

XVIII. *A revision of the species of the genus Odynerus*
(Hymenoptera) *occurring in the Ethiopian Region.*
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PLATE XCI.

IN the following paper an attempt has been made to bring together all the species of the cosmopolitan genus *Odynerus* known to occur in the Ethiopian Region. Species from Madagascar are not included. At the same time I have taken the opportunity of describing a number of new species and varieties.

The genus would seem to be richly represented throughout the whole continent, and the number of species must ultimately prove to be very considerable.

I have listed 132 species, and of these 24 are described as new; three new varieties of known species are also described.

Through the courtesy of various correspondents it has been possible to examine types or at least cotypes of a number of the species. For these facilities my thanks are specially due to the following: to Dr. Severin, of the Musée d'Histoire Naturelle, Brussels; to M. Lucien Berland of the Paris Museum; to Prof. Y. Sjöstedt of Stockholm and to Prof. E. B. Poulton, F.R.S., each of whom has most generously loaned me types or cotypes from their several institutions. All measurements of length (unless stated to the contrary) are taken from the front of the head to the apex of tergite 2. The types of all the new species are in the British Museum.

LIST OF THE KNOWN SPECIES OF *ODYNERUS* IN THE
ETHIOPIAN REGION.

(* Types or cotypes have been examined of all species marked with an asterisk.)

Subgenus *Ancistrocerus*, Wesm.

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| *1. <i>massaicus</i> , Cam. | *7. <i>neavei</i> , sp. n. |
| *2. <i>budongo</i> , sp. n. | 8. <i>zebra</i> , Sauss. |
| *3. <i>lineaticollis</i> , Cam. | 9. <i>massanensis</i> , Sauss. |
| <i>*lineaticollis</i> , var. <i>rufopictus</i> , var. nov. | (Plate XCI, fig. 1.) |
| *4. <i>maculiscapus</i> , Cam. | *10. <i>lufrae</i> , sp. n. |
| 5. <i>striativentris</i> , Cam. | 11. <i>inconstans</i> , Sauss. |
| *6. <i>gowdeyanus</i> , M.-Waldo. | *12. <i>kibonotensis</i> , Cam. |
| | *13. <i>neuvillei</i> , Du Buyss. |

Species unknown to the author.

14. *heydenianus*, Sauss.

Subgenus *Lionotus*, Sauss.

Division A. Postscutellum truncate posteriorly.

Section 1. Postscutellum laterally tuberculate or subtuberculate.

Group of *O. mucronatus*, Saussure, scutellum armed.

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| 1. <i>mucronatus</i> , Sauss. | *7. <i>conradsii</i> , Schulthess. |
| *2. <i>katonai</i> , Schulthess. | *8. <i>rikatlensis</i> , Schulthess. |
| *3. <i>bisellatus</i> , Schulthess. | 9. <i>metatarsalis</i> , Schulthess. |
| (Plate XCI, fig. 2.) | |
| *4. <i>carinatus</i> , sp. n. (Plate XCI, fig. 7.) | *10. <i>hansi</i> , sp. n. |
| *5. <i>quadrituberculatus</i> , Smith. (Plate XCI, fig. 3). | 11. <i>senex</i> , Cam. |
| *6. <i>pulchripilosellus</i> , Cam. | 11A. <i>canaliculatus</i> , Sauss., described from Arabia, is in this group. |

Group of *O. silaensis*, Saussure, scutellum flat.

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| *12. <i>rubroniger</i> , Bingh. | 27. <i>metemmensis</i> , Magr. |
| 13. <i>cameroni</i> , Schultz (= | 28. <i>defractus</i> , du Buyss. |
| <i>tegularis</i> , Cam. (nec | *29. <i>ukerewensis</i> , Schul- |
| Mor.). | thess. |
| *14. <i>kristenseni</i> , sp. n. | *30. <i>karibae</i> , sp. n. |
| *15. <i>gambiensis</i> , sp. n. | 31. <i>jocosus</i> , Gerst. |
| *16. <i>silverlocki</i> , sp. n. (Plate | 32. <i>vulneratus</i> , Sauss. |
| XCI, fig. 4a, 4b.) | *33. <i>goniodes</i> , Schletterer. |
| *17. <i>stiraspis</i> , Cam. | (Plate XCI, fig. 5.) |
| *18. <i>sjöstedti</i> , Cam. | 34. <i>pulchellus</i> , Gerst. |
| *19. <i>pakasae</i> , sp. n. | *35. <i>solstitialis</i> , Sauss. |
| 20. <i>whiteanus</i> , Cam. | *36. <i>fervidus</i> , Sauss. (Plate |
| *21. <i>dimorphus</i> , sp. n. | XCI, fig. 10.) |
| *22. <i>silaensis</i> , Sauss. | *37. <i>tropicalis</i> , Sauss. |
| *23. <i>asmarensis</i> , Schulthess. | 38. <i>schönlandi</i> , Cam. |
| 24. <i>armatiscutis</i> , Cam. | 39. <i>acanthoaspis</i> , Cam. |
| *25. <i>arethusae</i> , sp. n. | 40. <i>dunbrodyensis</i> , Cam. |
| *26. <i>signatus</i> , Smith. | 41. <i>melanodontus</i> , Cam. |

Section 2. Postscutellum laterally without tubercles.

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| 42. <i>carinatulus</i> , Sauss. | *47. <i>euryspilus</i> , Cam. |
| *43. <i>rhynchoides</i> , Sauss. (= | *48. <i>schultzeanus</i> , Schul- |
| <i>saussurei</i> , E. André). | thess. |
| *44. <i>pseudolateralis</i> , sp. n. | *49. <i>vaalensis</i> , Cam. |
| *45. <i>tectus</i> , F. | *50. <i>deceptor</i> , sp. n. |
| *46. <i>meyeri</i> , Cam. and var. | |
| <i>*albolimbatus</i> , Schul- | |
| thess. | |

Division B. Postscutellum curved posteriorly.

Section 1. Abdominal segments 1 and 2 without conspicuous lateral spots.

Group of *O. floricola*, Saussure.

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| *51. <i>cnemophilus</i> , Cam. | *58. <i>lugubris</i> , sp. n. |
| *52. <i>kilimandjaroensis</i> , Cam. | *59. <i>combustus</i> , Smith. |
| 53. <i>hottentottus</i> , Sauss. | *60. <i>curvirufolincatus</i> , Cam. |
| (Plate XCI, fig. 8.) | *61. <i>marginipunctatus</i> , |
| 54. <i>sesquicinctus</i> , Sauss. | sp. n. (Plate XCI, |
| *55. <i>capicola</i> , sp. n. | fig. 6.) |
| *56. <i>lateralis</i> , F. | *62. <i>bothriogaster</i> , Schlet- |
| *57. <i>lateralis</i> , F., var. <i>uni-</i> | terer. |
| <i>color</i> , Schulthess. | *63. <i>aureosericeus</i> , sp. n. |

Section 2. Abdominal segments 1 and 2 with conspicuous lateral spots.

Group of *O. aethiopicus*, Saussure. Clypeus apically emarginate.

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| *64. <i>stiraspis</i> , Cam. | *70. <i>schulthessi</i> , sp.n. (Plate XCI, fig. 11.) |
| *65. <i>scripticeps</i> , Cam. (Plate XCI, fig. 9.) | *71. <i>wellmani</i> , M.-Waldo. |
| *66. <i>simplidentatus</i> , M.-Waldo. | *72. <i>aequinoctialis</i> , Sauss. |
| *67. <i>stellaboschensis</i> , Cam. | *73. <i>erythrotomus</i> , Cam. |
| 68. <i>aethiopicus</i> , Sauss. | *74. <i>meruensis</i> , Cam. |
| *69. <i>14-maculatus</i> , Schulthess. | 75. <i>falcatus</i> , Tullgr. |

Group of *O. bellatulus*, Saussure. Clypeus apically truncate.

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| *76. <i>spoliatus</i> , Cam. (Plate XCI, fig. 12.) | *81. <i>harrarensis</i> , sp. n. |
| *77. <i>indecorus</i> , Cam. | *82. <i>sheffieldi</i> , sp. n. |
| 78. <i>mutabilis</i> , Sauss. | 83. <i>macrocephalus</i> , Grib. |
| 79. <i>bellatulus</i> , Sauss. | 84. <i>multicolor</i> , Sauss. |
| *80. <i>rotundiscutis</i> , Cam. | 85. <i>mutans</i> , Sauss. |

Species (subgen. *Lionotus*) unknown to the author.

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| 86. <i>natalensis</i> , Sauss. | 93. <i>penetratus</i> , Cam. |
| 87. <i>meridionalis</i> , Sauss. | 94. <i>angustus</i> , Sauss. |
| 88. <i>o'neili</i> , Cam. | 95. <i>caviventris</i> , Kirsch. |
| 89. <i>kloofensis</i> , Cam. | 96. <i>guerini</i> , Sauss. |
| 90. <i>friendens</i> , Grib. | 97. <i>hyacinthae</i> , Grib. |
| 91. <i>troglydites</i> , Sauss. | 98. <i>interruptus</i> , Sauss. |
| 92. <i>determinatus</i> , Cam. | |

Division C. *Stenodynerus*, Sauss.

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| *99. <i>corvus</i> , sp. n. (Plate XCI, fig. 15.) | *101. <i>ferrugineus</i> , Schulthess. (Plate XCI, fig. 13.) |
| 100. <i>bairstowi</i> , Grib. | 102. <i>politiclypeus</i> , Schulthess. (Plate XCI, fig. 14.) |

Subgenus *Hoplomerus*, Westw.

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| *103. <i>spiniger</i> , Schulthess. | *105. <i>simplex</i> , Bingh. |
| 104. <i>spiniger</i> , Schulthess.
var. <i>flavus</i> , nov. | *106. <i>zebroides</i> , sp. n. |
| | *107. <i>adonis</i> , sp. n. |

Species (subgenus *Hoplomerus*) unknown to the author.

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| 108. <i>quartinae</i> , Grib. | 110. <i>rectus</i> , D. T. |
| 109. <i>senegalensis</i> , Sauss. | 111. <i>ferruginosus</i> , Sauss. |

Species (*Odynerus*, sens. lat.) unknown to the author.

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| 112. <i>humbei</i> , Rad. | 116. <i>magretti</i> , Grib. |
| 113. <i>obscurus</i> , Rad. | 117. <i>frendens</i> , Grib. |
| 114. <i>raffrayi</i> , Rad. | 118. <i>dauensis</i> , Magretti. |
| 115. <i>emeryanus</i> , Grib. | |

ODYNERUS, Latr.

KEY TO THE SUBGENERA DEALT WITH IN THIS PAPER.

1. (2) First abdominal segment with at least one distinct transverse carina, sometimes with 2 carinae (div. *Epancistrocerus*); last joint of antennae (♂) bent back to form a hook. *Ancistrocerus*, Wesm.
2. (1) First abdominal segment without any carina; antennae (♂) as in *Ancistrocerus* or with the terminal joints rolled up in spiral fashion.
3. (4) Antennae (♂) as in subgenus *Ancistrocerus*.
Lionotus, Sauss.
4. (3) Antennae (♂) with the terminal joints rolled up in spiral fashion, species (in Ethiopian fauna) large.
Hoplomerus, Westwood (= *Hoplopus*, Sauss.).

Subgenus *Ancistrocerus*.

1. (4) Tergite 1 with 2 transverse carinae. . div. *Epancistrocerus*.
2. (3) Mesonotum and scutellum uniformly coarsely punctured; clypeus (♀) ferruginous. *massaicus*, Cam.
3. (2) Posterior half of mesonotum and scutellum shining, almost impunctate; clypeus (♀) yellow, black centrally.
budongo, sp. n.
4. (1) Tergite 1 with 1 transverse carina.
s. g. *Ancistrocerus*, sens. str.
5. (6) Head and thorax black, abdomen wholly ochraceous yellow, length 11½ mm. *gowdeyanus*, M.-Waldo.
6. (5) Head and thorax black, sometimes with yellow or ferruginous markings; abdomen black, with at least two yellow fasciae.
7. (12) Tergite 1 somewhat elongate, subpetiolate, resembling *Nortonia* species.

8. (9) Pronotum ferruginous, wings subfuscous, postscutellum black. *maculiscapus*, Cam.
9. (8) Pronotum black, narrowly yellow along the anterior margin, postscutellum with a transverse yellow line; clypeus (♀) with considerable pale markings.
10. (11) Sides of pronotum parallel, wings fuscous.
kibonotensis, Cam.
11. (10) Sides of pronotum rounded, wings clear hyaline.
12. (7) Tergite 1 not elongate, at least as broad apically as long.
13. (14) Colours yellow and ferruginous red, lateral angles of median segment very sharp. *inconstans*, Sauss.
14. (13) Colours black, with yellow markings and fasciae.
15. (16) Segments 1 and 2 of abdomen with yellow apical fasciae, median segment without lateral angles; wings very ample. *neavei*, sp. n.
16. (15) Segments 1-4 with yellow or yellowish white apical fasciae.
17. (20) Small species. Total length 8 mm.
18. (19) Tergite 2 tuberculiform at base; tegulae and a line on scutellum yellow. *massanensis*, Sauss.
19. (18) Tergite 2 normally rounded above; tegulae ferruginous, no yellow on scutellum. *lufirae*, sp. n.
20. (17) Larger species. Total length 11-13 mm.
21. (24) Tegulae ferruginous, legs for the most part ferruginous; anterior margin of pronotum with a narrow yellow fascia.
22. (23) Wings fuscous, scutellum black, head and thorax with a long pubescence. *lineaticollis*, Cam.
scutellum ferruginous var. *rufopictus*, nov.
23. (22) Wings partly fuscous, scutellum with an interrupted yellow line. *neuvillei*, du Buyss.
24. (21) Tegulae black, legs mostly black.
25. (26) Head and thorax clothed with a long dark pubescence.
striativentris, Cam.
26. (25) Head and thorax clothed with cinereous pubescence.
zebra, Sauss.

Subgenus *Lionotus*.

1. (67) Postscutellum truncate, laterally tuberculate or sub-tuberculate; group of *O. dubius*, etc.
2. (19) Scutellum bilobed or laterally lamellate (schaüfelformig) or tuberculate.
3. (8) Tegulae very large.
4. (5) Scutellum with lateral lamellae; colours black, ferruginous and yellow. *mucronatus*, Sauss.

5. (4) Scutellum with lateral tubercles.
6. (7) Colours black; abdominal segments 1-4 with pale yellow apical fasciae, tegulae black or red and yellowish white.
katonai, Schulthess.
7. (6) Colours ferruginous-red, abdomen with pale yellow fasciae, tergite 2 with a short yellow longitudinal line; tegulae ferruginous. *bisellatus*, Schulthess.
8. (3) Tegulae normal.
(*O. canaliculatus*, Sauss., comes in here.)
9. (12) Tergite 2 with a distinct tubercle or longitudinal carina.
10. (11) Clypeus with 2 prominent longitudinal carinae, tergite 2 with a longitudinal carina; mesonotum with very coarse longitudinal striation; prothorax mostly black.
carinatus, sp. n.
11. (10) Clypeus without carinae, tergite 2 with blunt tubercle near base; prothorax mostly ferruginous.
quadrituberculatus, Smith.
12. (9) Tergite 2 normal, no carina or tubercle; colours mostly ferruginous. Pronotum with anterior margin yellow, tegulae mostly yellow, pubescence silvery.
pulchripilosellus, Cam.
13. (14) Head and thorax mostly with ferruginous markings; abdomen with narrow apical fasciae on tergites 1-4 (♀), 1-7 (♂); clypeus broader than long. Small species 4½-5½ mm. *conradsii*, Schulthess.
14. (13) Medium-sized species 7-8 mm.
15. (18) Sides of median segment almost impunctate.
16. (17) Ferruginous; postscutellum, post-tegulae and apical fasciae on tergites pale yellow; mesonotum black, with coarse longitudinal striation. *rikatensis*, Schulthess.
17. (16) Black; abdomen with white apical fasciae; tergite 2 with large lateral spots, white. *metatarsalis*, Schulthess.
18. (15) Sides of median segment distinctly punctured; mesonotum evenly punctured, postscutellum, post-tegulae and clypeus basally, ferruginous. *hansi*, sp. n.
19. (2) Scutellum flat, unarmed (except *O. dimorphus* (♂)); postscutellum either forming two distinct tubercles or truncate, crenulate or with lateral tubercles.
20. (23) Tegulae abnormally large.
21. (22) Postscutellum forming two distinct tubercles, tergite 2 normally rounded. Length 11½ mm. *rubroniger*, Bingh.
22. (21) Postscutellum with slender lateral tubercles, tergite 2 with a longitudinal carina. Length 10 mm. *kristenseni*, sp. n.
(*O. cameroni*, Schultz, comes in here.)

23. (20) Tegulae normal.
24. (67) Postscutellum with lateral tubercles.
25. (32) Tergite 2 with a longitudinal carina.
26. (29) Clypeus with three conspicuous longitudinal carinae; the median one not reaching the apex.
27. (28) Tergite 2 viewed from above as broad as long; pronotum, tegulae, scutellum, postscutellum, median segment and tergite 1 (except yellow apical fascia) ferruginous.
gambiensis, sp. n.
28. (27) Tergite 2 viewed from above longer than broad, pronotum only partly, tegulae, scutellum partly and tergite 1 laterally ferruginous. *silverlocki, sp. n.*
29. (26) Clypeus without longitudinal carinae.
30. (31) Robust species; black, pronotum totally ferruginous, tergites 1 and 2 with lateral, ovate ferruginous marks.
stiraspis, Cam.
31. (30) Slender species; black, pronotum (except anterior margin medially) tergites 1 and 2 except yellow apical fasciae, black. *sjöstedti, Cam. ♀ (= yngvei, Cam. ♂).*
32. (25) Tergite 2 without a longitudinal carina.
33. (44) Clypeus (♀) distinctly punctate striate, clypeus (♂) less distinctly sculptured.
34. (39) Clypeus (♂ and ♀) pale; yellow or ferruginous, no black markings.
35. (36) Abdominal segment 1 very short and broad; black yellow and ferruginous, a robust insect; all the tergites with yellow apical fasciae. Total length 9 mm.
pakasae, sp. n.
36. (35) Abdominal segment 1 more slender, a distinct constriction between segments 1 and 2.
37. (38) Tergites 1 and 2 with narrow yellow apical fasciae; terminal segments ferruginous. *whiteanus, Cam.*
38. (37) No yellow markings; tergites 4-6 entirely black.
dimorphus, sp. n. ♀.
tergites 4-6 orange. *dimorphus, sp. n. var.*
(*O. senex*, Cam., comes in here.)
39. (34) Clypeus (♀) black, basally yellow; clypeus (♂) yellow.
40. (41) Scape, flagellum basally and tegulae ferruginous; terminal abdominal segments ferruginous. *silensis, Sauss.*
41. (40) Scape beneath yellow; tegulae whitish yellow with centre black; terminal segments of abdomen black, with yellow apical fasciae, and fascia on tergite 1 enlarged laterally.
42. (43) Median segment black, no yellow markings on surface of

truncation, the yellow very pale; tergites 1-5 with pale yellow apical fasciae, length 12 mm.

asmarensis, Schulthess.

(*O. armatiscutis*, Cam., comes in here.)

43. (42) Median segment with yellow markings on sides; tergites 1-4 with pale apical fasciae. Length 10 mm.

arethusae, sp. n.

44. (33) Clypeus with distinct punctures, not striate (♂ ♀).

45. (46) Large species - 12 mm. to apex of tergite 2. Black; pronotum, tegulae, scutellum, postscutellum, laterally, ferruginous; abdomen yellow, tergites 1 and 2 with large median marks, black. . . . *signatus*, Smith.

46. (45) Smaller species (about 8 mm.).

47. (54) Thorax and abdomen without any ferruginous markings.

48. (51) Males.

49. (50) Scutellum with two linear yellow marks, tegulae yellow with dark centre. . . . *metemmensis*, Magretti.

50. (49) Scutellum and postscutellum with yellow markings, tegulae ferruginous. . . . *defractus*, Buysson.

51. (48) Females.

52. (53) Pronotum, tegulae, scutellum postscutellum and abdominal segments 1 (except basally) wholly and 2-6 with black apical fasciae, pale yellow; median segment red.

ukerewensis, Schulthess.

53. (52) Pronotum with the anterior margin narrowly, abdominal segments 1 and 2 with complete apical fasciae, yellow; segment 3 laterally yellow; clypeus three coloured, yellow basally, black medially and red apically. Tegulae red. . . . *karibae*, sp. n.

54. (47) Thorax or abdomen (sometimes both) with profuse ferruginous markings.

55. (64) Apex of clypeus with a distinct emargination, the lateral teeth sharp. Males and females.

56. (57) Sides of median segment alone ferruginous.

jocosus, Gerst.

57. (56) Thorax and abdomen ferruginous.

58. (59) Prothorax without conspicuous lateral angles; clypeus long, pyriform. . . . *vulneratus*, Sauss.

59. (58) Prothorax with acute lateral angles, clypeus as broad as long. Males.

60. (61) Anterior margin of pronotum and abdominal segments 1 and 2 with narrow apical yellow fasciae, scutellum ferruginous, only the sides with small ivory yellow spots. . . . *goniodes*, Schletterer.

61. (60) Anterior margin of pronotum and abdominal fasciae on segments 1 and 2 broad; scutellum largely marked with yellow.
62. (63) Vertex ferruginous; abdominal segments 1 and 2 ferruginous with yellow apical fasciae. . . *pulchellus*, Gerst.
63. (62) Vertex black; abdomen with considerable black markings. . . *solstitialis*, Sauss.
64. (55) Clypeus apically truncate.
65. (66) Mesonotum ferruginous; scutellum and postscutellum yellow, anterior margin of pronotum broadly yellow. Male. *fervidus*, Sauss.
66. (65) Mesonotum black; scutellum and postscutellum ferruginous, anterior margin of pronotum narrowly yellow. Female. *tropicalis*, Sauss.
67. (1) Postscutellum without lateral tubercles.
68. (140) Median segment without any dorsal area behind the postscutellum.
69. (86) Postscutellum with hind margin transverse, truncate.
70. (81) Sides of median segment with carinae, often serrate.
71. (72) Upper margin of postscutellum 3-tuberculate, mesonotum with 2 conspicuous carinae approximating posteriorly. . . *carinulatus*, Sauss.
72. (71) Upper margin transverse, usually crenulate.
73. (76) Upper angles of median segment separated from sides of postscutellum by a distinct fissure; colours yellow and ferruginous.
74. (75) Wings hyaline, only the radial cell fuscous, prothorax yellow on the anterior margin. . . *rhynchoides*, Sauss. (= *saussurei*, André).
75. (74) Wings fuscous except basal third, prothorax ferruginous. . . *pseudolateralis*, sp. n.
76. (73) No fissure separating median segment from postscutellum.
77. (80) Larger species, about 13 mm. (to apex of tergite 2); wings bicolorous.
78. (79) Abdomen orange, segments 1 and 2 and a dorsal longitudinal mark, black; wings bluish, costal area ferruginous. *tectus*, Fab.
79. (78) Black and ferruginous, wings basally flavohyaline, apically bluish. *meyeri*, Cam. tergite 2 with narrow interrupted white apical fascia. var. *albolimbatus*, Schulthess.
80. (77) Smaller species, about 9 mm. (to apex of tergite 2). Wings unicolorous. Thorax black and ferruginous, tergite 2 with yellow apical fascia, wings fuscohyaline. . . *euryspilus*, Cam. (= *broomi*, Cam.).

81. (70) Sides of median segment without any carinae, suboblique.
82. (85) Abdomen black with apical fasciae ferruginous or yellow.
83. (84) Apical fasciae ferruginous, postscutellum black.
schultzeanus, Schulthess.
84. (83) Apical fasciae yellow; postscutellum with yellow marks.
vaalensis, Cam.
85. (82) Abdomen entirely brick red, thorax obscurely ferruginous.
deceptor, sp. n.
86. (69) Postscutellum with the hind margin curved, sides of median segment without any distinct carinae, rounded or produced to form lateral tubercles.
87. (111) Abdominal segments 1 and 2 without conspicuous lateral spots; general facies black, with yellow abdominal fasciae, or black and ferruginous or wholly black.
88. (96) Sides of median segment rounded.
89. (90) Wholly black; mandibles, clypeus, antennae and legs ferruginous (group of *O. floricola*). *cnemophilus*, Cam.
90. (89) Partly black; with apical margins of tergites yellow, legs ferruginous.
91. (92) Clypeus with two longitudinal carinae, pronotum anteriorly, scutellum laterally and postscutellum, yellow; tegulae ferruginous. *kilimandjaroensis*, Cam.
92. (91) Clypeus without any carinae, longitudinally striate.
93. (94) Larger, 8–10 mm. (to apex tergite 2).
hottentottus, Sauss. (= *erythrospilus*, Cam.).
94. (93) Smaller, 6–7 mm. (to apex tergite 2).
95. (96) Minutely punctured, clypeus (♀) black, yellow basally and longitudinally striate; tergite 2 with an indistinct longitudinal carina, apical fascia on tergite 1 linear.
capicola, sp. n.
96. (88) Sides of median segment subcarinate or with blunt teeth.
97. (110) Not wholly black.
98. (103) Abdomen impunctate.
99. (100) Abdomen unicolorous fuscoferruginous, without any pale markings; wings golden hyaline, apically infusate.
lateralis, Fab., var. *unicolor*, Schulthess.
100. (99) Abdomen not unicolorous.
101. (102) Abdomen with a broad longitudinal yellow line on each side along the whole length . . . *lateralis*, Fab.
102. (101) Tergite 1 at least with a pale apical fascia.
lugubris, sp. n.
103. (98) Abdomen more or less punctured, the tergites with at least the apical areae punctured.
104. (107) Abdomen wholly punctured; postscutellum yellow.

105. (106) Colours entirely ferruginous; clypeus, thorax partly and abdominal segments 1-3 with narrow apical fasciae.
combustus, Smith.
106. (105) Colours black, ferruginous and yellow; all the abdominal segments with yellow apical fasciae.
curvirufolineatus, Cam.
107. (104) Abdomen punctate only on the apical margin of tergites.
108. (109) Tergites 2-6 with apical margins coarsely punctured, tergite 2 with a pale narrow apical fascia; clypeus not apically emarginate; dark ferruginous and black insect.
marginipunctatus, sp. n.
109. (108) Tergites 1-6 with punctate apical margins, head and thorax black with yellow markings; abdominal segment 1 black, 2-6 black and yellow; clypeus with broad, round emargination, with sharp teeth at sides.
bothriogaster, Schletterer.
110. (97) Wholly black; postscutellum sometimes yellow.
aureosericeus, sp. n.
111. (87) Abdominal segments 1 and 2, or one of them, with conspicuous lateral spots, sometimes more or less confluent above, and apical fascia on tergite 2 sometimes much dilated laterally; general fascies variable, ferruginous and yellow or black and yellow.
112. (127) Clypeus with the apex emarginate; the emargination either round and broad with lateral teeth or indistinct, formed by the approximation of two small apical teeth.
113. (120) Emargination at apex of clypeus round and broad.
114. (115) Sides of median segment forming tubercles; abdominal segments ferruginous and black with yellow spots.
stiraspis, Cam.
115. (114) Sides of median segment rounded, abdomen yellow and black or ferruginous and black; clypeus yellow or ferruginous (♂).
116. (117) Abdomen yellow and black, no ferruginous; clypeus ferruginous (♂). *scripticeps*, Cam.
117. (116) Abdomen ferruginous and black, with yellow apical fasciae.
118. (119) All the tergites with yellow apical fasciae. Length 10 mm. *simplidentatus*, M.-Waldo.
119. (118) Tergites 1 and 2 only with narrow apical fasciae, Length 7 mm. *stellaboschensis*, Cam.
120. (113) Emargination at apex of clypeus formed by the approximation of two small apical teeth.
(Here comes in *O. aethiopicus*, Sauss.)

121. (126) Colour mostly black; thorax mostly black or black with extensive yellow or ferruginous markings.

122. (123) Median segment concave, coarsely trans-striate, laterally subtuberculate; thorax almost entirely black. Abdomen almost impunctate.

14-maculatus, Schulthess.

123. (122) Median segment suboblique, rounded, evenly punctured. Prothorax ferruginous or yellow.

124. (125) Prothorax ferruginous red; all the abdominal segments black, with interrupted yellow fasciae.

schulthessi, sp. n.

125. (124) Prothorax yellow; abdominal tergites 5 and 6 red.

wellmani, M.-Waldo.

126. (121) Mostly ferruginous, prothorax and postscutellum yellow.

aequinoctialis, Sauss.

(Here come in *O. erythrotomus*, Cam., and *O. meruensis*, Cam.)

127. (112) Clypeus with the apex truncate.

128. (133) Postscutellum above a small transverse carina.

129. (132) Species with considerable black markings.

130. (131) Clypeus almost impunctate. Length $12\frac{1}{2}$ mm.

spoliatus, Cam.

131. (130) Clypeus distinctly punctured. Length 10 mm.

indecorus, Cam.

132. (129) Species without any black markings; ferruginous, with pronotum anteriorly and abdominal segments 1 and 2 bordered with yellow. *mutabilis*, Sauss.

(*O. falcatus*, Tullgren, comes in here.)

133. (128) Postscutellum without any transverse carina.

134. (137) Abdomen impunctate.

135. (136) Clypeus (♀) yellow, impunctate, postscutellum and median segment yellow. *bellatulus*, Sauss.

136. (135) Clypeus (♀) red, punctured; abdomen without any yellow markings. *rotundiscutis*, Cam.

137. (134) Abdomen more or less punctured.

138. (139) Clypeus entirely yellow (♂ ♀) as broad as long, scutellum (9 specimens) ferruginous. *harrarensis*, sp. n.

139. (138) Clypeus (♀) basally yellow, distinctly longer than broad; scutellum (12 specimens) with some yellow.

sheffieldi, sp. n.

(Here come in *O. macrocephalus*, Grib., *O. multicolor*, Sauss., *O. mutans*, Sauss.)

140. (68) Median segment with a distinct dorsal surface posterior to postscutellum (div. *Stenodynerus*).

141. (142) Totally black species; clypeus (♂) clothed with dense silver pubescence; abdomen evenly punctured.
corvus, sp. n.
142. (141) Not black; abdomen almost wholly orange or ferruginous, abdomen impunctate.
143. (144) Clypeus densely clothed with silvery pubescence; clypeus bidentate at apex; wings fuscous. *bairistowi*, Grib.
144. (143) Clypeus bare; wings pale, subhyaline or subfuscous.
145. (146) Clypeus convex, punctured; mandibles falciform, very minutely serrate. . . . *ferrugineus*, Schulthess.
146. (145) Clypeus flat, shining, impunctate, truncate at apex; mandibles distinctly 3-dentate.
politiclypeus, Schulthess.

Subgenus *Hoplomerus*, Westwood.

1. (2) Wings unicolorous.
2. (1) Wings bicolorous, the basal half golden hyaline, apical half fuscous. Abdomen black, sometimes with obscure whitish marks on sides of apical margins of segments 3-5.
spiniger, Schulthess.
Abdomen laterally with profuse pale yellow markings.
var. *maculatus*, Schulthess.
3. (4) Head and thorax with a considerable covering of long, griseous pubescence. Mesonotum without any distinct parapsidal grooves. Abdomen black, tergites 1-2 with pale yellow apical fasciae. Length 13 mm. ♂.
simplex, Bingham.
4. (3) Head and thorax without conspicuous pubescence. Mesonotum with distinct parapsidal grooves. Abdomen otherwise coloured.
5. (6) Median segment hardly concave; clypeus, cephalic and thoracic markings yellow; abdominal segments 1-2 mostly ferruginous. . . . *adonis*, sp. n.
6. (5) Median segment distinctly concave; clypeus, cephalic and thoracic markings ferruginous; abdomen black, with apical fasciae widening laterally, pale yellow.
zebroides, sp. n.

Subgenus *ANCISTROCERUS* Wesm.

Odynerus (Ancistrocerus) budongo, sp. n.

♀. Niger, densissime et brevissime aureo-tomentosus; mandibulis basi, clypeo (medio excepto), linea longitudinali inter antennis, sinu orbitali, macula post oculos, maculis duabus pronoto, tegulis

partim, postscutello, segmento mediano lateribus, segmentis abdominis 1-2 fasciis apicalibus, luteis. Mandibulis apice, antennis infra, tegulisque plerumque ferrugineis. Segmento primo carinis duabus transversis. Capite (vertice excepto), thorace antice, pleurisique sat crebre rugoseque punctatis; thorace postice abdomineque vix punctatis. Segmento mediano lateribus acutis. Alis subhyalinis, cellula radiali fusca. Long. 8 mm.

Black, somewhat shining, densely clothed with a very short fine pubescence, for the most part golden, but cinereous on metapleura and sternite 2. Yellow markings as above, with following addition: Coxae, femora and tibiae beneath yellow; anterior tarsi ferruginous.

Clypeus pyriform, apically bidentate.

The head with the exception of the vertex and the prothorax and mesonotum anteriorly rather coarsely punctured; the vertex and rest of the thorax almost impunctate. Propleura bordered anteriorly by a conspicuous carina, another carina is situated on the mesopleura; lateral angles of the median segment forming two sharp keels; the intervening space trans-striate. Abdomen with fine, scattered punctures. The first segment of abdomen with two conspicuous transverse carinae, the intervening space impunctate.

Length 8 mm. 1 ♀.

UGANDA PROTECTORATE: Budongo Forest, Unyoro, 3400 ft., xii. 1911 (*S. A. Neave*). Closely allied to *O. (A.) massaicus*, Cam., described from Kilimanjaro. The species comes in Saussure's Division *Epancistrocerus*.

***O. (Ancistrocerus) lufirae*, sp. n.**

♀. Niger, punctatus; scapo infra, clypeo basi, macula frontali, macula post oculos, duabus maculis margine antico pronoti, segmentis abdominis 1-4 fasciis apicalibus, tibiisque plerumque luteis. Antennarum flagello, mandibulis, clypeo apice obscure, tegulis, tarsisque ferrugineis.

Ubique punctatus, capite thoraceque crassissime. Clypeo brevi, apice bidentato. Segmenti mediani lateribus subrotundatis. Alis hyalinis, cellula radiali infuscata. Long. 7 mm.

Black, coarsely punctured on head and thorax, less coarsely on abdomen. Yellow and ferruginous markings as above, covered with a sparse, pale pubescence. Clypeus as broad as long, slightly convex, narrowly produced towards apex, which is bidentate, the two teeth forming the termination of longitudinal carinae starting in the apical half of the clypeus. Ocelli on a slightly raised area on vertex. Pronotum with lateral angles acute, gradually widening
TRANS. ENT. SOC. LOND. 1914.—PARTS III, IV. (FEB.) K K

towards tegulae. Postscutellum and median segment truncate, the latter concave medially, its lateral angles rounded. First abdominal segment bell-shaped, widening posteriorly, narrower than second at base. Wings clear hyaline, slightly fuscous on part of costal area and in radial cell. ♂ differs only sexually, flagellum black.

Length 7 mm. 1 ♀, 2 ♂♂.

S.E. CONGO FREE STATE: Lufira R., Katanga, 3500 ft.; Lualaba River, v. 1907 (2 ♂♂); Kambove, Katanga, vi. 1907 (4000–5000 ft.), ♀ (type), (*S. A. Neave*).

O. (*Ancistrocerus*) *neavei*, sp. n.

♂. Niger; clypeo basi excepto, mandibulis, maculis inter antennis et post oculos, pronoti margine antico plus minusve, segmentisque abdominalibus 1 et 2 fasciis apicalibus, luteis. Capite, thorace tegulis exceptis, segmentoque abdominali primo plerumque rugose punctatis; tegulis segmentisque 2–7 vix punctatis. Alis infuscatis, ampliatis. Long. 11 mm.

Head, thorax, and first segment of abdomen with a long, somewhat sparse, covering of griseous pubescence, rest of abdomen with a dense short silvery pubescence on the ventral surface. Wings very ample.

Clypeus as broad as long, narrowly produced towards apex, which is deeply emarginate. Head about as broad as thorax at widest. Terminal joint of antennae forming a hook. Anterior margin of pronotum truncate, the pronotum widening towards the tegulae. Scutellum flat, divided from the postscutellum by a distinct transverse groove, postscutellum subtruncate, raised; median segment with a short dorsal area, the sides of the truncation rounded and produced to form blunt lateral tubercles. Surface of the truncation finely trans-striate. Head, thorax, except tegulae, and the surface of truncation of median segment, and abdominal segment 1 posterior to the transverse carina, regularly and deeply punctured; the rest shining, finely punctured. Abdomen slender, a slight constriction between segments 1 and 2.

♀ differs from male only sexually; clypeus black, with 4 yellow marks, the basal pair minute, medio-lateral, the apical pair elongate almost reaching the apex, which is truncate; mandibles black, except for a minute yellow mark at base. The wings in the ♀ very ample.

Length 11 mm. 2 ♀♀, 1 ♂.

UGANDA PROTECTORATE: N. Ruwenzori (6000–8500 ft.), Nov. 1911 (type ♂) and ♀ (*S. A. Neave*); Ruwenzori

(8000 ft.) 17. ii. 1912 (Captain J. Fraser), 1 ♀. Resembles *O. (A.) neuvillei*, Buyss., but differs from it in having only two yellow abdominal fasciae.

The following species were included as belonging to this subgenus in Gen. Insectorum (Vespidae); two of them are referable to the genus *Labus* and the third to *Rhynchalastor*.

Rhynchalastor xanthosoma (Schletterer).

Odynerus (Ancistrocerus) xanthosoma, Schletterer. Ann. Soc. Ent. Belg., vol. 35, p. 24 (1891).

Through the kindness of Dr. Severin I examined the type of this species. It is an undoubted *Rhynchalastor*, nearly related to *R. fuscipennis*, M.-Waldo.

In his recent paper on *Odynerus* (Soc. Entom. xxix, No. 14, p. 73, 1914) Schulthess describes *O. (Stenodynerus) ferrugineus* var. *mafiensis*, which he says is identical with *Rhynchalastor fuscipennis*, at the same time stating that there is an evanescent fourth joint in the labial palpi. On a further close examination I am inclined to agree with him. There remain, however, two characters which are of sufficient importance to render the genus valid, viz. the acute apex to the clypeus and the petiolate second cubital cell.

In any case, if the var. *mafiensis* is considered synonymous with *R. fuscipennis* (1910), why is a new varietal name selected? Finally, it would seem that on structural characters of the clypeus this variety was worthy of specific rank, since in the type form the clypeus is diagnosed as follows: "clypei truncatura apicalis aequae longa ac articulus 3 antennarum," and in the variety *mafiensis* "clypeo ♂ et ♀ apice acuto, margine apicali fere nullo."

Labus bisuturalis (Sauss.).

Odynerus bisuturalis, Sauss. Et. fam. Vesp. i, p. 127 (1852) ♂.

Through the kindness of Prof. Poulton I have been able to examine the type of this species from the Westwood Collection in the Hope Department of the Oxford Museum. It is an undoubted *Labus*, a genus created by Saussure in 1867 for the reception of two species caught during the cruise of the *Novara*, in Ceylon and Java respectively.

The type locality of *L. bisuturalis* is doubtful, but it is thought to have come from Senegal, which is highly probable, as many Ethiopian species are now known. The species is stated (*l.c.*) to have two transverse sutures on the first abdominal segment, but the most careful examination has failed to reveal more than one. A specimen in the British Museum from N.E. Rhodesia (Mid-Luangwa Valley) is very closely allied to it.

Labus difformis (Sauss.).

Odynerus difformis, Sauss. Et. fam. Vesp. i, p. 145 (1852) ♂.

I have not seen this species, but it appears to be a *Labus*.

Subgenus LIONOTUS, Sauss.

O. (Lionotus) carinatus, sp. n. (Plate XCI, fig. 7.)

♀. Niger, luteo variegatus; clypeo duabus carinis longitudinalibus conspicue instructis; mesothorace crassissime ac longitudinaliter striato; tergite secundo carina longitudinali margineque postico crenulato; pronoti margine postico elevato. Clypeo basi, carinis clypealibus, pronoto partim, segmentis abdominalibus 1 et 2 fasciisque apicalibus, luteis. Mandibulis, scapo, flagello infra, tegulis, linea scutellari, segmento primo partim, pedibusque plerumque, ferrugineis. Alis subfuscis. Long. 10 mm.

♂ differt clypeo luteo inconspicue carinato, areaque lutea pronoto ampliori. Long. 9 mm.

Head and thorax (except pleurae) covered with a medium fulvous pubescence, pleurae with silvery pubescence. Mandibles long and slender; clypeus rather longer than broad, narrowly produced towards apex, shallowly emarginate, the area between the two carinae shining almost impunctate. Pronotum truncate anteriorly, widening towards tegulae, lateral angles acute; scutellum with the lateral expansions rather inconspicuous, postscutellum with two sharp lateral tubercles; median segment concave, sides of the truncation forming ridges. First abdominal segment slender basally, second tergite with a conspicuous median longitudinal carina almost reaching the apex; apex crenulated impunctate.

Head and thorax coarsely punctured, mesonotum especially with conspicuous longitudinal striation, surface of the truncation of the median segment more finely punctured. Wings fuscous.

♂ differs from ♀ in having the carinae on clypeus less distinct and the yellow on pronotum more widely distributed.

Length 9–10 mm. 1 ♂, 1 ♀.

CAPE COLONY: Willowmore, Feb. 1903 and Jan. 1911
(*Dr. H. Brauns*). Coll. No. 14.

O. (Lionotus) 4-tuberculatus, Smith. (Plate XCI, fig. 3.)

In my earlier paper (*Ann. Mag. Nat. Hist.* (8), xi, p. 52, 1913) *O. pulchripilosellus*, Cam., is treated as synonymous with the above; since then I have come to the conclusion that they are distinct; *Schulthess* (*Archiv. F. Zoologi*, Bd. 8, No. 17, p. 16 (1913) is of the same opinion.

O. instabilis, Smith.

O. instabilis, Smith. *Catal. Hymen. Brit. Mus.*, v, p. 73
(1857) ♀ ♂.

The type of this species is missing.

Nortonia eumenoides (Smith).

Odynerus eumenoides, Smith. *Catal. Hymen. Brit. Mus.*,
v, p. 71 (1857).

This species, the type of which is in the British Museum, is referable to the above genus. It was described from Natal.

O. (Lionotus) hansi, sp. n.

♂. Niger, ferrugineus; segmentis 1-3 fasciis apicalibus luteis; clypeo basi, antennis infra, macula inter antennas, linea post oculos, pronoto, tegulis, scutello, postscutello, segmenti mediani lateribus, abdominis segmentis 1 et 2 plerumque, maculaque pleuris, ferrugineis; pedibus ferrugineis. Alis fuscis. Long. 8 mm.

Head and thorax clothed with a short, dense, fulvous pubescence; clypeus convex rather longer than broad, with two small teeth at apex, the space between truncate; mandibles stout, subtruncate; thorax robust, anterior margin of pronotum truncate, almost as wide as thorax at tegulae; scutellum slightly raised, laterally raised into expansions, postscutellum with two distinct tubercles; median segment concave, the lateral angles rounded.

First abdominal segment broad, bell-shaped; second segment rounded normally above. Head, thorax and median segment rather coarsely punctured, the abdomen more finely; mesonotum with some longitudinal striae. Wings fuscous.

Length 8 mm. 1 ♂.

ORANGE FREE STATE: Bothaville, 20. xii. 1898 (*Dr. Hans*

Brauns). Coll. No. 15. Dedicated to the captor and donor. A stout species, easily recognised by the sculpture of the scutellum and postscutellum, the general appearance is ferruginous.

O. (*Lionotus*) *kristenseni*, sp. n.

♀. Niger, luteo-variegatus ac fasciatus; mandibulis clypeoque basi, macula inter antennis, pronoto antice, scutello lateribus, post tegulis, abdominis segmentis 1-4 fasciis apicalibus completis, segmento 5 fascia apicali mediano, tibiis tarsisque, flavo-luteis; tegulis maximis; femoribus I et II plerumque, tegulisque ferrugineis. Alis subhyalinis, area costali subfusca. Long. 8 mm.

Head and thorax clothed with a short silvery pubescence, most conspicuous on pleura and median segment; abdomen more sparingly clothed with a similar pile. Clypeus hardly so broad as long, very finely punctured, narrowly produced towards apex, apex weakly bidentate. Mandibles rather slender. Thorax about as wide as head; lateral angles of pronotum acute, the pronotum gradually widening towards tegulae; scutellum flat, but rather raised above mesonotum, postscutellum truncate, laterally armed with sharp tubercles; median segment subtruncate, the lateral angles rounded. Abdominal segment 1 rather slender, abruptly widening towards apex; tergite 2 longer than broad, with a distinct median longitudinal carina which does not reach either the extreme base or apex of the segment. Tegulae very large, sparsely but distinctly punctured. Head, thorax and abdomen all punctured; the mesonotum rugose and longitudinally striate; concavity of median segment almost imperceptibly punctate, the abdomen finely but regularly punctured. The yellow markings on legs grade into ferruginous, tarsi almost entirely ferruginous.

Wings subhyaline, rather smoky along the costa.

Length 8 mm. 1 ♀.

ABYSSINIA: Harrar (*Gunnar Kristensen*), May 1911, presented to the British Museum by R. E. Turner.

This species is easily recognisable by the abnormally large tegulae, and longitudinal carina on tergite 2.

O. (*Lionotus*) *gambiensis*, sp. n.

♀. Niger, luteo-ferrugineoque variegatus; clypeo, pronoti margine postico, abdominisque segmentis 1-4 fasciis apicalibus luteis; mandibulis, antennis, sinu orbitali, macula post oculos; pronoto, tegulis, scutello, postscutello, macula mesopleuris, segmenti mediani lateribus, abdominis segmentis primo, et sexto

maculis, segmento secundo, pedibusque plerumque, ferrugineis. Alis subhyalinis. Tergite 2 carina longitudinali conspicua instructa. Clypeo tricarinato. Long. 8 mm.

Clothed with an inconspicuous silvery pubescence on head, thorax and abdomen. Clypeus elongate, almost twice as long as broad, with three longitudinal carinae, the median one hardly reaching the apex; apex very slightly excised. Mandibles acute, slender, but not abnormally long.

Scutellum considerably raised, truncate laterally; postscutellum with distinct lateral tubercles. Median segment concave, slanting, lateral angles blunt, but forming distinct ridges. First abdominal segment slender basally, but widening abruptly towards apex; second tergite with a conspicuous longitudinal keel, reaching the apical yellow fascia. The following segments telescoped, but certainly with yellow fasciae. The whole coarsely punctured, but especially the pro- and mesonotum; clypeus shining only sparingly punctured. Wings subhyaline.

Length 8 mm. 1 ♀.

GAMBIA: 15. iii. 1911 (*J. J. Simpson*).

The clypeal and abdominal carinae render this species easy to identify.

O. (*Lionotus*) *silverlocki*, sp. n. (Plate XCI, fig. 4a, 4b.)

♀. Niger, punctatus; clypeo longitudinaliter tricarinato, tergite 2 carinato; clypeo, antennis, macula inter antennis, pronoti marginibus, tegulis, scutello partim, tergite 1 lateribus, pedibusque coxis, trochanteribus, femoribusque, ferrugineis. Maculis parvis sinu orbitali, et post oculos ferrugineis. Segmentis 1-3 fasciis apicalibus, tibiis tarsisque, luteis. Alis fuscis. Long. 8 mm.

Head and thorax clothed with pale pubescence. Clypeus twice as long as broad, with three conspicuous longitudinal carinae, its surface black at the sides; the apex narrow, truncate. Pronotum truncate anteriorly, the lateral angles not particularly salient, ferruginous along both anterior and posterior margins. Both scutellum and postscutellum raised, scutellum with lateral expansions, postscutellum truncate posteriorly, armed with small sharp tubercles on each side. Median segment oblique, rounded laterally, each side produced to form a distinct tubercle towards the apex. Segment 1 short, globose; segment 2 distinctly longer than broad. The whole head and thorax coarsely punctured, the punctures on the mesonotum especially coarse, and forming striae. Punctures on abdomen finer, apical fasciae impunctate. Wings fuscous,

Length 8 mm. 3 ♀♀.

N. RHODESIA: 85 miles west of Kariba Gorge, vi. 1910, type (*O. C. Silverlock*), 2 ♀; Lower Luangwa River, ix. 1910 (*S. A. Neave*). 1 ♀.

Dedicated to its captor, the late O. C. Silverlock, who was drowned in the Zambesi River, owing to his canoe being overturned by a hippopotamus. The species may be distinguished from *O. gambiensis* by the different shape of the second tergite, and distribution of colour.

***O. (Lionotus) pakasae*, sp. n.**

♀. Flavo-ferrugineus; capite plerumque, mesothorace, nigris; clypeo, scapo infra macula triangulari supraclypeali, sinu orbitali, macula lineari post oculos, pronoto, tegulis, scutello, postscutello, tergite 1 anguste, 2-6 late fasciis apicalibus tergite 2 lateribus, flavis; mesopleuris plerumque pedibusque, flavis; mandibulis, antennis, segmento mediano, abdominis segmentis 1 et 2 (areis flavis exceptis) coxis anticis ferrugineis; alis fuscis. Long. 8 mm. ♂ similis.

Clothed with a very short, pale pubescence. Clypeus rather longer than broad, pyriform, very slightly emarginate at apex. Pronotum truncate anteriorly, rather wider at the tegulae; scutellum and postscutellum raised, the lateral teeth of postscutellum acute, the space between them not crenulate; median segment with the lateral angles rounded. First abdominal segment very short and broad, the second as broad as long, the first segment entirely ferruginous except for the apical fascia, the second with a large dorsal bilobed area ferruginous, the sides and apex, yellow, following segments with a series of fuscous lateral spots. Posterior coxae with a distinct tubercle behind.

Head and thorax (except clypeus, tegulae and abdominal segments apically) coarsely punctured; clypeus, tegulae, median segment and abdomen for the most part finely punctured. Wings fuscous.

Length 8 mm. 5 ♀♀, 1 ♂.

N. RHODESIA: Pakasa, i. 1911, 3 ♀♀ 1 ♂; Sinapunga, ii. 1911 (*O. C. Silverlock*), 1 ♀; PORTUGUESE EAST AFRICA: Rikatla, Delagoa (*Junod*), Schulthess Coll., 1 ♀; GERMAN S.W. AFRICA: Grootfontein (*Volkman*), Coll. Schulthess.

The specimen from German S.W. Africa is a colour variety with the 4-6 segments of abdomen orange instead of black.

The species is a distinct one, the different sculpture in the postscutellum of the sexes being interesting.

O. (*Lionotus*) *dimorphus*, sp. n.

♀. Niger, aurantiacus; antennis basi ac infra, mandibulis, clypeo, macula supraclypeali, sinu oculorum, macula lineari post oculos, pronoto, maculis mesopleuris, tegulis, scutello, postscutello, segmenti mediani lateribus plerumque, abdominis segmento primo, secundo plerumque, fasciaque apicali tertio, aurantiacis; pedibus (coxis trochanteribusque exceptis) aurantiacis; alis fuscis. Long. 9 mm.

Gracilis, differt scutello bituberculato, non plano ut in ♀, clypeoque apice emarginato; coloribus similis, sed flagello; omnino nigro. Long. 8 mm.

Sparingly clothed with pale pubescence. Clypeus rather longer than broad, pyriform; the apex truncate (♀) distinctly emarginate with acute lateral teeth (♂); mandibles normal; a distinct pit on the vertex behind ocelli (♀); pronotum truncate anteriorly, the lateral angles not very acute; sides of pronotum widening towards tegulae. Scutellum raised, but flat (♀), postscutellum with sharp lateral tubercles; median segment concave, the sides rounded.

First segment of abdomen slender at base, second segment distinctly constricted basally, the black marks on its dorsal surface large, bilobed in shape, the sides orange.

Whole insect punctured; clypeus (♀) and mesonotum with striate punctate, abdomen more finely punctured, the apical margins of the tergites more coarsely punctured than the remainder. Wings fuscous.

Length 9 mm. (♀), 8 mm. (♂). 2 ♀, 1 ♂.

ORANGE FREE STATE: Bothaville, iii. 1899 (*Dr. H. Brauns*); GERMAN S.W. AFRICA.

O. (Lionotus) asmarensis (Schulthess), Soc. Entomolog.
xxix, p. 63 (1914).

This was described by Schulthess as a variety of *O. silaensis*, Sauss.; it is, however, quite distinct.

O. (Lionotus) sjöstedti, Cam.

O. yngvei, Cam., described at the same time and from the same type locality as *O. sjöstedti*, is certainly the male of that species. Cameron (*Sjöstedt's Kilimandjaro-Meru Exped.*, p. 188, 1910) had considered this possibility; his reasons for separating them do not appear satisfactory.

O. (*Lionotus*) *arethusae*, sp. n.

♂. Niger, luteo fasciatus; scapo infra, clypeo, macula supraclypeali, sinu oculorum infra, macula post oculos, pronoto antice,

margine tegularum, axillis, segmenti mediani lateribus, tergitis 1-4 fasciis apicalibus (quarum 1-2 lateribus dilatae sunt), luteis; pedibus (coxis trochanteribusque exceptis) flavis, tarsi subferrugineis; mandibulis ferrugineis. Alis subfuscis. Long. 10 mm.

Black, dusted with a griseous pubescence. Clypeus as broad as long, pyriform, deeply emarginate at apex, the lateral teeth acute. Prothorax truncate anteriorly. Scutellum slightly raised, postscutellum with short lateral tubercles, truncate; surface of median segment concave.

Abdomen with first segment short and broad, the second as broad as long. Head and thorax coarsely punctured, the clypeus with distinct longitudinal striation; abdomen finely punctured.

Wings subfuscous, rather darker along costa.

Length 10 mm. 6 ♂♂.

NYASALAND: Mlanje, 2300 ft., Oct. 1913 (*S. A. Neave*).

This species is dedicated to H.M.S. Arethusa, in recognition of the conspicuous part played by her in the naval engagement in the North Sea.

O. (*Lionotus*) *karibae*, sp. n.

♀. Niger, clypeo tricolorato; clypeo basi, scapo infra, macula supraclypeali, sinu oculorum infra, macula post oculos, pronoti margine antico, tergitis 1-3 fasciis apicalibus, prima lateribus dilatata, pedibus plerumque, luteis. Mandibulis, clypeo apice, tegulisque, ferrugineis. Alis hyalinis, cellula radiali fusca. Long. 8 mm.

The whole insect clothed with a short, silver pubescence. Clypeus as broad as long, convex, the apex with a very shallow emargination. Anterior margin of median segment truncate, the lateral angles acute. Scutellum raised, slightly convex, postscutellum with the lateral teeth inconspicuous; median segment rounded laterally. First segment of abdomen short, broad. Head and thorax with coarse, deep, punctures, clypeus with the punctures well separated; abdomen more finely punctured. Wings hyaline extreme costa and radial cell fuscous. Second cubital cell nearly triangular, *i. e.* second abscissa of radius very short.

Length 8 mm.

♂ only differs sexually, the clypeus yellow and more finely punctured.

A long series of ♀♀ and 2 ♂♂.

N. RHODESIA: Kariba Gorge and E. of Sijoba, vi. 1910 (*O. C. Silverlock*) ♀♂ (type); Broken Hill, ix. 1912 (*F. V. Bruce Miller*); Lonely Mine, x. 1913 (*Dr. H. Swale*);

Chilanga (*R. C. Wood*); Upper Luangwa River, vii.-viii. 1910; Mouth of Lusangazi River, ix. 1910; Niamadzi River, 2000 ft., viii. 1910; (*S. A. Neave*). S.E. CONGO FREE STATE: Lufira River, Katanga, 3500 ft., viii. 1907 (*S. A. Neave*). NYASALAND: valley of S. Rukuru River, 3000 ft., xi. 1910 (*S. A. Neave*). The specimen from Nyasaland is not quite typical, the scutellum, postscutellum and median segment on the side being largely ferruginous.

O. (Lionotus) pulchellus, (Gerst).

Rhynchium pulchellum, Gerst., Mon. Akad. Wiss. Berlin, p. 463 (1857) ♂. Peters, Reise nach Mossambique, Zool. v, p. 466. Pl. XXX, fig. 5.

This species is certainly an *Odynerus*, as the fig. (*l.c.*) suggests.

In the British Museum there is a long series from the following localities:—

N. RHODESIA: 15 miles E. of Sijoba, vii. 1910 (*Silverlock Coll.*); Niamadzi River, 2000 ft., Luangwa River, 1910; BRITISH EAST AFRICA: Mtito Andei, 2000 ft., Masongaleni, 3000 ft., Voi, 1800 ft., iii. 1911; NYASALAND: Chitala Stream, x. 1910; Valley of N. Rukuru, Karonga District, 3000–4000 ft., vii. 1910; GERMAN EAST AFRICA: Usagara District, xii. 1910 (*S. A. Neave*).

Odynerus (Lionotus) rhynchoides, Sauss.

O. rhynchoides, Sauss. Et fam. Vesp. i, p. 174 (1852) ♂ (Senegal).

O. saussurei, E. André, Hymén. d'Europe et d'Algerie, ii, p. 682 (1881) ♀ (Egypt, Abyssinia).

This species is widely distributed. In the British Museum are specimens from the Gambia, 2 ♀♀, Tajura (Straits of Bab-el-Mandeb) 1 ♀ and Biskra, vi. 1897 (*E. Saunders Coll.*) 2 ♀♀, 1 ♂. The latter specimens were identified as *O. saussurei*, but they agree in every respect with *O. rhynchoides*, of which I have examined the type specimen, through the courtesy of the Paris Museum officials.

O. (Lionotus) pseudolateralis, sp. n.

♀. Ferrugineus, abdomine nigro, lateribus flavis; segmento sexto ferrugineo. Tegulis plerumque flavis. Alis basi subhyalinis, apice fuscis. Long. 12 mm.

Head and thorax ferruginous, the abdomen black with a broad yellow line extending along the whole length; terminal segment ferruginous.

Clypeus convex rather longer than broad, narrowly produced towards the apex, which is armed with two small teeth. Anterior margin of pronotum curved, widening towards tegulae; scutellum flat, not raised above mesonotum, postscutellum truncate posteriorly, transverse; upper angles of median segment acute, separated from sides of the postscutellum by a distinct fissure, truncation of median segment concave.

Basal segment of abdomen broad and rounded, as wide as second at base. Head and thorax coarsely and evenly punctured, abdomen more finely punctured. Wings with the basal third flavohyaline, and the apical two-thirds fuscous.

♂ differs only in having the clypeus and mandibles and a large interantennal mark, yellow. 3 ♀♀, 1 ♂.

N. NIGERIA: Minna, Oct.-Nov. 1910 (*J. W. Scott-Macfie* (type) and *J. J. Simpson*); GAMBIA, 26. iii. 1911 (*J. J. Simpson*) ♀, and "West Africa" ♂.

The superficial resemblance between this species and the well-known *Odynerus lateralis*, Fab. (*truncatus*, Sauss.), is very striking. The differences in the structure of the postscutellum and median segment render their discrimination easy.

O. (Lionotus) pseudolateralis.

O. (L.) lateralis (Fab.).

Postscutellum transverse, truncate posteriorly.

Postscutellum rounded.

Lateral angles of median segment acute.

Lateral angles of median segment rounded.

Abdomen distinctly punctured.

Abdomen impunctate.

O. (Lionotus) euryspilus, Cam.

O. euryspilus, Cam. Annals Transvaal Museum, ii, p. 166 (1910) ♀. Dunbrody.

O. broomi, Cam. ? M.S. ♂. Pearston.

I can find no description of *O. broomi*, but the type specimen in the British Museum is certainly referable to *O. euryspilus*, the type of which was a ♀. Both specimens are from Cape Colony; there are also specimens (1 ♂, 1 ♀) from Willowmore, Cape Colony (*Dr. H. Brauns*), in the collection.

O. (*Lionotus*) *deceptor*, sp. n.

♀. Obscure ferrugineus, abdomine rubro; alis hyalinis. Long. 9 mm.

Clypeus longer than broad, pyriform, the apex subtruncate. Thorax robust; pronotum truncate anteriorly, only slightly widening towards tegulae; scutellum convex, slightly raised above disc of mesonotum, postscutellum transverse, truncate; surface of the truncation of median segment slightly convex, the lateral angles rounded.

Basal segment of abdomen broad, cup-shaped, without any constriction between it and segment 2.

Head coarsely and evenly punctured; clypeus and abdomen (except segments 2-6 apically) impunctate.

Length 9 mm. 12 ♀ ♀.

PORTUGUESE EAST AFRICA: Kola Valley, 1700 ft.; Nov. 1913 (type); NYASALAND: Chitala Stream, Oct. 1910; Mlanje, 2300 ft., Oct. 1913 (*S. A. Neave*); Port Herald, Jan. 1913 (*Dr. J. E. S. Old*); TRANSVAAL: Pretoria (*Miss J. Brincker*); N.E. RHODESIA (*Silverlock Coll.*): Resembles a small *O. carinatus*, Sauss., but differs in structure of postscutellum.

*O. (*Lionotus*) hottentottus*, Sauss. (Plate XCI, fig. 8.)

O. hottentottus, Sauss. Et. fam. Vesp. Suppl., p. 244 (1854) nom. nov.

O. posticus, Sauss. (*nec. H. S.*). Ibidem i, p. 214 (1852) ♂.

O. erythrospilus, Cam. Rec. Albany Mus., i, p. 205 (1905) ♀.

Cameron's type is from Dunbrody. There is a good series from Deelfontein (*Col. Sloggett*) and one specimen from Salisbury, Mashonaland (*G. A. K. Marshall*). This synonymy was noticed in a previous paper (*Ann. Mag. Nat. Hist.* (8) vi, p. 101 (1910)).

*O. (*Lionotus*) spoliatus*, Cam.

O. spoliatus, Cam. Annals Transvaal Museum, ii, p. 165 (1910) ♂ ♀.

O. longstaffi, Bingham, Trans. Ent. Soc. Lond., 1912, p. 378. ♂.

Bingham's species differs in certain points of coloration, but is undoubtedly only a variety of *O. spoliatus*, Cam., the types of which are in the National collection. A South

African species: Johannesburg, xii. 1905 (*G. Kobrow*) *ex. coll. Brauns* ♂ ♀ and (*A. J. Chalmley*) ♀; Salisbury, Mashonaland (*G. A. K. Marshall*) 2 ♀ ♀, 1 ♂; Kranspoort, xii. 1900 (type ♀ ♂); Natal (type of *O. Longstaffi*).

***O. (Lionotus) capicola*, sp. n.**

♀. Niger, luteo variegatus, pedibus rufis; clypeo basi, oculorum sinu, maculis post oculos, pronoti margine antico, tegulis plerumque, scutelli postscutellique maculis lateribus, abdominis segmentis 1-3 fasciis apicalibus, luteis; scapo infra, mandibulis, pedibusque, rufis; tergite 2 carina longitudinali inconspicua; alis infuscatis. Long. 7 mm.

General appearance black, segments 1-3 with yellow apical fasciae, legs ferruginous red. Whole insect clothed with short fine pubescence, that on face and pleura silvery-pruinose. Clypeus as broad as long, flat, truncate at apex, longitudinally striate; mandibles long, with a row of distinct teeth. Head broader than thorax, anterior margin of prothorax truncate, very narrow, but abruptly widening towards tegulae; scutellum raised; median segment concave, the lateral angles rounded. Head and thorax coarsely, abdomen more finely punctured; tergite 2 with an inconspicuous longitudinal carina. First segment of abdomen short. Wings smoky.

♂ similar to ♀, but with mandibles, clypeus and scape beneath yellow.

Length 7 mm. 3 ♀ ♀, 5 ♂ ♂.

CAPE COLONY: Willowmore (*Dr. H. Brauns*).

Odynerus lateralis, F.

Vespa lateralis, F. Spec. Insect. i, p. 466, no. 49 (1781). ♀.
Odynerus truncatus, Sauss. Et. fam. Vesp. i, p. 175 (1852).

♀.

Saussure (Et. fam. Vesp. iii, p. 171) quite excusably misidentified the Fabrician species. Two entirely distinct insects stand as *V. lateralis* in the Banks collection; the first in arrangement is the large (over 15 mm.) robust form with shining mesonotum, doubtless the *Rhynchium africanum*, Sauss.; the second, a smaller (11 mm.) insect with punctured mesonotum, compared by Fabricius as equal in size to his *V. tecta* (type in B.M.), is the genuine *Odynerus lateralis*, F. This species is identical with Saussure's *D. truncatus* (a cotype from the Paris Museum compared). It is evident

that when working through the Banks collection for additions and corrections to his Monograph, Saussure fixed on the first specimen labelled "*V. lateralis*" as the true exponent of the Fabrician species, synonymising the more recently described *R. africanum*, F. (1804), with it. Now, however, the name *R. africanum* can be reinstated.

O. (*Lionotus*) *marginipunctatus*, sp. n. (Plate XCI, fig. 6.)

♀. Niger; mandibulis, clypeo, sinu oculorum infra, antennis, area post oculos, pronoto, tegulis, axillis, postscutello, segmento mediano, segmentisque abdominis apice ferrugineis; pedibus ferrugineis; tergite 2 fascia apicali angusta lutea; alis bicoloribus, basi hyalinis, apice infuscatis. Long. 11 mm.

Black; with fusco-ferruginous markings; vertex and thorax with a short golden pubescence, the abdomen clothed with a thick griseo-pruinose pile. Mandibles medium, with blunt teeth; clypeus as broad as long, truncate, convex, pyriform; pronotum rounded anteriorly, widening gradually towards tegulae; scutellum flat, postscutellum slightly raised; median segment rounded laterally. Head and thorax evenly and distinctly punctured, abdomen with tergite 1 entirely impunctate, tergites 2-6 basally impunctate but with the apical area distinctly punctured; sternites 2-6 distinctly punctured on their whole surface. Tegulae impunctate.

Wings with the basal half hyaline the nervures golden, apical half infusate.

Length 11 mm. 9 ♀ ♀.

NYASALAND: Mlanje, 2300 ft., 4. x. 1913 (*S. A. Neave*).

This species bears a strong superficial resemblance to *O. lateralis* var. *unicolor*, Schulthess, but that variety has the abdomen entirely smooth.

O. (*Lionotus*) *lugubris*, sp. n.

♀. Niger, obscure ferrugineo-variegatus; capite, thorace, pedibusque plerumque fusco-ferrugineis; abdomine plerumque nigro; mandibulis basi, tergiteque primo fascia apicali, luteis. Alis hyalinis, subinfuscatis, praecipue area costali cellulaque radiali. Long. 11 mm.

Black, with fusco-ferruginous markings on head and thorax. Pubescence much as in *O. marginipunctatus*. Sculpture of thorax as in that species. First segment of abdomen slender, gradually widening towards apex. Tergites wholly impunctate, sternite 2 feebly punctured. Wings hyaline, suffused with fuscous principally along the costa and in the radial cell.

Length 11 mm.

♂. Similar, but with a large triangular mark between the antennae, the lower orbits, the clypeus at base and apex, mandibles basally, and tergite 2 with apical fascia, pale yellow.

Length 11 mm. 2 ♀♀, 1 ♂.

NYASALAND: Mlanje, 2300 ft., vi.-x. 1913 (*S. A. Neave*).

Very near *O. marginipunctatus*, but differs as follows: Wings unicolorous, suffused with fuscous, abdomen entirely smooth.

***O. (Lionotus) aureosericeus*, sp. n.**

♀. Niger, vix luteo-variegatus; mandibulis basi, postscutello nonnumquam, segmentique mediani lateribus infra, luteis; abdomine aureosericeo; alis infuscatis. Long. 10 mm.

General appearance black; the mandibles basally postscutellum more or less and lateral angles of median segment below, pale luteous. Clypeus rather longer than broad, convex, pyriform, the apex subemarginate with two small lateral teeth; anterior margin of pronotum truncate, the lateral angles acute; scutellum flat, not raised; lateral angles of median segment acute. Punctured as follows: head, pro- and mesonotum, scutellum postscutellum, pleura above, and median segment above, coarsely, abdomen both dorsally and ventrally, with fine punctures; pleura below, tegulae, axillae, truncation of postscutellum and median segment below impunctate. Wings infusate, especially along the costa.

Head and thorax clothed with silver-pruinose pilosity, abdomen with golden pile.

Length 10 mm. 3 ♀♀.

UGANDA: W. of Victoria Nyanza, Buddu, 3700 ft., ix. 1911 (type); Bugoma Forest, Unyoro, 3700 ft., xii. 1911; Matiana to Entebbe, i. 1912 (*S. A. Neave*).

The silver and golden pilosity on the head and thorax and abdomen respectively in this species is very fine and only visible in certain lights. The type specimen has a yellow transverse fascia on the postscutellum, the other two specimens, both of which are stylopised, have only the faintest traces of yellow.

***O. (Lionotus) schulthessi*, sp. n. (Plate XCI, fig. 11.)**

♀. Niger; scapo, prothorace, pedibus (coxis trochanteribusque exceptis) ferrugineis; clypeo basi, abdominis segmentis 1 et 2 maculis lateribus, tergitis 1-5 fasciis apicalibus interruptis, sternitis 2-5 margine externo, luteis; alis infuscatis. Long. 11 mm.

Clypeus as broad as long, convex, pyriform, the apex formed by

two small tooth-like processes; head as broad as thorax; scutellum slightly raised, convex; median segment rounded laterally; first segment of abdomen rounded, narrower than second; abdomen as a whole rather slender. Anterior margin of prothorax truncate widening abruptly towards tegulae.

Whole insect covered with coarse, even, puncturing; segments 2-6 basally impunctate. Head, thorax and abdomen with a short pilosity, that on abdomen pruinose, silvery.

Length 11 mm. 2 ♀ ♀.

BRITISH EAST AFRICA: Kuja Valley, S. Kavirondo, 4000 ft., iv.-v. 1911 (*S. A. Neave*) (type): "Afrika" ♀ (*Schulthess Coll.*). (Cotype.)

Allied to *O. 14-maculatus*, Schulthess, but differs in sculpture of median segment, etc.

***O. (Lionotus) sheffieldi*, sp. n.**

♀. Ferrugineus, nigro- et flavovariegatus; clypeo basi, macula interantennali, sinu orbitali, linea post oculos, pronoto antice, tegulis plerumque, axillis, maculis pleuris, scutello fascia interruptâ, postscutello, segmenti mediani lateribus, luteis; tergite 1, 2, maculis lateribus, fasciisque apicalibus tergitis 3-5 fasciis apicalibus plus minusve interruptis, luteis. Clypeo medio, fronte, mesonoto antice, abdomine plus minusve fasciato, nigris. Alis subhyalinis, cellulâ radiali infuscata. Long. 10 mm.

Chiefly ferruginous, with yellow and black markings. Clypeus truncate rather longer than broad, narrowly produced towards the apex; mandibles rather elongate, feebly dentate; head about as broad as thorax, prothorax truncate anteriorly, hardly widening towards tegulae; scutellum and postscutellum flat, hardly raised above mesothorax; median segment concave, the sides rounded. First tergite as broad as long, the apex as wide as tergite 2 basally. Head and thorax with coarse, even punctures, abdomen and tegulae finely and evenly punctured. Wings subhyaline, golden hyaline along the costa, fuscous in the radial cell.

Length 10 mm. 12 ♀ ♀, 3 ♂ ♂.

NYASALAND: Mlanje, iii. 1913 (type); N.E. RHODESIA: Mid-Luangwa Valley, 2000 ft., viii. 1900; PORTUGUESE EAST AFRICA: Valley of Kola River, 1500-2000 ft. (*S. A. Neave*); N. NIGERIA: Zungeru, iii. 1911 (*J. W. Scott-Macfie*).

This widely spread and variable species is very closely related to *O. bellatulus*, Sauss., which it much resembles in colour pattern; the presence of punctures on the abdomen
TRANS. ENT. SOC. LOND. 1914.—PARTS III, IV. (FEB.) LL

at once separates *O. sheffieldi* from that species, which has the abdomen quite smooth.

***O. (Lionotus) harrarensis*, sp. n.**

♀. Niger, magnopere ferrugineo variegatus, abdomine flavo-fasciato; clypeo, sinu orbitali infra, pronoti margine postico, tegulis plerumque, post tegulis, axillis, postscutello, tergite 1 fascia apicali angusta, segmentis 2-6 fasciis apicalibus latioribus, luteis; coxis intermediis posticisque, eburneis. Mandibulis, scapo, articulis flagelli 1-4, macula interantennali, sinu orbitali supra, area post oculos, pronoto, tegulis macula, mesonoti area mediana, scutello, segmenti mediani lateribus, segmentisque abdominalibus (fasciis apicalibus exceptis), ferrugineis; pedibus ferrugineis, tibiis posticis supra, pallide luteis. Alis hyalinis, area costali subinfuscata. Long. 11 mm.

Black, largely marked with ferruginous. Clypeus at widest broader than long, truncate at apex; anterior margin of pronotum slightly curved, widening abruptly towards tegulae; scutellum and postscutellum rounded, rather raised above mesonotum, median segment rounded laterally. Tergite 1 short cup-shaped, tergite 2 rather longer than broad. Intermediate and posterior coxae apically emarginate. Clypeus with fine longitudinal striae, head and thorax rather coarsely punctured, abdomen more finely. Median segment with a rather dense griseous pubescence, abdomen with a golden pruinose pile.

♂ similar to ♀, differs only in sexual characters, terminal joint of antennae forming a hook.

Length 11 mm. 9 ♀ ♀, 2 ♂ ♂.

ABYSSINIA: Harrar, May 1911 (*Gunnar Kristensen*) (type); 6 ♀ ♀, 1 ♂.

EAST AFRICA: (*S. L. Hinde* and *Shirati*), *Schulthess Coll.*, 1 ♀, 1 ♂.

A conspicuous species; the broad clypeus and emarginate coxae are very noticeable.

O. (Stenodynerus) politiclypeus, Schulthess. (Plate XCI, fig. 14.)

♀. *O. ferruginei* affinis; ferrugineus; mesopleuris, mesonoto, fronte, flagelloque nigris; alis subhyalinis, cellula radiali infuscata. Long. 12 mm.

Head and thorax of exactly similar width, the sides of the thorax parallel. Anterior margin of pronotum truncate. Clypeus flat,

shining, impunctate, truncate at apex, mandibles 3 dentate, medium. Scutellum and postscutellum flat, not raised; median segment with a distinct dorsal area, concave on the surface of truncation, the sides rounded. Abdomen linear, the first segment subtruncate at apex, the second of equal width. Punctured; the head and thorax coarsely and rugosely; clypeus and abdomen impunctate. Wings subhyaline, golden hyaline along the costa, fuscous in the radial cell.

Length 12 mm. 1 ♀.

NYASALAND: Mlanje, 2300 ft., Oct. 1913 (*S. A. Neave*).

Nearly related to *O. (S.) ferrugineus*, Schulthess, but distinguished from it by the impunctate clypeus and dentate mandibles.

***O. (Stenodynerus) corvus*, sp. n. (Plate XCI, fig. 15.)**

♂. Niger; mandibulis, scapo, pedibusque ferrugineis; clypeo argenteo-sericeo, apice emarginato; alis subinfuscatis, area costali obscuriore. Long. 13 mm.

♀. Similis, sed clypeo punctato, nudo.

Clypeus convex, emarginate at apex, sides of the emargination produced to form distinct teeth, the whole about as broad as long; mandibles rather long, toothed on the inner side. Anterior margin of pronotum emarginate, the lateral angles acutely produced. Thorax massive; scutellum and postscutellum flat, median segment concave, the lateral angles serrate. Abdominal segment 1 somewhat elongate, linear, only slightly narrower than second, sternite 2 irregular broadly subtuberculate. Head and thorax coarsely, abdomen finely and evenly punctured; median segment with a small impunctate area on the dorsal surface on each side. Clypeus and coxae clothed with dense silvery pubescence, abdomen with a dense pale golden sericeous pile.

Length 13 mm.

♀ similar to ♂, but the clypeus destitute of pubescence, and the median segment lacking the impunctate area on its dorsal surface. Sternite 2 flat, not subtuberculate. 4 ♂♂, 8 ♀♀.

NYASALAND: Mlanje, ix. 1913 (type) ♂ ♀; Shire Valley (*S. A. Neave*) ♀.

BRITISH EAST AFRICA: Masongaleni, 3000 ft., iii.-iv. 1911 (*S. A. Neave*) ♀.

Slopes of Mt. Kenia, ii. 1911 (*T. J. Anderson*). ♀. S.E. RHODESIA: Mount Chirinda, Gaza Land, iii. 1907. (*G. A. K. Marshall* and *David Odendal*). ♂ ♀.

A black species, the silvery pubescence on the ♂ clypeus is very conspicuous.

Subgenus *HOPLOMERUS*, Westwood.

O. (Hoplomerus) spiniger.

O. (Hoplomerus) spiniger, Schulthess. Soc. Entomolog. xxix, No. 14, pp. 73-74 (1914).

This species has well-developed tubercles on the sides of the median segment; the male has the antennae rolled in spiral, as is usual in the subgenus *Hoplomerus* (*Hoplomerus*). Typical species of this subgenus, of which *O. spinipes*, L., may be considered the type, have the median segment rounded posteriorly on the sides, so that it is doubtful whether the species under discussion is really referable to the subgenus. Possibly the Ethiopian representatives of the unwieldy genus *Odynerus* will eventually subdivide into further subgenera. For the present it is better to include them in *Hoplomerus*, on the strength of the male antennal characters.

***O. (Hoplomerus) zebroides*, sp. n.**

♀. Niger; mandibulis, clypeo, antennis basi, macula inter-antennali, linea post oculos, pronoto, scutello, postscutello, tegulis, maculisque mesopleuris ferrugineis; pedibus (coxis trochanteribusque exceptis) ferrugineis; oculorum sinu, abdominis fasciis apicalibus interruptis, lateribus dilatatis sternitibus extremis lateribus, pallide luteis. Alis flavohyalinis. Long. 13½ mm.

A robust species, with the head and thorax broad. Clypeus convex, as broad as long, shallowly emarginate at apex; mandibles stout, apically dentate; anterior margin of pronotum truncate, the sides rounded, and slightly widening towards the tegulae; disc of mesonotum with a series of shallow but distinct sulci (parapsidal grooves; scutellum on a rather higher plane than mesonotum, post-scutellum truncate posteriorly; median segment concave, the sides produced to form prominent tubercles. First segment of abdomen broadly rounded, short, following segments of normal sculpture.

Head and thorax with coarse, even punctures, abdomen more finely punctured. The head and median segment with a thick covering of pale pubescence, the rest with a fine short sericeous pile.

Wings unicolorous golden hyaline, rather fuscous in radial cell. Length 13½ mm.

♂ rather slenderer than ♀, but coloured similarly. Wings paler in basal half. Clypeus and labrum pale luteous. 2 ♀♀, 3 ♂♂.

BRITISH EAST AFRICA: Ongotta, Nairova, vii.-ix. 1902 (C. S. Betton) (type ♀); "Brit. E. Africa" (S. L. Hinde). 3 ♂♂.

O. (Hoplomerus) adonis, sp. n.

♀. Niger; clypeo, macula interantennali, sinu orbitali, area post oculos, pronoto, mesonoto antice macula propleuris, scutello, postscutello, axillis, segment omediano, abdominis segmento primo plerumque sterniteque secundo plerumque, tergitebus 2 et 3 maculis apicalibus, luteis; scapo, articulis 3-4, mandibulis, tegulis, post tegulis, linea mesonoto longitudinali, abdominis segmentis 1 et 2 supra, ferrugineis. Pedibus ferrugineis, femoribus I infra luteis. Alis flavohyalinis, venis aureis. Long. 16 mm.

Clypeus and mandibles with sculpture as in *O. zebroides*; pronotum narrower than head, rounded laterally, and widening considerably towards tegulae. Mesonotum with distinct parapsidal grooves, scutellum slightly raised, with a small longitudinal median carina, postscutellum as in *O. zebroides*, median segment slightly concave. Puncturing in general much as in that species, but the median segment is only feebly punctate. Vertex with golden and median segment with ivory white pubescence. Wings golden hyaline.

Length 16 mm.

CONGO FREE STATE: Lufira River, Katanga, 3500 ft., ix. 1907 (S. A. Neave). 1 ♀.

Unfortunately there is only one specimen of this fine species. Its structure is very similar to *O. zebroides*, but the difference in the degree of concavity in the median segment renders them distinct. The colour differences are very considerable.

EXPLANATION OF PLATE XCI.

- FIG. 1. *Odynerus (Ancistrocerus) massanensis*, Sauss. ♂. Abdominal segments 1 and 2.
2. *Odynerus (Lionotus) bisellatus*, Schulthess. ♂. Thorax.
3. *O. (Lionotus) quadrituberculatus*, Smith. ♂. Abdominal segments 1 and 2.
- 4a. *O. (Lionotus) silverlocki*, M.-Waldo. ♀. Abdominal segments 1 and 2; 4b clypeus.
5. *O. (Lionotus) goniodes*, Schletterer. ♂. Front view of head.
6. *O. (Lionotus) marginipunctatus*, M.-Waldo. ♀. Dorsal view of abdomen.
7. *O. (Lionotus) carinatus*, M.-Waldo. ♀. Clypeus.
8. *O. (Lionotus) hottentottus*, Sauss. ♀. Clypeus.
9. *O. (Lionotus) scripticeps*, Cam. ♀. Clypeus.
10. *O. (Lionotus) fervidus*, Sauss. ♂. Clypeus.
11. *O. (Lionotus) schulthessi*, M.-Waldo. ♀. Clypeus.
12. *O. (Lionotus) spoliatus*, Cam. ♀. Clypeus.
13. *O. (Stenodynerus) ferrugineus*, Schulthess. ♀. Clypeus.
14. *O. (Stenodynerus) politiclypeus*, Schulthess. ♀. Clypeus.
15. *O. (Stenodynerus) corvus*, M.-Waldo. ♀. Clypeus.



Meade-Waldo, Geoffrey. 1915. "XVIII. A revision of the species of the genus *Odynerus* (Hymenoptera) occurring in the Ethiopian Region." *Transactions of the Entomological Society of London* 62, 485–520.

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