

NEW SPECIES OF SYRPHIDAE AND ASILIDAE

(Diptera)

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I wish to thank Dr. P. D. Hurd, Jr. for the opportunity to study the interesting species of *Meromacrus* Rondani here described, together with several other new Diptera.

***Meromacrus croceatus* Hull, new species**

A pale, brownish orange species with spots and fascia of deep yellow tomentum. Related to *Meromacrus gloriosus* Hull (1942), in which species the pile above wings, on postalar callosity, scutellum, pteropleuron and antenna is black. In *Meromacrus croceatus* it is entirely golden yellow with no black pile present anywhere. Length 15 mm.

Female.—*Head*: light brownish red throughout. Occiput golden pollinose; tomentum matted, yellow; a wide band of similar, bright golden, somewhat scale-like, or flattened tomentum on sides of front and face, extending as far as upper angle of cheeks, reaching from eye margin to lateral border of broad, medial, facial, stripe. Underlying, somewhat paler micro-pubescent extends downward to lower, anterior angle of face. Middle of face with a wide, shining, bare stripe. Face gently concave on upper half with a very low tubercle below middle. Antenna of usual type, third segment somewhat longer below than above; whole antenna light brownish red in color, with yellow pile. Arista thick, reddish yellow, with finely tapered apex, almost thread-like and whole surface microscopically pubescent. Eyes bare. *Thorax*: reddish brown, becoming blackish brown on hypopleuron, black on lower sternopleuron; middle of mesonotum black, dully shining, leaving entire humerus, notopleuron laterally and narrowly, and a lateral stripe above wing, which includes postalar callosity, reddish brown in color; pre-scutellar area reddish brown, scutellum wholly of same color. Pile sub-appressed, coarse, golden; conspicuous markings of dense, yellow tomentum which consist of: (1) a large, posteriorly pointed oval spot medial to humerus; (2) an oblique fascia from lateral margin of notopleuron ending at middle fourth of mesonotum; (3) the above continuous laterally with a stripe on posterior margin of mesopleuron; (4) the above is further continuous with a large, oval spot on upper sternopleuron. Remainder of pleuron without tomentum. Pteropleuron with numerous, golden hairs. Area just in front of scutellum and along posterior margin of mesonotum and continuous over whole lateral border of postalar callosity with a dense border of yellow tomentum. Halteres small, with reddish knob and stalk. *Legs*: entirely light brownish red with yellow pile, except on ventral aspect of hind femur; a dense patch of appressed, reddish setae confined to distal two-fifths of hind femur; a few smaller, similar setae on ventral, distal half of middle femur. Medial surface of extreme base of anterior femur with a

dense setae patch, setae black. Claws pale, yellowish on basal two-thirds, black beyond. *Wings*: hyaline on posterior two-thirds, yellowish on basal half of anterior third, reddish sepia brown beyond. Stigmal crossvein well developed. Loop of third vein broadly rounded and deep. Anterior crossvein enters discal cell distinctly beyond middle. *Abdomen*: light brownish red with basal half of second tergite diffusely yellowish brown; medially the slightly sunken crease, which basally demarcates second segment, very dark brown; likewise, a dark brown semicircular area in middle of base of first segment. Posterolateral third of first segment on each side with a wide, oval, extensive spot of deep sulphur yellow tomentum; a similar crescentic, extensive spot on base of third segment on each side, from anterior corner nearly to middle of segment, occupying two-fifths the length of segment. Similar but smaller and more widely separated spots of yellow tomentum at base of fourth segment. All abdominal pile reddish golden in color, flat appressed, except tending to be erect on sides of segment. Sternites light reddish with pale yellow, posterior margins.

Holotype female, BLYTHE, RIVERSIDE COUNTY, CALIFORNIA, June 25, 1945. In collections of the California Academy of Sciences, San Francisco.

Baccha myrtella Hull, new species

Related to *Baccha nectarina* Hull (1949). Linear vittate marks of abdominal segments 3, 4 and 5 very slender and sublateral vittae quite short and completely separated from submedial ones. Color of thorax and scutellum mostly extremely dark sepia. Length 14 mm.

Male.—*Head*: face and cheeks, all front, except black spots, light brownish yellow; sides of face paler, narrowly dusted with white pollen, which extends forward below tubercle. All pile of head black, except a few hairs along epistoma. Lower part of front above preantennal callus set off by a shallow crease. Middle of front with a moderately large, distinct, black triangle but no distinct lines above or below. Upper portion of callus shining brown. Middle of callus with a large, shining black, nearly circular, anteriorly pointed spot. Antenna light brownish orange, third segment smoky to blackish on all except base and ventral third. Arista reddish at base, gradually becoming darker at apex. Occiput greyish yellow pollinose; pile long, reddish above, except for two or three black hairs immediately behind the vertex; lower occipital pile more yellowish. One or two black hairs anteriorly at middle of occiput opposite indentation of eye; occipital pile not scaly or flattened. Vertex opaque black between ocelli, yellow to golden brown behind; black pile in a single row. *Thorax*: mesonotum blackish sepia, except widely along lateral margins from humerus to postalar callosity. These margins dark, yellowish brown or clay color, scutellum of same color; disc sepia in oblique light. Middle of mesonotum with two wide, light golden brown vittae and a narrower, medial stripe of same; all three of these vittae fuse to make a slightly expanded, wide, pollinose area reaching base of scutellum. Dark

markings of mesonotum remaining constitute a pair of wide, sublateral, posteriorly attenuate, dark sepia vittae and a pair of central, submedial narrower distinctly divergent vittae, which end a short distance beyond suture; posterior ends rounded. Mesonotal and scutellar pile fine, black, except for a distinct, anterior, golden collar. Ventral fringe of scutellum of about twelve pairs of long, fine, black hairs. Pleuron obscurely yellowish brown on posterior mesopleuron, upper sternopleuron, pteropleuron and all of metapleuron, except a black, posterior, diagonal band across lower portion of metapleuron; upper part of metapleuron yellow. Squamae and halteres reddish brown. *Legs*: anterior and middle pairs of legs light brownish yellow, middle femur scarcely darker brown, with a still darker obscure, wide, pre-apical annulus. Middle of hind tibia either darker brown or with more brownish black pile in middle; base a little paler and apex narrowly brownish orange, with pale pile below and laterally. Hind tarsi yellowish white on first three segments, last two segments pale orange brown. *Wings*: uniformly sepia brown, except in oblique light second basal cell and basal part of costal cell barely paler. Third vein gently curved, subapical crossvein quite long and sigmoid, preanal spuria distinct; alulae wide and brown. *Abdomen*: petiolate, sepia brown with yellow pattern. First segment brownish yellow, posterior half sepia, except laterally. Second segment subcylindrical, barely narrower in middle than posteriorly with basal fourth a little more flared and widened. This segment five or six times longer than its smallest width, with a pair of quite obscure, brownish yellow spots behind middle. Third, fourth and fifth segments with widely separated, parallel, linear, distinct, yellow vittae. These vittae on third segment end a considerable distance from posterior margin, but reach margin on other segments. A small, distinct, yellow, roughly triangular spot on base of each segment sublaterally, distinctly separated from submedial vittae; these outlying spots on fifth segment linearly continued to end of segment. Segments 4 and 5 emarginate, middles of segments and all remainder, except narrowly along the lateral margin, obscurely opaque. All abdominal pile black.

Holotype male, CHANCHAMAYO, PERU, May 7, 1948, 1200 meters, collected by J. Schunke. Type in the collection of the author.

***Cerotainiops pritchardi* Hull, new species**

Characterized by black head, thorax and light red abdomen. Related to *Cerotainiops abdominalis* Brown but distinguished by the long, prominent, yellowish white bristles of scutellum and by color of hind femur, which is pale red on almost the basal half and the color rather sharply demarcated. From *Cerotainiops wilcoxi* Pritchard (1942) it is distinguished by wholly and uniformly brownish black tibiae and tarsi and anterior four femora, besides reduced area of red color on hind femur. Length 11.5 mm.

Male.—*Head*: black, densely covered with pale pollen, almost whitish, with a slight, brownish yellow tinge. Middle of face below with eight pairs

of long, slender, black bristles, upper half of rather narrow, facial gibbosity with four or five additional pairs of nearly white bristles. Copious fringe of more slender, long, whitish bristles or bristly hairs, laterally, somewhat more recumbent or more sharply directed downward. Proboscis and palpus black, basal pile pale and hairs at end of proboscis brownish yellow. Upper half of face with some long, coarse, appressed pile, except in middle. First and second segments of antenna almost black; third segment black, except the greatly narrowed base, which is as dark as first segment, almost black. First segment with white pile and two or three stout, brownish white, ventral bristles. Second segment with some long, whitish setae, and above and below a single, rather long, stout, conspicuous, black bristle. Ocellar tubercle with one pair of anterior, stout, long, brownish white bristles, behind them two pairs of shorter similarly colored bristles. Upper part of occiput with a transverse row of six or seven stout, brownish yellow bristles on each side. *Thorax*: black; mesonotum largely covered with pale, brownish yellow pollen, an anterior pair of submedial vittae, rather widely separated, ending opposite posterior end of humerus, bare of pollen and dull black. An expanding diagonal stripe reaches nearly to transverse suture from posterior margin of humerus, which is partly included. Transverse suture bordered on each side by pale pollen of mesonotum, on posterior side with an additional, oblique, rather large, bare stripe, which is only narrowly separated from a similar stripe. Whole of scutellum, except margin, which is at most only faintly creased, pollinose. Margin with two pairs of long, rather stout, brownish white bristles, one or two weak, shorter bristles and disc with some scattered, more or less recumbent, coarse, pale hairs. Pile of mesonotum pale and recumbent, oblique posterior stripe behind suture without pile. Pleuron wholly pale yellowish white or brownish white pollinose. Halteres pale brownish yellow, base reddish sepia. Metapleural pile and a stout, mesopleural bristle pale, brownish yellow, almost white. *Legs*: black, feebly shining. Under surface of middle tibia near base dark reddish brown, basal two-fifths of hind femur light brownish red. Claws black with extreme base dark brown. Pulvilli light brown, well developed. *Wings*: not quite hyaline with a slight brown tinge, which disappears on posterior margin. Subcostal vein ends at least midway or beyond that section of third vein which begins at anterior crossvein and ends at furcation of third vein. Villi restricted to a border along second vein and along anterior branch of third vein and a narrow border along first vein, most of pubescence lying distal to anterior crossvein. *Abdomen*: pale brownish red. A narrow, basal band of blackish linearly along anterior margin of first segment, restricted to middle half of this segment. Sternites pale brownish orange with pale pollen and similarly colored pile. Pile of tergites mostly reddish orange, becoming paler along lateral margins. First tergite laterally with two stout, yellow bristles, second to fourth tergites with one or two such bristles. Terminalia brownish orange. Apices of processes black.

Holotype male, SAN FERNANDO, LOWER CALIFORNIA, MEXICO, July 31, 1938, collected by Michelbacher and Ross, deposited in the California Academy of Sciences collections.

***Cophura hurdi* Hull, new species**

A pale brown, pollinose species, which traces to *Cophura dora* Pritchard in Pritchard's key (1943); differing in general coloration. Length 7 mm.

Female.—*Head*: pale brown, thinly covered with brownish or yellowish white pollen; a single oral row of ten slender, distinctly golden red bristles; on remainder of face only a few, fine, much shorter, white hairs restricted to lower two-thirds. Proboscis dark brown, palpus pale brown with similarly colored hairs. Antenna with first two segments pale brown, slightly reddish; third segment black, or blackish sepia; sharply pointed style or microsegment half as long as third segment. Ocellar tubercle with a pair of moderately stout, reddish brown bristles. Upper occiput with a transverse row of seven reddish bristles on either side. Pile on lower half exceptionally fine, whitish and crinkly. Whole occiput brownish white pollinose over a light, reddish brown background. *Thorax*: mesonotum light, reddish sepia brown, rendered paler by greyish white or in part brownish or yellowish white, rather dense pollen. A distinct, sharply demarcated, narrow, dark brown, linear, medial stripe, when viewed from rear, which seems to expand a little posteriorly and which bears a row of fine, short, pale yellow, sparse, acrostical hairs. Dorsocentral bristles weak anteriorly, only about four well differentiated in front of suture, these short; some additional, erect, bristly hairs along anterior margin. A single, prominent, moderately stout, long, reddish bristle behind suture not far from scutellum, two others much more slender and shorter. Lateral bristles moderately prominent, golden reddish or reddish brown; two notopleural, one postsupraalar, one postalar and one pair on scutellar margin. Whole scutellar disc and margin with brownish or yellowish white pollen or micropubescence, a few long, fine, white scattered, suberect hairs on disc. Humerus paler in color, rather light brownish yellow, densely pollinose. Lateral margins to transverse suture also more yellowish. Pleuron of a paler and somewhat more reddish brown color, everywhere densely, pale pollinose. *Legs*: almost entirely light brownish yellow, more or less subtranslucent. Dorsal half of anterior femur, dorsal apex of hind femur continued as a light, smoky brown, rather diffuse and not greatly contrasted dorsolateral streak to base; a similar, narrow streak anteriorly on anterior tibia. Apical half of each tarsal segment apparently slightly more brownish, basal half slightly more yellowish. Pile and bristles of legs chiefly pale yellow. Hind femur slightly and gradually swollen toward apex, apical fourth arched dorsally. Hind tibia distinctly swollen near apex, outer surface more brownish. Apex of anterior tibia with a distinct, curved, black, ventrolateral spine. Apex of middle tibia with a stout, straight, black apical spine, a slightly smaller reddish brown spine beside it. Posterior coxa with a blunt tubercle, without anterior spine. Ventral pile of first two segments of anterior tarsus very fine, dense and erect; similar pile on first two segments of middle tarsus. *Wings*: slender, with very limited, hyaline areas. Basal third to end of radial sector nearly hyaline, a large, irregular, hyaline spot in middle of marginal cell, a smaller spot just beyond base of second submarginal cell, spot on marginal

cell continued narrowly behind in first submarginal cell. Middle of first and second posterior cells more or less hyaline; pale brown clouded areas which remain on wing somewhat accentuated at all crossveins and at fork of third vein. Whole apex of wing moderately brown, with a faintly lighter spot along costa in middle of end of first submarginal cell. First vein parallel with costa for some distance before ending. Base of second submarginal cell simple and acute, third vein forking beyond discal crossvein. *Abdomen*: slender, shining, light brown, with parallel sides and sparse, minute, flat appressed, short, golden hairs which appear brown in some lights. A large, subtriangular spot of pale brownish, almost white pollen on each side of fifth and sixth segments; widely separated on fifth tergite, these spots more narrowly separated on sixth; much smaller, very widely separated, similar spots on seventh tergite; eighth tergite concealed. On curled edge narrowly of first four tergites are elongated, pollinose borders of same color (not visible from above). Sternites similarly colored with numerous, brown flecks where each minute hair emerges, with indications of three narrow, obscure, pale, longitudinal stripes on the otherwise brownish white, pollinose background. Spines of terminalia brownish black.

Holotype female, ANTIOCH, CONTRA COSTA COUNTY, CALIFORNIA, September, 1939, collected by B. Brookman, deposited in California Academy of Sciences collections. Named in honor of Dr. P. D. Hurd, Jr.

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This treats of the bionomics and taxonomy of the Northwest Platypodiidae and Scolytidae. There are keys, descriptions, citations of type localities, distribution, and host plants. In addition to the cited 113 text figs. there is a fig. 13a, and 32 un-numbered text figs.



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