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XXII.—MISS L. E. CHEESMAN'S EXPEDITION TO NEW CALEDONIA, 1949—ORDERS ODONATA, EPHEMEROPTERA, NEUROPTERA AND TRICHOPTERA.

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The collections made by Miss L. E. Cheesman of these Orders of insects were not large in numbers, but in each case they contained additions to the species known to occur in the islands. In the Odonata thirteen species were taken, of which five were new to New Caledonia, bringing the total recorded up to thirty, plus two doubtful records. The Ephemeroptera are but poorly represented by three defective examples, probably referable to the genus *Atalophlebia*, which I believe to be the first of this Order to be recorded from these islands. The Neuroptera make a better showing with seven species, three being new to New Caledonia and bringing the recorded total to nine species. No Trichoptera had been recorded hitherto and Miss Cheesman took seven species, four species and three genera being new to science. The preponderance of Odonata in the fauna as at present known is not surprising, as they are a far more mobile group as a whole, and are well known for their migratory tendencies.

In addition to Miss Cheesman's material from New Caledonia, a few examples of Odonata and Neuroptera in the McLachlan Collection and a single Myrmeleonid of Miss Cheesman's from Lifu (Loyalty Islands) have been studied, and amongst them a new subspecies of the Libelluline dragonfly *Agrionoptera insignis* has been found. Species marked (*) are new to New Caledonia and square brackets indicate material not collected by Miss Cheesman. The types of new species are in the B.M. (N.H.).

ODONATA.

Lestidae.

Austrolestes cheesmanae Kimmins, 1936 (*).

Puébo, Oct., 2 ♂♂, 1 ♀; Nouméa, 2. viii, 1 ♂.
Distribution.—New Hebrides.

These New Caledonian examples differ slightly from the types from New Hebrides. They are variable in size but all slightly smaller, and the thoracic black markings are a little more extensive. The pterostigma is darker brown and the proximal side parallel to the distal. There appears to be no appreciable difference in the anal appendages. Length of abdomen + appendages, ♂ 27–31 mm., ♀ 26 mm. Length of hind wing, ♂ 17–18 mm., ♀ 18 mm.

Megapodagriidae.

Trineuragrion percostale Ris, 1915.

Puébo, Oct., 1 ♂, 1 ♀.
Distribution.—New Caledonia; New Hebrides.

Coenagriidae.

Ischnura delicata Hagen, 1858.

Nouméa, 2. viii, 1 ♂, 1 ♀.
Distribution.—Ceylon to Tahiti.

Ischnura torresiana Tillyard, 1913 (*).

Nouméa, 2. viii, 1 ♂, 1 ♀.
Distribution.—Queensland; Banks Isl. (Torres Strait); New Guinea; New Hebrides.

Agriocnemis exsudans Selys, 1877.

Puébo, ix–x, 21 ♂♂, 5 ♀♀; Banks of St. Louis River, 4. viii, 1 ♂, 1 ♀.
Distribution.—New Caledonia; New Hebrides; Fiji; Samoa.

Agriocnemis vitiensis Tillyard, 1924 (*).

Puébo, ix, x, 8 ♂♂, 2 ♀♀; banks of St. Louis River, 4. viii, 3 ♂♂.
Distribution.—Fiji; Samoa; New Hebrides.

Xanthagrion erythroneurum Selys, 1876 (*).

Nouméa, 2. viii, 1 ♂.
Distribution.—Australia.

[*Xiphiagrion cyanomelas* Selys, 1876.]

Lifu, ♂♂, 1 ♀ ex McLachlan Collection.
Distribution.—Simalur, Engano; Java; Borneo; Palawan; Celebes; Lesser Sunda Is.; Moluccas; Aru Is.; New Guinea; New Britain; New Ireland.

Aeshnidae.

Acanthagyna rosenbergi (Brauer), 1867 (*).

Puébo, Oct., 2 ♂♂, 1 ♀.

Distribution.—Japan; Singapore; Celebes; New Guinea; Aru; Ceram; New Britain; New Hebrides; Banks Isl., Queensland.

Corduliidae.

Hemicordulia oceanica Selys, 1871.

Nouméa, 2. vii, 1 ♀.

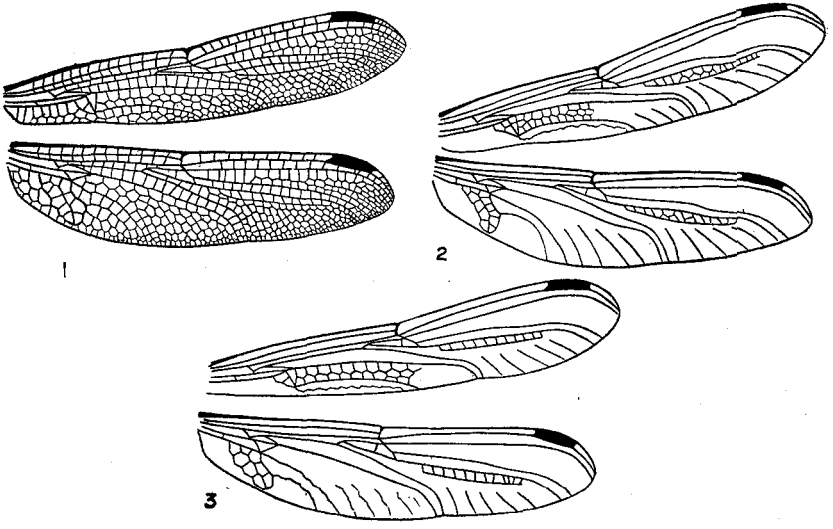
Widely distributed in Oceania.

Libellulidae.

[*Agrionoptera insignis lifuana*, ssp. n.] (Figs. 1–3.)

In 1936 I recorded as *A. insignis similis* 2 ♂♂, 1 ♀ from New Hebrides. I have recently had occasion to examine a series of an *Agrionoptera* from the Loyalty Islands and consider that these examples and those from the New Hebrides belong to an undescribed subspecies of *insignis*. They show affinities with *allogenes* Tillyard, and to a lesser degree with

Figs. 1–3.



Wings of *Agrionoptera insignis* ssp. 1, *lifuana*, ssp. n.; 2, *similis* Selys, Ceram; 3, *allogenes* Tillyard, N. Australia.

similis Selys. In view of the similarity between the three subspecies, I give the differences between them in tabular form (see Table A) rather than by description.

Loyalty Islands: Lifu (a series), Uvéa, 1 ♂, all ex McLachlan Collection.

NEW HEBRIDES: Bank Island, Vanua Lava, xi. 1929, 1 ♂; N.E. Malekula, vii. 1929, 1 ♀, *Miss L. E. Cheesman;* Aneityum, 1 ♂; Havanneh Hr., *Mathew.* 1 ?

Holotype ♂, allotype ♀ from Lifu. The New Hebrides examples are slightly smaller than those from the Loyalty Islands, and the neuration in consequence appears slightly denser, but this is partly due to difference in size.

Orthetrum caledonicum (Brauer), 1865.

Puébo, 10. ix, x, 2 ♂♂; Nouméa, 2. viii, 1 ♂.

Distribution.—New Caledonia; Loyalty Islands; New Hebrides; Australia.

Diplacodes bipunctata (Brauer), 1865.

Nouméa, 2. viii, 4 ♂♂, 7 ♀♀; banks of St. Louis River, 4. viii, 1 ♀.

Widely distributed in Oceania, New Zealand, Australia.

Diplacodes haematodes (Burmeister), 1839.

Puébo, ix, 1 ♀.

Distribution.—New Hebrides; New Caledonia; New Guinea; Australia.

Tramea limbata Desjardins, 1832.

Nouméa, 2. viii, 1 ♀.

Widely distributed in Oceania, Australia, India, Indian Ocean, Africa.

TABLE A.

A. insignis similis Selys.	*A. insignis lifuana*, ssp. n.	*A. insignis allogenes* Tillyard.
FORE WING:		
M_2 and *Rs* distinctly sinuous in outer half, generally with some divided cells between *Rs* and *Rspl.*	scarcely sinuous, and with only one row of cells	scarcely sinuous, and with only one row of cells
Triangle narrow, generally traversed	broader, either traversed or free	broader, free
2–3 rows of cells in discoidal field at triangle, sometimes followed by two rows as far as base of bridge	2 rows of cells to level of bridge	2 rows of cells to level of nodus
2–3 rows of cells between Cu_2 and anal margin	1–2 rows of cells	1 row of cells
Inferior triangle with 2 or more cells	2 (exceptionally 3) cells	2 cells
HIND WING:		
Length, ♂ 30–34 mm.	30–36 mm.	27 mm.
Cu_2 strongly arched	feebly arched	feebly arched
Anal loop well formed	well formed	rather weak
Wing near base moderately broad	moderately broad	rather narrow
Both wings at base slightly to moderately saffroned	bases hyaline	bases hyaline or slightly saffroned
♂ ABDOMEN:		
Tergites 3–7 red-brown, apical margins at most very finely bordered with black, 8–10 black, or at most with a small red spot at base of 8	3–7 red-brown as in *similis*, or with apical margins somewhat bordered with black, 8–10 as in *similis*	3–7 with apical margins progressively more bordered with black, 8–10 black

EPHEMEROPTERA.

Leptophlebiidae.

? *Atalophlebia* sp. (*).

Nouméa, 2. viii.

Two ♂♂ imagines and one ♀ subimago, both ♂♂ lacking legs and one the apex of its abdomen, are referred doubtfully to this genus, which has a recorded distribution of Ceylon, Australia, New Zealand and Chile.

NEUROPTERA.

Myrmeleonidae.

Eidoleon bistrigatus (Rambur), 1842.

Loyalty Islands: E. Lifu I., Cap des Pins, 18. xi. 1949–18. i. 1950, 1 ♀, Miss L. E. Cheesman.

Distribution.—Australia; Fiji; Society Islands; Tuamotu Islands; Hawaii; New Hebrides.

Hemerobiidae.

Notiobiella multifurcata Tillyard (1916 (*).

Mt. Tinchialit, 21. ix–3. x, 1 ♀; [Bâ Bay, 12. vii. 1914, P. D. Montague] 1 ♀.

Distribution.—Queensland.

Eumicromus navigatorum (Brauer), 1867 (*).

Puébo, x, 2 ♀♀.

Distribution.—Samoa; Fiji; New Hebrides; Australia; Hawaii.

Chrysopidae.

Nothochrysa chloromelas (Girard), 1862.

Nouméa, 2. viii, 1 ♀; [Lifu, 3 ♂♂].

Distribution.—Loyalty Islands; New Caledonia; New Hebrides; Solomon Islands; Queensland.

[*Chrysopa innotata* (Walker), 1852.]

Lifu, 7 examples.

Distribution.—Australia; Samoa; Tonga; New Hebrides.

[*Chrysopa oceanica* (Walker), 1853.]

Lifu, 1 example.

Distribution.—Hawaii; Samoa; New Hebrides; Society Islands.

Chrysopa otalatis Banks, 1910.

Banks of St. Louis River, in reeds, 7. viii, 23 examples; Puébo, Oct., 1 example.

Distribution.—Australia; New Caledonia; New Hebrides; Samoa; Marquesas.

Chrysopa matsumurae Okamoto, 1914 (*).

Puébo, Oct., 1 example.
Distribution.—Japan, New Hebrides.

Chrysopa noumeana Navàs, 1910.

Mt. Tinchialit, 2,020 ft., 21. ix.–3. x, 1 ♂.
[Lifu, 1 ♂].
Distribution.—New Caledonia.

Chrysopa spp.

Banks of St. Louis River, 7. viii, 2 examples.

Synthochrysa montrouzieri (Girard).

Hemerobius stigma Girard, 1862, Ann. Soc. ent. Fr. (4), **2**, 609, pl. 9, figs. 6, 6 a.
Hemerobius montrouzieri Girard, 1862, *op. cit.*, 611.
Apochrysa stigma McLachlan, 1863, Journ. Ent., **2**, 114.
Synthochrysa stigma Needham, 1909, Rec. Ind. Mus., **3**, 202.
Synthochrysa montrouzieri Kimmins, 1936, Ann. Mag. N.H. (10), **18**, 83 (not New Hebrides examples).

Since the publication of my paper (1936) on Miss Cheesman's New Hebrides Expedition, the B.M. (N.H.) has acquired the McLachlan collection of Neuroptera, and in it were some examples of *S. montrouzieri* from the type locality, Lifu. These agree even better with Girard's figures of *H. stigma* than do the New Hebrides specimens, and I think that there can be no doubt that Miss Cheesman's specimens were wrongly identified and belong to a different species, which I describe below.

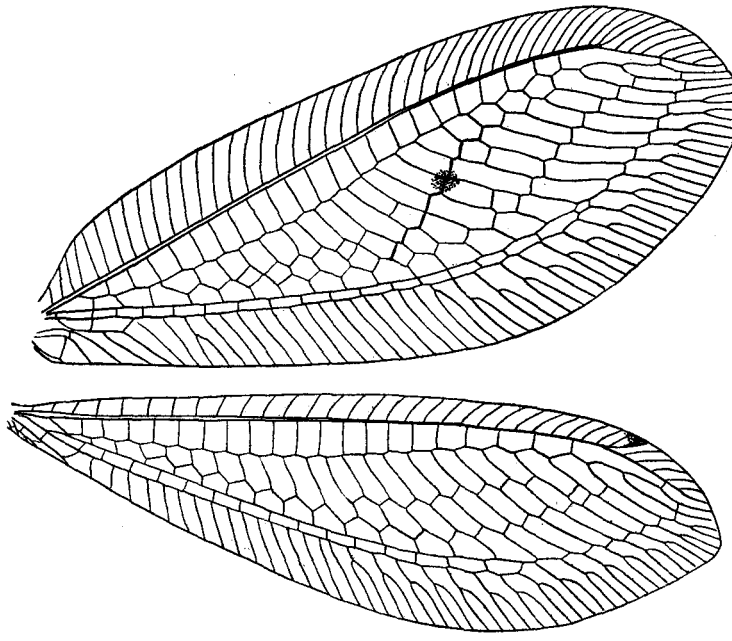
Synthochrysa cognata, sp. n. (Fig. 4.)

Synthochrysa montrouzieri Kimmins (*nec* Girard), 1936, Ann. Mag. N.H. (10), **18**, 83 (New Hebrides).

Head yellow, antenna with basal segment large, marked externally with a small brown spot apically, second to sixth segments also marked with brown externally, remaining segments pale fuscous. Palpi dull yellowish. Pronotum slightly longer than broad, anterior angles rounded, yellowish, with two pairs of oblong, reddish brown spots, one spot on each anterior lateral border, the other pair on the basal half, one on each side, about halfway between the lateral border and the central line. Meso- and metathorax yellowish. Legs yellowish, tarsal claws brown. Abdomen yellowish, somewhat discoloured. Wings hyaline, a brown spot in the centre of each anterior, and another smaller spot at the apex of the subcosta of each posterior wing. Venation yellowish, the inner gradate series dark brown where it traverses the anterior wing obliquely. In the anterior wing the costal cross-veins are more numerous and denser than in *S. montrouzieri*, and there is an additional row of cross-veins in the discal area basad of the wing-spot. The wings are slightly broader and the venation is denser.

Length of fore wing, 20 mm.

Fig. 4.



Synthochrysa cognata, sp. n. Wings.

New Hebrides: Erromanga, vii. 1930, 1 ♂, 1 ♀; Malekula, iii. 1930, 1 ♂; Malekula, Ounua, iii–iv. 1929, 1 ?, Miss L. E. Cheesman.

Type ♂, Erromanga. In addition to the venational differences listed above, *S. cognata* differs in the presence of two pairs of red-brown spots on the pronotum.

TRICHOPTERA.

Rhyacophilidae.

Xanthochorema, gen. n. (Fig. 5.)

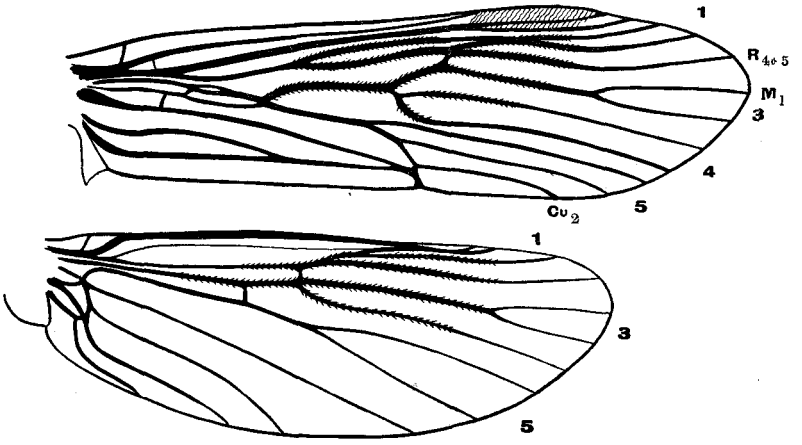
Spurs 0, 4, 4, anterior tibia in ♂ fringed with short setæ on its inner surface. Wings elongate, anterior with a very narrow discoidal cell; venation a little obscure but apparently with apical forks Nos. 1, 3, 4 and 5 present. Cu_1 is fused basally with M for a short distance and at its separation from it is joined for a longer distance by Cu_2. In the posterior wing the discoidal cell is absent; Sc is very strong and R_1 almost obsolete, running into R_2. Apical forks Nos. 1, 3 and 5 present.

Type-species, *Xanthochorena caledon*, sp. n.

In general characters this genus belongs to the *Psilochorema* group of genera, most of which belong to the Australian and New Zealand faunas.

Apsilochorema has a range extending from Fiji into the Asiatic mainland, but from this genus *Xanthochorema* is distinguished by the absence of spurs on the fore tibia, of any emargination of the apex of the fore wing of the ♂ and of apical fork No. 2 in this wing. It is possible that the

Fig. 5.



Xanthochorema caledon, sp. n., ♂. Wings.

vein M_1 may in fact be R_5+M_1, in which case the cell immediately above fork 3 would be fork 2. The position is further confused by the absence in both wings of the facetic spots which so often give a clue to the position of fork No. 2.

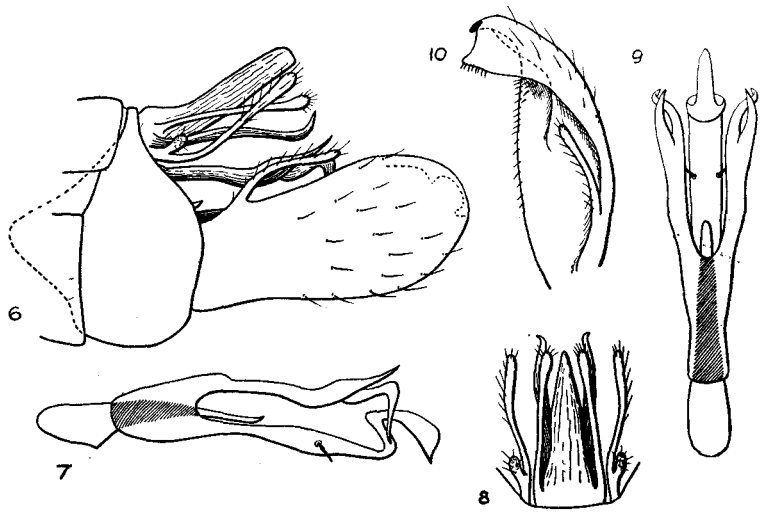
Xanthochorema caledon, sp. n. (*). (Figs. 6–10.)

♂. Head yellow, with golden pubescence. Antennæ yellowish at base, gradually darkening to brownish apically. Palpi yellowish. Pronotum yellow, meso- and metathorax fulvous or brownish. Legs yellowish. Abdomen brownish, genitalia fulvous. Anterior wing long and narrow, with dense golden pubescence and some longer, upstanding, golden and brown hairs on the veins near the base. Main veins rather stout, the branches of *Rs* and the stem and branches of *M* in the disc of the wing noticeably so, and bearing on their undersurfaces a fringe of short setæ. Posterior wing yellowish hyaline, veins pale, *Rs* and *M* similarly adorned with short setæ on the undersurfaces.

Genitalia.—Lateral filaments to the fifth sternite and a short, pointed process to the sixth. Eighth segment short. Ninth segment large, narrowing dorsally to a slender bridge. Superior appendages arising from the upper lateral margins, each long, slender and slightly upcurved, with a small, ovate, hairy process on its upper surface at the base. Tenth segment about as long as superior appendages, membranous, rather narrow

and in dorsal view tapering from base to apex. At its base, on each side, are two processes, each as long as the tenth segment. The upper of these is slender, its slightly dilated apex bearing a few setæ and the lower spiniform, its acute apex curved upwards and slightly outward. Penis short, spiniform, with a stout base. Encircling it is a structure (probably fused penis-sheaths) divided into an upper and a lower portion. The upper is deeply excised, each branch being spiniform and itself forked near the apex, outer fork acute, directed tailward, inner less sclerotized

Figs. 6–10.



Xanthochorema caledon, sp. n., ♂. Genitalia. 6, lateral; 7, penis and sheaths, lateral; 8, 10th segment and superior appendages, dorsal; 9, penis and sheaths, dorsal; 10, left inferior appendage, dorsal.

and hooked downwards. The lower part of the fused sheaths projects in a long narrow lobe beneath the penis; the apical part is semi-membranous and in side view is sinuously bent before dilating into a laterally compressed acute apex. There is a short spine on each side before the apex. Inferior appendage large, from the side rather deep, with a rounded, incurved apex bearing two blunt teeth. The upper and lower margins of the appendage are also incurved, the former with a long, slender branch arising near the base.

Length of fore wing, 9·5 mm.

N. New Caledonia: Mt. Tinchialit, 2,020 ft., 22. viii–10. ix, 1 ♂, *L. E. Cheesman*.

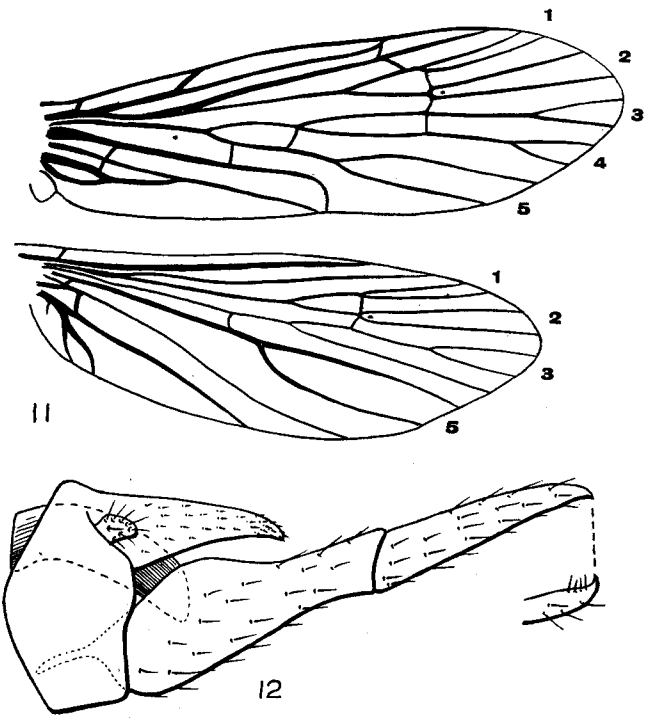
Type mounted as microscope preparations, one fore and one hind wing defective.

Philopotamidae.

Hydrobiosella uncinata, sp. n. (*). (Figs. 11–12.)

The unique male is in indifferent condition and has been made into a microscope preparation. General colour brownish, head with dense golden and brownish pubescence. Antennæ (incomplete) stout, with golden pubescence and finely annulated with brown. Palpi dark brown. Eyes with sparse short pubescence. Legs brownish. Wings yellowish hyaline, anterior with brownish and golden pubescence, the latter forming numerous small spots. Wings narrower than in *H. stenocerca*, apical forks Nos. 3 and 4 in anterior as long as their footstalks.

Figs. 11–12.



Hydrobiosella uncinata, sp. n., ♂. 11, wings; 12, genitalia, lateral, with inset of apex of terminal segment of inferior appendage from above.

Genitalia ♂ similar in pattern to *H. stenocerca*. Ninth segment with its dorsal margin excised, its centre fused to the elongate, triangular, hoodlike tenth segment. At the base of the tenth segment on each side is a small wart-like process, more distinct than in *stenocerca*. Penis tubular; within it, in a cleared example, can be seen a membranous structure bearing a mass of fine setæ. Inferior appendage two-segmented, slender,

segments of about equal length, gradually tapering from base to apex, the extreme tip incurved and forming a small hook. Inner surface of basal segment bearing a number of short, stiff setæ.

Length of fore wing, 3·75 mm.

N. New Caledonia: Puébo, 0–1,500 ft., x. 1949, 1 ♂, *L. E. Cheesman.*

As already stated, the genitalia of this species resembles that of *H. stenocerca*, but differs in the relative proportions of the segments of the inferior appendages, in *stenocerca* the basal being about twice as long as the terminal.

Hydropsychidae.

Hydromanicus sp. ♀ (*).

Banks of St. Louis River, 7. viii, 1 ♀ in poor condition. The genus occurs in Asia and Australia.

Hydropsyche sp. ♀.

Mt. Tinchialit, 2,020 ft., 22. viii–10. ix, 1 ♀.

The genus has a world-wide distribution.

Cheumatopsyche sp. ♀.

Puébo, 1–1,500 ft., x, 1 ♀.

The genus has a world-wide distribution.

Caledopsyche, gen. nov.

Spurs 2, 4, 4, median tibiæ of ♀ moderately dilated. In the anterior wing apical forks Nos. 1, 2, 3, 4, and 5 present, discoidal and median cells also present; wing-coupling mechanism consisting of a small thickening of 1 *A* about midway between the arculus and the fusion of 1 *A* and 2 *A*, bearing on its lower surface about four short, stout bristles. In the posterior wing only apical forks 2 and 5 are present, both branches of the media being unforked; discoidal cell present, median cell absent. ♂ genitalia of the usual *Hydropsyche* pattern, but terminal segment of inferior appendage considerably longer than basal. In the ♂ there is a pair of elongate, internal sacs, opening by narrow tubes on the fifth sternite, represented in the ♀ by very small rounded sacs.

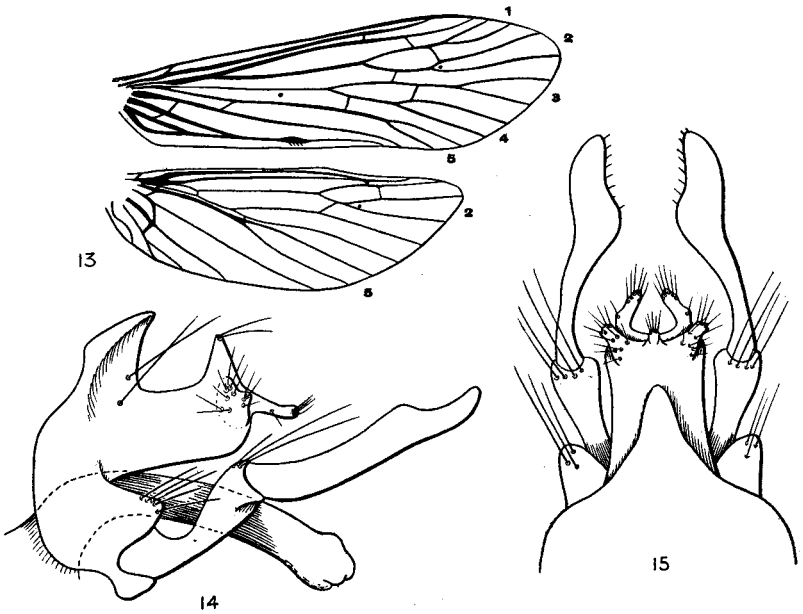
Type-species, *Caledopsyche cheesmanae*, sp. n.

This genus differs from all other Hydropsychinae known to me in the absence of fork No. 3 in the posterior wing. It can scarcely be an abnormality as it is lacking in all the three examples before me. The form of the wing-coupling device links this genus with the *Hydropsyche-Hydropsychodes-Cheumatopsyche* group of genera.

Caledopsyche cheesmanae, sp. n. (*). (Figs. 13–16.)

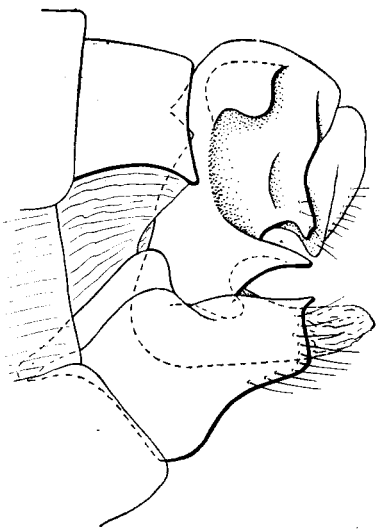
General colour brownish yellow, with golden pubescence. Antennæ luteous, with brownish annulations. Wings hyaline, anterior with brownish and golden pubescence, the latter forming small irrorations. **Venation** as figured.

Figs. 13–15.



Caledopsyche cheesmanae, sp. n., ♂. 13, wings ; 14, genitalia, lateral ; 15, genitalia, dorsal.

Fig. 16.



Caledopsyche cheesmanae, sp. n., ♀. Genitalia, lateral.

♂. Opening on the fifth abdominal sternite through narrow tubes are a pair of elongate, sac-like bodies, rather longer than the segment, rounded at each end and slightly constricted at the middle. Ninth segment with its dorsal margin produced in a narrow, pointed process. Side-pieces large, triangular. Tenth segment fused to the ninth, forming a large hood. The centre of its apical margin is strongly and conically produced upwards, on each side of which is a wart-like process, and between these warts the margin projects in a pair of incurved fingers. Penis long, slender, down-curved, slightly dilated at its apex, the lateral margins here forming the sides of a trough. Inferior appendage with a short, sinuous, basal segment, about two-thirds as long as the terminal. From the side the latter is sinuous, particularly its upper margin ; from above it is slender in its basal half, with an obliquely truncate and dilated apex.

♀. A pair of minute rounded sacs within the 5th segment. Eighth sternite divided mesally to form a pair of plates, set on edge, in side-view produced to a truncate apex with its upper angle acute. Ninth tergite with a large clasper receptacle, whose lower, outer margin forms a rounded lobe ; clasper groove shallow ; lateral lobes of tergite acutely pointed. Ninth tergite and 10th segment largely membranous.

Length of fore wing, ♂ 4·6 mm., ♀ 5 mm.

N. New Caledonia : Puébo, 0–1,500 ft., x. 1949, *L. E. Cheesman*, 1 ♂, 2 ♀♀.

Holotype ♂ (mounted as microscope preparation) allotype ♀ (abdomen mounted in Canada balsam).

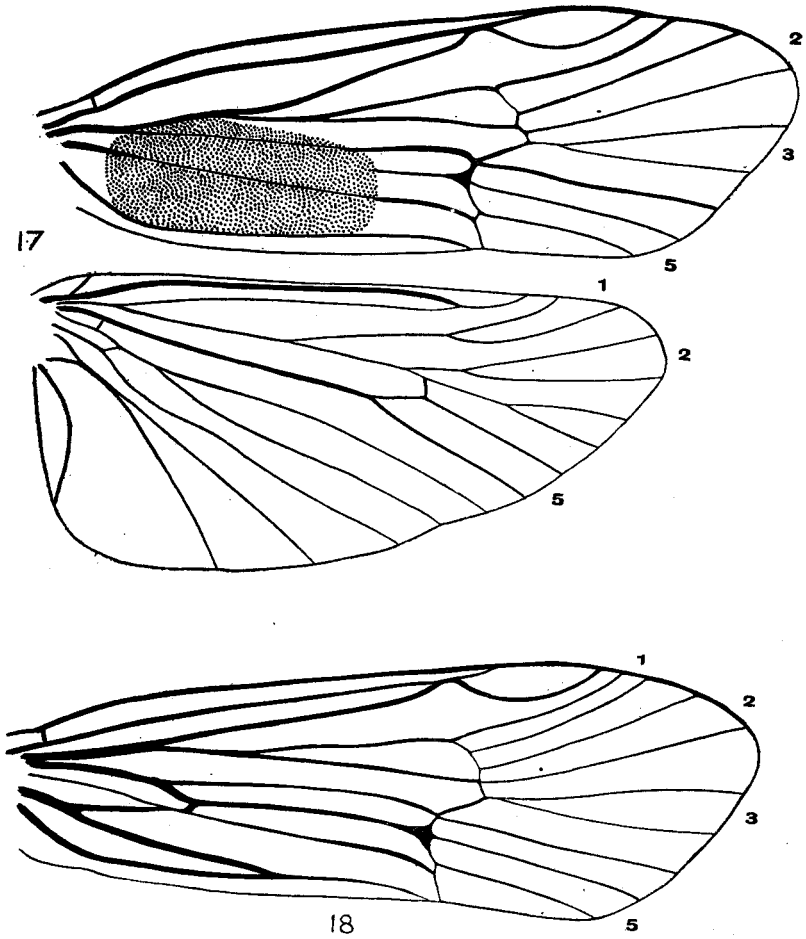
Sericostomatidae.

Mecynostomella, gen. nov. (Figs. 17–20.)

Spurs 2, 4, 4. Ocelli absent. Antennæ stout, basal segment short, simple. Mouthparts unusually produced in a long rostrum, about twice as long as head, at rest apparently carried folded back beneath the head. The rostrum is composed of the fused maxillæ and labium, which bears a longitudinal furrow on the upper surface, the furrow being covered by the long blade-like labrum, whose apex is slightly dilated. The cardo and stripes of the maxilla are much elongated, so that the palpi (which are three-segmented in the ♂) arise at about two-thirds from the base of the rostrum. The second segment is nearly twice as long as the basal, the third nearly twice as long as the second. Labial palpi about as long as maxillary, basal and second segments about equal in length, third rather longer. At the tip of the rostrum, between the labial palpi are two setiferous lobes, and between them is a membranous structure containing two sinuous tubes, composed of incomplete chitinous rings. The bases of these tubes open into a tube formed by the labrum and the channel on the rostrum, and they no doubt function in sucking nectar or other liquids in a manner similar to the tubes in the tongue of a blow-fly (*Calliphora*).

♂. Anterior wing with forks Nos. 2, 3 and 5. A large patch of modified hairs in the basal half of wing, bordered anteriorly by *R* and *Rs* and posteriorly by the anal veins. These modified hairs are tightly packed,

Figs. 17–18.

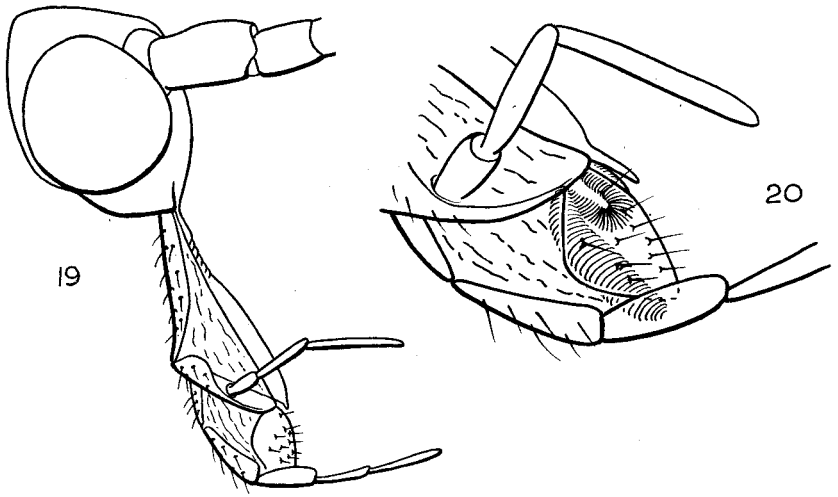


Mecynostomella fusca, sp. n. 17, wings ♂; 18, anterior wing ♀.

light chocolate-brown in colour, and when highly magnified have the appearance of small, narrow cones attached to the membrane by their apices, their bases obliquely truncate. Their surfaces are finely ridged

and fringed. Subcostal area rather wide. R_1 runs into *Sc* just basad of the pterostigma and then diverges from it in a wide concave sweep, enclosing the pterostigma. Discoidal cell closed. In posterior wing forks Nos. 1, 2 and 5 present. R_1 terminates in *Sc* near apex. Discoidal cell absent. *M* fused with *Rs* until beyond the fork of the sector, arising from R_{4+5}.

Figs. 19–20.



Mecynostomella fusca, sp. n., ♂. 19, head, lateral; 20, apex of rostrum, more enlarged.

♀. Wings as in ♂ with the exceptions that in anterior wing there is no patch of modified hairs, the subcostal area is not widened and there is an additional apical fork present (Nos. 1, 2, 3 and 5).

Type-species, *Mecynostomella fusca*, sp. n.

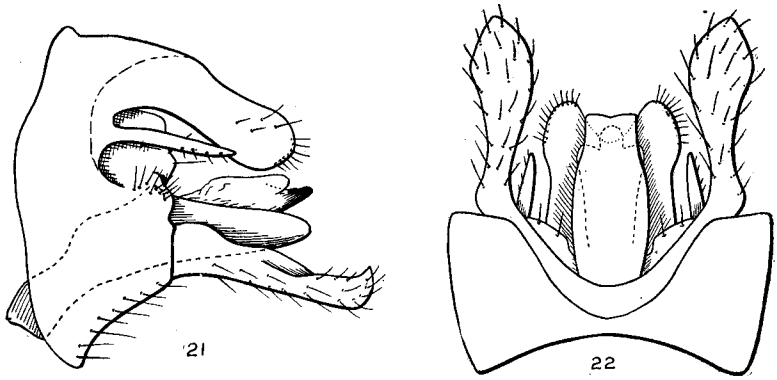
The prolonged mouth-parts of the type-species are very striking and should be an easily recognized character. The partial fusion of *M* with *Rs* in the posterior wing is another feature occurring in both sexes and finally there is the presence of the large patch of modified hairs in the anterior wing of the male.

Mecynostomella fusca, sp. n. (*). (Figs. 21–24.)

♂. Head warm fuscous, face and mouth-parts paler. Vertex slightly elevated and triangular. Antennæ dark fuscous, paler near base. Pronotum warm fuscous, meso- and metanota shining fuscous. Abdomen dark fuscous, with paler appendages. Anterior wing moderately elongate, membrane fuscous, in the two males examined rather sparsely clothed with fuscous pubescence. A light chocolate-brown patch of modified hairs as detailed in generic diagnosis. Posterior wing pale smoky hyaline, with sparse fuscous pubescence,

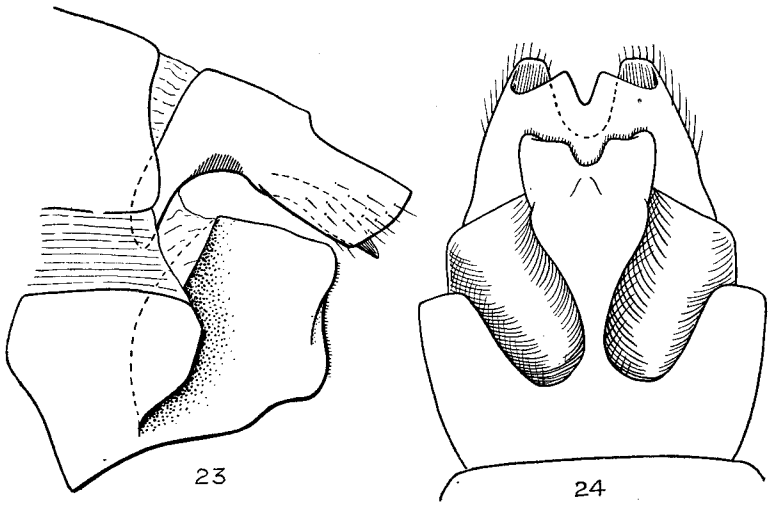
Genitalia.—Dorsal margin of ninth segment triangularly produced apically and fused with the tenth segment. Ventral margin deeply and widely excised. Tenth segment forming a bilobed hood, lower basal angle on each side produced in a slender acute finger about three-quarters

Figs. 21–22.



Mecynostomella fusca, sp. n., ♂. Genitalia. 21, lateral; 22, ventral.

Figs. 23–24.



Mecynostomella fusca, sp. n., ♀. Genitalia. 23, lateral; 24, ventral.

of the length of the hood. Beneath this hood at the base is a thin transverse plate. Penis with a sclerotized tubular basal part, very obliquely truncate from the side, its apex very slightly excised from beneath. From within the tube projects a membranous structure, probably extensile, whose apex is more sclerotized and trilobed. Inferior appendages

single-segmented, their inner basal angles fused. From beneath, their bases line the excision of the ninth segment, each appendage being somewhat clavate apically. The upper surface is a little concave and the apex upturned.

♀. Rather larger than the male. Body-colouring similar. In colour of wings there appear to be two forms. One has the anterior wings dark fuscous, as in the ♂ but more densely pubescent, the other has the pubescence reddish brown, with a sprinkling of golden hairs. In both forms there is a narrow transverse paler line at the anastomosis. Posterior wing as in ♂.

Genitalia.—Ninth tergite and tenth segment fused to form a tubular piece, from above broad and flattened, dorsal apical margin deeply excised to make two truncate lobes, ventral margin rounded, with a smaller median excision. From the side the tubular piece is rather hood-like, with a shallow clasper receptacle on each side at the lower basal angle. Ninth sternite fused to eighth. From beneath there is a large deep impression on each side, so that the apical margin appears to be widely excised, its centre produced in a short slender stem, which dilates to a truncated and excised apex. From the side this produced portion is roughly quadrate.

Length of fore wing, ♂ 11 mm., ♀ 13 mm.

N. New Caledonia: Mt. Tinchialit, 2,020 ft., 22. viii–10. ix, at light, *L. E. Cheesman*, 2 ♂♂, 5 ♀♀.

Holotype ♂, allotype ♀ mounted as microscope preparations.

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