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vague resemblance to the palmar aspect of a clenched left hand suggested the name of,—

PUGNUS, *gen. nov.*

By its thrice folded columella, anterior canal, thickened outer lip, and sculpture of spiral grooves crossed by transverse striæ, this very distinct genus takes a place in the family Ringiculidæ. From the only other surviving genus *Ringicula*, *Pugnus* is separated by its involute shell and buried spire. In the shortness of the spire the Cretaceous fossil *Avellana* occupies a position intermediate between these two. Its contour is however more globose, and those subordinate groups which agree with *Pugnus* in possessing a smooth lip, appear to differ by having one columella plication only. The type and only species is,—

PUGNUS PARVUS, *sp. nov.*

Shell minute, white, solid, oblong, involute, spire buried, imperforate at either extremity, the posterior of the inner portion of the last whorl obliquely sloped. Sculptured by about thirty spiral grooves, whose interstices are three times their breadth, and are cut by longitudinal striæ into squarish facets. Aperture as long as the shell, vertical, contracted in the middle, expanded anteriorly and posteriorly, inner lip overlaid with callus; outer lip smooth, greatly thickened externally and internally, springing from a false umbilicus in the vertex, arched higher than it, arcuate peripherally, curving below the whorl up to the columella and channelled at the junction; anteriorly the columella bears a strong entering fold, posterior and parallel to which is a weaker one, and posterior to this again a small deeply-seated third fold is just distinguishable. Length, $1\frac{1}{2}$; breadth, 1mm. Animal unknown.

Loc.—Manly, near Sydney, alive, at low tide on rocks, and dead in shell sand from Middle Harbour. (A. U. Henn).

Type.—Australian Museum, C. 2524.

DESCRIPTION OF A *DAPANOPTERA* FROM AUSTRALIA.

By FREDERICK A. A. SKUSE.
(Entomologist to the Australian Museum).

In the present contribution it appears advisable that it should be prefaced by an explanation of the reason why scientific names and descriptions, which the majority of the public does not seem to quite understand, are published in the manner they are, and why such a course is necessary to the end for which they are written.

It is frequently asked "Why do you naturalists put long-winded Latin or Greek names to your specimens?" "Why not do so in plain English?" This is, however, not so easily complied with as may be imagined, and where done, it is in many cases, only calculated to mislead. Popular names are usually bestowed upon objects existing in nature by local consent and usage: that is by the folk inhabiting the particular district or region where the animals, plants, or whatever else they may be, exist; and these names convey to them, only, perhaps, an idea of what is meant. Professor Bell, a celebrated authority on British Crustacea, visiting a seaport town, enquired at a fishmonger's stall, on which was a plate of crabs for sale, whether that particular kind of crabs was eaten in the locality? With great surprise at his apparent ignorance, the reply came, "They ben't crabs, sir; them's *spiders!*" But to come nearer home. What is ordinarily known in Sydney as the "lobster" or "crayfish" is really a crawfish, recognised in science as *Palinurus Huegeli* and throughout the world as such. So that what is called a "lobster" by many people, will be known by the name of "crawfish" or "crayfish" by some, and maybe a dozen other local appellations by as many others to whom the identical animal may be familiar. But lobsters, crawfish, and crayfish are totally distinct from each other in structure and with different habits. And thus it is that mistakes happen in giving names to animals which to the popular eye exhibit a more or less fanciful resemblance; but in many other cases there is not the slightest likeness or even affinity. What are commonly styled "locusts" in this country are really *Cicadæ*, belonging to a totally distinct and widely separated order of insects. And, moreover, the same kind of *Cicada* is known by different names in different localities, such as "Miller," "Mealy-back," etc. The true locusts belong to the grasshoppers, whilst the Homopterous Cicadidæ have been known as "Cicadas" from times of remote antiquity. Instances such as these may be multiplied, but those cited should be sufficient to demonstrate the uselessness of the adoption of local names for the purpose of general information.

Popular names, if general, would be of great advantage in assisting to gain a scientific knowledge of the objects themselves, but they rarely can be said to assist specialists in their investigations for the public weal in this respect. And herein lies the secret. Specialists of all nationalities must compare notes as to the affinities and geographical distribution of the objects under investigation, in discussing their properties and utility. In order to attain this end, it is absolutely necessary to adopt an universal language as the medium for exchanging ideas before the result of their combined researches can eventually be made popularly intelligible in different languages. To this end Greek and Latin are employed.

The Tipulid hereafter described is intimately related to those species included in the genus *Limnobia*—in fact it is a modified *Limnobia*. The only tangible differences occur in the wings. The genus *Dapanoptera* was proposed by Osten-Sacken in 1881 for four species previously described by Walker under the title *Limnobia*,* which had been collected in New Guinea and the neighbouring islands by Wallace. Osten-Sacken points out† that, "The peculiar, although only secondary character, upon which this genus *(Dapanoptera)* is established, is found in the wings, which being deeply colored, have a conspicuous hyaline spot at the end of the first longitudinal vein; upon reaching this spot the first vein becomes abruptly evanescent; both its ends (that is the cross-vein, running towards the costa, and the real end of the first vein turned towards the second) are placed within that hyaline spot and are colorless and very weakly marked, sometimes imperceptible. The known species have a *supernumerary cross-vein* in the first posterior cell, beyond the discal (a great deal beyond in *D. plenipennis*, and only a little in the other species.)" The wing of *D. plenipennis* also greatly differs from the other known species in being conspicuously undulatory on its posterior border and in having the second and third longitudinal, and also the first vein issuing from the discal cell, strongly undulatory. *D. richmondiana* appears to agree very well with the remaining three species in general plan of venation and regularity of contour of the wing; with antennæ, male forceps, dentate claws and the auxilary vein as in *Limnobia*.

The discovery of *Dapanoptera* in the tropical jungle of northern New South Wales adds another interesting instance to the numerous evidences of a former Papuan invasion; and, in passing, the occurrence of *Libnotes* may also be mentioned. To quote Hedley,‡ "The types encountered by a traveller in tropical Queensland (and also northern New South Wales), or rather in that narrow belt of tropical Queensland hemmed in between the Cordillera and the Pacific, all wear a foreign aspect. Among mammals may be instanced the cuscus and tree kangaroo; among reptiles, the crocodile, the *Rana* or true frog, and the tree snakes; among birds, the cassowary and rifle birds; among butterflies, the *Ornithoptera;* among plants, the wild banana, orange and mangosteen, the rhododendron, the epiphytic orchids, and the palms; so that in the heart of a great Queensland 'scrub,' a naturalist could scarcely answer from his surroundings whether he were in New Guinea or Australia." And he adds, "It may be supposed that late in the Tertiary epoch, Torres Straits, now only a few fathoms deep, was

* Journ. Linn. Soc. Zool. v., p. 230, (1861); vii., p. 202, (1864); viii., pp. 103, 104, (1865).

† Studies on Tipulidæ, ii., Berl. Entom. Zeits., xxxi., p. 178, (1887).

‡ Proc. Austr. Assoc. Adv. Sci., Adelaide, v., p. 445, (1893).

upheaved, and that a stream of Papuan life poured into Australia across the bridge so made."

As aptly remarked by Osten-Sacken, the species of *Dapanoptera* "are the birds of paradise among the Tipulidæ, the more so as they come from the home of the true birds of paradise."

Order DIPTERA.

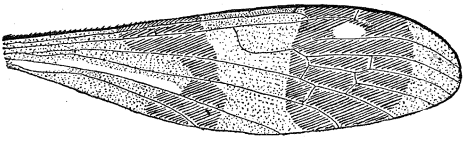
Family TIPULIDÆ.

Dapanoptera, *Osten-Sacken.*

DAPANOPTERA RICHMONDIANA, *sp. nov.*

♂ and ♀	Length of antennæ	0·063 in... 1·60 m.m.
	Expanse of wings...	0·380 x 0·098 in... 9·60 x 2·40
	Size of body	0·279 x 0·048 in... 7·50 x 1·20

Bright ochreous yellow. Head, rostrum, and palpi black; antennæ brown, fourteen-jointed; first joint of the scapus twice the length of the second; flagellar joints twice as long as broad, verticillate-pilose. Thorax more or less tinged with brown at the sides, and sometimes with the indication of a median stripe; pleuræ sometimes brownish beneath the bases of wings. Club of halteres brownish. Abdomen more or less distinctly brown or blackish above, especially the last segments; male forceps with a distinct adminiculum; female ovipositor slightly curved, ochreous. Legs long, the femora sooty or dark brown at the tips.



Wings concolorous with the body and legs, with two brown patches; a hyaline stripe starting between the bases of the sixth and seventh longitudinal veins and widening to the middle to the anal cell between the fifth and sixth, terminating at the first brown patch; and an elliptical hyaline spot at the end of the first longitudinal vein; the first brown patch extends from the costal to the posterior margin of the wing, it is widest between the costa and the fourth vein and abruptly narrower in the second basal cell, from whence it again widens to the border; the second patch is roundish, wider than the first, occurs before the tip of the wing and encloses the discal cell, and the white elliptical spot at the tip of the first longitudinal vein occurs about midway between its sides. Auxiliary vein reaching costa opposite the distal end of præfurca which is very angularly bent; subcostal cross-vein rather long, close to the tip of the auxiliary; first longitudinal vein (and cross-vein) evanescent or very pale above the hyaline spot; supernumerary

cross-vein (in first posterior cell) situated a little beyond the discal, great cross-vein before the middle of the latter; sixth longitudinal vein nearly straight.

Hab.—Dunoon, Upper Richmond River, N. S. Wales (Helms). Three specimens in March.

STEPHANOCIRCUS, SK.: A REJOINDER.

Mr. Carl F. Baker omitted to include a diagnosis of my genus in his table of the genera of the Pulicidæ* as he evidently first wished to "verify all the points of the description" by the examination of actual specimens. I would explain that the flea in question was taken in large numbers on one animal, *Dasyurus maculatus*, Kerr, and that there is no mistake in attributing the two sexes figured in my paper† to one species.‡ It would possibly not conform with Mr. Baker's preconceived system of classification of what he calls "Siphonaptera." Before essaying the task of reconstructing existing classification it is usual for the reformer to make himself acquainted with the literature bearing on the subject. Mr. Baker, however, discusses my conclusions at second hand and without attention to the numerous figures upon which I relied to elucidate my meaning. Under these circumstances it is scarcely fair in him to condemn my article as confusing together two species referable to known genera. What genera they should be referred to, Mr. Baker, exercising more discretion than valour, fails to indicate. It is at least remarkable that one supposed species should be all males and the other all females. Were such the case they might produce a hybrid in consonance with Mr. Baker's classification.

There is a tale extant of a conchologist who elaborated a classification of Mollusca; one shell however, which refused to fall in line with his system was promptly disposed of under his heel, to save further trouble. It would appear that my *Stephanocircus* merits a similar sad fate.

In conclusion I might mention that a very remarkable flea was described from Australia§ by Olliff, under the name of *Echidnophaga ambulans* (from the peculiar character of its inability to jump), but no notice is taken of this insect in Mr. Baker's papers.

F. A. A. SKUSE.

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* Canad. Entom., xxvii., p. 63.

† Rec. Austr. Mus., ii., p. 77, pl. xvii.

‡ Strong evidence is furnished by Mr. Baker, himself, when he affirms (l.c., p. 132), "It is not a usual occurrence for two species of fleas to be found living together on a single wild animal," that there is no error in my data.

§ Proc. Linn. Soc. N.S.W., (2) i., p. 172, (1886).