

IX. *Synoptic Table of the British Species of Aleuonota, Thoms., Atheta, Thoms., and Sipalia, Rey.* By MALCOLM CAMERON, M.B., R.N., F.E.S.

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INTRODUCTORY REMARKS.

THERE not being in existence any table dealing with the British species of these three genera, it is hoped that the one now presented may prove useful to students of these somewhat difficult groups, but, as many of the specific characters are comparative, it is essential to have access to a certain amount of authentic material. I have endeavoured, however, to give absolute characteristics wherever possible. The two primary sections of the table are the old divisions based on a pointed or parallel-sided abdomen, and at the outset it must be confessed that it is not entirely satisfactory. Most of the species in the subgenera *Hydrosmeeta*, *Aleuonota*, *Bessobia* and *Microdota* have the abdomen very distinctly parallel-sided, whilst in *Datomicra*, *Chaetida* and *Coprothassa*, on the other hand, it is distinctly pointed; there remain, however, a number of forms with the abdomen more or less variable in shape, probably depending on the mode of death or method of mounting; yet, with experience, it is not as a rule difficult to refer any particular species to its correct division, and, without such division, it would considerably increase the difficulties in drawing up a table.

In the examination of the species I have restricted myself to the use of a 1-inch objective and a 20-diameter platyscopic lens. In examining for the presence of a metallic reflex a lens and daylight are necessary; with artificial light this character cannot be determined. I use the term "greasy lustre" for surfaces which are neither highly polished as in *A. coriaria*, nor yet quite dull as in *A. aequata*; it is the equivalent of the "fett-glanz" of German authors, and is well seen, for example, in the common *A. amacula*, Steph. (*sericea*, Rey.). In examining the joints of the antennae it is important to view them at right-angles to the lens, as when seen on a slope a false

impression of lengthening or shortening may be given. It may be noted, too, that a free use of gum in fixing the antennae to a card may, by clotting the fine hairs at the distal end of a joint, give a square appearance to one really transverse.

The phrases "elytra sinuated" or "not sinuated" refer to the presence or absence of an emargination of the posterior margin of the elytron just internal to the postero-external angle.

"Shagreening" and "puncturation."—These terms are somewhat loosely used by authors. By the former I understand a more or less fine wrinkling, the wrinkles by joining together forming a distinct pattern easily visible under a 1-inch objective. In the majority of species it is accompanied by puncturation, by which I mean small depressions in the surface usually bearing a hair and forming a simple puncturation, or, if the margin of the puncture is raised above the general surface, a rough puncturation. Examples of shagreening without puncturation are to be seen on the head and thorax of *A. angustula*, *aequata*, *puberula*, *atomaria*, and *perexigua*. Examples of rough puncturation are found on the head and thorax of *A. corvina*, *subtilis*, *mortuorum* (*atricolor*), etc.

The nomenclature is that of the last European Catalogue of Heyden, Reitter and Weise, 1906, which is based on the law of priority; no good purpose can be served and only confusion result in having well-known Continental forms figuring under names applied to them by British authors subsequent to the original descriptions. As, however, some of the names are so familiar, they are inserted in brackets.

In conclusion I must acknowledge my indebtedness for the loan of specimens to Dr. Sharp, Dr. Joy and Mr. J. H. Keys; to the latter also my best thanks are due for valuable criticisms and suggestions.

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|---|-----|
| 1. Abdomen more or less pointed at apex | 2. |
| — Abdomen more or less parallel-sided | 36. |
| 2. 2nd joint of antennae distinctly shorter than the 3rd. | 3. |
| — 2nd joint of antennae not shorter than the 3rd | 8. |
| 3. 4th joint of antennae transverse | 4. |
| — 4th joint of antennae longer than broad | 5. |
| 4. Sides of thorax with strong setae, middle and posterior tibiae with two strong and long setae. Antennae black, | |

- last joints longer than broad. Elytra shining yellow with triangular black scutellary patch reaching posterior margin, and sides more or less dark, scarcely sinuated. Abdomen strongly pointed, thickly punctured and pubescent to the extremity. ♂, 8th dorsal plate slightly emarginate. ♀, 6th ventral plate emarginate. Length 3-3.5 mm. 134 *longicornis*, Gr.
- Sides of thorax without distinct setae, middle tibiae with a short stout seta, posterior without setae. Antennae pitchy, last joints about as long as broad. Elytra not shining, yellow with dark triangular scutellary patch often reaching posterior margins, strongly sinuated. Abdomen thickly punctured and pubescent to extremity. ♂, ventral plate of 6th segment a little produced and rounded. ♀, ventral plate of 6th segment rather deeply emarginate. Length 3-3.5 mm. 137 *sordida*, Marsh.
5. Last joints of antennae transverse. Elytra scarcely longer than thorax, distinctly sinuated, yellow with large triangular black scutellary patch extending to posterior margins. Sides and postero-external angles dark. Middle and posterior tibiae each with distinct seta. ♂, ventral plate of 6th abdominal segment rounded and produced, in ♀ broadly emarginate. Length 3 mm. 136 *melanaria*, Mann.
- Last joints of antennae about as long as broad 6.
6. Elytra distinctly sinuated, reddish brown, scarcely longer than the thorax, the latter with lateral setae. Apex of abdomen reddish yellow, tibiae without distinct setae. ♂, 6th ventral segment broadly rounded and produced. Facies of *sordida*, a brightly coloured species. Length 3 mm. 135 *consanguinea*, Epp.
- Elytra feebly sinuated, distinctly longer than thorax 7.
7. Elytra yellow, broader than long, about $\frac{1}{4}$ as long again as the thorax, the latter with rather short setae at sides, middle tibiae with short indistinct seta at middle. Abdomen slightly narrowed, facies of *castanoptera*, Mann., but antennae entirely dark, last joint much shorter and posterior tibiae without distinct setae, average size smaller and abdomen more thickly punctured. ♂, 6th ventral segment narrowed and produced. Length 3-3.5 mm. 118 *intermedia*, Thoms.
- Elytra brownish yellow, longer than broad, fully half as long again as thorax, the sides of latter with long setae, and roughly punctured. Middle tibiae with rather long

seta in middle, posterior with two fine but distinct setae one below the knee and one at middle. Antennae with first three joints yellow. Abdomen only slightly narrowed towards apex. ♂, 8th dorsal segment narrowed—slightly rounded. 6th ventral segment slightly produced. Length 3–3·5 mm. . . . 120 *marcida*, Er.

- 8. 2nd and 3rd joints of antennae of about equal length . . . 9.
- 3rd joint of antennae distinctly shorter than 2nd . . . 29.
- 9. Abdomen thickly punctured and pubescent to apex, as in *Oxypoda* 10.
- Abdomen much less thickly punctured and pubescent at apex 13.
- 10. Antennae lighter at base. Elytra distinctly sinuated . . . 11.
- Antennae entirely dark. Elytra less strongly sinuated . . . 12.
- 11. 4th joint of antennae longer than broad, 8 to 10 as long as broad. Colour often entirely pitchy brown. Facies of an *Oxypoda* and very similarly punctured and pubescent but readily distinguished by having two pretty distinct setae on intermediate tibiae. Length 2–2·3 mm.

138 *pygmaea*, Gr.

- 4th joint of antennae as long as broad, 8 to 10 distinctly transverse. Facies of *fungi*, Gr., black or brownish black. Abdomen much more thickly punctured and pubescent than in *fungi*, but considerably less pubescent at apex than *pygmaea*. Length 2–2·3 mm. . 141 *parens*, Rey.
- 12. Species smaller 1·6–2 mm. Last joints of antennae transverse.

Thorax longitudinally impressed before scutellum.

140 *parva*, Sahlb. (*pilosiventris*, Thoms.).

Thorax without impression . . . v. *muscorum*, Bris.

- Species larger 2–2·5 mm. Last joints of antennae as broad as long 139 *aterrima*, Gr.
- 13. 4th joint of antennae longer than broad 14.
- 4th joint of antennae about as long as broad or transverse . . . 20.
- 14. Antennae more or less dark, sometimes obscurely lighter at base 15.
- Antennae reddish testaceous with yellow base. ♂, 6th ventral segment rounded and produced. Length 2·3–2·6 mm. 143 *fungi*, Gr.
- 15. Facies of *fungi*, sides of thorax with feeble setae, middle tibiae with very feeble and obscure seta 16.
- Sides of thorax with distinct and strong setae, middle tibiae with strong setae (except in *cadaverina*) 17.
- 16. Thorax less transverse, not more than half as broad again

- as long, less shining, pubescence and punctuation closer.
Elytra as broad or almost as broad as thorax at its
greatest width. Length 2.5 mm. v. *orbata*, Er.
- Thorax more transverse, more than half as broad again
as long, more shining, with pubescence and punctuation
more sparing. Elytra distinctly narrower than thorax
at its greatest width. Length 2.3–3 mm. 144 *clientula*, Er.*
17. Species entirely shining black 18.
- Species with the elytra yellowish or brownish yellow, head
and thorax with metallic reflex 19.
18. Size larger, last joints of antennae about as long as
broad, setae on middle and posterior tibiae very feeble.
♂, 8th dorsal plate feebly emarginate posteriorly, 6th
ventral plate narrowed and slightly produced. Length
2.5–2.8 mm. 115 *cadaverina*, Bris.
- Size smaller, last joints of antennae longer than broad,
two well-marked setae on middle and posterior tibiae.
♂, 6th ventral plate slightly produced. Length 2 mm.
124 *macrocera*, Thoms.
19. Punctuation coarser, elytra darker, fore parts less bronzed,
abdomen not strongly pointed. ♂, 8th dorsal plate
posteriorly slightly emarginate. Length 2.3–2.8 mm.
117 *picipennis*, Mann.
- Punctuation finer, elytra brighter, fore parts more
bronzed, abdomen distinctly pointed. ♂, 8th dorsal
plate posteriorly feebly emarginate. Length 2.5 mm.
119 *cinnamoptera*, Thoms.
20. Fourth joint of antennae transverse. Species shining
black; thorax and elytra thickly and finely punctured,
the former without lateral setae, the latter strongly
sinuated. Penultimate joints of antennae strongly
transverse. Abdomen pretty strongly pointed. Middle
and posterior tibiae without setae. Length 2 mm.
133 *paradoxa*, Rey.
- Fourth joint of antennae as long as broad 21.
21. Species with metallic reflex on fore parts, sides of thorax,
middle and posterior tibiae with strong setae 22.
- Species without metallic reflex 23.

* *A. montivagans*, Woll. I have examined the type in the British Museum and can see no specific differences from *clientula*, a widely distributed and variable insect.

A. sharpi, Rye. This insect is probably identical with *A. clientula*, but, as the type is not accessible, it is not possible to be certain.

22. Elytra brown or brownish black with more or less bronze reflex. Legs pitchy yellow, femora dark. Thorax broader. ♂, 8th dorsal plate slightly emarginate posteriorly, the emargination bounded on each side by a small tooth. Length 2·3–3 mm. . . 116 *atramentaria*, Gyll.
 — Elytra yellowish, legs yellow. Thorax narrower. ♂, 8th dorsal plate with four teeth at hinder margin, the outermost larger and only separated from the inner by a small notch, a broad shallow emargination separates the inner teeth from one another. Length 2–2·5 mm.
 121 *laevana*, Rey.
23. Posterior tibiae without distinct setae, middle tibiae with at most one short seta. Lateral setae of thorax feeble . 24.
 — Middle and posterior tibiae each with two long setae. Lateral setae of thorax strong 27.
24. Elytra yellowish, often darker about scutellum and the postero-external angles 25.
 — Elytra uniform black or brownish black 26.
25. Antennae with base at least distinctly yellow, the 5th and 6th joints a little longer than broad. Thorax brownish, paler at the sides. ♂, 8th dorsal plate with four equidistant teeth at posterior margin, the outer ones longer than the inner. Length 2·3–2·9 mm. . . 146 *laticollis*, Steph.
 — Antennae at most pitchy at the base, the 5th and 6th joints about as long as broad. Thorax not lighter at the sides. ♂, 8th dorsal plate slightly emarginate posteriorly, 6th ventral plate produced and rounded. ♀, 6th ventral plate slightly emarginate posteriorly. Length 2–2·9 mm. 145 *fuscipes*, Heer.
26. Size larger, antennae dark, at most pitchy at base, head small. Middle tibiae with distinct short stout seta. Facies of *fungi*. ♂, 6th ventral plate a little produced. ♀, broadly emarginate. Length 2·5–2·8 mm.
 147 *subsinuata*, Er.
- Size smaller, antennae distinctly light at base, head large. Middle tibiae without distinct seta. Facies of *fungi*. ♂, 8th dorsal plate truncate, 6th ventral plate rounded and slightly produced. Length 1·8–2 mm. . 142 *orphana*, Er.
27. Last joints of antennae distinctly transverse. ♂, 6th ventral plate rounded posteriorly. ♀, emarginate. Length 2 mm. 122 *setigera*, Shp.
 — Last joints of antennae not or but slightly transverse . 28.
28. Elytra scarcely sinuated, size smaller. ♂, 8th dorsal plate rounded posteriorly, 6th ventral plate rounded.

- ♀, 6th ventral plate emarginate posteriorly. Length 1.5–1.8 mm. . . . 125 *parvula*, Mann. (*cauta*, Er.).
- Elytra distinctly sinuated, size larger. ♂, 8th dorsal plate produced and truncate in middle, on either side and separated from the produced central portion by a distinct space is a rather long slightly incurved spine. ♀, 8th dorsal plate broadly and feebly emarginate with a small tooth on either side, 6th ventral plate emarginate posteriorly in middle. Length 2–2.7 mm.
- 123 *nigripes*, Thoms. (*villosula*, Kr.).
29. Fourth joint of antennae as broad as long, last joints more or less transverse 30.
- Fourth joint of antennae transverse or longer than broad 34.
30. Head, thorax and elytra very shining, finely and asperately punctured, elytra with disc reddish yellow and circumference more or less pitchy. Legs yellow, femora dark. Length 1.8 mm. 85 *nitens*, Fuss.
- Species not very shining, at most with a greasy lustre, elytra uniform black or brown. Small obscure species 31.
31. Thorax very transverse, double as broad as long, without trace of lateral setae, fore parts dull, thickly deeply and roughly punctured. Last joints of antennae strongly transverse. ♂, 8th dorsal plate truncate, 6th ventral plate rounded and produced. ♀, 8th dorsal and 6th ventral plates slightly emarginate posteriorly. Length 1.3 mm. 126 *cribrata*, Kr.
- Thorax only moderately transverse, not twice as broad as long, with distinct but feeble lateral setae; last joints of antennae moderately transverse 32.
32. Head and thorax with greasy lustre, finely closely, but not roughly punctured. ♂, 8th dorsal plate at posterior margin with four small equidistant teeth. Length 1.5–2 mm. 132 *zosteræ*, Thoms. (*nigra*, Kr.).
- Head and thorax finely closely and roughly punctured 33.
33. Antennae lighter at base. Elytra brownish, legs testaceous. ♂, 8th dorsal plate with four small teeth at posterior margin. Length 1.5 mm 129 *celata*, Er.
- Antennae entirely dark. Elytra darker, legs with femora pitchy. ♂, 8th dorsal plate with four obscure teeth. Length 1.5 mm. . . . 130 *arenicola*, Th. (*germana*, Shp.).
34. Fourth joint of antennae longer than broad, 7th to 10th longer than broad, 11th more than twice as long as 10th. Facies of *zosteræ*. ♂, 8th dorsal plate with four small teeth on posterior margin. Length 2 mm. . 131 *hodierna*, Shp.

- Fourth joint of antennae transverse. Small, dull, obscure species with foreparts thickly, finely, and roughly punctured. Elytra not sinuated. Length 1.2–1.5 mm. 35.
- 35. Eleventh joint of antennae oblong, longer than the two preceding together, puncturation less strong and close, thorax more transverse, elytra not much longer than the thorax. Length 1.2–1.3 mm. . . . 128 *sordidula*, Er.
- Eleventh joint of antennae pointed, not longer than the two preceding together, puncturation stronger and closer, thorax less transverse, elytra evidently longer than the thorax. ♂, 8th dorsal plate with four indistinct teeth at posterior margin. Length 1.3 mm. . . . 127 *canescens*, Shp.
- 36. Sides of head behind eyes diverging uniformly backwards to posterior angles. Head triangular, broadest at the posterior angles 37.
- Sides of head behind eyes not divergent, either uniformly rounded or temples more or less prominent 40.
- 37. Head not impressed in ♂ 38.
- Head impressed in ♂ 39.
- 38. 8th dorsal plate of abdomen with distinct triangular notch posteriorly in both sexes; abdomen less densely punctured. Length 1.8–2 mm. 148 *analís*, Gr.
- 8th dorsal plate of abdomen without emargination; abdomen more densely punctured. Length 1.7–2 mm. . . . 149 *decipiens*, Shp.
- 39. ♂, 8th dorsal plate of abdomen with distinct triangular emargination posteriorly, 6th ventral plate produced and rounded at apex. ♀, 8th dorsal plate distinctly emarginate. Length 1.7–2 mm. . . . 151 *cavifrons*, Shp.*
- ♂, 8th dorsal plate of abdomen with a deep notch posteriorly, commencing on either side near the lateral margins of the plate, its sides almost parallel and its summit gradually rounded. 6th ventral plate produced and rounded at apex. ♀, 8th dorsal plate not or very slightly emarginate. Length 2–2.3 mm. . . . 150 *soror*, Kr.
- 40. Puncturation of abdomen very coarse and close, species dull and somewhat depressed. Base of antennae reddish yellow, penultimate joints distinctly transverse. . . . 41.
- Abdomen with normal puncturation 42.

* I have examined *A. simillima*, Shp., but am unable to see any specific distinction from this species.

41. Larger. Temples bordered. Elytra about half as long again as thorax. ♂, 8th dorsal segment in front studded with large granules, behind quite smooth with usually a distinct notch in middle of posterior margin. ♀, 8th dorsal segment in front studded with finer granules, the posterior margin not notched. Length 2·5–3 mm.
49 *incana*, Er.
- Smaller. Temples not bordered. Elytra scarcely longer than the thorax. ♂, 7th and 8th dorsal plates studded with granules, posterior margin of the 8th plate with four blunt teeth. Length 2–2·5 mm. . . . 48 *nigella*, Er.
42. 4th joint of antennae distinctly transverse, last joints transverse sometimes very strongly 43.
- 4th joint of antennae about as broad as long or longer than broad 72.
43. Species in great part testaceous or reddish testaceous . 44.
- Species black or pitchy brown, elytra in some more or less testaceous 55.
44. Small species; length 1·2–1·5 mm. . . . 45.
- Larger species; length 2·5–3 mm. . . . 50.
45. Species testaceous 46.
- Species varying from reddish testaceous to reddish brown. (*A. exilis* often very dark) 47.
46. Elytra more or less infusate at postero-external angles, much longer than the thorax. Eyes moderate, rather prominent. Abdomen infusate before apex. Length 1·3 mm. . . . 73 *palleola*, Er.
- Uniformly pale testaceous, elytra not longer than the thorax. Eyes very small, not prominent. Length 1·2–1·4 mm. . . . 155 *indocilis*, Heer. (*pallens*, Redt.).
47. Head small, narrow, quadrate, much narrower than the thorax, black or dark brown. Thorax distinctly transverse, sometimes more or less reddish testaceous. Head, thorax and elytra finely shagreened, impunctate with greasy lustre, the elytra much longer than the thorax. Antennae with base yellow, infusate towards apex, 3rd joint much shorter than 2nd, the last joints about four times as broad as long. Length 1·3–1·5 mm.
74 *clavigera*, Scrib.
- Head large, orbicular, nearly as broad as thorax . . . 48.
48. Elytra shorter than the thorax, finely punctured. Head and thorax very finely and sparingly punctured. ♂, 6th ventral abdominal plate produced and truncate. Length 1·3–1·5 mm. . . . 157 *caesula*, Er.

- Elytra not shorter than thorax 49.
- 49. Eyes small, not prominent, thorax about $\frac{1}{3}$ broader than long. Abdomen in front finely and rather closely punctured and pubescent. Length 1.5–1.75 mm. 154 *exilis*, Er.
- Eyes moderate rather prominent, thorax about half again broader than long. Abdomen in front finely and sparingly punctured and pubescent. ♂, Head with small depression on vertex, 6th ventral plate of abdomen narrowed and produced. Length 1.5 mm.
- 153 *validiuscula*, Kr.
- 50. 3rd joint of antennae distinctly shorter than 2nd, thorax almost quadrate; last joints of antennae strongly transverse 51.
- 3rd joint of antennae as long as or scarcely shorter than 2nd, thorax distinctly transverse 53.
- 51. Thorax and elytra finely shagreened, not very shining, finely but distinctly punctured 52.
- Thorax and elytra very shining without visible puncturation. ♂, 8th dorsal plate of abdomen without tubercles. Length 2.5 mm. 4 *gracilentia*, Er. (*splendens*, Kr.).
- 52. Head strongly but not closely punctured. 11th joint of antennae as long as the two preceding together. ♂, 8th dorsal plate without tubercles. Length 3.3 mm.
- 1 *atricapilla*, Rey. (*elegantula*, Bris.).
- Head obsoletely punctured. 11th joint of antennae not as long as the two preceding together. ♂, 8th dorsal plate without tubercles. Length 2.7–3 mm.
- 2 *aurantiaca*, Fvl. (*rufotestacea*, Shp., Fowler *nec* Kr.).
- 53. Elytra thickly and roughly punctured. ♂, 8th dorsal plate with four teeth at posterior margin, the outer ones spiniform, the inner ones short and stout. Length 3–3.5 mm. 77 *scapularis*, Sahlb.
- Elytra finely and not thickly punctured 54.
- 54. Thorax twice as broad as long, last joints of antennae about twice as broad as long. ♂, 8th dorsal plate with four teeth at posterior margin of equal length, the inner ones blunt, the outer pointed. Length 2.2–2.8 mm.
- 79 *subterranea*, Rey.
- Thorax about half as broad again as long, last joints of antennae about three times as broad as long. ♂, 8th dorsal plate produced in middle, externally furnished with a slender obsolete spine, internal to which is an oblique tubercle near posterior margin. Length 2–2.5 mm. 76 *dilaticornis*, Kr.

55. Species with elytra in part at least testaceous or yellowish brown 56.
— Species with elytra entirely dark 60.
56. Thorax scarcely transverse pitchy brown, facies of *atricapilla* and *aurantiaca*, but darker in colour, more depressed, more distinctly punctured, antennae longer and less thickened with longer terminal joint than the latter species. ♂, 7th dorsal plate with two tubercles. Length 3 mm. 3 *egregia*, Rye.
— Thorax distinctly transverse 57.
57. Last joints of antennae strongly transverse, three times broader than long 58.
— Last joints of antennae much less transverse at most one and a half times broader than long 59.
58. Shining black, antennae testaceous at base. Elytra yellow, darker at scutellum and often at sides and postero-external angles. ♂, 8th dorsal plate at posterior margin with slender incurved spine on either side and two blunt teeth (shorter than the spines) internally. Length 2·2-2·5 mm. 75 *testaceipes*, Heer.
— With greasy lustre only. Antennae entirely testaceous. Elytra yellow, sometimes slightly darker at scutellum. ♂, 8th dorsal plate at posterior margin with four stout blunt teeth, the inner ones separated by a deep semi-circular notch. The margins of the teeth are raised. Length 1·8-2 mm. 90 *liturata*, Steph.
59. 2nd joint of antennae a little longer than the 3rd. Elytra bright yellow, dark at scutellum and postero-external angles. ♂, 8th dorsal plate truncate posteriorly and thickened with four obtuse rather obsolete teeth. Length 2·3-2·8 mm. 89 *nigritula*, Kr.
— 2nd joint of antennae distinctly shorter than 3rd. Elytra yellowish brown. ♂, 3rd joint of antennae thickened, 8th dorsal plate truncate and finely crenulate with small tubercle on either side. ♀, 6th ventral segment rounded. Length 2·8-3 mm.
. 92 *crassicornis*, F. (*fungicola*, Kr.).
♀, 6th ventral segment distinctly emarginate
. v. *fulvipennis*, Rey.
60. Antennae distinctly lighter at the base 61.
— Antennae entirely dark, at most obscurely lighter at base 64.
61. Head and thorax very shining, elytra feebly sinuated. ♂, 8th dorsal plate emarginate posteriorly in middle and with a tooth externally, the space between the emargina-

tion and the tooth with traces of one or two teeth.

Length 2·2–2·5 mm. 84 *coriaria*, Kr.

— Head and thorax with greasy lustre only 62.

62. Elytra roughly punctured, strongly sinuated. Abdomen pretty finely and closely punctured and pubescent throughout 78 *clancula*, Er.

— Elytra finely punctured, not sinuated. Abdomen very sparingly and finely punctured and pubescent, especially posteriorly 63.

63. Elytra quite half as long again as thorax, distinctly longer than broad. ♂, 7th dorsal plate with two or three irregular rows of granules, 8th also with granules, the hinder margin furnished on each side with a sharp tooth. Length 2 mm. 58 *inhabilis*, Kr.

— Elytra only about one-third longer than thorax, a little broader than long. ♂, 8th dorsal plate produced in the middle and emarginate, on each side furnished with a spine. Length 1·8–2·3 mm.

82 *basicornis*, Rey. (*autumnalis*, Shp.).

64. Punctuation of head and thorax not visible, very shining, finely shagreened 65.

— Punctuation visible, shagreened 66.

65. Larger, thorax nearly as broad as elytra, antennae stouter. ♂, 6th ventral plate produced. Length 1·3 mm. 65 *atomaria*, Kr.

— Smaller and more slender, thorax much narrower than elytra. Antennae more slender. ♂, 6th ventral plate produced. Length 1 mm. 64 *perexigua*, Shp.

66. Punctuation of head and thorax fine, not rough, surface with greasy lustre, shagreened 67.

— Punctuation fine but rough. Small obscure species 69.

67. Size smaller. Punctuation of head and thorax very fine sparing. Elytra not sinuated. ♂, 8th dorsal plate broadly emarginate scarcely visibly crenulated. Length 1·5–2 mm. 70 *amicaula*, Steph. (*sericea*, Muls.).

— Larger, punctuation of head and thorax fine and close. Length 2–3 mm. 68.

68. Elytra distinctly sinuated, 3rd joint of antennae shorter than the 2nd. ♂, 8th dorsal plate with posterior margin furnished with two stout backwardly directed tubercles on each side of middle line and externally on either side a slender spine curved inwards. Length 2 mm.

83 *oblita*, Er.

— Elytra scarcely sinuated. 2nd joint of antennae shorter

- than 3rd, facies of *crassicornis*, but 4th joint of antennae more strongly transverse, 5th to 10th much less strongly transverse. ♂, 8th dorsal plate finely crenulate with larger tubercle externally. ♀, 6th ventral plate emarginate. Length 3 mm. 91 *nitidicollis*, Fairm. (*ignobilis*, Shp.).
69. Very small, .7 mm. 68 *inquinula*, Gr.
 — Larger, 1-2 mm. 70.
70. Less robust, narrower and more shining, abdomen at base finely and sparingly punctured. Legs yellow. ♂, head and thorax broadly impressed in middle line throughout 8th dorsal plate truncate, 6th ventral plate rounded and not produced. In size intermediate between *inquinula* and *mortuorum*. Length 1-1.2 mm. . 67 *liliputana*, Bris.
 — More robust, broader, less shining, abdomen at base more coarsely and closely punctured. Legs pitchy . . . 71.
71. Head, thorax and elytra closely and distinctly punctured; species narrower, smaller. ♂, 8th dorsal plate slightly emarginate. 6th ventral plate narrowed but not produced. Length 1.5 mm. 69 *mortuorum*, Th. (*atricolor*, Shp.).
 — Head, thorax and elytra much less closely and distinctly punctured; species broader, larger. Length 2 mm.
 71 *subtilis* Scriba.*
72. 4th joint of antennae about as long as broad † . . . 73.
 — 4th joint of antennae longer than broad . . . 117.
73. 3rd joint of antennae obviously shorter than the 2nd . 74.
 — 3rd joint of antennae not or scarcely shorter than the 2nd . 86.
74. Species entirely dull, thickly and finely punctured and pubescent all over, much as in *Oxypoda*. Last joints of antennae distinctly transverse. Length 2-2.5 mm.
 12 *pruinosa*, Kr.
- Species with normal puncturation and pubescence . . 75.
75. Last joints of antennae distinctly transverse . . . 76.
 — Last joints of antennae about as broad as long or very slightly transverse, entirely testaceous. Narrow fragile species of brownish or dirty testaceous colour. Head subquadrate, thorax about as long as broad. Abdomen very finely and moderately thickly punctured and pubescent. ♂, thorax broadly impressed in the middle line. Length 1.2-1.4 mm. . . . 5 *subtilissima*, Kr.

* I have examined specimens of *indiscreta*, Shp., but am unable to detect any specific differences. M. Fauvel also regards them as identical.

† In ♂ *diversa* the 4th joint appears slightly longer than broad.

76. Antennae with at least the first three joints pale, often entirely testaceous or reddish brown 77.
- Antennae entirely dark. Narrow, parallel-sided species. Elytra fully half as long again as thorax, evidently longer than broad 85.
77. Antennae entirely testaceous 78.
- Antennae reddish brown or pitchy with lighter base . . . 81.
78. Head distinctly narrower than thorax, transversely rounded. Thorax and elytra often reddish brown, shining, very finely and sparingly punctured. Abdomen black with reddish apex. Length 1·5 mm.
- 152 *talpa*, Heer. (*parallela*, Mann.).
- Head nearly as broad as thorax 79.
79. Head quadrangular, species smaller, more or less dirty testaceous. Length 1·3–2 mm. 80.
- Head orbicular, species larger. Facies of small *A. debilis*. Length 2·9 mm. 37 *scotica*, Elliman.
80. More robust, elytra about $\frac{1}{4}$ longer than the thorax, scarcely as long as broad. ♂, 8th dorsal plate truncate, 6th ventral plate slightly produced. ♀, 8th dorsal plate slightly emarginate. Length 2 mm.
- 39 *complanata*, Mann. (*deformis*, Kr.).
- More slender, elytra about $\frac{1}{3}$ longer than the thorax, about as long as broad. ♂, 6th ventral plate produced and slightly emarginate. Length 1·3–1·5 mm.
- 38 *laticeps*, Th. (*difficilis*, Bris.).
81. Antennae entirely reddish brown. 82.
- Antennae dark, with lighter base, elytra yellow with dark triangular patch at scutellum and the sides also darker. Very shining, legs yellow with dark femora. Length 1·8 mm. 85 *nitens*, Fuss.
82. Very shining, puncturation scarcely visible on head and thorax, colour varying from reddish to dark brown. ♂, 6th ventral segment produced and narrowed. Length 1·5–2 mm. 63 *aegra*, Heer.
- Not very shining: with greasy lustre only. Species distinctly punctured and shagreened 83.
83. Abdomen finely and closely punctured and pubescent throughout. ♂, 6th ventral plate narrowed and produced. Length 1·5–2 mm. 40 *vilis*, Er.
- Abdomen much more sparingly punctured and pubescent at apex 84.
84. Larger and more robust, elytra distinctly longer than the thorax, about as broad as long. ♂, 6th ventral plate narrowed and produced. Length 3 mm. 34 *fallaciosa*, Shp.

- Smaller and more slender, elytra scarcely longer than the thorax, not sinuate, broader than long. (Much like *gemina*, Er., but in this species the antennae and elytra are longer and the latter are sinuated.) ♂, 6th ventral plate narrowed and produced. Length 2 mm. 29 *curtipennis*, Shp.
85. Species distinctly and rather roughly punctured. Head large and quadrate. ♂, head and thorax impressed in middle line, 8th dorsal plate truncate, 6th ventral plate produced and narrowed, 3rd joint of antennae triangularly dilated. Length 2 mm. 57 *corvina*, Th.
- Species finely shagreened not punctured on head and thorax, facies of preceding but with broader thorax. ♂, 8th dorsal plate truncate and crenulate, 6th ventral plate rounded and produced. Length 2 mm. 66 *puberula*, Shp.
86. Antennae with 2nd and 3rd joints of practically equal length 87.
- Antennae with 2nd joint shorter than 3rd 115.
87. Antennae entirely testaceous or but slightly darker near apex 88.
- Antennae not entirely testaceous, at least distinctly darker near apex, or entirely dark, at most obscurely lighter at base 91.
88. Thorax not transverse, as long or slightly longer than broad. Colour reddish brown. Elytra shorter than thorax. ♂, elytra each with raised tubercle at base near suture, 7th dorsal plate with a raised line in middle, 8th dorsal plate at posterior margin with two obscure teeth near middle. Length 2.5–3 mm. . . . 156 *circellaris*, Gr.
- Thorax distinctly transverse 89.
89. Antennae stout, the last joints twice as broad as long 90.
- Antennae slender, the last joints not twice as broad as long. Elytra yellow with large triangular area at scutellum dark and the postero-external angles largely dark, the dark markings often extending so as only to leave a yellow patch at anterior angles. Sometimes the elytra are almost entirely yellowish red. Sometimes the antennae are dark with lighter base (see 96). ♂, 8th dorsal plate finely crenulate, the outer tooth on each side more distinct. Length 2.3–2.8 mm. 88 *pallidicornis*, Th.*
90. Species larger, darker, elytra reddish brown, abdomen

* I have seen a mature specimen with one antenna entirely testaceous and the other dark with light base.

- black. ♂, elytra each with raised line parallel to suture: 7th dorsal plate with two raised lines converging backwards, 6th ventral plate produced. ♀, 6th ventral plate rather deeply emarginate. Length 4-4.7 mm. 51 *hepatica*, Er.
- Species smaller, brighter, elytra reddish, abdomen pitchy. ♂, each elytron with raised line at hinder margin near suture. Length 3.3 mm. 52 *exarata*, Shp.
91. Antennae with lighter base 92.
- Antennae entirely dark, at most obscurely lighter at base . 101.
92. Elytra entirely reddish yellow, or yellow with dark markings 93.
- Elytra uniform reddish brown or black 97.
93. Antennae stout, with strongly transverse terminal joints. Head very coarsely and closely punctured, thorax strongly transverse, closely and coarsely punctured. Elytra yellow with postero-external angles dark. Length 2.5 mm. 158 *cribriceps*, Shp.*
- Antennae longer, much less stout, the terminal joints moderately transverse or about as broad as long. Head and thorax finely and moderately closely punctured, the latter not so strongly transverse 94.
94. Species in great part reddish testaceous, broad and rather depressed. Penultimate joints of antennae about as long as broad or very slightly transverse. ♂, 3rd joint of antennae dilated: 7th dorsal plate with a tubercle. 8th dorsal plate with four teeth at posterior margin, the inner closer together and tubercular, the outer curved. Length 3-4.5 mm. 50 *brunnea*, F.
- Species dark, at most with elytra more or less testaceous or reddish 95.
95. Elytra scarcely sinuate, yellowish with distinct triangular black scutellary patch and postero-external angles black. Coloration of *trinotata* but narrower and more parallel, and 3rd joint of antennae not longer than 2nd. ♂, 8th dorsal plate finely crenulate. Length 3 mm. 94 *xanthopus*, Th.
- Elytra distinctly sinuate 96.
96. Size smaller. Last joints of antennae distinctly transverse, elytra either entirely yellow or with large dark triangular scutellary patch and postero-external angles

* This insect is *Coenonica puncticollis*, Kr., found in both the East and West Indies and no doubt imported. See E. M. M., vol. xlix, p. 135, 1913.

dark. Sometimes the dark markings extend so as only to leave a yellow humeral patch. ♂, 8th dorsal plate finely crenulate, the outer tooth on each side more distinct. Length 2·3–2·8 mm. (See also 89.)

88 *pallidicornis*, Th.

- Size larger. Facies of large *castanoptera*, Mann. Elytra reddish yellow. Last joints of antennae as long as broad or feebly transverse. Length 4–4·5 mm. 101 ♀ *valida*, Kr.
- 97. Thorax scarcely broader than long: elytra sinuate 98.
- Thorax distinctly transverse 100.
- 98. Head and thorax either shining or with distinct greasy lustre 99.
- Head and thorax completely dull, shagreened, without puncturation. Elytra brown with greasy lustre, a little longer than thorax, very finely punctured. ♂, head and thorax broadly impressed, 6th dorsal plate near hinder margin with a transverse row of two to six granules, 7th with about 8 tubercles in two transverse rows of four, each one behind the other, 8th with four small teeth at posterior margin. 6th ventral plate narrowed and produced. Length 3–3·5 mm. 46 *aequata*, Er.
- 99. Head and thorax with greasy lustre, shagreened not punctured. Thorax often brown, elytra reddish brown with greasy lustre, very finely punctured. ♂, head and thorax broadly impressed. 7th dorsal plate with about ten large granules, more or less irregularly disposed, 8th with a transverse row of four large granules and the hinder margin with four small teeth. Length 3·3–3·8 mm. 45 *angustula*, Gyll.
- Head and thorax shining, distinctly punctured, elytra reddish brown distinctly and roughly punctured. ♂, head broadly impressed, 6th ventral plate produced. Length 3–3·5 mm. 47 *linearis*, Gr.
- 100. Elytra strongly sinuate; fore parts shining. ♂, 8th dorsal plate distinctly emarginate behind. Length 2·5–3 mm. 87 *sodalis*, Er.
- Elytra feebly sinuate: fore parts with greasy lustre only. Abdomen not seldom pretty distinctly pointed. ♂, 8th dorsal plate with four teeth at posterior margin, two central broad, blunt and close together, two lateral spiniform. Length 2·2–2·5 mm. 86 *gagatina*, Baudi.
- 101. Elytra yellow with black markings 102.
- Elytra uniformly brown or black 103.
- 102. Elytra yellow with distinct black scutellary patch

- extending to posterior margins; postero-external angles black. ♂, 8th dorsal plate crenulate, the outermost crenulation on each side forming a distinct tooth. ♀, 8th dorsal and 6th ventral plates obscurely emarginate. Length 3-3.5 mm. . . . 97 *triangulum*, Kr.
- Elytra yellow with suture and circumference black. Very shining, puncturation very fine and sparing. Legs yellow. Facies of small *longiuscula* Gr. (*vicina*, Steph.). According to Fauvel ♂ with 8th dorsal plate finely crenulate at posterior border, 6th ventral plate narrowed and produced. Length 2-2.3 mm. . . . 62 *subglabra*, Shp.
103. Thorax scarcely transverse 104.
 — Thorax distinctly transverse 105.
104. Femora pitchy; species less shining, puncturation of abdomen much more sparing. ♂, 8th dorsal plate slightly emarginate, 6th ventral plate narrowed and produced. Length 1.8-2.3 mm. . . . 60 *angusticollis*, Th.
- Femora testaceous; species more shining, puncturation of abdomen much closer. Antennae often obscurely lighter at base. ♂, 8th dorsal plate emarginate, 6th ventral plate produced. Length 2-2.5 mm. 61 *palustris*, Kies.
105. Elytra distinctly longer than broad. 106.
 — Elytra about as long as broad or transverse 107.
106. Larger. Antennae more slender, the penultimate joints less transverse. Thorax scarcely narrowed behind. ♂, Head less strongly impressed, 3rd joint of antennae thickened. 8th dorsal plate with sides and posterior margin raised, the latter broadly and obsoletely emarginate. ♀, 8th dorsal and 6th ventral plates slightly emarginate. Length 3-3.3 mm. . . . 53 *occula*, Er.
- Smaller and narrower. Antennae stouter with penultimate joints more transverse. Thorax distinctly narrowed behind. ♂, head deeply and broadly impressed; other characters as in preceding. Length 2.5-3 mm. 54 *fungivora*, Thoms.
107. Elytra not longer than the thorax: black, rather shining, legs pitchy testaceous. ♂, 6th ventral plate narrowed and produced. ♀, 6th ventral plate emarginate. Length 2.3-2.8 mm. 41 *tibialis*, Heer.
- Elytra longer than the thorax 108.
108. Small species. Shining black, very finely punctured. Legs usually pitchy. Facies of a large dark *amicula*. ♂, 8th dorsal plate distinctly crenulate at posterior margin. Length 1.5-1.7 mm. 72 *indubia*, Shp.

- Larger species. Length 2·2–3·8 mm. 109.
- 109. Thorax broader, about $\frac{1}{2}$ as broad again as long. Elytra yellowish brown or dark 110.
- Thorax narrower, about $\frac{1}{3}$ as broad again as long. Elytra dark brown or black sometimes reddish brown in *monticola* 113.
- 110. Last joint of antennae longer than the two preceding together. Elytra yellowish or reddish brown 111.
- Last joint of antennae not longer than the two preceding together. Elytra brown or black 112.
- 111. Larger, broader, more shining. Elytra yellowish brown, abdomen sparingly punctured in front. ♂, 8th dorsal plate crenulated posteriorly (about 8 or 10 teeth), the outermost on each side the most distinct. Length 3·5–3·8 mm. 99 *euryptera*, St.
- Smaller, narrower with greasy lustre only. Elytra reddish brown; abdomen rather closely punctured in front. ♂, head and thorax broadly impressed in middle. 8th dorsal plate broadly emarginate and very obscurely crenulate with larger tooth on either side. Length 2·2–2·5 mm. 81 *divisa*, Märk.
- 112. Larger, less depressed, penultimate joints of antennae less transverse. ♂, penultimate joint of antennae nearly square; 8th dorsal plate crenulated with distinct tooth externally on each side. Length 3·5 mm. 98 *diversa*, Shp.
- Smaller, depressed, penultimate joints of antennae much more transverse. ♂, penultimate joint of antennae distinctly transverse, head and thorax broadly impressed. 8th dorsal plate slightly emarginate. Length 2·2–2·5 mm. 80 *nigricornis*, Th.
- 113. ♂, without tubercles or raised lines on 8th dorsal plate which is simply emarginate, 6th ventral plate produced. Head and thorax rather broadly impressed. ♀, 8th dorsal plate with triangular notch posteriorly. Length 2·7–3 mm. 59 *picipes*, Th.
- ♂, with tubercles or raised lines on 8th dorsal plate 114.
- 114. Rather larger, more shining, thorax broader. ♂, head and thorax deeply impressed. 8th dorsal plate deeply and triangularly emarginate posteriorly, towards each side with distinct ridge commencing at the emargination on the posterior margin and curving forwards with concavity inwards. In the space thus enclosed are four shorter ridges, the two inner nearly parallel.

- ♀, 8th dorsal plate slightly emarginate. Length 3·3-3·5 mm. 56 *monticola*, Th.
- Rather smaller, less shining, thorax narrower. ♂, head and thorax less impressed. 8th dorsal plate broadly triangularly emarginate posteriorly and with a raised ridge on either side. In the space enclosed is a curved transverse row of four tubercles. ♀, 8th dorsal plate slightly emarginate. Length 2·5-3 mm. 55 *excellens*, Kr.
115. Elytra testaceous with darker markings. Antennae dark with base pitchy 116.
- Elytra uniformly reddish brown or reddish yellow. Antennae with base lighter, the last joints distinctly transverse, head and thorax rather dull, apex of abdomen reddish. ♂, 8th dorsal plate with posterior margin thickened and feebly crenulate. ♀, 8th dorsal plate broadly emarginate with small tooth on either side, 6th ventral plate emarginate. Length 3-3·5 mm. 93 *pilicornis*, Th.
116. Elytra yellow with distinct black triangular patch at scutellum usually extending to posterior margin, postero-external angles dark. 10th joint of antennae transverse in both sexes. ♂, 8th dorsal plate crenulate posteriorly. Length 2·7-3 mm. 96 *trinotata*, Kr.
- Elytra markings less distinct, the ground-colour dirty yellow, the sutural and angular patches brownish. 10th joint of antennae square in ♂, transverse in ♀. (According to Ganglbauer ♂ with a short longitudinal keel in middle of base of 7th dorsal abdominal segment.)* Length 3 mm. 97 *hybrida*, Shp.
117. 2nd joint of antennae longer than 3rd 118.
- 2nd joint of antennae as long as 3rd or differing but slightly in length 121.
118. Penultimate joints of antennae as long as broad. Abdomen finely but distinctly punctured and pubescent to the apex. Fore parts rather shining, black, elytra brown. ♂, 6th ventral plate narrowed and produced. ♀, 6th ventral plate slightly emarginate. Length 2-2·5 mm. 33 *meridionalis*, Rey. (*littorea*, Shp.).
- Penultimate joints of antennae longer than broad, Length 1·5-2 mm. 119.

* Dr. Sharp tells me that he can see no keel in his specimens, but that the segment in question is retracted.

119. Antennae testaceous, species pitchy 120.
 — Antennae brown, species black, head broader than long. Elytra longer than broad, abdomen closely and finely punctured and pubescent throughout. Length 1·8–2 mm. 7 *longula*, Heer.*
120. Very small fragile species, head square, elytra longer than broad. Abdomen finely and closely punctured and pubescent throughout. Length 1·5 mm.
 6 *delicatula*, Shp.
 — Larger and more robust, head broader than long. Abdomen less finely and closely punctured especially at apex. ♂, antennal joints slightly longer than in ♀. 6th ventral plate much produced but not narrowed. Very like *fragilis* but antennae testaceous and insect more depressed. (See also 133 *fragilis*.) Length 2 mm. 9 *eximia*, Shp.
121. The whole upper surface densely and finely punctured and pubescent as in *Oxyptoda*: black with brown elytra, completely dull. ♂, 6th ventral plate rounded and produced. Length 2·3–2·8 mm. . . . 11 *fallax*, Kr.
 — Species with normal puncturation and pubescence 122.
122. Penultimate joints of antennae longer than broad 123.
 — Penultimate joints of antennae as long as broad or transverse 134.
123. Elytra distinctly sinuate 124.
 — Elytra not or scarcely sinuate 130.
124. Head and thorax with metallic reflex 125.
 — Head and thorax without metallic reflex 127.
125. Elytra distinctly transverse 126.
 — Elytra scarcely transverse, distinctly longer than thorax, yellowish brown. Antennae dark, testaceous at base, the last joint not longer than the two preceding together. ♂, 8th dorsal plate with 7 or 8 distinct teeth at posterior margin, the outer on each side the largest. Length 3·5–4 mm. 102 *aquatica*, Th.
126. Elytra distinctly transverse, antennae dark, testaceous at base, last joint not longer than the two preceding. Facies of *aquatica* but broader and more depressed, the elytra scarcely longer than the thorax. Puncturation of fore parts more rugose. ♂, 8th dorsal plate more or less emarginate and more or less distinctly

* I have examined a specimen of *A. muiri*, Shp., but am unable to perceive any characters to distinguish it from this insect.

crenulate. 6th ventral plate produced. ♀, 6th ventral plate slightly emarginate. Length 3·5–4 mm.

105 *aquatilis*, Th.

- Elytra distinctly transverse, facies of large *castanoptera*. Puncturation of thorax fine, not rugose. Antennae testaceous more or less infusate towards apex, the last joint longer than the two preceding together. ♂, last joint of antennae longer, 8th dorsal plate truncate, 6th ventral plate produced and rounded. Length 4 mm. 100 *incognita*, Shp.

127. Antennae entirely dark, sculpture of elytra consisting of small granules, dark brown or black: head and thorax shining black. Legs testaceous with femora darker. ♂, granules of elytra much coarser. 7th and 8th dorsal plates studded with granules, 8th plate truncate and crenulate posteriorly, 6th ventral plate produced and slightly notched. Length 3·8–4·3 mm.

113 *graminicola*, Gr.

- Antennae with base lighter 128.

128. Thorax reddish testaceous, elytra testaceous, abdomen with base and apex pitchy. Species of bright appearance. ♂, 8th dorsal plate sprinkled with granules, on each side near apex with a short raised ridge. Length 4–4·8 mm. 107 *pagana*, Er.

- Thorax black, elytra yellowish brown 129.

129. Last joint of antennae rather longer than the two preceding together. Species more robust, more shining, head and thorax much more finely and sparingly punctured, elytra more thickly punctured. 8th dorsal plate crenulate at hinder margin, teeth about 8 in number. Length 4–4·5 mm. 101 ♂ *valida*, Kr.

- Last joint of antennae nearly as long as the three preceding together. Species less robust, less shining, head and thorax more coarsely and closely punctured, elytra more sparingly punctured. ♂, 8th dorsal plate truncate and furnished at hinder margin with about 8 crenulations. Length 3·5–4 mm.

104 *castanoptera*, Mann. (*xanthoptera*, Steph.).

130. Larger and more robust species. Length 4–4·3 mm. . 131.

- Smaller and more delicate species. Length 2–3 mm. . 132.

131. Thorax scarcely narrowed behind, quadrate, species pitchy brown, dull, abdomen with hind margins of segments and apex lighter, closely punctured and pubescent. ♂, 7th dorsal plate with a tubercle, 8th

- posterior margin with 6 teeth, the outer on each side larger. Length 4-4.3 mm. 20 *languida*, Er.
- Thorax distinctly narrowed behind. Black more shining, elytra often brown. Abdomen black, less closely punctured and pubescent especially behind. ♂, 7th dorsal plate in middle line with short ridge pointed behind. 8th dorsal plate at posterior margin with four small teeth, two close together near middle line and two externally, the margin between sometimes showing traces of crenulations. Length 4-4.3 mm. 14 *currax*, Kr.
132. Abdomen with all the segments pretty closely punctured and pubescent 133.
- Abdomen less closely punctured and pubescent, 7th segment smooth and shining. Pitch-black or pitch-brown, elytra often lighter, rather depressed. ♂, 7th dorsal plate with a short keel pointed behind, 8th dorsal plate at posterior margin with four teeth, two blunt median ones close together, and externally on each side with a more or less distinct pointed one. Length 2.5-3 mm. 15 *cambrica*, Woll.
133. Head quadrate; antennae dark, last joint but slightly longer than 10th; elytra half as long again as thorax, longer than broad. Pitchy-black or pitchy-brown with elytra usually lighter. ♂, 6th ventral segment slightly produced and broadly rounded. ♀, 6th ventral segment slightly emarginate. Length 2 mm. (See also 120 *eximia*) 8 *fragilis*, Kr.
- Head transversely oval, antennae testaceous, last joint equal to length of 9th and 10th together; elytra about $\frac{1}{3}$ as long again as thorax, broader than long. Pitchy-black or pitchy-brown with elytra reddish. ♂, 6th ventral plate distinctly produced and rounded. ♀, 6th ventral plate broadly emarginate. Length 2.5-2.8 mm. 32 *marina*, Rey. (*imbecilla*, Wat.).
134. Last joints of antennae scarcely transverse, about as long as broad 135.
- Last joints of antennae distinctly transverse 147.
135. Thorax about as broad as long 136.
- Thorax distinctly transverse 141.
136. Thorax distinctly narrowed behind 137.
- Thorax scarcely narrowed behind 139.
137. Larger and more robust, rather dull, temples not dilated. Abdomen pretty closely punctured and pubescent on anterior segments. Black or pitchy with elytra lighter.

- ♂, 7th dorsal plate with a tubercle, 8th dorsal plate at hinder margin with four more or less distinct teeth.
Length 4 mm. 19 *insecta*, Th.
- Smaller, rather fragile species, head and thorax very shining, temples dilated, abdomen sparingly punctured and pubescent 138.
138. More depressed, abdomen more closely punctured, antennae more slender. ♂, 7th dorsal plate with a tubercle, 8th dorsal plate with four teeth at posterior margin, the outermost on either side being less marked.
Length 3 mm. 17 *eichhoffi*, Scriba.
- Less depressed, abdomen very sparingly punctured, antennae stouter. ♂, characters as in preceding species. Length 3 mm. 16 *debilicornis*, Er. (*planifrons*, Wat.).
139. Species pitchy brown or reddish brown, dull with greasy lustre only. Antennae brown with yellow base. Abdomen black with margins of segments and apex reddish. Facies of small *languida*. ♂, 7th dorsal plate with a tubercle. 8th with six teeth at posterior margin, four placed near the middle. Length 3·2–3·6 mm. 21 *longicollis*, Rey.
- Species black, rather shining, elytra often brown or pitchy. Antennae dark with base lighter 140.
140. Species narrower. Abdomen often more or less pointed, finely and closely punctured and pubescent throughout. First joint of posterior tarsi much longer than second. ♂, 6th ventral plate produced and rounded. ♀, 6th ventral plate notched. Length 2·5–3 mm.
10 *luteipes*, Er.
- Species broader and more robust. Abdomen much less closely punctured and pubescent especially towards apex. 1st joint of posterior tarsi not longer than 2nd. ♂, 6th ventral plate narrowed and produced. Length 3·5 mm. 31 *arctica*, Thoms. (*clavipes*, Shp.).
141. Elytra yellowish brown, head and thorax pitchy black or pitchy brown, abdomen with margins of segments and apex reddish. Species dull 142.
- Elytra dark brown or black, abdomen black 143.
142. Broader and more depressed. ♂, 8th dorsal plate emarginate, 6th ventral plate considerably produced, the apex turned upwards and the sides narrowed in the middle. ♀, 8th dorsal plate feebly emarginate, 6th ventral plate rounded. Length 4–4·5 mm.
22 *luridipennis*, Mann.

- Narrower and less depressed. ♂, 6th ventral plate produced and narrowed with apex slightly emarginate. ♀, 8th dorsal and 6th ventral plates rounded. Length 3·5–4 mm. 23 *gyllenhali*, Thoms.
143. Elytra scarcely longer than the thorax, the latter strongly transverse, as broad as the former. Antennae reddish brown with lighter base. ♂, 6th ventral plate narrowed and produced. Length 3–3·5 mm.
30 *islandica*, Kr. (*eremita*, Rye.).
- Elytra distinctly longer than the thorax 144.
144. Thorax strongly transverse, about half as broad again as long, with distinct impression at base continued forwards as a fine channel. 1st and 2nd joints of antennae distinctly paler than the rest. Facies of *fungi*. ♂, 6th ventral plate produced and narrowed. Length 2·3–2·5 mm. 27 *aubei*, Bris.
- Thorax only slightly transverse 145.
145. Species larger, broader, and more depressed. Antennae dark, sometimes with first joint obscurely lighter. Facies of *currax*. ♂, 6th ventral plate produced. Length 3·5–4·5 mm. 26 *hygrotopora*, Kr.
- Species smaller, narrower, less depressed. Antennae reddish brown or dark brown, often lighter at the base 146.
146. Antennae more robust, penultimate joints about as broad as long. ♂, 6th ventral plate strongly produced and narrowed. ♀, 8th dorsal plate slightly emarginate. Length 3–3·5 mm. 25 *elongatula*, Gr.
- Antennae more slender, penultimate joints about as broad as long or slightly transverse. ♂, 6th ventral plate much less produced than in preceding, broadly rounded. ♀, 8th dorsal plate not emarginate. Length 2·5–3·5 mm. 24 *melanocera*, Thoms. (*volans*, Scrib.).
147. Elytra strongly sinuated at the postero-external angles; mandibles prominent 148.
- Elytra not or but slightly sinuated, mandibles normal 150.
148. Colour in great part reddish testaceous, head and abdomen before apex usually darker. ♂, 6th ventral segment produced and rounded. Length 2–2·5 mm.
42 *testacea*, Bris.
- Colour black or blackish 149.
149. More depressed, head more deeply punctured. 5th joint of antennae quadrate (about as long as broad) base of antennae usually reddish. ♂, 6th ventral plate narrowed and produced. Length 2·5–3 mm. 44 *puncticeps*, Th.

- Less depressed, head less deeply punctured, 5th joint of antennae longer than broad; base of antennae testaceous. ♂, 6th ventral plate produced and rounded. Length 2·5–3 mm.
43 *flavipes*, Th.* (*halobrectha*, Shp.).
150. Thorax not, or scarcely broader than long 151.
— Thorax distinctly transverse 153.
151. Thorax distinctly narrowed towards base, shining, head with large superficial punctures, abdomen very sparingly punctured. ♂, 6th ventral segment produced and rounded. ♀, 6th ventral segment slightly emarginate. Length 3·5 mm. 114 *vestita*, Gr.
— Thorax distinctly narrowed towards base, not shining (greasy lustre only); head without large superficial punctures, abdomen pretty thickly punctured and pubescent 152.
152. Elytra longer than broad, abdomen much more thickly and finely punctured and pubescent. 1st joint of posterior tarsi considerably longer than 2nd. ♂, 6th ventral plate narrowed and a little produced. Length 3–3·3 mm. 13 *gregaria*, Er.
— Elytra broader than long, abdomen much less thickly and finely punctured and pubescent. 1st and 2nd joints of posterior tarsi of equal length. ♂, 7th dorsal plate with a tubercle, 8th with four indistinct teeth at posterior margin. Length 3·5 mm. 18 *sulcifrons*, Steph.
153. Antennae dark, not lighter at base 154.
— Antennae dark with lighter base or entirely brown 156.
154. Elytra uniformly brown or yellowish brown 155.
— Elytra yellow, with margins more or less fuscous, legs yellow with femora dark. ♂, 3rd dorsal plate (1st visible) with tubercle (sometimes obscurely in ♀ also) 8th sprinkled with granules and shagreened, on either side with short ridge. Length 3·5–4 mm.
109 *longiuscula*, Gr. (*vicina*, Steph.).
155. Larger and more convex, very shining, very feebly shagreened, antennae longer and more slender. ♂, 8th dorsal plate truncate and obscurely crenulate. Length 3·8–4·3 mm. 111 *nitidula*, Kr.
— Smaller and more depressed, much less shining and very distinctly shagreened. Antennae rather shorter and

* I am unable to see in *A. princeps*, Shp., anything more than a large *flavipes*. In the Mediterranean I have taken large forms of *punciceps*.

stouter. ♂, 8th dorsal plate obscurely crenulate posteriorly. Length 3·5–4 mm.

112 *oblonga*, Er. (*oblongiuscula*, Shp.).

156. Thorax black with metallic reflex, elytra yellow, darker at scutellum and postero-external angles. ♂, 8th dorsal plate crenulate posteriorly. Length 3–3·3 mm.

103 *pertyi*, Heer. (*aeneicollis*, Shp.).

- Thorax black without metallic reflex, elytra uniformly reddish yellow or brownish 157.

157. Last joint of antennae very long and stout, equal in length to the three preceding together. Species black and shining, elytra reddish yellow. ♂, 6th ventral plate narrowed and produced. Length 4–4·5 mm.

106 *hypnorum*, Kies. (*silvicola*, Fuss.).

- Last joint of antennae not longer than the two preceding together 158.

158. Elytra not or scarcely longer than the thorax. ♂, 8th dorsal plate obscurely crenulate. Length 3·5 mm.

110 *alpestris*, Heer. (*nitidiuscula*, Shp.).

- Elytra distinctly longer than the thorax 159.

159. Larger species; thorax reddish brown with large superficial scattered punctures; elytra yellowish red, abdomen with margin of segments and apex reddish. ♂, 8th dorsal plate granulate and slightly produced in middle, the granular area bounded by a little ridge on either side. Length 3·5–4 mm. 108 *granigera*, Kies. (*crassicornis*, Gyll.).

- Smaller species, 1·7–3 mm., uniformly pitchy black or pitchy brown, thorax closely and finely punctured . . . 160.

160. Head almost as broad as the thorax, the latter distinctly narrowed behind 161.

- Head much narrower than thorax, the latter scarcely narrowed behind, with two small impressions one on either side of middle line before scutellum. ♂, 6th ventral segment a little produced and narrowed. Length 1·7–2·3 mm. 28 *gemina*, Er.

161. Fifth joint of antennae as long as broad, penultimate joints more strongly transverse. ♂, 6th ventral plate produced and rounded. ♀, 6th ventral plate furnished at posterior margin with short, closely set setae. 35 *debilis*, Er.

- Fifth joint of antennae longer than broad, penultimate joints less transverse. ♂, 6th ventral plate narrowed, produced and rounded. ♀, 6th ventral plate furnished at posterior margin with rather long, less closely set setae 36 *magniceps*, Sahlb.

A LIST OF THE BRITISH SPECIES OF ALEUONOTA,
ATHETA AND SIPALIA.

ALEUONOTA, Th.*

1. atricapilla, Rey.
rufotestacea, Kr.
elegantula, Bris.
2. aurantiaca, Fauv.
rufotestacea, Rye. (*nec* Kr.)
3. egregia, Rye.
gracilentia, Kr. (*nec* Er.)
hypogaea, Fowler (*nec* Rey.)
4. gracilentia, Er.
splendens, Kr.
hypogaea, Rey.

ATHETA, Th.

Sub.-g. HYDROSMECTINA,
Ganglb.

5. subtilissima, Kr.

Sub.-g. HYDROSMECTA, Th.

6. delicatula, Shp.
7. longula, Heer.
8. fragilis, Kr.
9. eximia, Shp.

Sub.-g. DILACRA, Th.

10. luteipes, Er.

Sub.-g. DACRILA, Rey.

11. fallax, Kr.
12. pruinosa, Kr.

Sub.-g. GLOSSOLA, Fowler.

13. gregaria, Er.

Sub.-g. ALOCONOTA, Th.

14. currax, Kr.
15. cambrica, Woll.
16. debilicornis, Er.
planifrons, Waterh.
17. eichhoffi, Scriba.
18. sulcifrons, Steph.
19. insecta, Th.

Sub.-g. DISOPORA, Th.

20. languida, Er.
21. longicollis, Rey.

Sub.-g. PELURGA, Rey.

22. luridipennis, Mann.

Sub.-g. METAXYA, Rey.

23. gyllenhali, Th.
24. melanocera, Th.
volans, Scriba.
25. elongatula, Gr.
26. hygrotopora, Kr.
27. aubei, Bris.
28. gemina, Er.
29. curtipennis, Shp.
30. islandica, Kr.
eremita, Rye.
31. arctica, Th.
clavipes, Shp.
32. marina, Rey.
imbecilla, Waterh.
33. meridionalis, Rey.
littorea, Shp.

Sub.-g. HYGROECIA, Rey.

34. fallaciosa, Shp.
35. debilis, Er.
36. magniceps, Sahlb.
37. scotica, Elliman.

Sub.-g. PARAMEOTICA, Ganglb.

38. laticeps, Th.
difficilis, Bris.
39. complana, Mann.
deformis, Kr.

Sub.-g. DRALICA, Rey.

40. vilis, Er.

Sub.-g. OREOSTIBA, Ganglb.

41. tibialis, Heer.

Sub.-g. PSEUDOPASILIA, Ganglb.

42. testacea, Bris.

Sub.-g. HALOBRECTHA, Th.

43. flavipes, Th.
halobrectha, Shp.
44. puncticeps, Th.

* The synonymy of this genus is that given by Fauvel (Rev. d'Ent., 1895, p. 95) after an examination of all the types.

Sub.-g. DINARAEA, Th.

- 45. angustula, Gyll.
- 46. aequata, Er.
- 47. linearis, Gr.

Sub.-g. PACHNIDA, Rey.

- 48. nigella, Er.

Sub.-g. ALIANTA, Th.

- 49. incana, Er.

Sub.-g. PLATARAEA, Th.

- 50. brunnea, F.
- depressa, Gr.

Sub.-g. PTYCHANDRA, Ganglb.

- 51. hepatica, Gr.
- 52. exarata, Shp.

Sub.-g. BESSOBIA, Th.

- 53. occulta, Er.
- 54. fungivora, Th.
- 55. excellens, Kr.
- 56. monticola, Th.

Sub.-g. ANOPIETA, Rey.

- 57. corvina, Th.
- 58. inhabilis, Kr.

Sub.-g. TRAUMOEZIA, Rey.

- 59. picipes, Th.
- 60. angusticollis, Th.

Sub.-g. PHILHYGRA, Rey.

- 61. palustris, Kies.
- 62. subglabra, Shp.

Sub.-g. MICRODOTA, Rey.

- 63. aegra, Heer.
- 64. perexigua, Shp.
- 65. atomaria, Kr.
- 66. puberula, Shp.
- 67. liliputana, Bris.
- 68. inquinula, Gr.
- 69. mortuorum, Th.
- atricolor, Shp.
- 70. amacula, Steph.
- sericea, Rey.
- 71. subtilis, Scriba.
- indiscreta, Shp.
- 72. indubia, Shp.
- 73. palleola, Er.

Sub.-g. RHOPALOCERA, Ganglb.

- 74. clavigera, Scriba.

Sub.-g. CERITAXA, Rey

- 75. testaceipes, Heer.
- 76. dilaticornis, Kr.

Sub.-g. ALAOBIA, Th.

- 77. scapularis, Sahlb.

Sub.-g. DOCHMONOTA, Th.

- 78. clancula, Er.

Sub.-g. ATHETA, s. str.

- 79. subterranea, Rey.
- 80. nigricornis, Th.
- 81. divisa, Mark.
- 82. basicornis, Rey.
- autumnalis, Shp.
- 83. oblita, Er.
- 84. coriaria, Kr.
- 85. nitens, Fuss.
- 86. gagatina, Bandi.
- 87. sodalis, Er.
- 88. pallidicornis, Th.
- humeralis, Kr.
- 89. nigrigula, Kr.
- 90. liturata, Steph.
- 91. nitidicollis, Fairm.
- ignobilis, Shp.
- 92. crassicornis, F.
- fungicola, Kr.
- v. fulvipennis, Rey.
- 93. pilicornis, Th.
- 94. xanthopus, Th.
- 95. hybrida, Shp.
- 96. trinotata, Kr.
- 97. triangulum, Kr.
- 98. diversa, Shp.
- 99. euryptera, Steph.
- succicola, Th.
- 100. incognita, Shp.
- 101. valida, Kr.
- 102. aquatica, Th.
- 103. pertyi, Heer.
- aeneicollis, Shp.
- 104. castanoptera, Mann.
- xanthoptera, Steph.
- 105. aquatilis, Th.

Sub.-g. LIOGLUTA, Th.

- 106. hypnorum, Kies.
- silvicola, Fuss.
- 107. pagana, Er.
- 108. granigera, Kies.
- crassicornis, Gyll.

109. longiuscula, Gr.
vicina, Steph.

110. alpestris, Heer.
nitidiuscula, Shp.

111. nitidula, Kr.

112. oblonga, Er.
oblongiuscula, Shp.

Sub.-g. MEGISTA, Rey.

113. graminicola, Gr.

Sub.-g. THINOBAENA, Th.

114. vestita, Gr.

Sub.-g. DIMETROTA, Rey.

115. cadaverina, Bris.

116. atramentaria, Gyll.

117. picipennis, Mann.

118. intermedia, Th.

119. cinnamoptera, Th.

120. marcida, Er.

121. laevana, Rey.

122. setigera, Shp.

123. nigripes, Th.
villosula, Kr.

Sub.-g. BADURA, Rey.

124. macrocera, Th.

125. parvula, Mann.
cauta, Er.

Sub.-g. DATOMICRA, Rey.

126. cribata, Kr.

127. canescens, Shp.

128. sordidula, Er.

129. celata, Er.

130. arenicola, Th.
germana, Shp.

131. hodierna, Shp.

132. zosteræ, Thp.
nigra, Kr.

Sub.-g. PYCNOTA, Rey.

133. paradoxa, Rey.

Sub.-g. CHAETIDA, Rey.

134. longicornis, Gr.

Sub.-g. COPROTHASSA, Th.

135. consanguinea, Epp.

136. melanaria, Mann.
testudinea, Er.

137. sordida, Marsh.

Sub.-g. ACROTONA, Th.

138. pygmaea, Gr.

139. aterrima, Gr.

140. parva, Sahlb.
pilosiventris, Th.
v. muscorum, Bris.

141. parens, Rey.

142. orphana, Er.

143. fungi, Gr.
v. orbata, Er.

144. clientula, Er.

145. fuscipes, Heer.

146. laticollis, Steph.

147. subsinuata, Er.

Sub.-g. AMISCHA, Th.

148. analis, Gr.

149. decipiens, Shp.

150. soror, Kr.

151. cavifrons, Shp.

Sub.-g. AMIDOBIA, Th.

152. talpa, Heer.

parallela, Mann.

153. validiuscula, Kr.

Sub.-g. MEOTICA, Rey.

154. exilis, Er.

155. indocilis, Heer.
pallens, Redt.

SIPALIA, Rey.

156. circellaris, Gr.

157. caesula, Er.

SPECIES OF UNCERTAIN POSITION

158. cribriceps, Shp.*

* This species is *Coenonica puncticollis*, Kr., and no doubt imported. Cf. Ent. Mo. Mag., vol. xlix, p. 135 (1913).



Cameron, Malcolm. 1913. "IX. Synoptic Table of the British Species of Aleuonota, Thoms., Atheta, Thoms., and Sipalia, Rey." *Transactions of the Entomological Society of London* 61, 284–313.

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