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On the Identity of Smith's Types of Formicidæ (Hymenoptera) collected by Alfred Russell Wallace in the Malay Archipelago, with Descriptions of Two new Species.
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My friend Professor Poulton has kindly enabled me to study all the ants described by Frederick Smith in the W. W. Saunders collection at Oxford. The material was collected by A. R. Wallace in the Indo-Malayan and Austro-Malayan Subregions, and almost entirely in the islands. The descriptions of most of these are such that without the specimens it would be quite impossible even to guess the genera to which they belong. In most cases de Dalla Torre [Cat. Hym. Formicidæ, vii. (1893)] merely quotes them under the generic names given by Smith, and Emery [Gen. Ins. Formicidæ (1910-1925)] adopts the same methods, or assigns them, doubtfully or otherwise, to other genera.

Prolonged and careful study has satisfied me that nearly all of them are now correctly identified.

In the following paper the species are arranged, for the sake of convenience, in the order of Smith's publications, and within each of these they follow the succession adopted by him. Thus the original descriptions can be traced and compared with great ease.

References to Dalla Torre and Emery are also given for each species, and its synonymy discussed, together with any other point of interest which arose in the course of the investigation.

Ants of many species in the following list are labelled—in most instances erroneously—as types in the National Collection. In some of these the locality-labels are not those recorded in Smith's descriptions; nor can many of the Brit. Mus. specimens labelled "F. Sm. Coll. Type. 79.22," the word "type" in the MS. of the late F. W. Kirby, be accepted.

The numbers "79.22" in the British Museum Register, vol. iv., for the years 1864–1881, p. 263, stand for: "3445 Hymenoptera. Various localities. Purchased of Mr. Janson. Containing 554 type-specimens selected from the late Mr. F. Smith's Collection. May 30th, 1879."

When it is certain the insect in question is not the type, I have, with the approval of the Keeper of Entomology, removed the label and substituted "compared with the type."

A special printed label—"The type of this species is housed in the Hope Department, Oxford University Museum"—has also been placed in the cabinet-drawers containing the names of such species, whether the insect is represented or not.

Wallace provided his insects with a round label bearing the MS. locality, abbreviated thus:—"Bac" for Bachian; "SAR" for Sarawak; etc. All such localities are quoted for each, and in many instances they have helped to identify the type.

At the end of this paper I deal with a few types described by F. Smith in 'Catalogue of Hymenopterous Insects in the Collection of the British Museum.—Part VI. Formicidæ,' London, 1858*.

Inasmuch as both de Dalla Torre and Emery quote inaccurately the number of the volume and the date of publication for some of Smith's papers I have taken special care to verify and correct these data whenever necessary.

(1) "Catalogue of the Hymenopterous Insects collected at Sarawak, Borneo; Mount Ophir, Malacca; and at

* The actual official date of this publication is 27 March, 1858.

Singapore, by A. R. Wallace. By Frederick Smith, Assistant in the Zoological Department in the British Museum. Communicated by W. W. Saunders Esqre., F.R.S., F.L.S." [Read June 16th, 1857.] Journ. Proc. Linn. Soc. Lond. ii. *Formicidæ*, pp. 52-83, Nov. 2nd, 1857.

5. *Formica festina* Smith, *l. c.* p. 53, Female, Borneo (Sarawak). *Camponotus festinus* Dalla Torre, *l. c.* p. 231; Emery, *l. c.* clxxxiii. p. 90 (1925)=*Camponotus (Tancæmyrmex) festinus* Smith. 1 winged ♀, "SAR."

The winged female in the British Museum is from Java, and cannot be the type, although formerly so labelled.

6. *Formica mistura* Smith, *l. c.*, Female, Borneo (Sarawak). *Camponotus mistura* Dalla Torre, *l. c.* p. 243; Emery, *l. c.* p. 135=*Camponotus (Myrmotarsus) mistura* Smith. 1 winged ♀, "SAR."
7. *Formica pilosa* Smith, *l. c.* p. 54, Borneo (Sarawak), nec Olivier (1791). *Camponotus pilosus* Dalla Torre, *l. c.* p. 247. *Camponotus (Colobopsis) leonardi* Emery, *l. c.* p. 149=*Camponotus (Colobopsis) leonardi* Emery (1921). 2 ♂♂, "SAR."
8. *Formica ruficeps* Smith, *l. c.*, Worker, Worker minor, Borneo (Sarawak), nec F. (1804), nec *Camponotus ruficeps* Dalla Torre, *l. c.* p. 250. *Camponotus (Myrmotarsus) mistura* Emery, *l. c.* p. 135=*Camponotus (Myrmotarsus) smithi* Donis., nom. nov. 1 ♂, "SAR."
- This species is very distinct from *mistura*, for it is considerably smaller, much more shining, the head and thorax not being matt. The body also is less hairy. It comes nearer to *C. (M.) irritabilis* Smith, being very like that species in colour and appearance, but less hairy, etc.
9. *Formica badia* Smith, *l. c.*, Worker, Singapore; Borneo (Sarawak). *Camponotus badius* Dalla Torre, *l. c.* p. 222; Emery, *l. c.* p. 150=*Camponotus (Colobopsis) badius* Smith. 1 ♀, "SING."
10. *Formica diligens* Smith, *l. c.* p. 55, Female, Malacca. *Camponotus diligens* Dalla Torre, *l. c.* p. 228; Emery, *l. c.* p. 90=*Camponotus (Tancæmyrmex) festinus* Smith, var. *diligens* Smith. 1 dealated ♀, "MALCA."

11. *Formica irritans* Smith, *l. c.*, Worker, Worker minor, Malacca ; Borneo (Sarawak). *Camponotus irritans* Dalla Torre, *l. c.* p. 236 ; Emery, *l. c.* p. 93 = *Camponotus (Tanæmyrmex) irritans* Smith. 1 ♀, "MAL." As Smith suggests, this is probably the ♀ of *diligens*. The ♂ would be a large ant. The insect which was labelled type in the British Museum Collection and with Wallace's label "MALCA" is not *irritans* at all, but a ♂ of *C. (T.) inconspicuus* Mayr (Mayr's type is in the B.M. Coll.), which species Emery (*l. c.*) incorrectly places as a synonym of *irritans* Smith.
12. *Formica fervens* Smith, *l. c.*, Worker, Borneo (Sarawak). *Camponotus fervens* Dalla Torre, *l. c.* p. 231 ; Emery, *l. c.* p. 171 = *Camponotus (Tanæmyrmex) fervens* Smith. 1 ♀, "SAR."
13. *Formica gracilipes* Smith, *l. c.*, Worker, Singapore. *Plagiolepis longipes* Dalla Torre, *l. c.* p. 173. *Anoplolepis longipes* Emery, *l. c.* p. 17 = *Anoplolepis longipes* Jerd. 2 ♀♀, "SING."
14. *Formica irritabilis* Smith, Worker, Borneo (Sarawak). *Camponotus irritabilis* Dalla Torre, *l. c.* p. 236 ; Emery, *l. c.* p. 134 = *Camponotus (Myrmotarsus) irritabilis* Smith. 1 ♀, "SAR."
15. *Formica sedula* Smith, *l. c.*, Worker, Borneo (Sarawak). *Camponotus irritabilis* Dalla Torre, *l. c.* *Camponotus (Myrmotarsus) irritabilis* Emery var. *sedula* Emery, *l. c.* = *Camponotus (Myrmotarsus) sedulus* Smith. 1 ♂, "SAR." This species is not at all like *irritabilis* ; it is a larger dull insect, and comes nearer to *mistura*.
16. *Formica exasperata* Smith, *l. c.*, Worker, Borneo (Sarawak). *Camponotus mistura* Dalla Torre, *l. c.* p. 243 ; Emery, *l. c.* = *Camponotus (Myrmotarsus) mistura* Smith. 1 ♂, "SAR."
17. *Formica tenuipes* Smith, *l. c.* p. 57, Female, Borneo (Sarawak). *Camponotus tenuipes* Dalla Torre, *l. c.* p. 254 ; Emery, *l. c.* p. 171 = *Camponotus (Tanæmyrmex) tenuipes* Smith. 1 winged ♀, "SAR."
18. *Formica camelina* Smith, *l. c.*, Worker, Singapore. *Camponotus cinerascens* Dalla Torre, var. *camelinus* Dalla Torre, *l. c.* p. 224 ; Emery, *l. c.* p. 113 = *Camponotus (Myrmosaulus) camelinus* Smith. 1 ♀, "SING." The *Camponotus cinerascens* F., belongs

to the subgenus *Myrmosericus*, and not to *Myrmosaulus*.

19. *Formica pallida* Smith, *l. c.*, Worker, Borneo (Sarawak). *Camponotus pallidus* Dalla Torre, *l. c.* p. 246. *Camponotus (Tanæmyrmex) irritans* Emery, subsp. *pallidus* Emery, *l. c.* p. 94=*Camponotus (Tanæmyrmex) inconspicuus* Mayr, subsp. *pallidus* Smith. Type in B.M.
20. *Formica irritans* Smith, *l. c.* p. 58. Smith again describes no. 11, the species already given on page 55!
1. *Tapinoma glabrata* Smith, *l. c.*, Worker, Malacca. *Iridomyrmex glabratus* Dalla Torre, *l. c.* p. 169; Emery, *l. c.* cxxxvii. p. 25 (1912)=*Iridomyrmex glabratus* Smith. 3 ♂♂, "MAL."
4. *Polyrhachis defensus* Smith, *l. c.* p. 59, Worker, Singapore, Java. *Polyrhachis armata* Dalla Torre, *l. c.* p. 258. *Polyrhachis (Myrmhopla) armata* Emery var. *defensa* Emery, *l. c.* clxxxiii. p. 192 (1925)=*Polyrhachis (Myrmhopla) armata* Le Guil. var. *defensa* Smith. 1 ♂, "SING."
5. *Polyrhachis constructor* Smith, *l. c.* p. 60, Female, Borneo (Sarawak), nec Smith (1858); Dalla Torre, *l. c.* p. 260, part.; Emery, *l. c.* p. 209=*Polyrhachis (Myrmatopa) constructor* Smith. 1 winged ♀, "SAR." The *Polyrhachis constructor* Smith, Cat. Hym. Brit. Mus. vi. p. 68, pl. iv. fig. 23 (1858), is a *Myrmothrinax*, and is known as *P. (M.) atassa* Forel var. *æquicuspis* Wheeler (1919).
6. *Polyrhachis ruficornis* Smith, *l. c.*, Female, Borneo (Sarawak); Dalla Torre, *l. c.* p. 268; Emery, *l. c.*=*Polyrhachis (Myrmatopa) ruficornis* Smith. 1 winged ♀, "SAR."
7. *Polyrhachis carbonarius* Smith, *l. c.*, Worker, Malacca; Dalla Torre, *l. c.* p. 260; Emery, *l. c.*=*Polyrhachis (Aulacomyrma) carbonaria* Smith. 1 ♂, "MAL."
8. *Polyrhachis textor* Smith, *l. c.*, Worker, Malacca; Dalla Torre, *l. c.* p. 270; Emery, *l. c.* p. 183=*Polyrhachis (Myrmothrinax) textor* Smith. 1 ♀, no locality label.
9. *Polyrhachis chalybeus* Smith, *l. c.* p. 61, Worker, Singapore, Malacca; Dalla Torre, p. 260; Emery, *l. c.* p. 193=*Polyrhachis (Myrmhopla) chalybea* Smith. 1 ♀, "MAL."

10. *Polyrhachis nitidus* Smith, *l. c.*, Female, Borneo (Sarawak); Dalla Torre, *l. c.* p. 266; Emery, *l. c.* p. 197=*Polyrhachis (Myrmhopla) nitida* Smith. 1 winged ♀, "SAR."
11. *Polyrhachis villipes* Smith, *l. c.*, Worker, Borneo (Sarawak); Dalla Torre, *l. c.* p. 271; Emery, *l. c.* p. 201=*Polyrhachis (Myrma) villipes* Smith. 1 ♂, "SAR."
12. *Polyrhachis modestus* Smith, *l. c.* p. 62, Female, Singapore; Dalla Torre, *l. c.* p. 265. *Polyrhachis (Chariomyrma) modesta* Emery, *l. c.* p. 187=*Polyrhachis (Hedomyrma) modesta* Smith. 1 winged ♀, "SING."
13. *Polyrhachis pandarus* Smith, *l. c.*, Worker, Borneo (Sarawak), Philippine Islands, Java, Singapore. *Polyrhachis armata* Dalla Torre, *l. c.* p. 258; Emery, *l. c.* p. 192=*Polyrhachis (Myrmhopla) armata* Le Guil. 1 ♂, "SAR."
14. *Polyrhachis hector* Smith, *l. c.*, Worker, Singapore, nec *P. hector* Smith (1859); Dalla Torre, *l. c.* p. 263; Emery, *l. c.* p. 193=*Polyrhachis (Myrmhopla) hector* Smith. 1 ♀, "SING."
15. *Polyrhachis lævigatus* Smith, *l. c.*, Worker, Malacca; Dalla Torre, *l. c.* p. 264; Emery, *l. c.* p. 195=*Polyrhachis (Myrmhopla) lævigata* Smith. 1 ♀, "MAL."
16. *Polyrhachis cuspidatus* Smith, *l. c.* p. 63, Worker, Borneo (Sarawak); *Dolichoderus cuspidatus* Dalla Torre, *l. c.* p. 158; Emery, *l. c.* cxxxvii. p. 13 (1912)=*Dolichoderus (Hypoctinea) cuspidatus* Smith. 2 ♂♂, "SAR."
17. *Polyrhachis flavicornis* Smith, *l. c.*, Female, Worker, Singapore; Dalla Torre, *l. c.* p. 262; Emery, *l. c.* clxxxiii. p. 209 (1925)=*Polyrhachis (Myrmatopa) flavicornis* Smith. 1 winged ♀, 1 ♂, "SING."
18. *Polyrhachis equinus* Smith, *l. c.*, Worker, Sarawak; Dalla Torre, *l. c.*, p. 261; Emery, *l. c.* p. 179=*Polyrhachis (Campomyrma) equina* Smith. 1 ♀, "SAR."
19. *Polyrhachis dives* Smith, *l. c.* p. 64, Worker, Singapore; Dalla Torre, *l. c.*; Emery, *l. c.* p. 195=*Polyrhachis (Myrmhopla) dives* Smith. Type in B.M.
20. *Polyrhachis vindex* Smith, *l. c.*, Worker, Borneo (Sarawak); Dalla Torre, *l. c.* p. 271; Emery,

l. c. p. 204=*Polyrhachis (Myrma) vindex* Smith.
1 ♂, "SAR."

1. *Odontomachus rixosus* Smith, *l. c.*, Worker, Singapore ; Dalla Torre, *l. c.* p. 52 ; Emery, *l. c.* cxviii. p. 114 (1911)=*Odontomachus rixosus* Smith. 1 ♀, "SING."
The worker in the British Museum is labelled "Birmah," and cannot be the type, although formerly so treated.
2. *Odontomachus rugosus* Smith, *l. c.* p. 65, Worker, Singapore ; Dalla Torre, *l. c.* *Anochetus rugosus* Emery, *l. c.* p. 109=*Anochetus rugosus* Smith. 1 ♀, "SAR." This cannot be the type, as the type-locality is Singapore. The species is not represented in the British Museum Collection.
1. *Ponera versicolor* Smith, *l. c.*, Worker, Borneo (Sarawak), Philippine Islands. *Diacamma versicolor* Dalla Torre, *l. c.* p. 30 ; Emery, *l. c.* p. 66=*Diacamma rugosum* Le Guil. 1 ♀, "SAR."
2. *Ponera rubra* Smith, *l. c.* p. 66, Female, Singapore ; Dalla Torre, *l. c.* p. 42. *Euponera (Mesoponera) rubra* Emery, *l. c.* p. 81=*Euponera (Mesoponera) rubra* Smith. 1 deälated ♀, "SING."
3. *Ponera apicalis* Smith, *l. c.*, Female, Borneo (Sarawak); Dalla Torre, *l. c.* p. 37 ; Emery, *l. c.* p. 116=*Euponera (Mesoponera) apicalis* Smith. 1 deälated ♀, "SAR."
4. *Ponera iridescens* Smith, *l. c.*, Worker, Borneo (Sarawak). *Lobopelta iridescens* Dalla Torre, *l. c.* p. 45 ; Emery, *l. c.* p. 104=*Leptogenys (Lobopelta) iridescens* Smith. 1 ♂, "SAR."
5. *Ponera rugosa* Smith, *l. c.*, Female, Borneo (Sarawak) nec Le Guil. (1840). *Ectatomma coxale* Dalla Torre, *l. c.* p. 24. *Stictoponera rugosa* Emery, *l. c.* p. 48=*Stictoponera wallacei* Donis., nom. nov. (1932). 1 deälated ♀, "SAR."
Both Dalla Torre and Emery incorrectly quote this insect as a ♂.
6. *Ponera rufipes* Smith, *l. c.* p. 67, Worker, Singapore, Malabar, Borneo. *Bothroponera rufipes* Dalla Torre *l. c.* p. 36 ; Emery, *l. c.* p. 76=*Pachycondyla (Bothroponera) rufipes* Jerd. 1 ♀, "SING." Inasmuch as Smith (*l. c.*) quotes this species as *Ponera rufipes* Jerdon, although he describes it, the two insects, in the British Museum and at Oxford

respectively, labelled "*P. rufipes* Smith. Type," cannot be types.

7. *Ponera intricata* Smith, *l. c.*, Worker, Borneo (Sarawak). *Diacamma intricatum* Dalla Torre, *l. c.* p. 29; Emery, *l. c.* p. 65=*Diacamma intricatum* Smith. 1 ♀, "SAR." The specimen is labelled "*Polyrhachis intricatus* Smith!
8. *Ponera geometrica* Smith, *l. c.*, Worker, Singapore. *Diacamma geometricum* Dalla Torre, *l. c.* p. 28. *Diacamma rugosum* Emery, subsp. *geometricum* Emery, *l. c.*=*Diacamma geometricum* Smith. 1 ♀, "SING." I consider this is a good species; the spines on the petiole are considerably longer, the body duller, more pubescent, etc.
9. *Ponera transversa* Smith, *l. c.* p. 68, Worker, Singapore. *Odontoponera transversa* Dalla Torre, *l. c.* p. 30; Emery, *l. c.* p. 60=*Odontoponera transversa* Smith. 1 ♀, "SING."
10. *Ponera vidua* Smith, *l. c.*, Male, Borneo (Sarawak); Dalla Torre, *l. c.* p. 43; Emery, *l. c.* p. 116=*Pachycondyla (Bothroponera) vidua* Smith. 1 ♂, "SAR." The gaster of this specimen is missing.
11. *Ponera diminuta* Smith, *l. c.* p. 69, Worker, Borneo (Sarawak). *Lobopelta diminuta* Dalla Torre, *l. c.* p. 44; Emery, *l. c.* p. 103=*Leptogenys (Lobopelta) diminuta* Smith. 2 ♀♀, "SAR."
12. *Ponera pompiloides* Smith, *l. c.*, Male, Borneo (Sarawak); Dalla Torre, *l. c.* p. 41; Emery, *l. c.* p. 116=*Leptogenys pompiloides* Smith. 1 ♂, "SING." There is also a ♂ in the British Museum with Smith's label "*Ponera pompiloides* Smith" and Wallace's label "SING." It is very probable that Smith wrote Sarawak in error in this paper, and the specimens came from Singapore.
13. *Ponera læviceps* Smith, *l. c.*, Worker, Borneo (Sarawak). *Lobopelta diminuta* Dalla Torre, var. *læviceps* Dalla Torre, *l. c.* p. 44; Emery, *l. c.* p. 103=*Leptogenys (Lobopelta) diminuta* var. *læviceps* Smith. 2 ♀♀, "WAG." The type is in the British Museum, labelled "SAR."
1. *Typhlopone lævigata* Smith, *l. c.* p. 70, Worker (minor), Borneo (Sarawak). *Dorylus lævigatus* Dalla Torre, *l. c.* p. 12; Emery, *l. c.* cii. p. 8

- (1910)=*Dorylus (Dichthadia) lævigatus* Smith. The insects are not at Oxford. There are two ♂♂ major and one minor on one card labelled type and "SAR," also with Smith's label "*Typhlopone lævigata* Smith," in the British Museum.
1. *Myrmica longipes* Smith, *l. c.*, Worker, Singapore, Borneo (pl. i. fig. 6). *Aphænogaster longipes* Dalla Torre, *l. c.* p. 103. *Ischnomyrmex longipes* Emery, *l. c.* clxxiv. B, p. 114 (1921)=*Ischnomyrmex longipes* Smith. 2 ♂♂, "SING."
 2. *Myrmica pellucida* Smith, *l. c.* p. 71, Worker, Singapore. *Tapinoma melanocephalum* Dalla Torre, *l. c.* p. 165; Emery, *l. c.* cxxxvii. p. 41 (1912)=*Tapinoma melanocephalum* F. 4 ♀♀, no locality.
 3. *Myrmica vastator* Smith, *l. c.*, Worker, Singapore. *Monomorium destructor* Dalla Torre, *l. c.* p. 66; Emery, *l. c.* clxxiv. B, p. 180 (1922)=*Monomorium (Monomorium) pharaonis* L. 4 ♂♂. "House Ant. Singapore. Very destructive." There are 4 ♀♀ without a label in the B.M. Collection which profess to be the type of *M. vastator* Smith, but these are *M. destructor* Jerd. Smith mentions that "Mr. Wallace attaches a ticket to this species 'House-ant, very destructive.'" It is clear that the type of *M. vastator* Smith is at Oxford, and that the species is really *M. pharaonis* L.
 4. *Myrmica agilis* Smith, *l. c.*, Worker, Malacca; Dalla Torre, *l. c.* p. 108; Emery, *l. c.* clxxiv. C, p. 355 (1922)=*Pheidole agilis* Smith. 3 ♂♂, "MALAC."
 1. *Heptacondylus arachnoides* Smith, *l. c.* p. 72, Female, Worker, Borneo (Sarawak). *Myrmicaria arachnoides* Dalla Torre, *l. c.* p. 155; Emery, *l. c.* clxxiv. B, p. 122 (1922)=*Myrmicaria arachnoides* Smith. 1 winged ♀, "SAR.," and 1 ♂, "SAR."
 2. *Heptacondylus subcarinatus* Smith, *l. c.* p. 73, Worker, Borneo (Sarawak). *Myrmicaria subcarinata* Dalla Torre, *l. c.* p. 156; Emery, *l. c.*=*Myrmicaria brunnea* Saund., subsp. *subcarinata* Smith. 2 ♀♀, "SAR."
 3. *Heptacondylus carinatus* Smith, *l. c.*, Worker, Borneo (Sarawak). *Myrmicaria carinata* Dalla Torre, *l. c.* p. 155; Emery, *l. c.*=*Myrmicaria brunnea* Saund., subsp. *carinata* Smith. 1 ♀, "SAR."

1. *Cerapachys antennatus* Smith, *l. c.*, p. 74, Worker, Borneo (Sarawak); Dalla Torre, *l. c.* p. 17; Emery, *l. c.* cii. p. 9 (1910)=*Cerapachys (Cerapachys) antennatus* Smith. 1 ♂, Borneo (Sarawak).
2. *Cerapachys oculatus* Smith, *l. c.*, Male, no locality mentioned (pl. i. figs. 20-24). *Sima oculata* Dalla Torre, *l. c.* p. 54. *Cerapachys oculata* Emery, *l. c.* clxxiv. C, p. 357 (1922)=*Rhopalothrix? oculata* Smith. 1 ♂, "SAR." = *Dilobocoondyla oculata*
1. *Crematogaster anthracinus* Smith, *l. c.* p. 75, Worker, Singapore; Dalla Torre, *l. c.* p. 79; Emery, *l. c.* clxxiv. B, p. 158 (1922)=*Crematogaster (Acrocoelia) anthracina* Smith. 3 ♀♀, "SING."
2. *Crematogaster brunneus* Smith, *l. c.*, Worker, Worker minor, Borneo (Sarawak); Dalla Torre, *l. c.* p. 80; Emery, *l. c.* p. 149=*Crematogaster (Acrocoelia) brunnea* Smith. 2 ♀♀, "SAR."
3. *Crematogaster cephalotes* Smith, *l. c.*, Worker, Worker minor, Borneo (Sarawak); Dalla Torre, *l. c.*; Emery, *l. c.* p. 158=*Crematogaster (Decacrema) cephalotes* Smith. 2 ♀♀, "SAR."
4. *Crematogaster obscurus* Smith, *l. c.* p. 76, Worker, Borneo (Sarawak) nec Smith (1860); Dalla Torre, *l. c.* p. 84; nec Emery, *l. c.* p. 158=*Crematogaster (Acrocoelia) obscura* Smith. 2 ♀♀, "SAR."
5. *Crematogaster inflatus* Smith, *l. c.* (pl. ii. fig. 2), Worker, Singapore, Borneo (Sarawak). Dalla Torre, *l. c.* p. 82; Emery, *l. c.* p. 140=*Crematogaster (Physocrema) inflata* Smith. 2 ♀♀, "SAR."
6. *Crematogaster difformis* Smith, *l. c.*, Worker, Worker minor, Singapore, Borneo (Sarawak); Dalla Torre, *l. c.* p. 81; Emery, *l. c.* p. 139=*Crematogaster (Physocrema) difformis* Smith. 2 ♀♀, "SAR."
1. *Atta penetrans* Smith, *l. c.* p. 77, Female, Borneo (Sarawak). *Aphænogaster penetrans* Dalla Torre, *l. c.* p. 104. *Atta penetrans* Emery, *l. c.* clxxiv. C, p. 356 (1922)=*Vollenhovia penetrans* Smith. 1 winged ♀, "SAR."
2. *Atta cingulata* Smith, *l. c.*, Worker major, Worker minor, Borneo (Sarawak). *Aphænogaster cingulata* Dalla Torre, *l. c.* p. 102. *Pheidole (Pheidole) cingulata* Emery, *l. c.* clxxiv. B, p. 97 (1922). Insects missing.
1. *Physatta dromedarius* Smith, *l. c.* p. 78, Female,

- Borneo (Sarawak). *Myrmicaria carinata* Dalla Torre, *l. c.* p. 155; Emery, *l. c.* p. 122=*Myrmicaria arachnoides* Smith. 1 winged ♀, "SAR."
1. *Typhlatta læviceps* Smith, *l. c.* p. 79, Worker, Borneo (Sarawak). *Ænictus læviceps* Dalla Torre, *l. c.* p. 8; Emery, *l. c.* cii. p. 50 (1910)=*Ænictus læviceps* Smith. 2 ♂♂, "SAR."
 1. *Echinopla melanarctos* Smith, *l. c.*, Worker, Singapore (pl. i. figs. 25-29); Dalla Torre, *l. c.* p. 272; Emery, *l. c.* clxxxiii. p. 211 (1925)=*Echinopla melanarctos* Smith. 1 ♀, "SING."
 2. *Echinopla pallipes* Smith, *l. c.* p. 80, Worker, Borneo (Sarawak). *Echinopla pallidipes* Dalla Torre, *l. c.* p. 272; Emery, *l. c.*=*Echinopla pallipes* Smith. 1 ♀, "SAR."
 3. *Echinopla striata* Smith, *l. c.*, Worker, Malacca; Dalla Torre, *l. c.*; Emery, *l. c.*=*Echinopla striata* Smith. 1 ♀, "MAL."
 1. *Cataulacus insularis* Smith, *l. c.*, Male, Borneo (Sarawak); Dalla Torre, *l. c.* p. 138; Emery, *l. c.* clxxiv. C, p. 298 (1922)=*Cataulacus insularis* Smith. 1 ♂, "SAR."
 2. *Cataulacus horridus* Smith, *l. c.* p. 81, Worker, Borneo (Sarawak), Malacca; Dalla Torre, *l. c.*; Emery, *l. c.*=*Cataulacus horridus* Smith. 1 ♀, "MAL."
 3. *Cataulacus reticulatus* Smith, *l. c.*, Worker, var. *a. minor*, Borneo (Sarawak). *Cataulacus granulatus* Dalla Torre, *l. c.*; Emery, *l. c.*=*Cataulacus reticulatus* Smith. ♀, "SAR." In my opinion this is a good species and not *granulatus* Latr.; the sculpture is much less rugose, and it lacks the short white setæ of that species.
 1. *Meranoplus castaneus* Smith, *l. c.*, Female, Borneo (Sarawak); Dalla Torre, *l. c.* p. 136; Emery, *l. c.* p. 228=*Meranoplus castaneus* Smith. 1 de-älated ♀, "SAR."
 2. *Meranoplus cordatus* Smith, *l. c.* p. 82, Worker, Borneo (Sarawak); Dalla Torre, *l. c.*; Emery, *l. c.* =*Meranoplus cordatus* Smith. ♀, "SAR."
 3. *Meranoplus mucronatus* Smith, *l. c.*, Worker, Malacca (Mount Ophir); Dalla Torre, *l. c.*, p. 137; Emery, *l. c.*=*Meranoplus mucronatus* Smith. 2 ♂♂, "SING." (=Singapore). The type is in the B.M. Collection labelled "MT. OPHIR."

(2) "Catalogue of Hymenopterous Insects collected by Mr. A. R. Wallace at the Islands of Aru and Key." By Frederick Smith. Communicated by W. W. Saunders. Journal Proc. Linn. Soc. Lond., Zool. iii. pp. 132-178, Feb. 1st, 1859.

3. *Formica fragilis* Smith, *l. c.* p. 136, Worker, Aru ; Dalla Torre, *l. c.* p. 196. *Leptomyrmex fragilis* Emery, *l. c.* cxxxvii. p. 16 (1912)=*Leptomyrmex fragilis* Smith. 1 ♀, "ARU."
4. *Formica flavitarsus* Smith, *l. c.*, Worker, Aru. *Camponotus flavitarsis* Dalla Torre, *l. c.* p. 231 ; Emery, *l. c.* clxxxiii. p.90 (1925)=*Camponotus (Tanæmyrmex) flavitarsus* Smith. 1 ♀, "ARU."
5. *Formica coxalis* Smith, *l. c.*, Worker major (no locality mentioned). *Camponotus coxalis* Dalla Torre, *l. c.* p. 227 ; Emery, *l. c.*=*Camponotus (Tanæmyrmex) coxalis* Smith. 1 ♂, "ARU."
6. *Formica caudata* Smith, *l. c.* p. 137, Worker, Aru. *Iridomyrmex cordatus* Dalla Torre, *l. c.* p. 168 ; Emery, *l. c.* cxxxvii. p. 24 (1912)=*Iridomyrmex cordatus* Smith. 2 ♀♀, "ARU."
7. *Formica oculata* Smith, *l. c.*, Worker, Aru ; Dalla Torre, *l. c.* p. 203 ; Emery, *l. c.* clxxxiii. p 271 (1925) =*Opisthopsis oculata* Smith. 1 ♀, "ARU."
8. *Formica mutilata* Smith, *l. c.*, Worker, Aru. *Camponotus mutilatus* Dalla Torre, *l. c.* p. 244 ; Emery, *l. c.* p. 146=*Camponotus (Colobopsis) mutilatus* Smith. 1 ♂, "ARU."
9. *Formica quadriceps* Smith, *l. c.*, Worker, Worker minor, Aru. *Camponotus quadriceps* Dalla Torre, *l. c.* p. 249 ; Emery, *l. c.* p. 150=*Camponotus (Colobopsis) quadriceps* Smith. 1 ♂, "ARU."
10. *Formica lævissima* Smith, *l. c.* p. 138, Worker, Aru. *Camponotus levissimus* Dalla Torre, *l. c.* p. 238. *Calomyrmex lævissimus* Emery, *l. c.* p. 175=*Calomyrmex lævissimus* Smith. 1 ♀, "ARU."
11. *Formica nitida* Smith, *l. c.*, Worker, Aru. *Camponotus nitidus* Dalla Torre, *l. c.* p. 245. *Camponotus (Colobopsis) quadriceps* Emery, *l. c.* p. 150 =*Camponotus (Tanæmyrmex) nitidus* Smith. 1 ♂, "ARU."
12. *Formica scrutator* Smith, *l. c.*, Worker, Aru. *Iridomyrmex scrutator* Dalla Torre, *l. c.* p. 170 ; Emery,

- l. c.* cxxxvii. p. 26 (1912)=*Iridomyrmex scrutator* Smith. 2 ♂♂, "Aru."
13. *Formica angulata* Smith, *l. c.* p. 139, Worker, Aru. *Camponotus angulatus* Dalla Torre, *l. c.* p. 221. *Camponotus (Colobopsis) quadriceps* Emery, *l. c.* clxxxiii. p. 150 (1925)=*Camponotus (Colobopsis) quadriceps* Smith. 1 ♂, "Aru."
 3. *Polyrhachis marginatus* Smith, *l. c.*, Worker, Aru; Dalla Torre, *l. c.* p. 265; Emery, *l. c.* p. 188=*Polyrhachis (Chariomyrma) marginata* Smith. 1 ♀, "Aru."
 4. *Polyrhachis hostilis* Smith, *l. c.*, Worker, Aru; Dalla Torre, *l. c.* p. 263; Emery, *l. c.* p. 187=*Polyrhachis (Chariomyrma) hostilis* Smith. 1 ♂, "Aru."
 5. *Polyrhachis longipes* Smith, *l. c.* p. 140, Worker, Aru; Dalla Torre, *l. c.* p. 265; Emery, *l. c.* p. 195=*Polyrhachis (Myrmhopla) longipes* Smith. 1 ♀, "Aru."
 6. *Polyrhachis serratus* Smith, *l. c.*, Worker, Aru; Dalla Torre, *l. c.* p. 269. *Polyrhachis (Aulocomyrma) serrata* Emery, *l. c.* p. 198=*Echinopla serrata* Smith. 1 ♂, "Aru."
 7. *Polyrhachis scutulatus* Smith, *l. c.*, Worker, Aru; Dalla Torre, *l. c.*; Emery, *l. c.* p. 188=*Polyrhachis (Chariomyrma) scutulata* Smith. 1 ♀, "Aru."
 8. *Polyrhachis mucronatus* Smith, *l. c.*, Worker, Aru; Dalla Torre, *l. c.* p. 266; Emery, *l. c.* p. 196=*Polyrhachis (Myrmhopla) mucronata* Smith. 1 ♀, "Aroo."
 9. *Polyrhachis geometricus* Smith, *l. c.* p. 141, Worker, Aru; Dalla Torre, *l. c.* p. 262; Emery, *l. c.* p. 209=*Polyrhachis (Aulocomyrma) geometrica* Smith. 1 ♀, "Aru."
 10. *Polyrhachis irritabilis* Smith, *l. c.*, Female, Aru (Smith suggests this is the ♀ of *P. sexspinosus*); Dalla Torre, *l. c.* p. 269; Emery, *l. c.* p. 191=*Polyrhachis (Myrmhopla) sexspinoso* Latr. 1 winged ♀, "Aroo."
 11. *Polyrhachis lævissimus* Smith, *l. c.*, Worker, Aru, nec *P. lævissimus* Smith (1858). *Polyrhachis levior* Dalla Torre, *l. c.* p. 264. *Polyrhachis (Cyrtomyrma) rastellata* Emery, subsp. *levior* Emery, *l. c.*, p. 208=*Polyrhachis (Cyrtomyrma) levior* Rog. 1 ♀, Aru.

Roger gave the name of *laevior* to this species (1863) as *laevissimus* was preoccupied by Smith's species of that name from Burmah [Cat. Hym. Brit. Mus. vi. p. 64 (1858)]. *P. (C.) laevior* Rog. is more nearly related to the true *laevissima*, as the shoulders are bluntly toothed.

12. *Polyrhachis bellicosus* Smith, *l. c.* p. 142, Worker, Aru ; Dalla Torre, *l. c.* p. 259 ; Emery, *l. c.* p. 182 = *Polyrhachis (Polyrhachis) bellicosa* Smith. 1 ♀, "Aru."
13. *Polyrhachis hector* Smith, *l. c.*, Worker, Aru, nec *P. hector* Smith (1857). *Polyrhachis relucens* Dalla Torre, var. *hector* Dalla Torre, *l. c.* p. 267. *Polyrhachis (Myrma) relucens* Emery, subsp. *andromache* Emery, *l. c.* p. 202 = *Polyrhachis (Myrma) relucens* Latr., subsp. *andromache* Rog. 1 ♂, "Aroo." Roger (1863) gave the name of *andromache* to this subspecies, as the name *hector* is preoccupied by Smith's *Polyrhachis (Myrmhopla) hector* (1857) from Singapore.
14. *Polyrhachis rufofemoratus* Smith, *l. c.*, Worker, Aru ; Dalla Torre, *l. c.* p. 268 ; Emery, *l. c.* *Polyrhachis (Myrma) rufofemorata* Smith. 1 ♀, "Aru."
1. *Ponera sculpturata* Smith, *l. c.*, Worker, Aru. *Diacamma geometricum* Dalla Torre var. *sculpturatum* Dalla Torre, *l. c.*, p. 28 ; Emery, *l. c.* cxviii. p. 66 (1911) = *Diacamma rugosum* Le Guil., subsp. *sculpturatum* Smith. 1 ♂, "Aroo."
2. *Ponera parallela* Smith, *l. c.* p. 143, Worker, Aru ; Dalla Torre, *l. c.* p. 41 ; Emery, *l. c.* p. 116 = *Platythyrea parallela* Smith. 1 ♀, "Aru."
3. *Ponera quadridentata* Smith, *l. c.*, Female, Aru. *Ponera stigma* Dalla Torre, *l. c.* p. 42. *Euponera (Trachymesopus) stigma* Emery var. *quadridentata* Emery, *l. c.* p. 85 = *Euponera (Trachymesopus) stigma* F. var. *quadridentata* Smith. 1 winged ♀, "Aru."
1. *Ectatomma rugosa* Smith, *l. c.*, Worker, Male, Aru. *Ectatomma araneoides* Dalla Torre, *l. c.* p. 22. *Rhytidoponera (Rhytidoponera) araneoides* Emery, *l. c.* p. 37 = *Rhytidoponera (Rhytidoponera) araneoides* Le Guil. The ♂ type is in the B.M. Collection with label "Aru." The Oxford insect has not got Wallace's label, and moreover is not *rugosa* Smith.

The gaster is strongly longitudinally striate, and not very delicately aciculate as described by Smith and as in the B.M. type.

2. *Odontomachus tyrannicus* Smith, *l. c.* p. 144, Worker, Aru ; Dalla Torre, *l. c.* p. 52 ; Emery, *l. c.* p. 113=*Odontomachus tyrannicus* Smith. 1 ♀, "Aru."
3. *Odontomachus malignus* Smith, *l. c.*, Worker, Aru ; Dalla Torre, *l. c.* p. 51 ; Emery, *l. c.*=*Odontomachus malignus* Smith. 1 ♀, "Aru."
1. *Pseudomyrma læviceps* Smith, *l. c.* p. 145, Worker, Aru. *Sima læviceps* Dalla Torre, *l. c.* p. 55 ; Emery, *l. c.* clxxiv. A, p. 26 (1921)=*Tetraponera læviceps* Smith. 1 ♀, "Aru."
1. *Podomyrma femorata* Smith, *l. c.*, Female, Worker major, Aru ; Dalla Torre, *l. c.* p. 60 ; Emery, *l. c.* clxxiv. C, p. 237 (1924)=*Podomyrma femorata* Smith. 1 winged ♀, no locality-label ; 1 ♀, "Aru."
2. *Podomyrma striata* Smith, *l. c.* p. 146, Worker, Aru ; Dalla Torre, *l. c.* ; Emery, *l. c.* p. 238=*Podomyrma striata* Smith. 1 ♀, "Aru."
3. *Podomyrma lævifrons* Smith, *l. c.*, Worker, Aru ; Dalla Torre, *l. c.* ; Emery, *l. c.* p. 237=*Podomyrma lævifrons* Smith. 1 ♀, no locality-label.
4. *Podomyrma basalis* Smith, *l. c.* p. 147, Worker, Aru ; Dalla Torre, *l. c.* ; Emery, *l. c.*=*Podomyrma basalis* Smith. 1 ♀, "Aru."
1. *Myrmica parallela* Smith, *l. c.*, Worker, Aru ; Dalla Torre, *l. c.* p. 113 ; Emery, *l. c.* p. 356=*Tetramorium parallelum* Smith. 1 ♀, no locality-label.
2. *Myrmica scabrosa* Smith, *l. c.*, Worker, Aru ; Dalla Torre, *l. c.* p. 116 ; Emery, *l. c.*=*Tetramorium scabrosum* Smith. 2 ♀♀, no locality-label.
3. *Myrmica thoracica* Smith, *l. c.*, p. 148, Worker, Aru ; Dalla Torre, *l. c.* p. 118 ; Emery, *l. c.*=*Cardiocondyla thoracica* Smith. 3 ♀♀, "Aru."
4. *Myrmica suspiciosa* Smith, *l. c.*, Worker, Aru ; Dalla Torre, *l. c.* p. 117 ; Emery, *l. c.*=*Pheidole (Pheidole) megacephala* F. 2 ♀♀, "Aru."
5. *Myrmica mellea* Smith, Worker, Aru ; Dalla Torre, *l. c.* p. 112 ; Emery, *l. c.*=*Solenopsis geminata* F. 1 ♀, "Aru."
6. *Myrmica carinata* Smith, *l. c.*, Worker, Aru ; Dalla Torre, *l. c.* p. 109 ; Emery, *l. c.*=*Xiphomyrmex carinata* Smith. 1 ♀, "Aru."

2. *Crematogaster elegans* Smith, *l. c.* p. 149, Worker, Aru ; Dalla Torre, *l. c.* p. 81 ; Emery, *l. c.* clxxiv. B, p. 139 (1922) = *Crematogaster (Xiphocrema) elegans* Smith. "Aru."

There are two ♂♂ on the one card which resemble each other closely in colour and general appearance ; the second specimen, however, belongs to the subgenus *Orthocrema*. The head is not so broad and is distinctly punctured ; the antennæ are shorter and have a distinctly shorter last joint of the (two-jointed) club ; the thorax is convex instead of concave and there are no spines to the shoulders ; the mesoepinotal suture is deep and the whole thorax is somewhat rugosely punctured ; the epinotal spines are thicker and curved in, instead of being sharp and turned outwards ; the petiole and post-petiole are narrower, and the gaster is narrower and more heart-shaped.

3. *Crematogaster insularis* Smith, *l. c.*, Worker, Aru ; Dalla Torre, *l. c.* p. 83 ; Emery, *l. c.* p. 158 = *Crematogaster (Orthocrema) insularis* Smith. 2 ♂♂, "Aru."

1. *Solenopsis cephalotes* Smith, *l. c.*, Worker major, Worker minor, Aru. *Solenopsis geminata* Dalla Torre, *l. c.* p. 76. *Solenopsis geminata* Emery, subsp. *rufa* Emery, *l. c.* p. 197 = *Solenopsis geminata* F., subsp. *rufa* Jerd. 1 ♂, 1 ♀, "Men." These are not the types, as the locality is not the type-locality ; nor is the type of *cephalotes* in the B.M. Collection.

1. *Meranoplus spinosus* Smith, *l. c.* p. 150, Worker, Aru ; Dalla Torre, *l. c.* p. 137 ; Emery, *l. c.* clxxiv. C, p. 228 (1922) = *Procryptocerus spinosus* Smith. 1 dealated ♀, "Aroo."

(3) "Descriptions of New Species of Hymenopterous Insects collected by Mr. A. R. Wallace at Celebes." By Frederick Smith. Communicated by W. W. Saunders. Journ. Proc. Linn. Soc. Lond., Zool. iv. (Suppl.) pp. 57-93, Sept. 19th, 1859. *wrong dates!* pub. 1861

2. *Formica pallida* Smith, *l. c.* p. 68, Female, Worker minor, Celebes, Sarawak. *Camponotus pallidus* Dalla Torre, *l. c.* p. 241. *Camponotus (Tanæmyrmex) irritans* Emery, subsp. *pallidus* Emery, *l. c.*

- clxxxiii, p. 94 (1925)=*Camponotus (Tanæmyrmex) inconspicuous* Mayr, subsp. *pallidus* Smith. 1 winged ♀, "Mak," 2 ♂♂, "Mak."
4. *Formica familiaris* Smith, *l. c.*, Female, Makassar. *Pseudolasius familiaris* Dalla Torre, *l. c.* p. 180; Emery, *l. c.* p. 215=*Pseudolasius familiaris* Smith. 1 winged ♀, "Mak."
1. *Tapinoma thoracica* Smith, *l. c.* p. 69, Worker, Makassar. *Dolichoderus thoracicus* Dalla Torre, *l. c.* p. 162; Emery, *l. c.* cxxxvii. p. 14 (1912)=*Dolichoderus (Hypoclinea) thoracicus* Smith. 2 ♂♂, Mak. This species is the *D. (H.) bituberculatus* Mayr (1862), which name becomes a synonym.
2. *Tapinoma nitida* Smith, *l. c.*, Female, Makassar; Dalla Torre, *l. c.* p. 166; Emery, *l. c.* p. 42=*Camponotus (Colobopsis) nitidus* Smith. 1 winged ♀, Mak.
1. *Polyrhachis phyllophilus* Smith, *l. c.*, Worker, Makassar. *Polyrhachis abdominalis*, Dalla Torre, *l. c.* p. 257. *Polyrhachis (Myrmhopla) abdominalis* Emery, subsp. *phyllophilus* Emery, *l. c.* clxxxiii. p. 192 (1925)=*Polyrhachis (Myrmhopla) abdominalis* Smith, subsp. *phyllophilus* Smith. 1 ♀, Mak.
2. *Polyrhachis compressicornis* Smith, *l. c.*, Female, Worker, no locality given; Dalla Torre, *l. c.* p. 260; Emery, *l. c.* p. 200=*Polyrhachis (Myrma) compressicornis* Smith. 1 dealated ♀, "Mak."
3. *Polyrhachis rugifrons* Smith, *l. c.* p. 70, Female, Makassar; Dalla Torre, *l. c.* p. 268; Emery, *l. c.* p. 198=*Polyrhachis (Myrmhopla) rugifrons* Smith. 1 dealated ♀, "Mak."
4. *Polyrhachis sculpturatus* Smith, *l. c.*, Female, Worker, Makassar; Dalla Torre, *l. c.* p. 269; Emery, *l. c.* p. 203=*Polyrhachis (Myrma) sculpturata* Smith. 1 winged ♀, "Mak."
5. *Polyrhachis nudatus* Smith, *l. c.* p. 71, Worker, Makassar; Dalla Torre, *l. c.* p. 266; Emery, *l. c.* p. 197=*Polyrhachis (Myrmhopla) nudata* Smith. 1 ♀, "Mak."
6. *Polyrhachis peregrinus* Smith, *l. c.*, Female, Makassar; Dalla Torre, *l. c.*; Emery, *l. c.*=*Polyrhachis (Myrmhopla) peregrina* Smith. 1 dealated ♀, "Mak."

7. *Polyrhachis vestitus* Smith, *l. c.*, Worker, Makassar ; Dalla Torre, *l. c.* p. 271 ; Emery, *l. c.* p. 203 = *Polyrhachis (Myrma) vestita* Smith. 1 ♀, "Mak."
8. *Polyrhachis sævissimus* Smith, *l. c.*, Worker, Makassar ; Dalla Torre, *l. c.*, p. 268 ; Emery, *l. c.* p. 197 = *Polyrhachis (Myrmhopla) sævissima* Smith. 1 ♀, "Mak."
3. *Ponera truncata* Smith, *l. c.* p. 72, Female, Makassar ; Dalla Torre, *l. c.* p. 42 ; Emery, *l. c.* cxviii. p. 92 (1911) = *Ponera truncata* Smith. 1 deãlated ♀, "Mak."
4. *Ponera unicolor* Smith, *l. c.* p. 73, Male, Makassar ; Dalla Torre, *l. c.* ; Emery, *l. c.* p. 116 = *Pachycondyla (Bothroponera) unicolor* Smith. 1 ♂, "Mak."
5. *Ponera pallidicornis* Smith, *l. c.*, Male, Makassar ; Dalla Torre, *l. c.*, p. 40 ; Emery, *l. c.* = *Euponera (Brachyponera) pallidicornis* Smith. 1 ♂, "Mak."
6. *Ponera pallidipennis* Smith, *l. c.*, Male, Makassar ; Dalla Torre, *l. c.* ; Emery, *l. c.* = *Euponera (Trachymesopus) pallidipennis* Smith. 1 ♂, "Mak."
1. *Myrmica gracilescens* Smith, *l. c.* p. 74, Worker, Makassar ; Dalla Torre, *l. c.* p. 110 ; Emery, *l. c.* clxxiv. C, p. 355 (1922) = *Pheidole gracilescens* Smith. 1 ♀, Mak. This is probably the ♀ of *Pheidole megacephala* F.
1. *Crematogaster lævissimus* Smith, *l. c.*, Female, Makassar ; Dalla Torre, *l. c.* p. 83 ; Emery, *l. c.* clxxiv. B, p. 198 (1922) = *Crematogaster (Acrocælia) lævissima* Smith. 1 winged ♀, "Mak."
1. *Solenopsis transversalis* Smith, *l. c.*, Worker major, Makassar. *Pheidologeton transversalis* Dalla Torre, *l. c.* p. 73 ; Emery, *l. c.* clxxiv. C, p. 213 (1922) = *Pheidologeton transversalis* Smith. 2 ♀♀, "Mak."
1. *Pheidole militaris* Smith, *l. c.*, Worker major, Worker minor, Makassar ; Dalla Torre, *l. c.* p. 93 ; Emery, *l. c.* p. 97 = *Pheidologeton diversus* Jerd. 1 ♀, 1 ♂, "Mak."

(4) "Catalogue of the Hymenopterous Insects collected by Mr. A. R. Wallace in the Islands of Bachian, Kaisaa, Amboyna, Gilolo, and at Dory in New Guinea." By Frederick Smith. Communicated by W. W. Saunders.

Journ. Proc. Linn. Soc. Lond., Zool. iv., Supplement,
pp. 93-143, July 18th, 1860.

3. *Formica subtilis* Smith, l. c. p. 94, Worker major,
Worker minor, Bachian. *Camponotus subtilis* Dalla
Torre, l. c. p. 254; Emery, l. c. clxxxiii. p. 172 (1925)
=*Camponotus (Tanæmyrmex) subtilis* Smith. 1 ♀,
1 ♂, "Bac."
4. *Formica vitrea* Smith, l. c., Worker, Bachian. *Campo-*
notus vitreus Dalla Torre, l. c. p. 257; Emery,
l. c. p. 148=*Camponotus (Colobopsis) vitreus* Smith.
2 ♂♂, "Bac."
5. *Formica cruda* Smith, l. c. p. 95, Worker, Bachian.
Iridomyrmex cordatus Dalla Torre, l. c. p. 168.
Iridomyrmex crudus Emery, l. c. cxxxvii. p. 24 (1912)
=*Iridomyrmex crudus* Smith. 5 ♂♂, "Bac."
6. *Formica lactaria* Smith, l. c., Worker, Bachian;
Dalla Torre, l. c. p. 200; Emery, l. c. clxxxiii.
p. 271 (1925)=*Dolichoderus (Hypoclinea) lactarius*
Smith. 2 small ♂♂. These are probably *D. (H.)*
thoracicus Smith (1859).
7. *Formica incursor* Smith, l. c., Worker, Bachian;
Dalla Torre, l. c. p. 199; Emery, l. c.=*Camponotus*
(Colobopsis) vitreus Smith. 1 ♀, "Bac."
8. *Formica rufifrons* Smith, l. c., Female, Worker,
Bachian. *Camponotus rufifrons* Dalla Torre, l. c.
p. 250. *Camponotus (Colobopsis) rufifrons* Emery,
l. c. p. 146. Insect not present in Oxford Collection.
There are no specimens from Bachian in the
B.M. Coll.
9. *Formica pavidus* Smith, l. c., Female, Bachian; Dalla
Torre, l. c. p. 204; Emery, l. c. p. 271=*Campo-*
notus (Myrmamblys) pavidus Smith. 1 winged ♀,
"Bac."
10. *Formica familiaris* Smith, l. c., Worker, Bachian.
Tapinoma melanocephalum Dalla Torre, l. c. p. 165;
Emery, l. c. cxxxvii. p. 41 (1912)=*Tapinoma*
melanocephalum F. The insect is not in the Oxford
Collection.
11. *Formica dorycus* Smith, l. c., Worker, Dory. *Campo-*
notus dorycus Dalla Torre, l. c. p. 228; Emery,
l. c. clxxxiv. p. 90 (1925)=*Camponotus (Tanæ-*
myrmex) dorycus Smith. ♂, "Dor."

12. *Formica desecta* Smith, *l. c.* p. 97, Female, Dory.
Camponotus desectus Dalla Torre, *l. c.* p. 228;
Emery, *l. c.* p. 145=*Camponotus (Colobopsis) desectus* Smith. 1 winged ♀, Dory.
1. *Tapinoma pratensis* Smith, *l. c.*, Worker, Bachian;
Dalla Torre, *l. c.* p. 166; Emery, *l. c.* cxxxvii. p. 42
(1912)=*Iridomyrmex pratensis* Smith. 4 ♂♂,
"Bac."
6. *Polyrhachis charaxus* Smith, *l. c.* p. 98 (pl. i. fig. 14),
Worker, Bachian; Dalla Torre, *l. c.* p. 260;
Emery, *l. c.* clxxxiv. p. 181 (1925)=*Polyrhachis*
(*Myrmhopla*) *charaxus* Smith. 2 ♂♂, "Bac."
7. *Polyrhachis busiris* Smith, *l. c.* (pl. i. fig. 15), Worker,
Dory, Bachian. *Polyrhachis rastellata* Dalla Torre,
l. c. p. 267; Emery, *l. c.* p. 208=*Polyrhachis*
(*Cyrtomyrma*) *rastellata* Latr. 1 ♀, "Bac."
8. *Polyrhachis acantha* Smith, *l. c.* (pl. i. fig. 16), Worker,
Bachian. *Polyrhachis dives* Dalla Torre, *l. c.* p. 261.
Polyrhachis acantha Emery, *l. c.* p. 194=*Polyrhachis*
(*Myrmhopla*) *acantha* Smith. 1 ♀, "Bac."
9. *Polyrhachis merops* Smith, *l. c.* (pl. i. fig. 17), Worker,
Bachian; Dalla Torre, *l. c.* p. 265; Emery, *l. c.*
p. 202=*Polyrhachis (Myrma) rufofemorata* Smith
var. *merops* Smith. 1 ♀, "Bac."
10. *Polyrhachis ithonus* Smith, *l. c.* p. 99 (pl. i. fig. 18),
Female, Bachian. *Polyrhachis relucens* Dalla Torre
var. *ithonus* Dalla Torre, *l. c.* p. 268; Emery, *l. c.*
p. 202=*Polyrhachis (Myrma) relucens* Latr., subsp.
ithonus Smith. 1 dealated ♀, "Bac."
11. *Polyrhachis eudora* Smith, *l. c.* (pl. i. fig. 19), Female,
Bachian; Dalla Torre, *l. c.* p. 262; Emery, *l. c.*
p. 183=*Polyrhachis (Myrmothrinax) eudora* Smith,
♀. The insect from Oxford does not agree with
Smith's description or figure; it is not a *Myrmo-*
thrinax, and is in fact *Polyrhachis (Myrma) proxima*
Roger. *P. eudora* is not represented in the B.M. Coll.
12. *Polyrhachis metella* Smith, *l. c.* (pl. i. figs. 20, 21),
Worker, Dory; Dalla Torre, *l. c.* p. 265; Emery,
l. c. p. 185=*Polyrhachis (Hagiomyrma) metella*
Smith. 1 ♀, "Dor."
13. *Polyrhachis atropos* Smith, *l. c.* p. 100 (pl. i. fig. 22),
Worker, Dory. Dalla Torre, *l. c.* p. 259; Emery,
l. c. p. 189=*Polyrhachis (Hedomyrma) atropos*
Smith. 1 ♂, "Dor."

14. *Polyrhachis acasta* Smith, *l. c.* (pl. i. fig. 23), Worker, Bachian; Dalla Torre, *l. c.* p. 257; Emery, *l. c.* p. 197=*Polyrhachis (Myrmhopla) acasta* Smith. 1 ♂, "Bac."
15. *Polyrhachis alphenus* Smith, *l. c.* (pl. i. fig. 24), Female, Bachian; Dalla Torre, *l. c.* p. 258; Emery, *l. c.* p. 197=*Polyrhachis (Myrmhopla) alphenus* Smith. 1 deãlated ♀, "Bac."
16. *Polyrhachis labella* Smith, *l. c.* p. 101 (pl. i. fig. 25), Worker, Bachian; Dalla Torre, *l. c.* p. 264; Emery, *l. c.* p. 201=*Polyrhachis (Myrma) labella* Smith. 1 ♂, "Bac."
17. *Polyrhachis fervens* Smith, *l. c.* (pl. i. fig. 26), Worker, Amboyna; Dalla Torre, *l. c.* p. 262; Emery, *l. c.* p. 188=*Polyrhachis (Dolichorhachis) fervens* Smith. 1 ♂, "Amb."
- √ 1. *Odontomachus scævissimus* Smith, *l. c.* p. 102 (pl. i. fig. 9), Female, Bachian, Ceram; Dalla Torre, *l. c.* p. 52; Emery, *l. c.* cxviii. p. 113 (1911)=*Odontomachus scævissimus* Smith. 1 deãlated ♀, "Bac." The ♀ type is in the B.M. Collection.
- √√ 2. *Odontomachus animosus* Smith, *l. c.*, Worker, Dory; Dalla Torre, *l. c.* p. 49; Emery, *l. c.* p. 114=*Odontomachus animosus* Smith. 1 ♂, "Dor."
- √√ 3. *Odontomachus nigriceps* Smith, *l. c.* p. 103 (pl. i. fig. 9), Worker, Dory; Dalla Torre, *l. c.* p. 51. *Odontomachus tyrannicus* Emery var. *nigriceps* Emery, *l. c.* p. 113=*Odontomachus nigriceps* Smith. 1 ♀, "Dor."
- In my opinion this is not a var. of *tyrannicus* Smith; it is larger, the small tooth between the two large terminal teeth of the mandibles much blunter, the pronotum less transversely striate, and almost smooth on disc, etc. Smith gives pl. i. fig. 9 for both *scævissimus* and *nigriceps*.
- √√ 2. *Ponera solitaria* Smith, *l. c.*, Male, Bachian; Dalla Torre, *l. c.* p. 42; Emery, *l. c.* p. 116=*Pachycondyla (Bothroponera) solitaria* Smith. 1 ♂, "Bac."
- √ 3. *Ponera vagans* Smith, *l. c.*, Worker, Bachian. *Diacamma vagans* Dalla Torre, *l. c.* p. 29; Emery, *l. c.* p. 67=*Diacamma rugosum* Le Guil., subsp. *vagans* Smith. 1 ♀, "Bac."
- √√ 4. *Ponera striata* Smith, *l. c.* p. 104, Worker, Bachian. *Diacamma versicolor* Dalla Torre var. *striatum*

- Dalla Torre, *l. c.* p. 30; Emery, *l. c.* = *Diacamma rugosum* Le Guil., subsp. *striatum* Smith. 1 ♂, "Bac."
5. *Ponera simillima* Smith, *l. c.*, Worker, Bachian. *Lobopelta diminuta* Dalla Torre var. *leviceps* Dalla Torre, *l. c.* p. 42; Emery, *l. c.* p. 103 = *Leptogenys (Lobopelta) simillima* Smith. 2 ♂♂, "Bac." This species is not the *L. (L.) leviceps* Smith, which is a smooth and shining insect.
6. *Ponera cuprea* Smith, *l. c.*, Worker, Dory. *Diacamma cupreum* Dalla Torre, *l. c.* p. 28. *Diacamma rugosum* Emery, subsp. *sculpturatum* Emery var. *cuprea* Emery, *l. c.* p. 66 = *Diacamma cupreum* Smith. 1 ♀, "Dor." In my opinion this species has nothing to do with *sculpturatum*, which is a much larger insect; the striae on the mesonotum are quite different and the gaster much smoother. The striae on the mesonotum are also quite unlike those of *rugosum*.
7. *Ponera simillima* Smith, *l. c.* p. 105, nec p. 104, Worker, Dory; Dalla Torre, *l. c.* p. 42. *Rhopalopone simillima* Emery, *l. c.* p. 35 = *Prionopelta simillima* Smith. 1 dealated ♀, "Dor." = *Prionopelta poultoni*, nom. nov.
1. *Amblyopone castaneus* Smith, *l. c.* (pl. i. fig. 6), Worker, Bachian. *Myopone castanea* Dalla Torre, *l. c.* p. 15; Emery, *l. c.* p. 26 = *Myopone castanea* Smith. 2 ♂♂, "Bac."
2. *Pseudomyrma modesta* Smith, *l. c.* p. 106, Worker, Bachian. *Sima modesta* Dalla Torre, *l. c.* p. 54; Emery, *l. c.* clxxiv. A, p. 26 (1921) = *Tetraopone modesta* Smith. 1 ♂, "Bac."
3. *Pseudomyrma nitida* Smith, *l. c.*, Worker, Bachian. *Sima nitida* Dalla Torre, *l. c.*; Emery, *l. c.* = *Tetraopone nitida* Smith. 1 ♀, "Bac."
1. *Mesoxena mistura* Smith, *l. c.*, p. 107 (pl. i. fig. 10), Worker, Bachian; Dalla Torre, *l. c.* p. 27. Emery, *l. c.* clxxxiii. p. 212 (1925) = *Mesoxena mistura* Smith. 1 ♂, "Bac."
1. *Myrmica oblonga* Smith, *l. c.*, Worker, Bachian; Dalla Torre, *l. c.* p. 112. *Vollenhovia oblonga* Emery, *l. c.* clxxiv. B, p. 164 (1922) = *Vollenhovia oblonga* Smith. 2 ♂♂, "Bac."

2. *Myrmica poneroides* Smith, *l. c.*, Female, Bachian.
Vollenhovenia poneroides Dalla Torre, *l. c.* p. 61.
Vollenhovia oblonga Emery, *l. c.* = *Vollenhovia oblonga* Smith. 1 winged ♀, "Bac."
3. *Myrmica punctata* Smith, *l. c.* p. 108, Worker, Bachian.
Pristomyrmex punctatus Dalla Torre, *l. c.* p. 62;
Emery, *l. c.* clxxiv. C, p. 234 (1922) = *Pristomyrmex punctatus* Smith. 2 ♂♂, "Bac."
4. *Myrmica modesta* Smith, *l. c.*, Worker, Bachian;
Dalla Torre, *l. c.* p. 113; Emery, *l. c.* p. 356 =
Tetramorium guineense F. 2 ♂♂, "Bac."
5. *Myrmica lævissima* Smith, *l. c.*, Worker, Bachian,
"Found in houses"; Dalla Torre, *l. c.* p. 110;
Emery, *l. c.* = *Solenopsis geminata* F. 2 ♂♂, "Bac."
Emery queries this species as *Monomorium destructor* Jerd.
6. *Myrmica polita* Smith, *l. c.*, Worker, Bachian; Dalla
Torre, *l. c.* p. 113; Emery, *l. c.* = *Pheidologeton diversus* Jerd. 2 ♂♂, "Bac."
7. *Myrmica cæca* Smith, *l. c.*, Worker, Dory. Neither
Dalla Torre nor Emery quote this reference. The
insect is not in the Oxford Collection nor at the
B.M. The name sinks in any case, as there is a
Myrmica cæca Jerdon (1851).
1. *Crematogaster laboriosus* Smith, *l. c.* p. 109, Female,
Bachian, nec *C. laboriosus* Smith, *Trans. Ent. Soc.*
Lond. 1874, p. 407; *Solenopsis geminata* Dalla
Torre, *l. c.* p. 76. *Solenopsis geminata* Emery,
subsp. *rufa* Emery, *l. c.* clxxiv. B, p. 197 (1922) =
Solenopsis geminata F., subsp. *rufa* Jerd. 1 winged
♀, "Bac."
2. *Crematogaster bicolor* Smith, *l. c.*, Worker, Bachian;
Dalla Torre, *l. c.* p. 79. *Crematogaster (Orthocrema)*
bicolor Emery = *Crematogaster (Acrocælia) bicolor*
Smith. 4 ♂♂, "Under bark," "Bac."
3. *Crematogaster obscurus* Smith, *l. c.*, Worker, Bachian,
nec *C. obscurus* Smith, *l. c.* ii. p. 76 (Nov. 2nd, 1857).
Crematogaster obscurior Dalla Torre, *l. c.* p. 84;
Emery, *l. c.* p. 158 = *Crematogaster (Orthocrema)*
obscurior Dalla Torre (1892). 2 ♂♂, "Bac."
4. *Crematogaster irritabilis* Smith, *l. c.*, Worker, Dory;
Dalla Torre, *l. c.* p. 82; Emery, *l. c.* p. 133 =
Crematogaster (Orthocrema) irritabilis Smith. 4 ♂♂,
"Dor."

1. *Heptacondylus rugosus* Smith, *l. c.* p. 110, Worker, Bachian. *Myrmicaria rugosa* Dalla Torre, *l. c.* p. 156; Emery, *l. c.* p. 123=*Myrmicaria rugosa* Smith. 2 ♂♂, "Bac."
2. *Podomyrma nitida* Smith, *l. c.*, Worker, Dory; Dalla Torre, *l. c.* p. 60; Emery, *l. c.* clxxiv. C, p. 238 (1922)=*Podomyrma nitida* Smith. 1 ♂, "Dor."
3. *Podomyrma silvicola* Smith, *l. c.*, Worker, Bachian; Dalla Torre, *l. c.*; Emery, *l. c.*=*Podomyrma silvicola* Smith. 2 ♂♂, "Bac."
4. *Podomyrma simillima* Smith, *l. c.* p. 111. Worker, Bachian; Dalla Torre, *l. c.*; Emery, *l. c.*=*Podomyrma simillima* Smith. 2 ♂♂, "Bac."
1. *Pheidole notabilis* Smith, *l. c.* (pl. i. figs. 3, 4), Worker major, Worker minor, Bachian; Dalla Torre, *l. c.* p. 93. *Acanthomyrmex notabilis* Emery, *l. c.* p. 233=*Acanthomyrmex notabilis* Smith. 1 ♂, 1 ♀, "Bac."
2. *Pheidole rubra* Smith, *l. c.*, Worker major, Worker minor, Bachian, nec *P. rubra* Smith Cat. Hym. Brit. Mus. vi. p. 168 (1858), Brazil. *Pheidole rubrobrunea* Dalla Torre, *l. c.* p. 96; Emery, *l. c.* clxxiv. B, p. 98 (1922)=*Pheidologeton rubrobrunea* Dalla Torre (1892). 2 ♂♂, 2 ♀♀, "Bac."
3. *Pheidole plagiaria* Smith, *l. c.* p. 112, Worker major, Worker minor, Bachian; Dalla Torre, *l. c.* p. 95; Emery, *l. c.* clxxiv. A, p. 93 (1921)=*Pheidole* (*Pheidole*) *plagiaria* Smith. 1 ♂, 1 ♀, "Bac."
4. *Pheidole pabulator* Smith, *l. c.*, Worker major, Worker minor, Bachian. *Pheidologeton diversus* Dalla Torre, *l. c.* p. 73; Emery, *l. c.* clxxiv. B, p. 212 (1922)=*Pheidologeton diversus* Jerd. 2 ♂♂, 2 ♀♀, "Bac."
5. *Pheidole megacephala* Smith, *l. c.*, Worker, Bachian. *Pheidologeton diversus* Dalla Torre, *l. c.*; Emery, *l. c.*=*Pheidologeton diversus* Jerd. 1 ♂, "Bac."
1. *Echinopla prae-texta* Smith, *l. c.* p. 113 (pl. i. fig. 5), "Hab. —?"; Dalla Torre, *l. c.* p. 272; Emery, *l. c.* clxxxiii. p. 211 (1925)=*Echinopla prae-texta* Smith. 1 ♀, "Bachian."
1. *Cataulacus setosus* Smith, *l. c.* p. 114 (pl. i. fig. 7), Worker, Bachian; Dalla Torre, *l. c.* p. 139; Emery, *l. c.* clxxiv. C, p. 298 (1922)=*Cataulacus setosus* Smith. 1 ♂, "Bac."

(5) "Catalogue of Hymenopterous Insects collected by Mr. A. R. Wallace in the Islands of Ceram, Celebes, Ternate, and Gilolo." By Frederick Smith. Communicated by W. W. Saunders. Journ. Proc. Linn. Soc. Lond., Zool. vi. pp. 36-66, Nov. 1st, 1861.

3. *Formica consanguinea* Smith, *l. c.* p. 36, Worker, Celebes (Tondano). *Camponotus consanguineus* Dalla Torre, *l. c.* p. 226; Emery, *l. c.* clxxxiii. p. 171 (1925)=*Camponotus (Tanæmyrmex) consanguineus* Smith. 2 ♂♂, "Tond."
4. *Formica circumspecta* Smith, *l. c.* p. 37, Female, Worker major, Worker minor, Celebes (Tondano). *Camponotus circumspectus* Dalla Torre, *l. c.* p. 225; Emery, *l. c.*=*Camponotus (Tanæmyrmex) circumspectus* Smith. 1 dealated ♀, "Tond."
5. *Formica leucophæa* Smith, *l. c.*, Worker, Celebes (Tondano). *Camponotus leucophæus* Dalla Torre, *l. c.* p. 238; Emery, *l. c.* p. 172=*Camponotus (Myrmosericus) leucophæus* Smith. 1 ♂, "Tond."
6. *Formica tropica* Smith, *l. c.*, Worker, Gilolo; Dalla Torre, *l. c.* p. 213; Emery, *l. c.* p. 271=*Calomyrmex tropica* Smith. 1 ♀, "Gil."
7. *Formica virulens* Smith, *l. c.* p. 38, Worker, Celebes (Tondano). *Camponotus virulens* Dalla Torre, *l. c.* p. 257; Emery, *l. c.* p. 172=*Camponotus (Tanæmyrmex) virulens* Smith. 1 ♂, "Tond."
8. *Formica (Tapinoma) gibba* Smith, *l. c.*, Worker, Celebes (Tondano). *Dolichoderus gibbus* Dalla Torre, *l. c.* p. 159; Emery, *l. c.* cxxxvii. p. 14 (1912)=*Dolichoderus (Hypoclinea) gibbus* Smith. 2 ♂♂, "Tond."
9. *Formica (Tapinoma) albipes* Smith, *l. c.*, Worker, Celebes (Tondano). *Technomyrmex albipes* Dalla Torre; Emery, *l. c.* p. 43=*Technomyrmex detorqueus* Walker (1859). 2 ♂♂, "Tond."
8. *Polyrhachis orsyllus* Smith, *l. c.* p. 39 (pl. i. fig. 6), Worker, Celebes (Tondano); Dalla Torre, *l. c.* p. 266; Emery, *l. c.* clxxxiii. p. 204 (1925)=*Polyrhachis (Myrma) orsyllus* Smith. 1 ♀, "Tond."
9. *Polyrhachis mutillæ* Smith, *l. c.* (pl. i. figs. 7; 15, var. ?), Worker, Celebes (Tondano); Dalla Torre, *l. c.*; Emery, *l. c.* p. 197=*Polyrhachis (Myrmphola) mutillæ* Smith. 1 ♂, "Tond."

10. *Polyrhachis olenus* Smith, *l. c.* (pl. i. fig. 8), Worker, Celebes (Tondano); Dalla Torre, *l. c.*; Emery, *l. c.* p. 201=*Polyrhachis (Myrma) olenus* Smith. 1 ♂, "Tond."
11. *Polyrhachis democles* Smith, *l. c.* p. 40 (pl. i. fig. 9), Female, Celebes (Tondano); Dalla Torre, *l. c.* p. 261; Emery, *l. c.* p. 195=*Polyrhachis (Myrmhopla) dives* Smith (1857). 1 dealated ♀, "Tond."
12. *Polyrhachis valerus* Smith, *l. c.* (pl. i. fig. 10), Worker, Celebes (Tondano); Dalla Torre, *l. c.* p. 271; Emery, *l. c.* p. 190=*Polyrhachis (Hedomyrma) valerus* Smith. 1 ♂, "Men." Men=Menado in Celebes. Smith probably gave Tondano in error. The single specimen in the B.M. Coll. came from New Guinea.
13. *Polyrhachis trispinosus* Smith, *l. c.* (pl. i. fig. 11), Female, Celebes (Tondano); Dalla Torre, *l. c.* p. 270; Emery, *l. c.* p. 184=*Polyrhachis (Myrmotherinax) trispinosa* Smith. 1 dealated ♀, "Tond."
14. *Polyrhachis diaphantus* Smith, *l. c.* (pl. i. fig. 12), Worker, Celebes (Tondano); Dalla Torre, *l. c.* p. 261. *Polyrhachis (Myrmhopla) acantha* Emery var. *diaphantus* Emery, *l. c.* p. 194=*Polyrhachis (Myrmhopla) diaphantus* Smith. I consider *diaphantus* is a good species; the texture and pubescence is different and the spines are shorter and stouter, the anterior pair not being curved at the apex as in *acantha*; the shape of the thorax is also different.
15. *Polyrhachis amanus* Smith, *l. c.* p. 41 (pl. i. fig. 13), Worker, Celebes (Tondano); Dalla Torre, *l. c.* p. 258; Emery, *l. c.*=*Polyrhachis (Myrmhopla) amanus* Smith. 1 ♂, "Tond."
16. *Polyrhachis cleophanes* Smith, *l. c.* (pl. i. fig. 14), Worker, Celebes (Tondano); Dalla Torre, *l. c.* p. 260; Emery, *l. c.* p. 193=*Polyrhachis (Myrmhopla) cleophanes* Smith. 1 ♀, "Tond."
17. *Polyrhachis exasperatus* Smith, *l. c.* (pl. i. figs. 15; 16 var.), Worker, Celebes (Tondano); Dalla Torre, *l. c.* p. 26; Emery, *l. c.*=*Polyrhachis (Myrmhopla) exasperata* Smith. 1 ♂, "Tond."
18. *Polyrhachis vibidia* Smith, *l. c.* p. 42 (pl. i. fig. 17), Female, Celebes (Tondano); Dalla Torre, *l. c.*

- p. 271; Emery, *l. c.* = *Polyrhachis (Myrmhopla) cleophanes* Smith. 1 deãlated ♀, "Tond."
19. *Polyrhachis chaonia* Smith, *l. c.* (pl. i. fig. 18), Female, Gilolo; Dalla Torre, *l. c.* p. 260; Emery, *l. c.* p. 200 = *Polyrhachis (Myrma) chaonia* Smith. 1 winged ♀, "Gil."
 20. *Polyrhachis numeria* Smith, *l. c.* (pl. i. fig. 19), Worker, Celebes (Tondano); Dalla Torre, p. 266; Emery, *l. c.* p. 201 = *Polyrhachis (Myrma) numeria* Smith. 1 ♂, "Tond." Emery gives Halmahera as the type-locality = Gilolo Isle.
 21. *Polyrhachis hippomanes* Smith, *l. c.* p. 43 (pl. i. fig. 20), Worker, Celebes (Tondano); Dalla Torre, *l. c.* p. 263; Emery, *l. c.* p. 195 = *Polyrhachis (Myrmhopla) hippomanes* Smith. 1 ♂, "Tond."
 22. *Polyrhachis lycidas* Smith, *l. c.* (pl. i. fig. 21), Worker, Celebes (Tondano); Dalla Torre, *l. c.* p. 265; Emery, *l. c.* p. 201 = *Polyrhachis (Myrma) lycidas* Smith. 1 ♂, "Tond."
 23. *Polyrhachis zopyrus* Smith, *l. c.* (pl. i. fig. 22), Worker, Celebes (Tondano); Dalla Torre, *l. c.* p. 271; Emery, *l. c.* p. 204 = *Polyrhachis (Myrma) zopyrus* Smith. 1 ♂, "Tond."
 24. *Polyrhachis eurytus* Smith, *l. c.* (pl. i. fig. 23), Female, Celebes (Tondano); Dalla Torre, *l. c.* p. 262; Emery, *l. c.* p. 207 = *Polyrhachis (Myrma) eurytus* Smith. 1 deãlated ♀, "Tond."
 3. *Odontomachus tyrannicus* Smith, *l. c.* p. 44 (pl. i. fig. 4), Worker, Celebes, nec Smith, *l. c.* iii. p. 144 (1859); nec Dalla Torre, *l. c.* p. 52; nec Emery, *l. c.* cxviii. p. 113 (1911) = *Odontomachus gladiator*, nom. nov. There is no insect in the Oxford Collection. In the B. M. copy of the Journ. Linn. Soc. Lond. *l. c.* "tyrannicus" has been altered to "gladiator" in ink in Kirby's handwriting. In the B. M. Collection there are two specimens, one from Celebes and one from Mysol, which agree with Smith's description; the latter bears a label in Kirby's handwriting "Odontomachus gladiator Sm." These are above a label by Bingham "gladiator Smith." Above the label "tyrannicus" are two specimens, one the true *tyrannicus* from Aru, and one, a smaller specimen, agreeing exactly with the two

insects above the label "*gladiator*," and this is labelled "*tyrannicus* Smith nec *tyrannicus* Smith from Aru vol. iv. p. 144," and is no doubt the type; *gladiator* is evidently a MS. name of Kirby's, and I have adopted it.

4. *Ponera maligna* Smith, *l. c.*, Female, Worker, Celebes; Menado. *Trapeziopelta maligna* Dalla Torre, *l. c.* p. 43; Emery, *l. c.* p. 93=*Trapeziopelta maligna* Smith. 1 deälated ♀, 1 ♂, "Tond."
5. *Ponera nitida* Smith, *l. c.* p. 45, Worker, Celebes, Tondano, nec *Ponera nitida* Smith (1858). *Bradoponera nitida* Dalla Torre, *l. c.* p. 18. *Trapeziopelta nitida* Emery, *l. c.* p. 94=*Trapeziopelta mayri*, nom. nov. 1 ♂, "Tond." I have named this species after Mayr, who gave the generic name of *Bradoponera* to the insect.
6. *Ponera mutabilis* Smith, *l. c.*, Worker, Celebes (Tondano). *Lobopelta mutabilis* Dalla Torre, *l. c.* p. 45; Emery, *l. c.* p. 104=*Leptogenys (Lobopelta) mutabilis* Smith. 1 ♂, "Tond."
2. *Myrmica pedestris* Smith, *l. c.* p. 46, Female, Celebes (Tondano). *Vollenhovia pedestris* Dalla Torre, *l. c.* p. 61; Emery, *l. c.* clxxiv. B, p. 164 (1922)=*Vollenhovia oblonga* Smith, subsp. *pedestris* Smith. 1 deälated ♀, "Tond."
3. *Myrmica ruficeps* Smith, *l. c.*, Female, Celebes (Tondano). *Pheidole ruficeps* Dalla Torre, *l. c.* p. 96; Emery, *l. c.* p. 98=*Pheidole (Pheidole) ruficeps* Smith. 1 deälated ♀, "Tond."
4. *Myrmica fuscipennis* Smith, *l. c.*, Female, Celebes (Tondano); Dalla Torre, *l. c.* p. 109; Emery, *l. c.* clxxiv. C, p. 355 (1922)=*Pristomyrmex fuscipennis* Smith. 1 winged ♀, "Tond."
5. *Myrmica pertinax* Smith, *l. c.*, Worker, Celebes (Tondano); Dalla Torre, *l. c.* p. 113; Emery, *l. c.* p. 356=*Vollenhovia pertinax* Smith. 1 ♂, "Tond."
6. *Myrmica vexator* Smith, *l. c.* p. 47, Worker, Ternati; Dalla Torre, *l. c.* p. 118; Emery, *l. c.*=*Monomorium (Parholcomyrmex) destructor* Jerd. 3 ♂♂, "Ter."
7. *Myrmica insolens* Smith, *l. c.*, Worker, Menado; Dalla Torre, *l. c.* p. 110; Emery, *l. c.* p. 355=*Tetramorium insolens* Smith. 1 ♂, "Men."

8. *Myrmica opaca* Smith, *l. c.*, Worker, Celebes (Tondano); Dalla Torre, *l. c.* p. 113; Emery, *l. c.* p. 356=*Tetramorium opacum* Smith. 1 ♂, "Tond."
1. *Crematogaster ampullaris* Smith, *l. c.*, Worker, Celebes (Tondano); Dalla Torre, *l. c.* p. 79; not mentioned in Emery, *Gen. Ins.*=*Crematogaster (Physocrema) ampullaris* Smith. 2 ♂♂, "Tond."
2. *Solenopsis laboriosa* Smith, *l. c.* p. 48, Worker major, Worker minor, Celebes (Tondano). *Pheidologeton affinis* Dalla Torre, *l. c.* p. 72; Emery, *l. c.* p. 212=*Pheidologeton affinis* Jerd. 9 (♂♂ & ♀♀), "Wag.!"
3. *Solenopsis pungens* Smith, *l. c.*, Worker, Worker minor, Menado; Dalla Torre, *l. c.* p. 77; Emery, *l. c.* p. 213, "*Pheidologeton*?" The insect is not in the Collection at Oxford nor in the B.M.
1. *Cataulacus flagitiosus* Smith, *l. c.* p. 49. Worker, Celebes (Tondano); Dalla Torre, *l. c.* p. 138; Emery, *l. c.* p. 298=*Cataulacus (Cataulacus) flagitiosus* Smith. 1 ♂, "Tond."
3. *Echinopla dubitata* Smith, *l. c.* p. 50, Worker, Celebes (Tondano); Dalla Torre, *l. c.* p. 272; Emery, *l. c.* p. 211=*Echinopla dubitata* Smith. 1 ♀, "Tond."
- (6) "Catalogue of Hymenopterous Insects collected by Mr. A. R. Wallace in the Islands of Mysol, Ceram, Waigiou, Bouru, and Timor." By Frederick Smith. Communicated by W. W. Saunders. *Journ. Proc. Linn. Soc. Lond.*, Zool. vii. pp. 6-48, March 4th, 1863.
9. *Formica longiceps* Smith, *l. c.* p. 13, Worker, Waigiou. *Camponotus longiceps* Dalla Torre, *l. c.* p. 240; Emery, *l. c.* clxxxiii. p. 172 (1925)=*Camponotus (Myrmamblys) longiceps* Smith. 2 ♂♂, "Wag."
17. *Polyrhachis dolomedes* Smith, *l. c.* p. 14, Female, Worker, Ceram; Dalla Torre, *l. c.* p. 261; Emery, *l. c.* p. 209=*Polyrhachis (Myrmatopa) dolomedes* Smith. 1 deālated ♀, no label.
18. *Polyrhachis trophimus* Smith, *l. c.*, Worker, Ceram; Dalla Torre, *l. c.* p. 271. *Polyrhachis (Hagiomyrma) trophimus* Emery, *l. c.* p. 185=*Polyrhachis (Chariomyrma) trophimus* Smith. 1 ♂, "Cer. E."

19. *Polyrhachis alpheus* Smith, *l. c.*, Worker, Waigiou ;
Dalla Torre, *l. c.* p. 258 ; Emery, *l. c.* p. 180=
Polyrhachis (Myrmatopa) alpheus Smith. 1 ♀,
"Wag."
20. *Polyrhachis bubastes* Smith, *l. c.* p. 15, Female, Worker,
Waigiou ; Dalla Torre, *l. c.* p. 260 ; Emery, *l. c.*
p. 191=*Polyrhachis (Myrmhopla) bubastes* Smith.
1 dealated ♀, 1 ♂, "Wag."
21. *Polyrhachis paromatus* Smith, *l. c.*, Worker, Ceram ;
Dalla Torre, *l. c.* p. 266 ; Emery, *l. c.* p. 196=
Polyrhachis (Myrmhopla) paromatus Smith. 2 ♀♀,
"Ceram."
22. *Polyrhachis xiphias* Smith, *l. c.* p. 16, Female, Waigiou ;
Dalla Torre, *l. c.* p. 271 ; Emery, *l. c.* p. 185=
Polyrhachis (Hagiomyrma) xiphias Smith. 1 winged
♀, "Wag."
23. *Polyrhachis euryalus* Smith, *l. c.*, Worker, Mysol.
Polyrhachis rastellata Dalla Torre, *l. c.* p. 267 ;
Emery, *l. c.* p. 208=*Polyrhachis (Cyrtomyrma)*
rastellata Latr., subsp. *euryalus* Smith. 1 ♀, "M."
24. *Polyrhachis dolomedes* Smith, *l. c.*, Worker, Waigiou,
nec dolomedes Smith, *l. c.* p. 14. *Polyrhachis*
derecynus Dalla Torre, *l. c.* p. 261 ; Emery, *l. c.*
p. 209=*Polyrhachis (Myrma) derecynus* Smith
(*l. c.* p. 127). 1 ♀, "Wag." In the B. M. copy
of the Linnean Journal the name *dolomedes* has
been altered in ink to "*diomedes*," but this name
does not occur in the literature.
25. *Polyrhachis sparaxes* Smith, *l. c.*, Female, Mysol ;
Dalla Torre, *l. c.* p. 270 ; Emery, *l. c.* p. 183=
Polyrhachis (Myrmothrinax) sparaxes Smith. ♀
with two hind wings. "M."
26. *Polyrhachis nigriceps* Smith, *l. c.* p. 17, Worker,
Waigiou ; Dalla Torre, *l. c.* p. 266 ; Emery,
l. c. p. 192=*Polyrhachis (Myrmhopla) nigriceps*
Smith. 1 ♂, "Wag."
27. *Polyrhachis paxillus* Smith, *l. c.*, Worker, Martabello ;
Dalla Torre, *l. c.* ; Emery, *l. c.* p. 188=*Polyrhachis*
(*Chariomyrma*) *paxillus* Smith. 1 ♀, "Mat."
4. *Ponera purpurea* Smith, *l. c.* p. 18, Worker, Gilolo.
Diacamma purpureum Dalla Torre, *l. c.* p. 28 ;
Emery, *l. c.* cxviii. p. 66 (1911)=*Diacamma pur-*
pureum Smith. 1 ♀, "Gil. S."

5. *Ponera tortuolosa* Smith, *l. c.*, Worker, Female, Ceram ; Bouru. *Diacamma tortulosum* Dalla Torre, *l. c.* p. 29 ; *Diacamma rugosum* Emery, subsp. *tortulosa* Emery, *l. c.* p. 67 = *Diacamma tortulosum* Smith. 1 deälated ♀, 1 ♂, "B." I consider this is a good species; the decumbent pubescence is much thicker than in *rugosum* Le Guil., there is no beautiful metallic reflection, and the rings on the first gastric segment are very fine and faint (very deep and thick in *rugosum*), etc. Smith describes a winged ♀.
5. *Odontomachus cephalotes* Smith, *l. c.* p. 19, Worker, Ceram ; Dalla Torre, *l. c.* p. 49 ; Emery, *l. c.* p. 115 = *Odontomachus ruficeps* Smith, subsp. *cephalotes* Smith. 1 ♂, "Cer. E."
6. *Odontomachus aciculatus* Smith, *l. c.*, Worker, Mysol ; Dalla Torre, *l. c.* ; Emery, *l. c.* = *Odontomachus ruficeps* Smith, subsp. *cephalotes* Smith var. *aciculatus* Smith. 1 ♂, "M."
2. *Podomyrma lævissima* Smith, *l. c.* p. 20, Worker, Mysol ; Dalla Torre, *l. c.* p. 60 ; Emery, *l. c.* clxxiv. C, p. 238 (1922) = *Podomyrma lævissima* Smith. 1 ♂, "M."
3. *Podomyrma ruficeps* Smith, *l. c.*, Worker, Mysol ; Dalla Torre, *l. c.* ; Emery, *l. c.* = *Podomyrma ruficeps* Smith. 1 ♂, "M."
2. *Pseudomyrma carbonaria* Smith, *l. c.*, Worker, Female, Bouru. *Sima nigra* Dalla Torre, *l. c.* p. 54. *Sima carbonaria* Emery, *l. c.* clxxiv. A, p. 25 (1921) = *Tetraponera carbonaria* Smith. 1 ♂, "B."
2. *Myrmica incerta* Smith, *l. c.* p. 21, Female, Mysol ; Dalla Torre, *l. c.* p. 110 ; Emery, *l. c.* clxxiv. C, p. 355 (1922) = *Pheidole (Pheidole) incerta* Smith. 1 deälated ♀, "M."
3. *Myrmica mæsta* Smith, *l. c.*, Worker, Martabello ; Dalla Torre, *l. c.* p. 112 ; Emery, *l. c.* p. 356 = *Vollenhovia mæsta* Smith. 1 ♂, "Mat."
4. *Myrmica umbripennis* Smith, *l. c.*, Female, Mysol ; Dalla Torre, *l. c.* p. 118 ; Emery, *l. c.* = *Pristomyrmex umbripennis* Smith. 1 winged ♀, "M."
3. *Solenopsis calida* Smith, *l. c.* p. 22, Female, Ceram. *Pheidologeton affinis* Dalla Torre, *l. c.* p. 72 ; Emery, *l. c.* clxxiv. B, p. 212 (1922) = *Pheidologeton affinis* Jerd. (1851). 1 deälated ♀, "Cer."

2. *Pheidole singularis* Smith, *l. c.*, Worker, Mysol ; Dalla Torre, *l. c.* p. 96 ; Emery, *l. c.* clxxiv. A, p. 82 (1921)=*Pheidole (Pheidolacanthinus) singularis* Smith. 1 ♂, "M."
3. *Pheidole mordax* Smith, *l. c.*, Worker, Mysol, *Pheidole ruficeps* Dalla Torre, *l. c.* p. 96 ; Emery, *l. c.* clxxiv. B, p. 98 (1922)=*Pheidole (Pheidole) ruficeps* Smith. 1 ♂, "Mysol."
4. *Pheidole penetralis* Smith, *l. c.* p. 23, Worker, Mysol ; Dalla Torre, *l. c.* p. 94 ; Emery, *l. c.* The insect in question is not at Oxford nor in the B.M.
2. *Echinopla nitida* Smith, *l. c.*, Worker, Ceram ; Dalla Torre, *l. c.* p. 272 ; Emery, *l. c.* clxxxiii. p. 211 (1925)=*Echinopla nitida* Smith. 1 ♀, "Cer."
3. *Echinopla deceptor* Smith, *l. c.*, Female, Bouru ; Dalla Torre, *l. c.* ; Emery, *l. c.*=*Echinopla deceptor* Smith. 1 deälated ♀. "Bou."

(7) "Descriptions of New Species of Hymenopterous Insects from the Islands of Sumatra, Sula, Gilolo, Salwatty, and New Guinea. Collected by Mr. A. R. Wallace." By Frederick Smith. Communicated by W. W. Saunders. Journ. Proc. Linn. Soc. Lond., Zool. viii. pp. 61-94, Jan. 13th, 1865.

8. *Formica (Myrmecopsis) respiciens* Smith, *l. c.* p. 68 (pl. iv. fig. 3), Worker, New Guinea. *Opisthopsis respiciens* Dalla Torre, *l. c.* p. 219 ; Emery, *l. c.* p. 56=*Opisthopsis respiciens* Smith. 1 ♀, "New Guinea."
17. *Polyrhachis neptunus* Smith, *l. c.* p. 69 (pl. iv. fig. 2), Worker, New Guinea ; Dalla Torre, *l. c.* p. 266 ; Emery, *l. c.* p. 183=*Polyrhachis (Myrmothrinax) neptunus* Smith. 1 ♀, "N."
5. *Ponera ferox* Smith, *l. c.* p. 70, Worker, Salwatty ; Dalla Torre, *l. c.* p. 39 ; Emery, *l. c.* cxviii. p. 106 (1911)=*Leptogenys (Lobopelta) ferox* Smith. 1 ♀, "S."
1. *Pachycondyla melancholica* Smith, *l. c.* p. 71, Worker, Morty Island ; Dalla Torre, *l. c.* p. 34. *Platythyrea melancholica* Emery, *l. c.* p. 29. The specimen in question is not at Oxford nor in the B.M. A ♀ in the B.M. Coll. is labelled "Bachian."

1. *Anomma erratica* Smith, *l. c.*, Worker, New Guinea ; Dalla Torre, *l. c.* p. 9 ; Emery, *l. c.* cii. p. 15 (1910)=*Dorylus (Anomma) erraticus* Smith. 1 ♀, "N. Guinea."
2. *Myrmica quadrispinosa* Smith, *l. c.* p. 72 (pl. iv. fig. 6), Worker, Salwatty. *Pheidole quadrispinosa* Dalla Torre, *l. c.* p. 95 ; Emery, *l. c.* clxxiv. A, p. 82 (1921)=*Pheidole (Pheidolacanthinus) quadrispinosa* Smith. 1 ♂, "S."
3. *Myrmica maligna* Smith, *l. c.*, Female, Morty Island ; Dalla Torre, *l. c.* p. 112 ; Emery, *l. c.* clxxiv. C, p. 356 (1922)=*Podomyrma maligna* Smith. 1 de-älated ♀, "M."
4. *Myrmica aspersa* Smith, *l. c.*, Worker, Morty Island ; Dalla Torre, *l. c.* p. 108 ; Emery, *l. c.* p. 355=*Xiphomyrmex aspersa* Smith. 1 ♂, "M."
5. *Myrmica diligens* Smith, *l. c.*, p. 73, Worker, New Guinea ; Dalla Torre, *l. c.* p. 109 ; Emery, *l. c.*=*Xiphomyrmex diligens* Smith. 1 ♂, "N."
1. *Crematogaster politus* Smith, *l. c.* p. 74, Worker, New Guinea ; Dalla Torre, *l. c.* p. 84 ; Emery, *l. c.* clxxiv. B, p. 133 (1922)=*Crematogaster (Orthocrema) polita* Smith. 1 ♀, "S."
2. *Crematogaster iridipennis* Smith, *l. c.*, Female, New Guinea ; Dalla Torre, *l. c.* p. 82 ; Emery, *l. c.* p. 158=*Crematogaster (Orthocrema) iridipennis* Smith. 1 winged ♀, "N."
3. *Crematogaster tarsatus* Smith, *l. c.*, Worker, Morty Island ; Dalla Torre, *l. c.* p. 87 ; Emery, *l. c.* p. 139=*Crematogaster (Xiphocrema) tarsata* Smith. 1 ♀, "M."
1. *Pheidole hospes* Smith, *l. c.*, Worker (major), Worker (minor), New Guinea ; Dalla Torre, *l. c.* p. 91 ; Emery, *l. c.* p. 97=*Pheidole (Pheidole) hospes* Smith. 1 ♂, 1 ♀, "N."
1. *Pheidolacanthinus armatus* Smith, *l. c.* p. 75 (pl. iv. fig. 8), Worker, Salwatty ; Dalla Torre, *l. c.* p. 98 ; Emery, *l. c.* clxxiv. A, p. 82 (1921)=*Pheidole (Pheidolacanthinus) armata* Smith. 1 ♂, "S."
1. *Solenopsis lævis* Smith, *l. c.*, Worker, Morty Island ; Dalla Torre, *l. c.* p. 77. *Pheidologeton lævis* Emery, *l. c.* clxxiv. C, p. 213 (1922)=*Pristomyrmex lævis* Smith. 1 ♀, "M."

2. *Cataulacus hispidulus* Smith, *l. c.* p. 76, (pl. iv. fig. 7), Worker, Sumatra. *Cataulacus granulatus* Dalla Torre var. *hispidulus* Dalla Torre, *l. c.* p. 138; Emery, *l. c.* p. 298=*Cataulacus hispidulus* Smith. 1 ♀, "Sum." In my opinion *C. hispidulus* Smith is a good species and not a var. of *granulatus* Latr.
1. *Cephaloxys capitata* Smith, *l. c.* p. 77 (pl. iv. fig. 5), Female, New Guinea; *Strumigenys capitata* Dalla Torre, *l. c.* p. 146; Emery, *l. c.* p. 224=*Strumigenys* (*Cephaloxys*) *capitata* Smith. 1 dealated ♀, "N."
- (8) "Catalogue of Hymenopterous Insects in the Collection of the British Museum." By Frederick Smith vi. Formicidæ, pp. 1-216 (1858).
10. *Ponera iridipennis* Smith, *l. c.* p. 85, Male, North Bengal; Dalla Torre, *l. c.* p. 39; Emery, *l. c.* cxviii. p. 116 (1911)=*Leptogenys iridipennis* Smith. 1 ♂, "N. Bengal." Type in B.M.
11. *Ponera reticulata* Smith, *l. c.*, Male, Birmah; Dalla Torre, *l. c.* p. 42; Emery, *l. c.*=*Odontoponera transversa* Smith. 1 ♂, "Birmah." Type in B.M.
12. *Ponera pallida* Smith, *l. c.*, Male, Birmah; Dalla Torre, *l. c.* p. 40; Emery, *l. c.*=*Leptogenys pallida* Smith. 1 ♂, "Birmah." Type in B.M.
16. *Ponera pallipes* Smith, *l. c.* p. 87, Male, Java; Dalla Torre, *l. c.* p. 41; Emery, *l. c.*=*Harpegnathus pallipes* Smith. 1 ♂, "Java." Type in B.M.
44. *Ponera pilosula* Smith, *l. c.* p. 95, Worker, Brazil; Dalla Torre, *l. c.*; Emery, *l. c.* p. 106=*Platythyrea pilosula* Smith. ♀ ex Coll. Smith. Type in B.M.
28. *Atta fumipennis* Smith, *l. c.* p. 169, Female, Worker, Rio. *Aphænogaster fumipennis* Dalla Torre, *l. c.* p. 102; Emery, *l. c.* clxxiv. C, p. 356 (1922)=*Pheidole* (*Pheidole*) *fumipennis* Smith. 2 winged ♀♀, 1 ♂, "Brazil." Type in B.M.

ADDENDA.

Rhytidoponera (*Rhytidoponera*) *wallacei*, sp. n.

♀.—Rich brownish purple with violet reflexions, antennæ, mandibles, and legs lighter, reddish. The whole insect is furnished with short, widely separated bristles.

Head very rugosely punctured, longitudinally striate in front, deeply pitted behind and reticulated with cross-striation; *mandibles* large, triangular, curved and pointed, longitudinally striate with small scattered punctures and a row of larger ones along the terminal border, which is furnished with very small teeth placed close together, and one large tooth at apex; *antennæ* long, 12-jointed; *scape* longitudinally striate, reaching considerably beyond the occipital border; *funiculus* with 1st joint much shorter than 2nd, 2nd-11th elongate, 11th about as long as the two preceding taken together; *clypeus* large, somewhat convex, anterior border bluntly pointed; *frontal carinæ* long, strongly raised, contracted behind; *frontal area* deep, with two deep round punctures; *eyes* very prominent. *Thorax* still more deeply pitted than head, with raised ridges all round the punctures; *promesonotal* and *mesoepinotal* sutures distinct, especially the former. *Scale* high, cone-shaped, bluntly pointed, transversely striate anteriorly, more rugose, and pitted at apex and posterior surface. *Gaster* with first two segments very strongly and closely longitudinally striate.

Long. 8 mm.

Habitat.—Aru.

Described from a specimen in the Willson Saunders Collection at Oxford. Beneath the card is written "*Ponera rugosa* Sm. Aru."

Crematogaster (Orthocrema) mimicans, sp. n.

♀.—Light reddish yellow, eyes and gaster deep blue-black.

Head subquadrate, shining, puncturation distinct, but neither deep nor close; *antennæ* 11-jointed, *club* 2-jointed. *Thorax* somewhat convex, rugosely and closely punctured; *mesonotum* bordered at sides, shoulders blunt; *mesoepinotal suture* deep; *epinotal* spines thick and curved inwards; not very sharply pointed. *Petiole* broadest at base; *post-petiole* globose, very indistinctly impressed. *Gaster* short, heart-shaped, smooth and shining.

Long 2 mm.

Habitat.—Aru.

Described from a specimen on the same card as Smith's *Crematogaster (Xiphocrema) elegans*, which superficially it closely resembles. It is most probable that the two

insects were taken together and that neither Wallace nor Smith noticed the difference. Without further knowledge of their habits it is impossible to draw any definite conclusion on this similarity; but as it may be a case of Müllerian mimicry, I have given the insect the name of *mimicans*.