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THE GENUS EPIPOMPILUS IN AUSTRALIA

(Hymenoptera: Pompilidae)

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In my review of *Epipompilus* in 1961 (Psyche 68: 25-37) I expressed the belief that this genus was strictly Neotropical in distribution. I had at that time scanned most of the exotic Pompilidae in North American museums, and this generalization seemed justified. More recently, with the aid of a grant from the Permanent Science Fund of the American Academy of Arts and Sciences, I have had an opportunity to study the extensive collections of Pompilidae at the British Museum (Natural History), including a large amount of Australian material collected by Rowland E. Turner. Study of this material has revealed that *Epipompilus* is well represented in Australia, where the genus exhibits considerably more structural diversity than in the Neotropics. So far as I can determine from the published descriptions and from a study of the types of Turner's species, all of the Australian species are undescribed. Although the amount of available material is very limited—always the case in this genus—I feel that an attempt to elucidate the Australian fauna may be worthwhile at this time. *Epipompilus* appears to me to be one of the most primitive genera of Pompilinae, and it is possible that a better understanding of the genus may help toward a solution of some of the many mysteries of pompilid classification and evolution.

In my 1961 treatment of the genus, I stated that I felt that *insularis*, a New Zealand species described by Kohl in *Epipompilus*, actually belonged to a closely related genus, which I named *Epipompiloides*. Since the structure of the Australian species tends to partially bridge the gap between these two groups, I have here reduced *Epipompiloides* to subgeneric status. Two new species of *Epipompiloides*, from Tasmania, are described below. Two of the other species described below are sufficiently unusual to warrant the erection of still another subgenus. The remaining two species I have placed in *Epipompilus* s. str., although they too exhibit several small but constant differences from the Neotropical species. The following classification seems to me to best portray the relationships of the species so far as presently available material goes.

Genus **Epipompilus** Kohl

Mandibles with a single large tooth well back from apex, without a lamina or fimbriate groove below. Labrum strongly exserted. Malar space well developed. Fore wing with stigma large, veins and cells extending well toward outer wing margin; hind wing with transverse median vein leaving anal vein at a sharp angle, reaching median vein well before cubital fork. Females: front femora somewhat incrassate; streptaulus absent or ill-defined; legs remarkably smooth, with only a few minute tibial spines if any. Males:

antennae somewhat crenulate in profile; basal hooklets of genitalia double, the parameres rod-like, aedeagus of simple structure.

Subgenus **Epipilpomus** n. subgen.

Maxillary palpi elongate, length of apical segment of maxillary palpi much greater than median length of clypeus. Scutellum relatively broad and flat. Claws bifid. Fore wing with cubital vein continued as a strong vein very nearly to outer wing margin. Females: eyes hairy; wings hyaline, unbanded; vertex acute; front femora strongly incrassate; front tibiae without apical spines; propodeum strongly humped in front of each spiracle. Males: unknown.

Included species: *pallidus* n. sp., W. Australia (type)
depressus n. sp., Queensland

Subgenus **Epipompilus** Kohl

Maxillary palpi elongate, length of ultimate or penultimate segment at least slightly greater than median length of clypeus. Scutellar disc convex. Claws dentate. Fore wing with cubital vein very weak beyond intercubital vein 3. Females: eyes hairy; wings strongly banded; vertex not acute; front femora rather weakly incrassate.

AMERICAN SERIES. Maxillary palpi very long and slender, ultimate or penultimate segment much exceeding median length of clypeus. Antennae roughly setose on mesal surface. Females: front tibiae without apical spines; propodeal slope very low and even. Males: propodeum smooth, its slope low and even; tibiae and tarsi with coarse, semierect setulae and some spines; subgenital plate in the form of a slender process arising from a broad base.

Included species: nine species, reviewed by Evans, 1961.

AUSTRALIAN SERIES. Maxillary palpi shorter, ultimate segment barely exceeding median length of clypeus, penultimate segment shorter than ultimate. Antennae not roughly setose on mesal surface. Females: front tibiae with a row of minute apical spines; propodeum relatively strongly arched. Males: unknown.

Included species: *turneri* n. sp., Queensland
pictipennis n. sp., Tasmania

Subgenus **Epipompiloides** Evans

Maxillary palpi short, ultimate segment shorter than median length of clypeus, penultimate shorter than ultimate. Scutellar disc convex. Claws dentate. Fore wing with cubital vein nearly reaching wing margin, weakened or moderately strong beyond intercubital vein 3. Scape very short, barrel-shaped. Females: eyes not hairy; wings weakly to strongly banded; vertex not acute; front tibiae with apical spines; front femora moderately incrassate. Males: propodeum wholly covered with strong reticulate sculpturing; tibiae and tarsi smooth; subgenital plate relatively broad, tapering to a rounded apex.

Included species: *insularis* Kohl, New Zealand (type)
tasmanicus n. sp., Tasmania
hyalinipennis n. sp., Tasmania

Relationships of the subgenera. Although *Epipompilus* s. str. is sharply set off from other Pompilinae, the subgenus *Epipompiloides* tends to bridge some of the gaps with more typical Pompilinae. Furthermore, the Australian *Epipompilus* s. str. tends to bridge some of the gaps separating *Epipompiloides* and typical *Epipompilus*. The Australian *Epipilpomus*, curiously enough, is in several ways more like the Neotropical than the Australian series of *Epipompilus* s. str. (e.g., the palpi are very long and the front tibiae lack apical spines). *Epipilpomus* also possesses a number of specializations, including the bifid claws and the depressed form and sharp vertex. The close resemblance between *Epipilpomus* and the Neotropical *Epipompilus* suggests that the genus may once have been wide-spread, the ancestral wasp possessing the common characters of these two groups. Following extinction of the genus throughout much of the globe, these wasps acquired a marsupial-type distribution, with the Australian forms undergoing considerable diversification into more specialized types. A number of *Epipompilus* characters occur in certain Aporini and in the African genera which Haupt placed in the Idopompilini.

Having decided that *Epipompilus* must be a very primitive pompilid with a formerly widespread distribution, I decided to investigate the possibilities of these insects being represented in Baltic Amber. To my surprise, I found that over half of the specimens in the Museum of Comparative Zoology from Baltic Amber (and all of the Pompilinae) belong to the genus *Epipompilus*. These specimens are all males, but some of them are very well preserved, and they do indeed agree closely with the males of the South American *Epipompilus*. Even the genitalia appear similar, and the wings are strikingly similar in every detail, even including indications of banding in one specimen. I hope to treat the fossil *Epipompilus* in a future paper.

Epipompilus (Epipilpomus) pallidus Evans, n. sp.

Holotype: ♀, WEST AUSTRALIA: Yanchep, 32 km N of Perth, 29. I–8. II. 1936 (R. E. Turner) (British Museum).

Description: Length 6.5 mm; fore wing 5 mm. Entire body pale ferrugino-testaceous except as follows: head with a broad streak along inner and outer orbits very pale, almost whitish; front with a broad central black area, emarginate below, but the sides reaching and extending slightly laterad of the antennal sockets; vertex and occiput entirely black, this black joining that of the front at the posterior ocelli; scape blackish except pale on outer side toward apex, segment 2 dark above, pale below, rest of antenna testaceous except joints blackish, so that the antennae are narrowly but conspicuously annulated (less distinctly so on apical segments); middle and hind femora and tibiae with a dark apical spot. Wings hyaline, with a very faint milky tinge; stigma dark brown; costal cell of fore wing weakly infuscated; all veins of fore wing narrowly margined with brown. Body entirely covered with rather coarse, whitish pubescence. Front and thoracic dorsum with rather dense, backward-directed, pale setae; abdominal venter and apical tergites with numerous whitish erect setae.

Last 3 segments of maxillary palpi in a ratio of about 20 : 18 : 19, the first of these (i. e., segment 4) 6× as long as thick, .95× as long as antennal segment 3, apical segment 1.3× median length of clypeus. Labrum extending well beyond margin of clypeus, weakly rounded apically. Clypeus about 2.5× as wide as high, truncate apically. Malar space nearly as long as antennal segment 2. Antennal segments 1–4 in a ratio of about 16 : 7 :

21 : 22, segment 3 about 3.5× as long as thick, only .5 as long as upper interocular distance. Head (exclusive of labrum) 1.1× as wide as high; middle interocular distance .68× width of head; upper interocular distance 1.05× lower interocular distance. Postocellar line 2× ocello-ocular line; front angle of ocellar triangle much greater than a right angle. Front dull, without conspicuous punctures. Vertex unusually sharply margined for the genus, occiput slightly concave; temples rather wide below, narrowed above. Pronotal disc about as long as mesoscutum, its posterior margin nearly straight across, actually weakly subangulate. Propodeum with a strong posterior declivity on the sides of which the surface is weakly longitudinally humped, just behind the spiracles; anterior lip of each spiracle roundly elevated. Front femora strongly incrassate, only about 2× as long as thick. Legs very smooth, tibiae with only some minute spines on the sides. Claws bifid, inner ray truncate, very close to outer ray. Fore wing with the stigma very large, the marginal cell large, removed from the wing tip by .7 its own length; third submarginal cell 1.7× as long as second; basal and transverse median veins interstitial. Hind wing with transverse median vein slightly sinuate, reaching median vein basal of cubital fork by .6 its own length.

Epipompilus (Epipilpomus) depressus Evans, n. sp.

Holotype: ♀, QUEENSLAND: SE Part, Tambourine Mts., 1–9. V. 1935 (R. E. Turner) (British Museum).

Description: Length 6.5 mm; fore wing 5.5 mm. Color black, except lower inner and outer orbits, malar space, face below antennal sockets, clypeus, labrum, and mandibles straw-colored; palpi testaceous; antennae ferrugino-castaneous except scape and following segment blackish above, next several segments weakly and narrowly annulated with black at the joints; legs bright rufo-testaceous except hind tarsi strongly infuscated, middle tarsi somewhat so. Wings hyaline, weakly tinged with yellowish toward the base; stigma dark brown. Entire body clothed with coarse silvery pubescence, especially long on the propodeal declivity. Front and thoracic dorsum with numerous short white setae which are directed backward; abdomen with white erect hairs below and on the apical tergites.

Last 3 segments of maxillary palpi in a ratio of about 22 : 20 : 21, the first of these (segment 4) 7× as long as thick, .97× as long as antennal segment 3; apical segment 1.5× median length of clypeus. Clypeus 2.6× as wide as high, its apical margin very weakly concave. Malar space slightly shorter than antennal segment 2. Antennal segments 1–4 in a ratio of about 18 : 7 : 22 : 23, segment three 3.2× as long as thick, .52× upper interocular distance. Head (exclusive of labrum) 1.2× as wide as high; middle interocular distance .62× width of head; upper interocular distance 1.07× lower interocular distance. Postocellar line: ocello-ocular line as 9 : 4; ocelli in a broad, flat triangle. Front weakly shining, without conspicuous punctures. Vertex sharply margined; posterior surface of head slightly concave, polished. Temples moderately wide below, much narrowed above. Pronotum moderately long, subangulate behind; postnotum a very narrow transverse band; propodeum with the anterior rims of the spiracles roundly elevated, the sides of the declivity, behind the spiracles, longitudinally humped. Front femora strongly swollen, about 2× as long as wide. Middle and hind tibiae with numerous minute spines, but these mostly confined to the outer surfaces. Claws bifid, as in *pallidus*. Fore wing with the basal and transverse median veins interstitial; stigma large, nearly 1/2 as long as total

length of marginal cell, the latter removed from the wing tip by only .6 its own length; submarginal cell 3 only 1.1× as long as 2. Hind wing with the transverse median vein straight, meeting the median vein basad of the cubital fork by 1/2 its own length.

Epipompilus (Epipompilus) turneri Evans, n. sp.

Holotype: ♀, QUEENSLAND: SE Part, Tambourine Mts., 11–18. IV. 1935 (R. E. Turner) (British Museum).

Description: Length 9.5 mm; fore wing 7 mm. Body black; apical part of mandibles and apical margins of labrum and clypeus suffused with dull rufous; antennae wholly pale castaneous except upper side of flagellum slightly darker than lower side, apical segment weakly infuscated above and below; legs wholly bright rufo-castaneous except front coxae with a broad fuscous streak antero-laterally; abdominal tergites with weak apical bands of dull brown, the last tergite mostly dull brownish. Fore wings hyaline, with a yellowish tinge, except weakly fuscous on basal .2 and with a broad fuscous band starting at the basal and transverse median veins and extending over all the discoidal cells and all but the outer 1/4 of the marginal and third submarginal cells; hind wings hyaline, weakly tinged with yellowish, except lightly infuscated on basal .2 and apical .4. Body and appendages covered with fine pubescence which is mostly silvery, but darkens to golden brown on the upper front, thoracic dorsum, and abdominal dorsum. Front with a dense covering of short, brownish setae which are curved backward; thoracic dorsum also with setae of this type, but the thorax and legs otherwise with only a very few pale, inconspicuous erect setae; abdominal venter and apical tergites with numerous pale erect setae which stand well above the pubescence, which is coarse and suberect on the apical segments.

Segments of maxillary palpi in a ratio of about 6 : 10 : 19 : 24 : 19 : 20, segment four 6× as long as thick, .85× as long as antennal segment 3; apical segment very slightly longer than median length of clypeus. Labrum extending well beyond margin of clypeus, weakly emarginate apically. Clypeus 2.5× as wide as high, its apical margin weakly concave. Malar space somewhat shorter than antennal segment 2. Antennal segments 1–4 in a ratio of about 3 : 1 : 3 : 4, segment 3 about 3× as long as wide, .7 as long as upper interocular distance. Head (exclusive of labrum) 1.25× as wide as high; middle interocular distance .52× width of head; upper interocular distance .8× lower interocular distance. Postocellar line 2× the ocello-ocular line; front angle of ocellar triangle about a right angle. Front dull, roughened by microscopic sculpturing, without distinct punctures; temples narrow, much widened below. Pronotum of moderate length, subangulate behind. Postnotum very narrow, barely separating the metanotum and propodeum, the latter without a median impression or other irregularities. Front femora moderately swollen, measuring 2.7× as long as wide. Legs very smooth, hind tibiae with minute spines on the outer side, but none above. Fore wing with the marginal cell removed from the wing tip by .9 its own length; submarginal cell 3 nearly 2× as long as 2; basal vein arising well basad of transverse median vein. Hind wing with transverse median vein meeting the median vein basal of the cubital fork by about 1/2 its own length; submedian cell largely devoid of setulae.

Paratype: ♀, same data as type (British Museum).

Variation: The paratype is slightly smaller than the type, measuring 8.5 mm, the fore

wing 6.8 mm. The antennae are darker than in the type, the scape being blackish, the flagellum wholly infuscated on the upper side, although pale castaneous below. The front coxae are wholly blackish, the front femora and tibiae somewhat infuscated on the outer side. In the hind wing the transverse median vein reaches the median vein basad of the cubital fork by 2/3 its own length. Other measurements are the same as in the type.

Epipompilus (Epipompilus) pictipennis Evans, n. sp.

Holotype: ♀, TASMANIA: Mt. Wellington, 400–700 m, I. 1913 (R. E. Turner) (British Museum).

Description: Length 8.0 mm; fore wing 6.5 mm. Body black; apical part of mandibles, labrum, and clypeus suffused with dull castaneous; antennae wholly brown on upper side, beneath light castaneous except broadly annulated with brown at each joint; front coxae nearly black, middle and hind coxae dark brown, front femora dark brown except apical third on inner side, which is bright, pale castaneous like the rest of the legs; tip of abdomen weakly suffused with brownish. Fore wing weakly infuscated on basal .15, then strongly suffused with yellowish for rest of basal 1/2; outer part of wing with a broad brown band which includes all 3 submarginal cells, but which is obliquely narrowed posteriorly so as to exclude the basal 1/3 of discoidal cell 1 and all of 2; outer .2 of wing very faintly tinged with yellowish. Hind wings nearly hyaline, faintly tinged with yellowish on basal 2/3, faintly infuscated on apical 1/3. Pubescence of body and legs very fine except coarse on propodeal declivity, silvery except grading into golden brown on front, thoracic dorsum, and abdomen. Front and thoracic dorsum with sparse, rather dark, short setae which are directed backward; body otherwise without erect setae except for the usual ones on the abdominal venter and apical tergites.

Segments of maxillary palpi in a ratio of about 6 : 10 : 17 : 19 : 17 : 19, segment four 6× as long as thick, .83× as long as antennal segment 3; apical segment very slightly longer than median length of clypeus. Labrum strongly exserted, its apex weakly rounded. Clypeus 2.7× as wide as high, broadly truncate apically. Malar space subequal in length to antennal segment 2. Antennal segments 1–4 in a ratio of about 12 : 4 : 12 : 15, segment 3 about 2.7× as long as wide, .5 as long as upper interocular distance. Head about 1.2× as wide as high; middle interocular distance .58× width of head; upper interocular distance .87× lower interocular distance. Postocellar line: ocellar line as 8 : 5; front angle of ocellar triangle distinctly greater than a right angle. Eyes hairy, but the hairs distinctly shorter and less dense than in *turneri*. Front weakly shining, alutaceous, with a great number of minute punctures; temples narrow, widened below. Thoracic dorsum with minute but distinct punctures, especially noticeable on the scutellum. Pronotum subangulate behind; postnotum a very narrow band; propodeum sloping rather evenly in profile. Front femora measuring 2.5× as long as wide. Middle and hind tibiae with numerous minute spines on their outer sides, but none above. Fore wing with the stigma slightly less than 1/2 as long as the total length of the marginal cell, the latter removed from the wing tip by only .6 its own length; third submarginal cell 1.25× as long as second. Hind wing with the transverse median vein oblique, nearly straight, meeting the median vein basad of the cubital fork by 1/2 its own length; submedian cell completely filled with setulae.

Epipompilus (Epipompiloides) tasmanicus Evans, n. sp. Figs. 1 & 2.

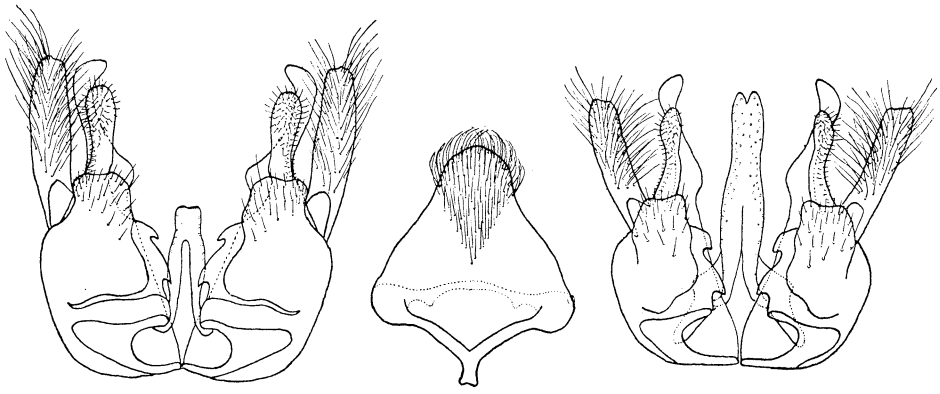
Holotype: ♀, TASMANIA: Mt. Wellington, 400–700 m, 15. I–6. II. 1913 (R. E. Turner) (British Museum).

Description: Length 6.0 mm; fore wing 4.6 mm. Body piceous, the head virtually black; apical 1/2 of mandibles yellowish, the teeth rufous; antennae light castaneous except apical 5 segments infuscated; front femora and trochanters, and all the coxae, dark brown, legs otherwise pale castaneous. Fore wing weakly infuscated on basal .2; next .2 hyaline, with a yellowish tinge; outer part of wing, beginning at the basal transverse median veins, with a very broad brown band, interrupted below the stigma by a weak and irregular hyaline streak; outer .15 of wing hyaline, with a slightly milky tinge. Hind wing nearly clear hyaline. Pubescence silvery except grading into golden-brown on thoracic dorsum and toward tip of abdomen. Clypeus, front, thoracic dorsum, and coxae with rather sparse, short setae; body otherwise devoid of setae except for the usual ones on the abdominal venter and apical tergites.

Segments of maxillary palpi in a ratio of about 5 : 8 : 13 : 14 : 11 : 12, segment 4 about 5× as long as its maximum width, .90× as long as antennal segment 3; apical segment .90× median length of clypeus. Labrum partially exserted, its apical margin weakly rounded. Clypeus 2.7× as wide as high, its margin weakly concave, with a slightly raised, polished border. Malar space slightly shorter than antennal segment 2. Antennal segments 1–4 in a ratio of about 18 : 7 : 16 : 24, scape only 1.6× as long as thick, segment three 2.7× as long as thick, .47× upper interocular distance. Head 1.12× as wide as high; middle interocular distance .59× width of head; eyes strongly convergent above, upper interocular distance .80× lower interocular distance. Postocellar line: ocello-ocular line as 10 : 7; front angle of ocellar triangle greater than a right angle. Hairs of eyes sparse, minute, scarcely noticeable. Front alutaceous, weakly shining, punctures small and inconspicuous. Temples very wide below, much narrowed above. Pronotum relatively short, subangulate behind. Mesoscutum distinctly duller, more alutaceous, and with less distinct punctures than either the pronotum or scutellum. Postnotum a very narrow band. Propodeum with the slope rather even, the declivity not well defined. Front femora 2.7× as long as wide. Apex of front tibia with 8–10 spines which are unusually strong for the genus. Middle and hind tibiae without spines except for some minute ones on the outer sides. Fore wing with the stigma 1/2 as long as total length of marginal cell, the latter removed from the wing tip by .8 its own length; third submarginal cell 1.3× as long as the second; cubital vein becoming evanescent a short distance beyond intercubital vein 3. Hind wing with transverse median vein straight, meeting the median vein basad of the cubital fork by 1/2 its own length.

Allotype: ♂, same data as type except dated simply I. 1913 (British Museum).

Description: Length 7 mm, fore wing 6 mm. Head and thorax black, abdomen dark brownish-fuscous; palpi, apical 2/3 of mandibles, and labrum very light brown; antennae dark brownish-fuscous except under side of flagellum much paler; coxae and trochanters dark brown, legs otherwise bright, pale castaneous. Fore wing on basal 1/2 hyaline, with a faint yellowish tinge; a broad but very weak fuscous band begins at the basal and transverse median veins and extends to the apical 1/3 of the marginal cells and thence to the hind wing margin; apical .15 of wing hyaline except extreme margin once again weakly infuscated. Hind wing nearly clear hyaline. Pubescence silvery, grading into light



Figs. 1-3. 1, ♂ genitalia of *Epipompilus* (*Epipompiloides*) *tasmanicus* Evans, n. sp., allotype, ventral aspect; 2, subgenital plate of same specimen, ventral aspects; 3, ♂ genitalia of *E.* (*Epipompiloides*) *hyalinipennis* Evans, n. sp., holotype, ventral aspect.

brown on the dorsum and the abdomen; propodeum with long, erect pubescence behind. Head and thoracic dorsum with many short, pale, erect hairs.

Last 4 segments of maxillary palpi in a ratio of about 14 : 16 : 11 : 12, segment 4 about 5× as long as its maximum width, .80× as long as antennal segment 3; apical segment .70× median length of clypeus. Labrum strongly exserted, rounded apically. Clypeus 2.3× as wide as high, truncate apically, the margin simple. Malar space subequal in length to antennal segment 2. Scape very short, only about 1.3× as long as thick; antennal segments 1-4 in a ratio of about 16 : 7 : 21 : 20; profile of flagellum strongly crenulate. Head 1.17× as wide as high; middle interocular distance .62× width of head; upper interocular distance .88× lower interocular distance. Ocelli in a broad, flat triangle; postocellar line about 2× the ocello-ocular line. Front rather dull, the punctures minute, shallow, very close together. Pronotum short, its posterior margin strongly angulate. Mesoscutum and scutellum with the punctures somewhat more distinct than on front and pronotum. Propodeum with the sculpturing very irregular, much coarser on the sides than medially, where it tends to form indistinct longitudinal carinae. Claws with the inner ray rather close to the outer ray and sloping outward somewhat; inner claws of front tarsi deeply bifid, strongly curved. Tibiae with minute spines on their lateral surfaces, none above. Fore wing with the stigma very large, .6 as long as total length of marginal cell, the latter removed from the wing tip by .6 its own length; third submarginal cell 1.2× as long as second; other venational features as in ♀. Central portion of subgenital plate uniformly covered with long hairs (fig. 2). Genitalia with the aedeagus unusually short, only about 4× as long as wide; parameres thick, uniformly covered with setae ventrally (fig. 1).

Paratypes: 1 ♀, same data as type; 1 ♀, same, but dated as in allotype; 1 ♂, Eaglehawk Neck, SE Tasmania, 12. II–3. III. 1913 (R. E. Turner) (all British Museum).

Variation: The male paratype is very slightly smaller than the allotype (fore wing 5.4 mm); the banding of the fore wing is more intense, and the antennae are barely lighter

below than above, but otherwise the two specimens are extremely similar. The two female paratypes both have the fore wing about 5 mm long. The middle interocular distance varies from .59 to .61× the width of the head, the third submarginal cell from 1.1 to 1.35× as long as the second. In all respects these females are very similar to the type.

Epipompilus (Epipompiloides) hyalinipennis Evans, n. sp. Fig. 3.

Holotype: ♂, TASMANIA: Mt. Wellington, 400–700 m, 15. I–6. II. 1913 (R. E. Turner) (British Museum).

Description: Length 6 mm; fore wing 5.2 mm. Black; apical 1/2 of mandibles light brown, teeth rufous: antennae dark brown, under side of flagellum somewhat lighter brown; coxae and trochanters dark brown, basal 1/3 of front femora suffused with brown, remainder of legs bright, pale castaneous; tibial spurs pale testaceous. Wings clear hyaline, with no yellowish tinge or evidence of banding; stigma dark brown, veins light brown. Pubescence silvery, grading into light brown on thoracic dorsum and abdomen. Front with numerous short erect hairs; thorax and coxae rather sparsely clothed with short, pale setae.

Last 4 segments of maxillary palpi in a ratio of about 12 : 15 : 12 : 13, segment 4 about 5× as long as its maximum width, .83× as long as antennal segment 3; apical segment .80× median length of clypeus. Labrum, clypeus, and malar space exactly as in the preceding species. Scape only 1.2× as long as thick; antennal segments 1–4 in a ratio of about 7 : 3 : 9 : 9; profile of flagellum strongly crenulate. Head 1.2× as wide as high; middle interocular distance .63× width of head; upper interocular distance .95× lower interocular distance. Ocellar triangle very broad and flat; postocellar line 2.2× ocello-ocular line. Front rather dull, alutaceous, the punctures minute. Posterior margin of pronotum broadly angulate; mesoscutum and scutellar disc relatively broader and flatter than in *tasmanicus*, but the propodeal sculpture not differing noticeably from that species. Claws dentate, the inner ray rather close to the outer ray and sloping outward somewhat; inner claws of front tarsi very strongly curved, bifid. Lateral surfaces of middle and hind tibiae with many very small setae. Fore wing with the stigma .7 as long as total length of marginal cell, the latter removed from wing tip by .65× its own length; third submarginal cell 1.25× as long as second. Hind wing with the transverse median vein straight, oblique, reaching median vein basad of cubital fork by 1/2 its own length; anal lobe unusually large for the genus, .7 as long as submedian cell. Terminalia much as in the preceding species except that the aedeagus is very much larger, the digiti slightly more slender (fig. 3).

Epipompilus (Epipompiloides) insularis Kohl

Epipompilus insularis Kohl, 1884, K. K. Zool. Bot. Ges. Wien, Verh. **34**: 57.
Epipompiloides insularis Evans, 1961, Psyche, **68**: 28.

Plesiotype: ♀, NEW ZEALAND: Nelson, 14. III. 1926 (E. S. Gourlay) (Mus. Comp. Zool.).

Description: Length 6 mm; fore wing 4.8 mm. Head and thorax black, abdomen dark brownish-fuscous; palpi straw-colored; labrum and apical 1/2 of mandibles dull brown; antennae medium brown beneath, dark brownish-fuscous above; front coxae dark

brown, middle and hind coxae dark castaneous, tipped with pale castaneous; remainder of legs bright, pale castaneous. Fore wing with basal .7 hyaline, tinged with yellowish, apical .3 wholly lightly infuscated; hind wing hyaline, tinged with yellowish on basal .85, tip lightly infuscated; stigma and all veins yellowish, translucent. Pubescence silvery, grading into light brown dorsally and on parts of the abdomen. Front with some short, pale erect hairs, remainder of body very sparsely hairy except for the usual hairs on the tip of the abdomen.

Last 4 segments of maxillary palpi in a ratio of about 8 : 12 : 10 : 11, segment 4 about 4.5× as long as its maximum width, .90× as long as antennal segment 3; apical segment .85× median length of clypeus. Labrum strongly exserted, its apical margin rounded. Clypeus 2.7× as wide as high, its apical margin weakly concave, the margin very weakly elevated. Malar space slightly shorter than antennal segment 2. Antennal segments 1–4 in a ratio of about 19 : 7 : 14 : 20, scape only 1.6× as long as thick, segment 3 only 2× as long as thick, .38× upper interocular distance. Head 1.10× as wide as high; middle interocular distance .65× width of head; upper interocular distance .87× lower interocular distance. Front angle of ocellar triangle greater than a right angle; postocellar line exceeding ocello-ocular line as 4 : 3. Front moderately shining, closely covered with small but very distinct punctures. Pronotum of moderate length, its posterior margin subangulate. Entire thoracic dorsum and pleura with distinct small punctures like the front. Postnotum very narrow. Propodeum sloping evenly, without an impressed median line or other sculpturing. Front femora 2.6× as long as wide. Apex of front tibia with a series of minute spines. Middle and hind tibiae with a few very small spines on their outer surfaces, none above. Fore wing with the stigma large, .64× as long as total length of marginal cell, the latter removed from the wing tip by .8 its own length; submarginal cell 3 very slightly longer than 2. Hind wing with transverse median vein oblique, nearly straight, meeting median vein basad of cubital fork by only 1/3 its own length.

Male: Unknown.

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