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XXX.—*Descriptions and Records of Bees.*—LXVI.

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Pasiphaë cyanea, sp. n.

♀.—Length about 11 mm., expanse 17.5.

Rather robust, shining dark blue, with the knees, tibiae, and tarsi bright ferruginous, with hair of the same colour; scape black, but the rather short and thick flagellum ferruginous; hair of head, thorax, abdomen, and basal part of legs black, but at apex of abdomen, on each side of the apical plate, ferruginous, contrasting with the thick black hair on fifth segment; region of mouth with red hairs; head broad, front with long coarse hair; mandibles simple, truncate; labrum entire; clypeus finely punctured, its lower margin black; fourth and fifth antennal joints very short; mesothorax shining, very finely punctured; scutellum with a longitudinal median impression; area of metathorax large, triangular, rough but glistening; thorax with long hair, but the mesothorax (except anterior border) and scutellum bare, while beneath the wings is a circular bare area, which is blue, contrasting with the more lilac adjacent parts; tegulae dark rufous. Wings hyaline, faintly dusky, the nervures and stigma bright amber-colour; b. n. meeting t.-m., the latter bent in the middle; upper side of first discoidal arched; second s.m. very long, narrowed about half above, receiving first r. n. at a distance from base equal

to about four-fifths of length of first t.-c.; second r. n. received a short distance from apex; marginal cell rounded at apex; outer upper corner of third discoidal approximately rectangular. Abdomen shining, with only very minute and feeble punctures, hind margins of second and third segments reddish. Hind tibial scopa red, abundant, long and loose.

Hab. Rio McClelland, Tierra del Fuego, 12. i. 1905 (*R. Crawshay*). British Museum. Found "in the face of the cliff, on the sea-shore."

This differs from *Pasiphaë*, as originally defined, by the large ocelli forming a curve rather than a triangle, the robust antennæ, the marginal cell obtuse at apex (though with a very small appendicular nervure), and the labrum not emarginate. Except for the slight appendage at the end of the marginal cell, the venation agrees with that of *Bicolletes neotropica*, Friese (which is herewith designated as the type of *Bicolletes*), but *Bicolletes* is scarcely to be separated generically from *Pasiphaë*. *P. cyanea* is readily known from most species by its blue colour; it is, perhaps, related to *P. cærulescens*, Spinola, which is unknown to me, and seems not to have been found since it was described in 1851.

Capicola (?) *basutorum*, sp. n.

♂.—Length about 12 mm.

Slender; head, thorax, and first abdominal segment black, rest of abdomen dark reddish fuscous; mandibles reddish, with the base pallid and yellowish; clypeus black; flagellum bright orange-fulvous, about the basal third black above; tubercles yellow; coxæ, trochanters, and base of femora piceous, legs otherwise light yellow suffused with ferruginous; tegulæ hyaline, rufo-testaceous. Wings smoky, hyaline, and stained with orange basally; stigma light orange-ferruginous; nervures fuscous, the subcostal black, but the costal and other nervures toward base of wing ferruginous. Labrum emarginate; head broader than long, eyes prominent; face densely covered with light ochreous hair; antennæ only moderately long, flagellum thick; ocelli rather large; vertex with thin reddish hair; region on each side of ocelli smooth, with few strong punctures; thorax with thin reddish hair; mesothorax and scutellum shining, with very large scattered punctures; area of metathorax with about ten very strong ridges, the intervals shining—this region is bounded by an elevation, below which are short oblique plicæ. Wings large and ample; marginal

cell long, ending in a rather obtuse point nearly on costa; stigma large; two submarginal cells, the second one very long, narrowed more than half above; b.n. falling a considerable distance short of t.-m.; first r.n. entering second s.m. a long distance from its base, and the second almost as far from its apex. Legs slender and simple; claws very small, pulvilli distinct. Abdomen narrow and shining, scarcely punctured, with thin reddish hair, denser at ends of last three segments; pygidial area distinct, apical plate black, with spoon-like outline.

Hab. Basutoland, Africa (*R. Crawshay*). British Museum.

This represents a genus allied to *Rhophites*, but distinct. *Capicola* and *Rhinocatula* of Friese were based on South African species of this immediate group, and while the present insect appears to be very distinct from the seven forms ascribed to these genera by Friese, it may for the present be regarded as a doubtful *Capicola*. Friese cites no type for *Rhinocatula*; *R. cinctiventris* is herewith designated as the type of that genus.

Paracolletes callander, sp. n.

♀.—Length about 16 mm.

Black, with the flagellum beneath (except basally) and the small joints of tarsi ferruginous; hair of head and thorax abundant, warm pale reddish, paler beneath, on cheeks and on metathorax, reddest at sides of mesothorax and the region about tubercles; clypeus only very thinly hairy, shining, with scattered distinct punctures; supraclypeal area smooth; sides of vertex dull, but region behind ocelli shining; mesothorax and scutellum dull, hairs on scutellum, as well as a patch below and in front of wings, tipped with fuscous; area of metathorax dull, without distinct sculpture; tegulae black, covered with hair in front. Wings smoky, nervures dark brown, stigma little developed; b.n. falling a little short of t.-m.; second s.m. very broad, receiving first r.n. about middle. Legs with hair coloured like that on thorax, but hind tibial scopa long and loose, glistening silvery, though reddish-tinted. Abdomen dull, with a finely roughened surface; hind margins of the first four segments with narrow hair-bands, the first feeble, the others appearing as narrow but conspicuous white lines; apical plate very large and broad, the surrounding hair dark chocolate, but nearly white at sides of apical part of abdomen.

♂.—Length about 13.5 mm.

More slender; abdomen (except lateral black marks,

especially a large round patch at sides of second segment), apical part of femora above (on anterior and middle ones extending below middle), knees, tibiæ (except a suffused dusky patch on middle and hind ones behind), and tarsi ferruginous; mandibles red, dusky apically; clypeus (except two small dusky spots) and labrum reddish orange, but almost certainly yellow in life; supraclypeal area reddish; antennæ long and slender, red, the flagellum suffusedly blackened above and broadly black apically; hair of face, front, vertex, and thorax above very rich orange-ferruginous, that on scutellum and posterior two-thirds of mesothorax tipped with fuscous; second s.m. sometimes narrower, when it receives first r. n. before middle; hair-bands of abdomen thin, pale fulvous, inconspicuous.

Hab. Yallingup, S.W. Australia; both sexes, Nov. 1913, and a female, Dec. 1-12 (*R. E. Turner*). British Museum.

The sexes look very different, but they were associated by the collector, who determined them to belong together by field-observations.

The species is allied to *P. nigrocinctus*, Ckll., but readily distinguished by the large size and bright colours. Mr. Turner has determined that *P. tenuicinctus*, Ckll., is the male of *P. nigrocinctus*; he found the sexes together abundantly on *Leptospermum*. The type of *P. callander* is a female.

Paracolletes andreniformis, sp. n.

♀.—Length about 13 mm.

Robust, black, with black and white hair; head broad, facial quadrangle much broader than long; cheeks and lower half of front with long white hair, at sides of face it is thin and greyer, on vertex it is fuscous, beneath labrum it is glittering golden; mandibles truncate; clypeus shining, sparsely and irregularly punctured, raised in the middle to a roof-like ridge; supraclypeal area shining, rather more closely punctured than clypeus; scape long and black; flagellum short, dull reddish beneath except basally; sides of front finely, rather closely punctured; thorax with white hair in front and behind, at sides and beneath, dense on tubercles, but mesothorax (except anteriorly) and scutellum with thin black hair; mesothorax and scutellum polished and shining, with distinct but not dense punctures; area of metathorax smooth and shining, the margin beaded; pleura dullish, punctured; tegulæ very dark brown, with a tuft of black hair in front. Wings dusky, nervures and stigma

piceous; b. n. meeting t.-m. on outer side; second s.m. only moderately broad, receiving first r. n. about middle; end of first r. n. about twice as far from second t.-c. as second r. n. from third t.-c. Legs with fuscous to cream-coloured hair, largely fuscous on outer side of anterior and middle tibiae, but hind tibial scopa cream-coloured or very pale brownish. Abdomen very finely and closely punctured, segments 2 to 4 with interrupted white hair-bands, apical half of fifth densely covered with ochreous hair, and the sixth with the same; apical plate narrow and rather small; apical half of venter covered with appressed golden hair.

Hab. Yallingup, Dec. 23, 1913-Jan. 23, 1914; 3 ♀ (*R. E. Turner*). British Museum.

In my table of Smith's species this falls nearest to *P. obscurus*, which has sooty-black hair on the fifth abdominal segment. Superficially it is very like certain species of *Andrena*.

Goniocolletes pallidus, sp. n.

♂.—Length about 11.5 mm.

Agreeing in structure and most characters with *G. morsus*, Ckll., the type of the genus, but having the abdomen light ferruginous (hind margins of segments broadly hyaline), with the punctures very fine and the mesothorax feebly punctured. The pygidial area on seventh tergite of abdomen and the projecting apical plate beyond are red. The flagellum is dusky red, almost black above. The third s.m. is broad above and the third t.-c. is strongly bowed outward. Hind tibiae with approximately apical half black and basal half orange-fulvous. Maxillary palpi short.

Hab. Hermannsburg, Central Australia (*H. J. Hillier*). British Museum.

The second known specimen and species of this remarkable genus.

Callomelitta rugosa, sp. n.

♀.—Length about 8 mm.

General form as in *C. picta*; head and thorax with scanty, short, pale reddish hair; head black, with the lower margin of clypeus, labrum (which is emarginate), and mandibles (which are thick, bidentate at apex) obscure dark red; antennae entirely bright ferruginous; entire head strongly and quite closely punctured; mesothorax terra-cotta red, except a large black patch in the posterior middle, the whole appearing rugose from the strong and very dense punctures;

tubercles red, strongly carinate, covered behind with dense cream-coloured tomentum; rest of thorax black; scutellum very coarsely rugoso-punctate, postscutellum dull and granular; area of metathorax with a row of plicæ at the base and one on each postero-lateral side, the latter broad at the sides, but toward the middle narrowing to a line of pits; sides of metathorax, as seen from behind, with only a single projecting point, but there are two nodules on each side near the upper corners, only noticed in an oblique view; pleura coarsely rugoso-punctate; tegulæ light fulvo-ferruginous. Wings strongly smoky, paler basally; stigma and nervures rufo-fuscous; venation essentially as in *C. picta*, but first r. n. joins second s. m. well beyond the middle, and third s. m. is less contracted above. Legs ferruginous, hind tibia with a loose white scopa; hind tibial knee-plate greatly elongated, hind spur with only a microscopical ciliation. Abdomen black, with the base and apex of first segment and second segment almost entirely dull red; first segment polished and shining, with very sparse minute punctures; second shining, but closely and distinctly punctured except in middle; remaining segments closely and finely punctured, but clothed with fine and short, appressed, golden-brown hair, the apical region with long pale reddish hair.

Hab. Queensland (*F. P. Dodd*). British Museum. The exact locality is unknown.

Nearest to *C. turnerorum*, Ckll., also from Queensland, but easily known by the colours, the rugose sculpture, &c.

Prosopis kalamundæ, sp. n.

♀.—Length about 7.5 mm.

Head and thorax black, with bright chrome-yellow markings, consisting of large lateral face-marks (filling space between clypeus and eye, and extending upward with the form of a closed hand with the index-finger, which is very short, pointed), swollen upper border of prothorax, tubercles, large semilunar patch behind tubercles, scutellum, and postscutellum (except at sides). Legs black, the anterior tibiæ with an obscure yellow spot at base. Abdomen shining steel-blue; clypeus aciculate, somewhat depressed in middle; front and vertex shining, with strong well-separated punctures; mesothorax shining, with large, irregular, scattered punctures; area of metathorax with a basal channel crossed by plicæ, and below this, on each side, a strong oblique ridge; pleura with widely separated punctures. Legs with fine silky white hair; tegulæ black.

Wings quite clear, stigma and nervures fuscous; first r. n. meeting first t.-c. Abdomen shining, with extremely feeble and minute scattered punctures.

♀.—Variety *jugata*, v. n. With a transverse approximately kidney-shaped supraclypeal mark, the notch on the lower side; a yellow spot near each anterior corner of mesothorax, and a yellow dot on tegulæ. The clypeus is obscurely reddish.

Hab. Kalamunda, S.W. Australia, Feb. 9–28, 1914 (*R. E. Turner*). British Museum.

In my table of Australian *Prosopis* this runs to 18, and runs out because it is much smaller than *P. perplexa*, and has a yellow patch behind tubercles. Mr. Turner obtained males of *Prosopis elongata*, Smith, at Kalamunda; superficially *elongata* much resembles the new species, but on closer examination it is seen not to be very closely allied.

Prosopis fulvicornis, Smith.

Kalamunda, Feb. 9–28, 1914; 1 ♂ (*R. E. Turner*).

This agrees with Smith's description of *P. fulvicornis* (which was discovered from the Baly collection, and was not in the British Museum), except for the fact that the lateral face-marks extend broadly halfway up the front, so that the whole yellow area of the head rather resembles (though too broad) a donkey's head with erect ears. The large and broad supraclypeal mark is notched above; the yellow mark behind the tubercles is crescentic. Smith's short description is otherwise very characteristic.

This falls nearest to *P. purpurata*, Sm., but is smaller, and differs in some details of the markings. It cannot be the male of *P. kalamundæ*, the sculpture being entirely different.

Pachyprosopis hæmatostoma, Cockerell.

Kalamunda, Feb. 9–28, 1914 (*R. E. Turner*); 3 ♀.

With these are sent two males of *P. aurantipes*, Ckll., with the same data; and if I do not mistake the meaning of the label on one of the *P. hæmatostoma*, it is to be understood that the two are sexes of one species. If this is correct, it is very remarkable, as they differ extremely in colour and general appearance. The *P. hæmatostoma* are duller, not so blue as the original types.

Pachyprosopis flavicauda, Cockerell.

Mt. Wellington, Tasmania, Jan. 15–Feb. 6, 1913, 1300–2300 ft. (R. E. Turner). British Museum.

A surprising extension of range; the species was described from Sydney.

Euryglossa paupercula, sp. n.

♀.—Length about 3.75 mm.

Black, shining, the abdomen above obscurely purplish; head thick, rather large, subquadrate, with broad cheeks; mandibles cream-colour, with black apex, which is bidentate; labrum and the very broad and low clypeus yellow, the latter with a pair of widely separated fuscous teeth on lower margin; antennæ brown, flagellum hairy, scape with a light stripe in front; tegulæ brown. Wings hyaline, with a very large dull rufous stigma; first r. n. joining first s.m. about as far from apex as equal to half first t.-c.; second s.m. about as broad (long) as its apical height, not greatly produced above apically. Legs fuscous, with the trochanters very pale reddish, the femora piceous, the anterior tibiæ pale red in front, all the tarsi pale fusco-ferruginous. Abdomen broad, not hairy. The head and thorax are microscopically reticulate, with scattered minute punctures.

Hab. Yallingup, S.W. Australia, Oct. 16, 1913; 1 ♀ (R. E. Turner). British Museum.

This might be considered a *Pachyprosopis*, and is only placed in *Euryglossa* because it lacks the true *Pachyprosopis* venation. From its minute size, it will be associated with *E. pernana*, Ckll., but it differs at once by the yellow clypeus, large stigma, &c.

Euryglossa narifera, sp. n.

♀.—Length scarcely 5 mm.

Robust, shining, head and thorax black, abdomen obscure purple; head large and broad, extremely thick, without hair, except a thin fringe of long pale brown hairs over mouth; lower part of cheeks with a large pale yellow patch; mandibles light ferruginous, black apically; labrum ferruginous; clypeus (except two large semicircular areas, looking like nostrils, on lower margin), a transverse supraclypeal bar, and linear lateral face-marks (running along orbits to level of antennæ) all pale yellow; antennæ short, light ferruginous beneath; tubercles light yellow; tegulæ testaceous. Wings hyaline, stigma (which is large) and nervures

dark rufo-fuscous; b. n. greatly arched; first r. n. meeting first t.-c.; second s. m. broad, but its upper apical corner produced. Legs light ferruginous, the femora marked with piceous, the anterior femora almost wholly dark except at extreme ends. Abdomen broad, pale reddish at extreme apex and beneath.

Hab. Yallingup, S.W. Australia, Nov. 1913, 3 ♀ (*R. E. Turner*). British Museum.

Perhaps better called *Pachyprosopis narifera*, but the second s. m. is not of the extreme type characteristic of *Pachyprosopis*. The species is allied to *E. paupercola*, but much larger, with different markings.

Euryglossa nigrocærulea, Cockerell.

Mt. Wellington, Tasmania, 1300–2300 ft., Jan. 15.–Feb. 6, 1913 (*R. E. Turner*).

New to Tasmania.

Euryglossa flavocuneata, sp. n.

♀.—Length about 8 mm.

Similar to *E. undulata*, Ckll., but differing thus:—Much smaller; apical part of abdomen light ferruginous, with hair of the same colour; mandibles sometimes with a pale yellow stripe above on basal half; flagellum beneath reddish brown, without bands or spots; scutellum wholly without a median impressed line; tegulæ pellucid reddish testaceous. Wings strongly infuscated; b. n. falling short of t.-m. Middle tibiæ with a broad yellowish stripe in front, sometimes obsolete; hind knees pallid. First abdominal segment with more than basal half yellow, more or less marked with pale reddish; fifth segment pale red, flushed with yellow at base, sixth red. The abdomen has six conspicuous cuneiform yellow patches, representing the bands on segments 2 to 4. The type has a very broad abdomen; in the other two it appears narrow, but evidently as the result of compression in papers. The head and thorax are black, without pale markings.

Hab. Yallingup, S.W. Australia, Nov. 1913 (*R. E. Turner*). British Museum.

Had I received only the male of *E. undulata*, with females of *E. flavocuneata*, I should have referred them without hesitation to a single species. Fortunately the sexes of *undulata* were taken mated; the male of *flavocuneata*, when found, will resemble that of *undulata*, presumably differing by the darkened wings and testaceous tegulæ.

Euryglossa platyrhina, sp. n.

♀.—Length about 6.5 mm.

Very broad, with thin white hair, long on cheeks, pleura, sides of metathorax, and sides of abdomen beneath; dense hair fringing tubercles brownish white; head and thorax black, without pale markings, except that the depressed and flattened clypeus is pale yellowish ferruginous (the margins and upper corners variably fuscous), and this colour may extend to form a transverse supraclypeal band; abdomen dull, light ferruginous, with the following conspicuous black or piceous marks:—a broad transverse band on middle half of first segment, a large subcircular patch on each side of second, a very broad band on middle third of second, a transverse patch on middle of third, and a slight shade on fourth; mandibles dark, very obscurely rufescent just before apex; labial palpi peculiar, first joint greatly swollen, largely piceous, second about half as wide as first, piceous except at ends, about twice as long as wide, third and fourth pale ferruginous, long and slender, the fourth longest (about 225 microns); maxillary palpi extremely small, six-jointed, the basal joint dark, the others pale ferruginous; clypeus dullish, with very sparse and minute punctures; front dull, with small scattered punctures; cheeks very small, the whole head remarkably flat; scape and flagellum pale reddish testaceous beneath; mesothorax dull, with widely scattered very small punctures; scutellum more shining; area of metathorax smooth and shining; tegulæ hyaline. Wings hyaline, faintly dusky, stigma and nervures dull ferruginous; b. n. falling some distance short of t.-m.; first r. n. joining second s.m. near base; second s.m. broad, second t.-c. regularly arched outward. Legs hairy, black or piceous and ferruginous, the basal third and anterior sides of anterior and middle tibiæ, anterior and middle knees, hind tibiæ entirely, and greater part of hind femora ferruginous; middle femora broad, convex in profile below; hind spurs of hind tibiæ with two rows of short strong tooth-like spines. Pygidial plate of abdomen very small.

Hab. Yallingup, Dec. 23–Jan. 14, 1913–14 (*R. E. Turner*); 3 ♀. British Museum.

A peculiar and distinct species, not a typical *Euryglossa*. It could be made the type of a distinct genus or subgenus, but this may wait until the classification of the whole group is reconsidered.



Cockerell, Theodore D. A. 1915. "Descriptions and records of bees. LXVI." *The Annals and magazine of natural history; zoology, botany, and geology* 15, 341–350.

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