, subparallel behind, not angular at the sides, gently arcuate at the base, not emarginate before the scutellum, smooth on the disk, rather thickly punctured towards the sides. Scutellum smooth. Elytra each with six strongly impressed punctured lines, the fifth and sixth closer together, not impressed posteriorly, the suture and the second interstice raised; there are generally some large punctures around the shoulders and on the first interstice; the deflexed margins are rather thickly punctured, the apex generally nearly smooth. Pygidium evenly convex, obscurely and not very thickly punctured. Mesosternal process almost none. Tibiæ and tarsi pitchy.

Pygora hirsuta.

Longe pubescens, versicolor; thorace crebre sat fortiter punctato; elytris fortiter octostriatis, interstitiis secundo quartoque sat convexis, lateribus parce punctatis; pedibus obscure piceis.

Long. 4 lin.

Head thickly and strongly punctured, pubescent, green on the vertex, the clypeus pitchy. Thorax obliquely narrowed in front of the middle, subparallel behind, scarcely emarginate before the scutellum, rather strongly and thickly punctured (especially in the female), green, with a large triangular patch on each side of the disk of olive, pitchy, or lilac colour, the sutural line often coppery. Scutellum smooth, green or coppery. Elytra green, with the space between the first and

fourth striæ pitchy yellow, pale greenish yellow, or tinted with lilac. Body below green, the abdomen frequently blue. Pygidium evenly convex, not very thickly punctured. Sternal process almost none. The anterior tibiæ have three sharp teeth in the female, and two, with an indication of a third, in the male.

Pantolia rufobasalis.

Nigra, nitida, lævis; elytris basi rufa vel rufo-flava, regione scutellari nigra. ♂ ♀.

Long. $5\frac{1}{2}$ –7 lin.

Almost identical in form and colour with *P. scapha*, but is at once distinguished by the absence of the lines of strong punctures on the elytra, which are only represented by a few punctures in a slight transverse impression a little behind the middle. The clypeus is delicately punctured in the middle; and the lateral longitudinal impressions are not strigose as in *scapha*. The apex of the elytra is almost destitute of punctures; the pygidium is finely and densely strigose. The tibiæ and tarsi are sometimes pitchy.

Variety.—Thorax and elytra brownish red, with the discoidal impressions of the elytra and the scutellar region black. Pygidium pale brownish red.

Pantolia polita, Waterh.

I described this species from a single example. We have now received several specimens of both sexes. Some of the examples measure as much as $8\frac{1}{2}$ lines in length. Among them were two or three examples which, instead of being entirely black above, have the sides of the thorax broadly margined with pitchy red; the margins of the elytra and a fascia across the middle (slightly interrupted at the suture) are also bright pitchy red. The tibiæ are pitchy. Some of the smaller specimens have the lines of punctures on the elytra more extended, especially towards the shoulders and along the suture towards the apex; these specimens have the clypeus more punctured, and the thorax is sparingly and excessively finely punctured instead of being smooth: three of these smaller examples have the sides of the thorax and the entire elytra obscure pitchy.

Coptomia elegans.

Viridis, nitidissima; elytris flavis, striis octo impressis, linea submarginali, sutura ad apicem guttisque duabus post medium viridibus; pygidio parce punctato. ♀.

Long. $6\frac{1}{2}$ lin.

Very close to *C. 4-maculata*, W., but much smaller, the thorax with a few punctures scattered over the surface, the elytra distinctly striated, the green spots differently placed, the pygidium sparingly punctured in the same way, but without any transverse ridge at the base, the sternal process short and blunt. Clypeus finely punctured, very slightly emarginate at the apex. Scutellum and elytra smooth, the latter each with four well-marked impressed lines, which do not, however, reach the apex; there is a lateral green line extending from the shoulder to the apical callosity, an oblong green spot behind the middle between the third and fourth striæ, and the apex of the suture is also green; the apical callosity is obtuse and is at the extreme apex.

Fianarantsoa. Collected by Mr. G. A. Shaw.

Coptomia fulgida.

Viridis, nitens, aureo tinctus; fronte, thorace elytrorumque plaga laterali subapicali rufo-cupreis; thorace crebre punctato. ♂ ♀. Long. 6-8 lin.

Clypeus very delicately punctured; the forehead with stronger punctures. Thorax bright coppery red, with the extreme margins sometimes green, rather closely and strongly punctured and slightly hairy. Scutellum green or coppery, smooth. Elytra green or deep blue, with the lateral half towards the sides more or less coppery; each elytron with two slightly raised costæ, the outer one shorter. The pygidium generally coppery in the middle, with strong punctures freely scattered over the surface.

The male has three distinct teeth on the outer side of the anterior tibiæ; the tarsi rather long.

The female has three approximate strong teeth on the anterior tibiæ; the posterior tarsi much shorter than in the male.

Coptomia lucida.

Viridi-olivacea, nitida, depressa; thorace subtilissime punctulato; elytris disco sæpe cæruleo micante, singulis costis duabus parum elevatis; pygidio parce punctato; tibiis tarsisque piceis. ♂. Long. 8 lin.

Bright pale olive-green, more or less suffused with blue on the elytra. Rather depressed. Clypeus very finely and rather closely punctured. Thorax not very thickly but evenly and extremely delicately punctured. Scutellum smooth. Elytra each with six impressed lines, which are generally very obscurely punctured; the second and fourth interstices slightly

costiform; the subapical callosity rather acute, close to the extreme margin, the apex smooth. Pygidium with a few punctures scattered over the surface. The anterior tibiæ almost simple, with scarcely any indication of teeth. Tarsi very long and slender.

This species belongs to the same group as *C. 4-maculata*, W.,—depressed, with the pygidium sparingly punctured.

Coptomia modesta.

Olivacea, nitida; thorace discrete fortiter punctato; elytris bicostulatis; pedibus piccis.

Long. 6–6½ lin.

This species is close to the preceding, but is of a much darker colour, and is smaller. The thorax has rather strong punctures scattered over the surface, especially on the sides. The elytra have each five impressed lines; the second and fourth interstices are slightly raised; the subapical callosity is more obtuse than in the preceding species. The pygidium has some transverse punctures scattered over the surface, rather obscure in the male. The anterior tibiæ have two distinct teeth at the apex in the male; in the female there are three teeth. Tarsi long and slender.

One of the specimens has the disk of the elytra suffused with blue.

Coptomia marginata.

Viridi-prasina vel cyanea, nitida; thorace lateribus sat crebre fortiter punctato; elytris singulis striis sex fortiter impressis et crebre punctatis, interstitiis sat elevatis lævibus, margine laterali plus minusve cupreo; pygidio parce punctato. ♂ ♀.

Long. 6–8 lin.

Oblong, moderately convex, usually bright grass-green, but sometimes blue, with the sides of the elytra generally coppery, but in the blue varieties green or lilac; the legs pitchy. The clypeus finely punctured, not very deeply emarginate. Thorax not much narrowed in front, moderately thickly and strongly punctured, smooth in the middle, with some fine hairs here and there. Elytra with the margin near the apex and the apex sparingly strigose-punctate; the subapical callosity not prominent, not very close to the apex. Pygidium convex, generally with a few punctures. Sternal process transversely ovate. Anterior tibiæ tridentate, the upper tooth in the male not very prominent. The abdominal impression in the male very wide.

Coptomia lævis.

Læte viridi-prasina, omnino lævis; tibiis tarsisque obscure rufis, illis æneo tinctis. ♂.

Long. $11\frac{1}{2}$ lin.

The largest species of this group at present known to me. Uniform shining grass-green, without any punctuation above or on the pygidium, except a few punctures between the eyes. The sides of the metasternum are sparingly punctured. The propygidium is strigose.

The only species which this resembles is *Coptomia mutabilis*, W. (Ann. & Mag. Nat. Hist. 1878, ii. p. 139), from which it differs in being of a more elegant and elongate form, in the longer legs and tarsi, in the absence of the strigosity on the subapical callosity of the elytra, and in having no punctures on the pygidium. The sternal process is more slender.

Coptomia uniformis.

Castanea, viridi tincta, nitidissima; capite thoraceque olivaceis, cupreo tinctis; elytris pallide olivaceis; tibiis tarsisque rufopiceis. ♂ ♀.

Long. 9–10 lin.

Very close to *C. mutabilis*, but less bright green, more castaneous below, of a narrower form, and with the sternal process much more porrect. Pale olive-green above, the head and thorax more generally showing a castaneous or coppery tinge. The head moderately thickly punctured between the eyes. Thorax smooth. Elytra with very obscurely punctured lightly impressed lines; the side of the apical callosity and the apex rather closely strigose. The pygidium with distinct punctures scattered over the surface.

Coptomia crucigera.

Nigra, nitida; thorace, elytris, pedibus pygidioque apice rufo-ochraceis; thorace vitta mediana lata et elytrorum sutura fasciæque nigris. ♂ ♀.

Most nearly allied to *C. nigriceps*, W., but quite distinct by its coloration from all known species. The black on the suture of the elytra is narrow, but dilates towards the base and surrounds the scutellum; the transverse mesial fascia is broad. The pygidium is very densely and extremely finely strigose. The anterior tibiæ are a little more slender than in the female, and the three teeth are less strong; the abdominal impression is very slight.

Coptomia crassa.

Castanea, crassa, sat nitida; capitis vertice, thorace maculis duabus magnis triangularibus, scutello utrinque, pectore abdomineque nigris; elytris punctatis, costis duabus parum elevatis. ♂ ♀.
Long. $9\frac{1}{2}$ – $10\frac{1}{2}$ lin.

Very robust, especially the female. Castaneous, the elytra darker than the rest of the body. Thorax convex, regularly narrowed anteriorly, finely coriaceous, thickly punctured, rather more strongly in the female than in the male, with two small olive-black spots at the anterior margin (close together), and two large triangular patches behind, united at the posterior margin. Scutellum coriaceous and finely punctured, black, with a mesial brown line. Elytra each with two slightly raised lines, the suture blackish. Pygidium transversely densely strigose, more strongly and closely so in the female than in the male. Anterior tibiæ tridentate.

The male has the elytra with five or six lines of rather strong punctures, the lateral margins and the apex densely rugulose.

The female has the elytra more or less strongly punctured all over, except the two costæ; the sides and apex rugulose as in the male.

Antananarivo and Fianarantsoa.

Valgus albolineatus.

Niger, supra depressus, longitudinaliter aciculatus; thoracis angulis posticis, singulorum elytrorum striga obliqua, corporeque subtus albo-squamosis; pygidio piceo.
Long. $2\frac{1}{4}$ lin.

Thorax elongate, gently narrowed in front of the middle, behind the middle moderately narrowed and gently sinuate, with a fine mesial carina above; the surface covered with large, closely placed, ovate punctures, which have a tendency to form lines; on each side at the margin there is a large deep fovea; and the base is impressed on each side; the margins anteriorly are finely crenulate. Elytra a little longer than broad, rather concave on the back, the sides somewhat raised before the deflexed portion; the surface densely longitudinally scratched; each elytron has an oblique dirty white stripe about the middle. The propygidium and the whole of the underside of the body are clothed with white scales; the fourth abdominal segment has above, on each margin, a small acute tooth. The pygidium is pitchy, shining, densely punctured, impressed in the middle at the apex.



Waterhouse, Charles Owen. 1879. "VIII.—A third contribution to the knowledge of the Cetoniidæ of Madagascar." *The Annals and magazine of natural history; zoology, botany, and geology* 4, 74–83.

<https://doi.org/10.1080/00222937908679787>.

View This Item Online: <https://www.biodiversitylibrary.org/item/81200>

DOI: <https://doi.org/10.1080/00222937908679787>

Permalink: <https://www.biodiversitylibrary.org/partpdf/63140>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Smithsonian

Copyright & Reuse

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.