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## The Aculeate Hymenoptera Produced at Aden by Col. Yerbury, R.A., and Capt. Nurse, I.S.C.

C. T. Bingham

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THE ACULEATE HYMENOPTERA PROCURED AT ADEN  
BY COL. YERBURY, R.A., AND CAPT. NURSE, I.S.C.

[With Plate A.]

BY LIEUT.-COL. C. T. BINGHAM, F. Z. S., F. E. S.

(Read before the Bombay Natural History Society, on 30th Sept., 1897.)

The two collections kindly submitted to me for examination by Lieut.-Col. Yerbury and Capt. Nurse contained one hundred and seven species, of which four I believe to be previously undescribed.

The preponderance of Palæartic species is noticeable, while, as was to be expected, both Ethiopian and Indian forms are represented in lesser numbers.\*

Family MUTILLIDÆ.

1. MUTILLA CHRYSOPHTHALMA, Klug.

*Mutilla chrysophthalma*, Klug, Symb. Phys., Dec. 1, No. 3, t. 4, f. 3.  
Aden (Col. Yerbury), one worn ♀. Occurs also in Egypt and Ceylon.

2. MUTILLA ARABICA, Oliv.

*Mutilla arabica*, Oliv., Encycl. Méth., viii, p. 59.  
Aden (Col. Yerbury).

3. MUTILLA AUREA, Klug.

*Mutilla aurea*, Klug, Symb. Phys., Dec. 1, No. 13, t. 4, f. 13.  
Shaikh Othman (Col. Yerbury).

4. MUTILLA ÆSTUANS, Gerst.

*Mutilla æstuans*, Gerst., Pet. Reise Mozamb., v, p. 487, pl. 31,  
fig. 6, ♀.

Aden, Lakej, Hanthaburi (Col. Yerbury), Ceylon.

The ♂ has not been described in my Vol. I, "Hymenoptera of India." Col. Yerbury took ♂ and ♀ *in cop.* at Aden.

*Desc.* ♂. Head, thorax and abdomen closely but not strongly punctured, a space on the middle of the 2nd abdominal segment above, close to its posterior margin highly polished and shining, impunctate; head not so wide as the thorax, front below the ocelli raised, almost tuberculate, scutellum raised, produced into a sharp cone; median

\* The original M.S. of this paper was posted in London, but apparently never reached the office of this Journal. The present list of the *Hymenoptera* of Aden has been compiled from pencil notes made by me at the British Museum while I was working out Colonel Yerbury's and Capt. Nurse's collections.

segment broad, rounded above, truncate posteriorly, the face of the truncation coarsely rugose; abdomen long, longer than head and thorax united, apical segment bearing a broad smooth medial longitudinal carina; basal ventral segment strongly longitudinally keeled, the keel slightly emarginate in the middle. Head, thorax and base of the 1st abdominal segment black, remainder of the abdomen bright ferruginous-red, the clypeus, face checks, scape and basal joint of the flagellum of the antennæ, the pronotum above, the mesopleuræ, the median segment above and the legs covered with silvery pubescence, which is thick and matted on the clypeus and front, and on the median segment; posterior margin of the 2nd and the whole of the remaining abdominal segments clothed with rich glistening ferruginous pubescence; wings fuscous, the forewings beyond the area of the cells much darker.

*Length* 8-13; *Exp.* 17-27 mm.

5. MUTILLA TESTACEA, Klug.

*Mutilla testacea*, Klug, Symb. Phys., Dec. 1, No. 15, t. 5, f. 4.  
Shaik Othman (*Col. Yerbury*).

Family SCOLIIDÆ.

6. TIPHIA BREVIPENNIS, Lucas.

*Tiphia brevipennis*, Lucas, Expl. Sc. Algèr., iii, p. 299, t. 15, f. 9.  
Aden (*Capt. Nurse*).

7. MYZINE GUERINII, Lucas.

*Myzine guerinii*, Lucas, Expl. Sc. Algèr., iii, p. 283, t. 15, f. 5, ♂.  
Lahej (*Capt. Nurse*).

8. SCOLIA (DISCOLIA) DISPAR, Klug.

*Scolia dispar*, Klug, Symb. Phys., Dec. iii, t. 26, f. 10 ♂ and 2 ♀.  
Shaikh Othman, Lahej (*Capt. Nurse*).

9. SCOLIA (DISCOLIA) RUFIPES, Smith.

*Scolia rufipes*, Smith, Cat. Hym. B. M., iii, p. 95, ♂.  
Lahej (*Capt. Nurse*).

10. SCOLIA (DISCOLIA) ERYTHROCEPHALA, Fabr.

*Scolia erythrocephala*, Fabr., Ent. Syst., Suppl., p. 255, 16.  
Aden (*Col. Yerbury*).

11. SCOLIA (DISCOLIA) MICROMELAS, Sichel.

*Scolia micromelas*, Sichel, Sauss. and Lich. Cat. Scol., p. 82. ♀ & ♂.  
Aden (*Col. Yerbury*).

12. ELIS (TRIELIS) ALIENA, Klug.  
*Scolia aliena*, Klug, Symb. Phys., Dec. iii, No. 12, p. 27, fig. 3.  
Lahej (Col. Yerbury).

13. ELIS (DIELIS) COLLARIS, Fabr.  
*Tiphia collaris*, Fabr., Syst. Ent., p. 354.  
Aden and Lahej (Col. Yerbury).

14. ELIS (DIELIS) COELEBS, Sichel.  
*Elis coelebs*, Sichel, Sauss. and Lich. Cat. Scol., p. 184; id., app., p. 297  
Shaikh Othman and Lahej (Capt. Nurse).

15. ELIS (DIELIS) CILIATA, Fabr.  
*Scolia ciliata*, Fabr., Mantissa, ii, p. 279.  
Lahej (Capt. Nurse).

16. ELIS (DIELIS) FASCIATELLA, Klug.  
*Scolia fasciatella*, Klug, Symb. Phys., Dec. iii, t. 27, f. 8.  
Shaikh Othman (Capt. Nurse).

Family POMPILIDÆ.

17. SALIUS (PRIOCNEMIS) BRUNNEUS, Klug.  
*Pompilus brunneus*, Klug, Symb. Phys., Dec. iv, No. 2, t. 38, f. 2.  
Aden (Col. Yerbury).

18. SALIUS (PRIOCNEMIS) RUBESCENS, Smith.  
*Pompilus rubescens*, Smith, Cat. Hym. B. M., iii, p. 136.  
Aden (Col. Yerbury).

19. POMPILUS ANTICUS, Klug.  
*Pompilus anticus*, Klug, Symb. Phys., Dec. iv, No. 10, t. 38, f. 10.  
Lahej (Col. Yerbury).

20. POMPILUS GRACILIS, Lepel.  
*Pompilus gracilis*, Lepel, Hymn., iii, p. 420, f.  
Lahej (Capt. Nurse). One specimen which is indistinguishable from  
specimens from France so labelled in the British Museum.

21. POMPILUS VAGABUNDUS, Smith.  
*Pompilus vagabundus*, Smith, Jour. Linn. Soc., 1858, p. 92.  
Huswah (Capt. Nurse). Another species which I identify with  
doubt. If it is really *P. vagabundus*, the insect has a very wide range,  
from Borneo to Aden.

22. POMPILUS VESPIFORMIS, Klug.  
*Pompilus vespiiformis*, Klug, Symb. Phys., Dec. iv, No. 3, t. 38, f. 3.  
Aden, Lahej (Col. Yerbury and Capt. Nurse).

23. POMPILUS CANDIDUS, Smith.

*Pompilus candidus*, Smith, New Sp. Hym. B. M., p. 142, 9. ♀.  
Lahej (*Col. Yerbury*).

24. POMPILUS UNIFASCIATUS, Smith.

*Pompilus unifasciatus*, Smith, Cat. Hym. B. M., iii, p. 145, 133.  
Aden (*Col. Yerbury*). A widely distributed species.

Family SPHEGIDÆ.

25. TACHYTES ALBOCINCTA, Lucas.

*Tachytes albocincta*, Lucas, Expl. Sc. Algér., iii, p. 246, 211.  
Lahej (*Col. Yerbury*), Shaikh Othman (*Capt. Nurse*).

26. TACHYSPHEX FILICORNIS, Kohl.

*Tachyspex filicornis*, Kohl., Deutsche Ent. Zeits., xxvii (1883),  
p. 169.

Aden (*Col. Yerbury*).

27. TACHYSPHEX PYGIDIALIS, Kohl.

*Tachyspex pygidialis*, Kohl., Deutsche Ent. Zeits., xxvii (1883),  
p. 176. ♂ and ♀.

Aden (*Col. Yerbury*).

28. TACHYSPHEX PANZERI, Van d. Lind.

*Tachytes panzeri*, Vand. Lind., Nouv. Mem. Acad. Sc. Bruxell., v  
(1829), p. 20, 4. ♂ and ♀.

Aden, Lahej (*Col. Yerbury*).

29. TACHYSPHEX PSILOPUS, Kohl.

*Tachyspex psilopus*, Kohl., Verh. d. k. k. Zool.-Bot. Gesellsch. Wien,  
xxxiii (1883), p. 371, 3, ♂, pl. xvii (a), figs. 2 and 3.

Aden (*Col. Yerbury*).

30. TACHYSPHEX FLUCTUATUS, Gerst.

*Lyrops fluctuatus*, Gerst., Monat. Verh. d. k. Akad. d. Wissensch.,  
Berlin, 1857, p. 510.

Aden, Lahej, Shaikh Othman (*Col. Yerbury* and *Capt. Nurse*).

31. NOTOGONIA POMPILIFORMIS, Panz.

*Larra pompiliformis*, Panz., Faun. Ins. Germ., 1808, Heft. 17,  
p. 106.

Aden (*Col. Yerbury*).

32. LIRIS HÆMORRHOIDALIS, Fabr.

*Pompilus hæmorrhoidalis*, Fabr. Syst. Piez., p. 198, 55.

Aden (*Col. Yerbury*).

33. AMMOPHILA INCANA, Dahlb.  
*Ammophila incana*, Dahlb., Hym. Europ., i, p. 21.  
Aden (Col. Yerbury and Capt. Nurse).
34. AMMOPHILA INSIGNIS, Smith (Var.?).  
*Ammophila insignis*, Smith, Cat., iii, p. 213, 30. ♂ ♀.  
Aden (Capt. Nurse), Lahej (Col. Yerbury).
35. AMMOPHILA HOLOSERICEA, Fabr.  
*Sphex holosericea*, Fabr., Ent. Syst., ii, p. 205, 27.  
Aden (Col. Yerbury), Lahej (Capt. Nurse).
36. SCELIPHRON SPIRIFEX, Linn.  
*Sphex spirifex*, Linn., Syst. Nat., i, p. 942, 9.  
Aden, Lahej (Col. Yerbury and Capt. Nurse).
37. SCELIPHRON VIOLACEUM, Fabr.  
*Sphex violacea*, Fabr., Ent. Syst., ii, p. 201.  
Aden (Col. Yerbury and Capt. Nurse).
38. SPHEX UMBROSUS, Christ.  
*Sphex umbrosa*, Chr., Naturg. Ins., p. 293, t. xxix, f. 2 ♀.  
Aden (Col. Yerbury and Capt. Nurse). All the specimens belong to the variety *S. metallica*, Taschenb.
39. SPHEX AURULENTUS, Fabr.  
*Sphex aurulenta*, Fabr., Mant. Ins., i, p. 274.  
Aden (Col. Yerbury). The one specimen in the collection belongs to the variety *S. lineola*, Lepel.
40. SPHEX NIGROPECTINATUS, Taschenb.  
*Sphex nigropectinatus*, Taschb., Zeitschr. f. d. ges. Naturwiss. Holle. xxxiv (1869), p. 409.  
Aden (Col. Yerbury).
41. SPHEX VIDUATUS, Christ.  
*Sphex viduata*, Chr., Naturg. Ins., p. 305, t. xxx, f. 4.  
Aden (Col. Yerbury and Capt. Nurse).
42. NYSSON SCALARIS, Illig.  
*Nysson scalaris*, Illig., ed. Faun. Etrusc., ii, p. 157.  
Lahej (Col. Yerbury).
43. HELIORYCTES ASSIMILIS, Bingham.  
*Helioryctes assimilis*, Bingham, Faun. Brit. Ind. Hym., i, p. 271.  
Aden (Col. Yerbury).



44. GORYTES COARCTATUS, Spin.

*Gorytes coarctatus*, Spin., Ins., Lig., ii, p. 245, t. v, f. 24.  
Shaikh Othman (Capt. Nurse).

45. STIZUS VESPOIDES, Walk.

*Larra vespoides*, Walk., List of Hym. coll. by J. K. Lord in Egypt,  
&c., p. 25, 224. ♀.

Aden (Col. Yerbury and Capt. Nurse).

46. STIZUS DISCOLOR, Handl.

*Stizus discolor*, Handl., Sitz. d. k. Akad. Wissens. Wien. (1892),  
p. 78, 44.

Aden (Capt. Nurse).

47. STIZUS PRISMATICUS, Smith.

*Larra prismatica*, Smith, Jour. Linn. Soc. (1858), p. 103., ♂ ♀

Aden (Col. Yerbury).

48. STIZUS KLUGII, Smith.

*Larra apicalis*, Klug (nec Guér), Symb. Phys., Dec. V, 46, p. 13.

*Larra klugii*, Smith, Cat. Hym. B. M., iv, p. 345, 33.

Aden (Col. Yerbury).

49. BEMBEX OLIVACEA, Fabr.

*Bembex olivacea*, Fabr., Mant. Ins., i, p. 285, 4. ♂.

Aden (Col. Yerbury and Capt. Nurse).

50. BEMBEX CHLOROTICA, Spin.

*Bembex chlorotica*, Spin., Ann. Soc. Ent. Fr. (1838), p. 469.

Aden (Capt. Nurse), Lahej (Col. Yerbury).

51. BEMBEX DAHLBOMII, Handl.

*Bembex dahlbomii*, Handl., Sitzungsab. d. k. Akad. Wissens. Wien.,  
cii; (1893), p. 806, 62.

Aden (Col. Yerbury).

52. PHILANTHUS YERBURYI, n. sp., pl. A, f. 2.

♀. Head wider than thorax, finely and closely punctured, clypeus slightly convex, much broader than high, the anterior margin waved and fringed with a line of dense pubescence, eyes distinctly convergent towards the vertex below, reaching down to the base of the mandibles, vertex broad, ocelli in a triangle situated somewhat anteriorly, cheeks broad, well developed; thorax shining, mesonotum with a few fine scattered punctures, median segment above only slightly convex, almost flat, bearing fine longitudinal striæ, its sides and apex roundly

truncate; legs without pubescence, the intermediate and posterior tibiae and tarsi thickly spinose, claws of the tarsi simple; abdomen longer than the head and thorax united, smooth, pygidial area flat, elongate triangular, the sides and apex margined, the surface very finely and closely rugose punctate. Head and thorax black, the basal two-thirds of the mandibles, the clypeus, a triangular mark along the inner orbits, the posterior margin of the pronotum, an oval spot on the scutellum and a transverse line on the post-scutellum yellowish-white, legs dull Indian-red, the anterior femora beneath pale yellowish-white; wings hyaline, nervures testaceous-brown, tegulae pale yellow, the posterior half brownish; in the anterior wing the basal nervure is nearly interstitial, the radial cell elongate, narrow acute at apex, the 1st recurrent nervure is received in the 2nd cubital cell about one-third of its length from base, the 2nd recurrent nervure is received by the 3rd cubital cell close to its base. Abdomen dull Indian-red, segments 1 to 5 with broad transverse pale yellowish-white stripes on their posterior margins, each stripe bi-marginate anteriorly.

What seems to be a variety of the same insect differs in having the abdomen of a brighter red, and the transverse pale yellow stripes on the segments above reduced to two spots on the 2nd and an irregular medial mark on the posterior margin of the 3rd segment.

♀. Length 10-12. Exp. 19-25 mm.

Aden (Col. Yerbury).

53. TRACHYPUS SUBCONCOLOR, n. sp., pl. A, f. 1.

♀. Head wider than the thorax, finely and closely punctured, clypeus slightly convex, its anterior margin arched in the middle, waved at the sides, eyes slightly convergent towards the vertex, below reaching almost to the base of the mandibles, their inner orbits emarginate, the vertex and cheeks broad and well developed. Thorax: the pronotum smooth and shining, the mesonotum and sides of the thorax very coarsely but not very closely punctured, the scutellum, post-scutellum, and median segment shining with a few scattered coarse punctures, the last subtriangular, above smooth, with a medial short longitudinal groove, which, as well as the well-marked sutures between the scutellum and post-scutellum and between the latter and the median segment, is densely and closely punctured; legs sub-pilose, the anterior tibiae ciliated with long spines, the intermediate and posterior tibiae and tarsi



thickly spinose, claws of the tarsi simple; abdomen about as long as the head and thorax united, the posterior margin of the 1st segment constricted, pygidial area smooth, shining, convex. Head, thorax and abdomen dark yellowish-brown, a small crescentic spot above the base of each antenna, an arched stripe across the vertex over the region of the ocelli; the mesonotum, irregular shadings on the sides of the thorax, the sutures between the scutellum, post-scutellum and median segment and the short longitudinal groove on the last black, the mesonotum with two parallel, longitudinal, short, ferruginous-red stripes; wings hyaline, tegulæ and nervures pale testaceous.

♀. Length 11. Exp. 18 mm.

Shaikh Othman (Col. Yerbury).

54. TRACHYPUS NURSEI, n. sp., pl. A, f. 3.

♀. Head finely punctured, shining, about as broad as the thorax, clypeus broad, slightly convex, very slightly arched anteriorly, eyes strongly converging towards the vertex, the inner orbits emarginate, front broad, with a short shallow vertical furrow below the anterior ocellus, cheeks narrow, little developed. Thorax shining, the mesonotum coarsely punctured, the scutellum, post-scutellum and median segment above smooth, shining, with a few scattered punctures, the sutures between the mesonotum, scutellum, post-scutellum and median segment deep, well marked and finely punctured, as is a medial, short, shallow longitudinal furrow on the median segment above, the tibiæ and tarsi of the leg spinose, the claws simple. Abdomen shining, finely punctured, about as long as the head and thorax united, the base of the 1st segment attenuated, its posterior margin deeply constricted, pygidial area convex, smooth and shining. Black, the basal two-thirds of the mandibles, the scape and basal two joints of the flagellum of the antennæ in front, an oval transverse spot on the front, two contiguous spots on the vertex behind the ocelli, a broad line on the cheeks, the posterior half of the pronotum, the tubercles, two spots behind them on the mesopleuræ, the scutellum and post-scutellum, a round spot on each side at the posterior angles of the median segment, the apical half of the anterior tibiæ, a transverse band on the upper side of the 1st abdominal segment, and the whole of the second segment bright yellow, the apex of the mandibles ferruginous, the clypeus, a triangular spot along the inner orbits, the anterior tarsi, the intermediate and posterior tibiæ and

tarsi, the posterior margin of the 4th abdominal segment above, and the whole of the apical segment, lacteous-white; wings hyaline, nervures testaceous, tegulae yellow.

♂. Similar, the apical abdominal segment black, the 6th segment with a narrow medially interrupted line on the apical margin above pale yellow.

♀. Length 9. Exp. 17 mm.

♂. " 8. " 13 "

Lahej and Shaik Othman (Capt. Nurse).

55. CERCERIS PULCHELLA, Klug.

*Cerceris pulchella*, Klug., Symb. Phys., Dec. v, t. 47, f. 14. ♂.

Huswah (Capt. Nurse).

56. CERCERIS VIDUA, Klug.

*Cerceris vidua*, Klug., Symb. Phys., Dec. v, t. 47, f. 11. ♂.

Shaikh Othman (Capt. Nurse).

57. CERCERIS SPINIPECTUS, Smith.

*Cerceris spinipectus*, Smith, Cat. Hym. B. M., iv, p. 443, 30. ♀. ♂.

Shaikh Othman (Capt. Nurse).

58. CERCERIS INSIGNIS, Klug.

*Cerceris insignis*, Klug., Symb. Phys., Dec. v, t. 47, f. 12. ♀.

Aden (Col. Yerbury).

59. OXYBELUS ARABS, Lepel.

*Oxybelus arabs*, Lepel., Hym., iii, p. 213, 3.

Aden (Col. Yerbury and Capt. Nurse).

Family EUMENIDÆ.

60. EUMENES TINCTOR, Christ.

*Sphex tinctor*, Christ., Naturges, p. 341, t. 31, f. 1.

Aden (Capt. Nurse), Shaik Othman (Col. Yerbury).

61. EUMENES DIMIDIATIPENNIS, Sauss.

*Eumenes dimidiatipennis*, Sauss., Mon. Guép. Sol., p. 51, 23.

Aden, (Col. Yerbury), Lahej (Capt. Nurse).

62. EUMENES LEPELETERII, Sauss.

*Eumenes lepeleterii*, Sauss., Mon. Guép. Sol., p. 4524, t. 10, f. 3. ♀

Aden, Lahej, Shaikh Othman (Col. Yerbury and Capt. Nurse)

Common.

63. RHYNCHIUM CYANOPTERUM, Sauss.

*Ryngchium cyanopterum*, Sauss., Mon. Guép. Sol., p. 108-9.

Aden (Col. Yerbury), Lahej (Capt. Nurse).

64. RHYNCIUM BRUNNEUM, Fabr.

*Vespa brunnea*, Fabr., Ent. Syst., ii, p. 264, 41.  
Aden (Col. Yerbury).

65. RHYNCIUM OCULATUM, Fabr.

*Vespa oculata*, Fabr., Spec. Ins., i, p. 463.  
Aden (Col. Yerbury).

66. RHYNCIUM SYNAGROIDES, Sauss.

*Rhynchium synagroides*, Sauss., Mon. Guêp. Sol., p. 103, l. t.  
14, f. 2. ♂  
Lahej (Capt. Nurse).

67. ODYNERUS CHLOROTICUS, Spin.

*Odynerus chloroticus*, Spin., Ann. Soc. Ent. Fr., 1st ser., vii,  
p. 500.  
Shaikh Othman (Capt. Nurse).

68. ODYNERUS EUMENOIDES, Smith.

*Odynerus eumenoides*, Smith, Cat. Hym. B. M., v, p. 71, 134.  
Aden (Capt. Nurse).

69. ODYNERUS FERVIDUS, Sauss.

*Odynerus fervidus*, Sauss., Mon. Guêp. Sol., Suppl., p. 288, 174.  
Shaikh Othman (Capt. Nurse).

70. ODYNERUS FASTIDIOSUS, Sauss.

*Odynerus fastidiosus*, Sauss., Mon. Guêp. Sol., p. 189, 85. ♀  
Aden (Col. Yerbury and Capt. Nurse).

71. ODYNERUS BIPHALERATUS, Sauss.

*Odynerus Biphaleratus*, Sauss., Mon. Sol., p. 134, 14, t. 16, f. 2.  
Lahej (Col. Yerbury), Shaik Othman (Capt. Nurse).

Family VESPIDÆ.

72. ICARIA ANARCHICA, Sauss.

*Icaria anarchica*, Sauss., Mon. Guêp. Sol., p. 34, 12, t. 4, f. 5.  
Aden, Lahej (Col. Yerbury and Capt. Nurse).

73. ICARIA CINCTA, Lepel.

*Epipona cincta*, Lepel., Hym., i, p. 541, 2.  
Aden (Capt. Nurse).

74. POLISTES MARGINALIS, Fabr.

*Vespa marginalis*, Fabr., Syst. Ent., p. 367, 24.  
Lahej (Col. Yerbury and Capt. Nurse).

Family MASARIDÆ.

75. CELONITES FISCHERI, Spin.

*Celonites fischeri*, Spin., Ann. Soc. Ent. Fr. (1838), p. 505.

Aden (Col. Yerbury and Capt. Nurse.)

No specimen in either collection is typical, all being much lighter in colour than specimens of this species in the British Museum. One ♂ taken by Col. Yerbury is exceedingly small, measuring only  $5\frac{1}{2}$  mm. Capt. Nurse notes that he bred the insect from cylindrical mud nests.

Family COLLETIDÆ.

76. PROSOPIS FRATERNA, n. sp.

Closely allied to and resembling *P. absoluta*, Cam. (Mem. Manch. Lit. & Phil. Soc., XLI, p. 92); differs in sculpturing and considerably in colour and size.

♀. Head, thorax and abdomen finely and closely, median segment coarsely and rugosely punctured, clypeus slightly convex, vertically oval, its anterior margin rounded; space between the antennæ smooth and shining, with a very short fine vertical furrow, mesonotum strongly convex, with three abbreviated parallel longitudinal furrows on the disc anteriorly; median segment with a smooth and shining Y-shaped furrow; legs slightly pilose; abdomen about as long as the head and thorax united, the apical margin of the first segment slightly constricted. Black, the base of the mandibles, the clypeus, a spot above it, the sides of the face, the scape of the antennæ in front, a line on the pronotum, and the tibiæ and tarsi of all the legs pale yellow; the flagellum of the antennæ in front pale, the tubercles and tegulæ dark ferruginous; a narrow line of dense grey pubescence on the posterior margin of the 1-4 abdominal segments, that on the 1st segment broadly, on the 2nd segment narrowly, interrupted in the middle; wings hyaline and iridescent.

♀. Length 4. Exp. 9 mm.

Aden (Col. Yerbury).

77. PROSOPIS SCUTELLATA, Spin.

*Prosopis scutellata*, Spin., Ann. Soc. Ent. Fr., 2nd Ser., i, p. 506.

Aden (Col. Yerbury).

Family APIDÆ.

78. HALICTUS JUCUNDUS, Smith.

*Halictus jucundus*, Smith, Cat. Hym. B. M., 1, p. 56, 65. ♀ ♂.

Aden, Lahej, Shaikh Othman (Capt. Nurse).

79. HALICTUS SENESCENS, Smith.  
*Halictus senescens*, Smith, New sp. Hym. B. M., p. 30. ♀.  
Lahej (Capt. Nurse).
80. NOMIA TRIDENTATA, Smith.  
*Nomia tridentata*, Smith, Trans. Ent. Soc. (1875), p. 64, 26. ♂.  
Huswah (Capt. Nurse), Aden (Col. Yerbury).
81. NOMIA ZONARIA, Walk.  
*Nomia zonaria*, Walk., List of Hym. Coll. by J. K. Lord in Egypt,  
&c., p. 346.  
Aden (Capt. Nurse).
82. NOMIA LAMELLATA, Smith.  
*Nomia lamellata*, Smith, Trans. Ent. Soc. (1875), p. 65, 28. ♀ ♂.  
Aden (Col. Yerbury and Capt. Nurse).
83. NOMIA TEGULATA, Smith.  
*Nomia tegulata*, Smith, Trans. Ent. Soc. (1875), p. 69. ♀.  
Lahej, Shaikh Othman (Capt. Nurse).
84. NOMIA OXYBELOIDES, Smith.  
*Nomia oxybeloides*, Smith, Trans. Ent. Soc., 1875, p. 42. ♀ ♂.  
Aden, Shaikh Othman (Col. Yerbury).
85. MEGACHILE ÆGYPTIA, Lepel.  
*Megachile ægyptia*, Lepel, Hym., ii, p. 331.  
Aden (Col. Yerbury).
86. MEGACHILE BASALIS, Smith.  
*Megachile basalis*, Smith, Cat. Hym., B. M., i, p. 159. ♀.  
Lahej (Col. Yerbury), Shaikh Othman (Capt. Nurse).
87. MEGACHILE EURIMERA, Smith.  
*Megachile eurimera*, Smith, Cat. Hym., B. M., i, p. 163. ♀.  
Lahej (Capt. Nurse).
88. MEGACHILE BARBATA, Smith.  
*Megachile barbata*, Smith, Cat. Hym., B. M., i, p. 162. ♂.  
Lahej, Shaikh Othman (Capt. Nurse).
89. MEGACHILE RUFIPES, Fabr.  
*Apis rufipis*, Fabr., Ent. Syst., ii, p. 328, 62.  
Aden, Shaikh Othman (Capt. Nurse).
90. ANTHIDIUM PULCHELLUM, Klug.  
*Anthidium pulchellum*, Klug., Symb. Phys., Dec. iii, No. 11, t. 28, f. 11.  
Aden, Shaikh Othman (Capt. Nurse).

91. ANTHIDIUM CINCTUM, Klug.  
*Anthidium cinctum*, Klug, Symb., Phys., Dec. iii, No. 8, t. 28, f. 8.  
Huswah (Capt. Nurse).

92. ANTHIDIUM AFRUM, Lepel.  
*Anthidium afrum*, Lepel., Hym., ii, p. 387, 33.  
Aden, Shaikh Othman (Col. Yerbury).

93. ANTHIDIUM ORDINATUM, Smith.  
*Anthidium ordinatum*, Smith, new sp. Hym., B. M., p. 86. ♂ ♀.  
Lahej (Col. Yerbury).

94. CERATINA VIRIDIS, Guér.  
*Ceratina viridis*, Guér., Icon. R. An. Ins., p. 444, t. 73, f. 6.  
Lahej (Capt. Nurse).

95. CROCISA SCUTELLARIS, Fabr.  
*Nomada scutellaris*, Fabr., Ent. Syst., ii, p. 346, 2.  
Lahej, Shaikh Othman (Col. Yerbury and Capt. Nurse).

96. ANTHOPHORA FALLAX, Smith.  
*Anthophora fallax*, Smith, new sp. Hym., B. M., p. 120, 3. ♀.  
Aden (Col. Yerbury).

97. ANTHOPHORA INCANA, Klug.  
*Megilla incana*, Klug, Symb. Phys., Dec. Vt. 49, f. 12. ♀.  
Aden (Capt. Nurse).

98. ANTHOPHORA TORRIDA, Smith.  
*Anthophora torrida*, Smith, new sp. Hym., B. M., p. 120, 2 ♀.  
Lahej (Capt. Nurse).

99. ANTHOPHORA NUBICA, Lepel.  
*Anthophora nubica*, Lepel., Hym., ii, p. 33, 8. ♀.  
Lahej, Shaikh Othman (Col. Yerbury and Capt. Nurse).

100. ANTHOPHORA FERRUGINEA, Lepel.  
*Anthophora ferruginea*, Lepel., Hym., ii, p. 78, 45.  
Aden (Col. Yerbury).

101. ANTHOPHORA QUADRIFASCIATA, de Vill.  
*Apis quadrifasciata*, de Vill., Ent., iii, p. 349, 90.  
Aden (Col. Yerbury).

102. ANTHOPHORA NIVEO-CINCTA, Smith.  
*Anthophora niveo-cincta*, Smith, Cat. Hym., B. M., ii, p. 337, 92.  
Shaikh Othman (Col. Yerbury).



103. ANTHOPHORA FARINOSA, Klug.

*Megilla farinosa*, Klug, Symb. Phys., Dec. V, t. 50, f. 2. ♀.  
Huswah (Capt. Nurse).

104. XYLOCOPA ÆSTUANS, Linn.

*Apis æstuans*, Linn., Lyst. Nat., i, p. 961, 53. ♂.  
Aden, Shaikh Othman (Col. Yerbury).

105. XYLOCOPA HOTTENTOTTA, Smith.

*Xylocopa hottentotta*, Smith, Cat. Hym., B. M., ii, p. 349, 26. ♀.  
Aden (Col. Yerbury).

106. XYLOCOPA CALENS, Lepel.

*Xylocopa calens*, Lepel., Hym., ii, p. 196, 40. ♂.  
Aden (Capt. Nurse).

107. APIS INDICA, Fabr.

*Apis indica*, Fabr., Ent. Syst., Suppl., p. 274.  
Lahej (Capt. Nurse).