NOTES ON AUSTRALIAN CICADIDÆ.

By Howard Ashton.

(Plate vii).

Division THOPHARIA.

Sub-family CICADINE.

Genus Arunta, Distant.

ARUNTA FLAVA, sp. nov.

(Plate vii., figs. 1 and 2).

Head.—Bright yellow, frontal fascia between eyes, four contiguous spots over front, region of ocelli and hind margins of vertex black. Front depressed and invisible from above.

Pronotum.—Bright yellow, two central fasciæ joining at hind and fore borders, and incisures black.

Mesonotum.—Yellow, two inner short ob-conical spots, two outer longer fasciæ black margined with light castaneous, two spots before cruciform elevation joining a stout central longitudinal spear-shaped stripe, not reaching anterior margin, black.

Tegmina.—Transparent, hyaline, immaculate, venation bright ochraceous merging on apices into warm brown. Wings similar, slightly milky on anal area.

Abdomen &.—Black, margined with light castaneous, tympanal coverings characteristically sac-like and covered with white tomentum. Anal segment also covered similarly. Abdomen below & black, bordered with brown, anal plate yellow; & yellow with central thin, transverse, black fasciæ. & abdomen above light castaneous with central transverse black fasciæ on first six segments.

Measurements.—Length of body, ₹ 30 mm.; ♀ 29 mm.; expanse of tegmina, 90 mm.

Obs.—Differs from A. interclusa, Walk., in its lighter colour, smaller size, less produced front to head, powdered white penultimate segment and unspotted tegmina.

Hab.—Rat Island, Port Curtis, Queensland, and Tweed River, New South Wales.

Division HEMIDICTYARIA.

Sub-family TIBICININE.

Genus Lembeja, Distant.

LEMBEJA AUSTRALIS, sp. nov.

(Plate vii., fig. 3).

Colour .- Above fuscous or fuscous reddish.

Head.—Small, front angularly produced, rostrum tipped with black, barely reaching intermediate coxe.

Pronotum and mesonotum.— Mottled with dark brown. Black stripe runs over the cruciform elevation as far as hind margin of first abdominal segment in δ ; in Q is continued along the dorsal ridge of abdomen.

Abdomen.—In \mathcal{J} inflated a little, the dorsal apices of the abdominal segments being tremendously produced into a series of overlapping spines which are curved back along abdomen and reach beyond its apex. Opercula nearly obsolete. Tympana very large and fully exposed.

Tegmina.—Opaque, reddish or brownish-grey, venation fuscous and interrupted giving the effect of dotted lines. Wings milky.

Measurements.—Length of body ♂ 22 mm., ♀ 19 mm.; expanse of tegmina, 56 mm. to 58 mm.

Obs.—This is the first species of the genus described from Australia. Several other species have been described from New Guinea, Celebes and Thursday Island.

Hab.—Cape York, North Queensland. Collected by Mr. H. Elgner.

Genus LARRAKEEYA, gen. nov.

Head.—Small, about half the width of pronotum. Front deeply sulcated, rostrum short, barely reaching intermediate coxe; ocelli nearer to eyes than to each other.

Pronotum.—Anteriorly as wide, posteriorly twice as wide as head, posterior margin narrow and rounded over the base of the costa. Mesonotum from cruciform elevation to anterior margin

equal in length to head and pronotum together, a little broader than pronotum. Tympana small, tympanal openings narrow; opercula triangular, separate.

Abdomen. - As long as head and thorax.

Tegmina.—Costa sharply arcuate in centre, basal area as long as broad; twice as long as broad at widest point, ulnar veins joined as in Melampsalta, before basal area. Immensely wide first and third discoidal cells, divided by a very long, narrow discoidal second. Eight apical areas all very short. Wings with six apical areas.

LARRAKEEYA PALLIDA, & sp. nov.

(Plate vii., fig. 4).

Head.—Pale ochraceous; eyes and ocelli red.

Pronotum, mesonotum, and abdomen.—Pale ochraceous, beneath pallid, no markings above or below.

Tegmina.—Milky, semi-transparent, neuration pallid-ochraceous save for apical third of costa, which is red. Wings milky, venation pallid.

Measurements.—Length of body 20 mm.; expanse of tegmina 54 mm.

Obs .- Q not known.

Hab.—Lawler, Western Australia.

Division MELAMPSALTRARIA.

Genus Melampsalta, Amyot.

MELAMPSALTA VIRIDICINCTA, sp. nov.

(Plate vii., fig. 5).

Head.—Black, spot behind ocelli, spots above antennæ, stripe down centre of face and borders of face narrowly ochraceous.

Pronotum.—Fuscous, wider than head, incisures and central fascia black, within central black fascia a central short ochraceous stripe. Mesonotum black, two central, inwardly angulated contiguous stripes, lateral edges of scutellum and borders of cruciform elevation fuscous yellow.

Abdomen.—Black, laterally fuscous and greyishly-pilose margined with green on segmental borders. Below, a central, prominent shining black spot between the opercula, which are large and greyish-ochraceous. Abdomen below greyish-testaceous with central black fascia broadening towards apex but ending at anal plate, which is light-testaceous.

Tegmina.—Hyaline; costa fuscous margined with black, apically black; venation deep fuscous merging into black at apex. Wings hyaline, neuration fuscous,

Measurements.—Length of body 13 mm. to 14 mm.; expanse of tegmina, 32 mm. to 34 mm.

Obs. - Allied to M. incepta, Walk.

Hab .- Perth, Western Australia.

MELAMPSALTA LANDSBOROUGHI, Distant.

Melampsalta landsboroughi, Distant, Proc. Zool. Soc., 1882, p. 131; Goding and Froggatt, Proc. Linn. Soc. N. S. Wales, xxix., 1904, p. 639.

Melampsalta telxiope (nec. Walk.), God. and Frogg., Loc. cit., p. 642.

MELAMPSALTA LANDSBOROUGHI, var. CONVERGENS,

God. and Frogg.

Melampsalta convergens, God. and Frogg., Proc. Linn. Soc. N. S. Wales, xxix., 1904, p. 633.

Obs.—Judging from the determinations of Messrs. Goding and Froggatt in the Macleay Museum Collection, these authors have been misled by the very variable form, both in size and colour of the \$\mathcal{Z}\$, and in the case of their classification of \$M\$. telxiope, Walk., by reliance on a very faded \$\mathbb{Q}\$ specimen, which does not at all agree with their description. The \$\mathbb{Q}\$ of \$M\$. landsboroughi varies in colouration even more than the \$\mathref{Z}\$. In addition to the typical form described by Distant we have at least one well-marked variety. But for the extreme minuteness of \$M\$. murrayensis, Dist, \$1\$ would feel inclined to include it as a variety. Leaving it out, however, we find Distant's typical form, with a honey-coloured abdomen, above which runs the broad, characteristic black stripe. The head and thorax are black for the most-part, with markings of fuscous or ferruginous.

The second form, *M. convergens*, God. and Frogg., which I propose to reduce to varietal rank, loses the black colouration of the thorax and head, which carry a number of black markings upon a background of greenish-fuscous. This variety is found in the damp ground near creeks and lagoons on the east coast of New South Wales. It is generally smaller than the typical form. It may be found on the edge of a lagoon, while, one hundred feet up one of the enclosing hills the typical form is found. The abdomen is of a paler yellow than that of the original species. A faded Q of this variety is Goding and Froggatt's *M. telxiope*, Walk., in the Macleay Museum. The size of the species varies from 15 mm. to 25 mm. in length, and the wing-expansion from 38 mm. to 62 mm.

MELAMPSALTA MARGINATA, Leach.

Tettigonia marginata, Leach, Zool. Misc., 1814, p. 89, pl. 39, fig. 1.

Melampsalta marginata, Stäl., Ann. Soc. Ent. France (4), i., 1861, p. 619; Distant, Syn. Cat. Homopt. Cicad., 1906, p. 170.

· Cicada themiscura, Walk., List. Hom., i., 1850, p. 181.

Melampsalta themiscura, Stäl, Öfv. Vet. Ak. Förh., 1862, p. 484.

Melampsalta fletcheri, God. and Frogg., Proc. Linn. Soc. N. S. Wales, xxix., 1904, p. 640.

Genus Pauropsalta, Goding and Froggatt.

PAUROPSALTA ANNULATA, God. and Frogg.

Panropsalta annulata, God. and Frog., Proc. Linn. Soc. N. S. Wales, xxix., 1904, p. 620.

Pauropsalta encaustica, Distant, Syn. Cat. Homopt. Cicad., 1906, p. 178.

Obs.—The two species, though somewhat similar, cannot be mistaken by any field collector. The resemblance is stronger in the Q forms than the \mathcal{J} . Distant has been probably misled either by examination of the Q or else by an error of the authors in sending to him specimens of P. encaustica labelled P. annulata. P. encaustica is a very old species of Germar's.