

(I) INSECTA - COLEOPTERA

BY ARTHUR M. LEA, F.E.S.

Summary

The collection of insects brought back by Captain White consisted altogether of 1,543 specimens. Of these the moths are dealt with by Dr. Turner, the butterflies by Mr. Waterhouse, and the *Hymenoptera* and a few other specimens by Mr. W. W. Froggatt. I have also to thank Messrs. H. J. Carter and T. G. Sloane and Dr. E. W. Ferguson for the names of some beetles. In addition to the Orders specially dealt with there were also obtained of *Orthoptera*, 36 species; of *Hemiptera*, 39 species; of *Diptera*, 17 species; and of *Neuroptera*, 5 species.

ECRIBELLATÆ.

DRASSIDÆ.—*Hemiclœa longipes*, Koch. Finke River.

ZODARIIDÆ.—*Storena formosus*, Thorell. MacDonnell River. *S. græffei*, Keys. Ellery Creek, sp. Hermannsburg.

THERIDIIDÆ.—*Latrodectus hassellti*, Thorell. Finke River.

NEPHILIIDÆ.—*Nephila eremiana*, Hogg. Ellery Creek.

ARGIOPIDÆ.—*Araneus*, sp. (*jav.*). Oodnadatta. *Carepalxis monticula*, Oodnadatta.

THOMISIDÆ.—*Tharpyna diademata*, Keys. Oodnadatta.

SPARASSIDÆ.—*Isopeda flavibarbis*, Thorell. Ellery Creek. Several indeterminable, Ellery Creek and MacDonnell River.

CLUBIONIDÆ.—*Clubiona robustus*, Koch. Ellery Creek, Charlotte Waters, Hamilton Bore. *Clubiona*, sp. Ellery Creek.

LIOCRANIDÆ.—*Miturga lineata*, Koch. Oodnadatta.

LYCOSIDÆ.—*Lycosa arenosa*, Koch. Ellery Creek, sp. MacDonnell River.

OXYOPIDÆ.—*Oxyopes gratus*, Koch. Charlotte Waters.

SALTICIDÆ.—*Opisthoncus*, sp. Finke River.

(j) Insecta.

By ARTHUR M. LEA, F.E.S., Museum Entomologist.

[*Contribution from the South Australian Museum.*]

The collection of insects⁽¹⁾ brought back by Captain White consisted altogether of 1,543 specimens. Of these the moths are dealt with by Dr. Turner, the butterflies by Mr. Waterhouse, and the *Hymenoptera* and a few other specimens by Mr. W. W. Froggatt. I have also to thank Messrs. H. J. Carter and T. G. Sloane and Dr. E. W. Ferguson for the names of some beetles. In addition to the Orders specially dealt with there were also obtained of *Orthoptera*, 36 species; of *Hemiptera*,⁽²⁾ 39 species; of *Diptera*, 17 species; and of *Neuroptera*, 5 species.

The majority of the specimens brought back were beetles, but owing to the jolting of the camels and to the fact that during some stages of the trip all the specimens were mixed together as obtained, many of even these hard-shelled insects

(1) Also the spiders, which were handed over to Dr. Pulleine for treatment.

(2) Of these Mr. Froggatt identified two species of *Cicadidæ* as *Henicopsaltria nubivena*, Walk., and *Thopha colorata*, Dist.

were so badly damaged as to be beyond recognition. Many of the specimens obtained undoubtedly belong to new species⁽³⁾ and a few to new genera, but some of these were so badly abraded or otherwise injured that it was inadvisable to make them into types.

The gem of the collection is a fine ground beetle of the *Helluonides*, herinafter named *Helluarchus whitei*.

COLEOPTERA.

CARABIDÆ.—*Carenum transversicolle*, Chaud. Finke River. *Catadromus australis*, Cast. MacDonnell Ranges. *Cenogmus rotundicollis*, Cast. MacDonnell Ranges. *Chlænius australis*, Dej. Ellery Creek, Finke River. *Ch. lateviridis*, Chaud. Oodnadatta to Blood Creek, Finke River, MacDonnell Ranges. *Clivina bovilli*, Blackb. Hamilton Bore to Oodnadatta. *Ectroma benefica*, Newm. Ellery Creek, Hamilton Bore to Oodnadatta, Oodnadatta to Blood Creek. *Eudalia waterhousei*, Cast. Finke River. *Gigadema bostocki*, Cast. Finke River. *Gnathaphanus pulcher*, Dej. Ellery Creek. *Helluarchus whitei*, n. sp.⁽⁴⁾ *Loxandrus rufilabris*, Cast. Ellery Creek. *Oodes planipennis*, Macl. Oodnadatta to Blood Creek. ⁽⁵⁾*Phorticosomus horni*, Sloane. Finke River, Ellery Creek. *Rhytisternus arnheimensis*, Cast. Ellery Creek. *Silphomorpha rockhamptonensis*, Cast. Finke River. *Xanthophaea suturata*, Newm. Ellery Creek.

DYTISCIDÆ.—*Bidessus bistrigatus*, Clark. Urinilla Springs to Deep Well. *Necterosoma regulare*, Sharp. Urinilla Springs to Deep Well.

STAPHYLINIDÆ.—*Creophilus erythrocephalus*, Fab. Ellery Creek. *Lathrobium notaticolle*, Fvl. Oodnadatta to Blood Creek. *Scymbalium australe*, Fvl. Charlotte Waters to Hamilton Bore.

HISTERIDÆ.—*Hypocaccus sineæ*, Mars. Ellery Creek, Finke River, Urinilla Springs to Deep Well. *Saprinus viridipennis*, Lewis. Ellery Creek, Finke River.

COLYDIIDÆ.—*Ditoma hilaris*, Blackb. Arltunga to Urinilla Springs.

DERMESTIDÆ.—*Dermestes cadaverinus*, Fabr. Throughout trip. *D. vulpinus*, Fabr. Throughout trip.

(3) As no advantage is to be gained by giving their generic names only these are not further referred to.

(4) Name received from Mr. Sloane, who wrote: "Have this in my collection from Central Australia under *L. rufilabris*, with which it seems conspecific, perhaps a variety."

(5) Name from Mr. Sloane.

LUCANIDÆ.—*Figulus regularis*, Westw. MacDonnell Ranges, Hermannsburg.

SCARABÆIDÆ. — *Anoplognathus macleayi*, Blackb. MacDonnell Ranges, Finke River. *Atenius goyderensis*, Blackb. Hamilton Bore, Ellery Creek, Charlotte Waters to Hamilton Bore. *Clilopocha whiteæ*, n. sp. *Heteronyx callabonnæ*, Blackb. MacDonnell Ranges. *H. castaneus*, Macl. MacDonnell Ranges. *H. fulvohirtus*, Blackb. Arltunga to Urinilla Springs. *H. squalidus*, Blackb. Hermannsburg. *Lepidiota darwini*, Blackb. Finke River, MacDonnell Ranges. *Psammodytes zietzi*, Blackb. Hamilton Bore to Oodnadatta. *Trox augustæ*, Blackb. Finke River. *T. crotchi*, Har. Hermannsburg. *T. velutinus*, Blackb. MacDonnell Ranges. *Zietzia geologa*, Blackb. MacDonnell Ranges.

BUPRESTIDÆ.—*Merinna atrata*, L. and G. MacDonnell Ranges, Finke River.

ELATERIDÆ.—*Agrypnus mastersi*, Macl. Finke River, Ellery Creek. *Macromalocera affinis*, Blackb. Finke River.

CLERIDÆ.—*Eleale aulicoides*, Gorh. Ellery Creek. *Necrobia rufipes*, DeG. Throughout trip. *Opilo congruus*, Newm. Hamilton Bore to Oodnadatta.

BOSTRYCHIDÆ.—*Bostrychopsis jesuita*, Fab. Arltunga to Urinilla Springs, MacDonnell Ranges.

TENEBRIONIDÆ.—⁽⁶⁾ *Gonocephalum meyricki*, Blackb. Throughout trip. ⁽⁶⁾ *G. walkeri*, Champ. Hermannsburg. *Helæus squamosus*, Pasc. MacDonnell Ranges, Hermannsburg. *Hypaulax orcus*, Pasc. Throughout trip. ⁽⁶⁾ *Onosterrhus lævipennis*, H. R. Finke River. ⁽⁶⁾ *Pterohelæus brevicornis*, Blackb. Finke River. *P. bullatus*, Pasc. Oodnadatta to Blood Creek. *Saragus clathratus*, Macl. MacDonnell Ranges. ⁽⁶⁾ *S. tricarinatus*, Blackb. Ellery Creek, MacDonnell Ranges. *Tribolium ferrugineum*, Fab. Throughout trip.

CISTELIDÆ.—⁽⁷⁾ *Apellatus lateralis*, Boh. Hamilton Bore to Oodnadatta, MacDonnell Ranges.

ANTHICIDÆ.—*Anthicus inglorius*, Lea. Urinilla Springs to Deep Well.

CURCULIONIDÆ.—*Leptops cacozelus*. Lea. Oodnadatta to Blood Creek. ⁽⁸⁾ *Molochtus tibialis*, Sloane. MacDonnell Ranges. Urinilla Springs to Deep Well. *Psalidura grandis*,

(6) Names from Mr. Carter.

(7) Name from Mr. Carter.

(8) Name from Dr. Ferguson.

Ferg. Hermannsburg, MacDonnell Ranges. *Sclerorhinus convexus*, Sloane. MacDonnell Ranges, Ellery Creek. *Storeus femoralis*, Lea. Throughout trip. *Talaurinus regularis*, Sloane. MacDonnell Ranges. *T. rufipes*, Blackb. Hermannsburg. *T. strangulatus*, Blackb. Hermannsburg, MacDonnell Ranges.

CERAMBYCIDÆ.—*Ancita fasciculata*, Blackb. MacDonnell Ranges. *Microtragus pictus*, Blackb. MacDonnell Ranges, Finke River. *Pachydissus sericus*, Newm. Finke River, Ellery Creek. *Phoracantha recurva*, Newm. MacDonnell Ranges. *P. semipunctata*, Fab. MacDonnell Ranges. *P. senio*, Newm. Finke River, Ellery Creek, Urinilla Springs to Deep Well. *Purpuricenus quadrinotatus*, White. Finke River, MacDonnell Ranges. *Symphyletes fraserensis*, Blackb. Finke River.

CHRYSOMELIDÆ.—*Cassida mera*, Germ. MacDonnell Ranges. *Monochirus multispinosus*, Germ. Hermannsburg. *Paropsis funerea*, Blackb. Throughout trip. *P. lateralis*, Blackb. Throughout trip. *P. palmensis*, Blackb. Finke River. *P. pustulifera*, Blackb. Finke River. Hermannsburg.

COCCINELLIDÆ.—*Coccinella transversalis*, Fab. Oodnadata to Blood Creek. *Rhizobius noctuabundus*, n. sp.

HELLUARCHUS WHITEI, n. sp.

Black and shining.

Head with scattered distinct punctures, with a wide wrinkled fovea on each side in front; clypeus with irregular wrinkles and punctures; labrum almost as long as wide with conspicuous punctures. Antennæ passing scutellum for a slight distance, third joint longer than second or fourth. *Prothorax* not quite as long down middle as the greatest width, front angles rounded and slightly produced, sides obliquely upcurved and widest slightly in advance of the middle; hind angles slightly acute and somewhat rounded off, with a narrowly impressed median line, terminating near apex and near base in fairly large foveæ; with conspicuous scattered punctures, denser about sides and base than elsewhere. *Elytra* elliptic-ovate; surface finely shagreened, with rows of rather small punctures in narrow striæ; interstices much wider than striæ, the fifth on each elytron conspicuously elevated and marking off the rapidly sloping (almost vertical) sides from the slightly concave median portion, on posterior declivity bifurcated and not conspicuously elevated; each interstice with an irregular row (or with parts of two irregular rows) of small punctures, but larger on sides than elsewhere.

Under-surface with irregularly distributed punctures, and in places wrinkled. *Legs* long; front femora obtusely subdentate near base; front tibiæ with an angular notch at about apical two-fifths, hind ones about half the length of elytra and incurved. Length, 36 mm.

Hab.—Finke River. Type, I. 3444, in South Australian Museum.

The type, one of the finest insects ever taken in Central Australia, was obtained from under a log. The species differs from *robustus* in being stouter and by the prothorax distinctly less transverse⁽⁹⁾ ($10 \times 6\frac{1}{2}$ in *robustus*, 9×7 in *whitei*) with the sides much less angularly inflated. On both species the fifth interstice on each elytron from near the base is conspicuously ridged, but on *whitei* the ridge at the summit of the posterior declivity bifurcates, and the forks are joined together near apex, so that they completely enclose a narrowly elliptic space with isolated striæ. But on *robustus* the space is not so enclosed, the third and fourth striæ being traceable over the summit, although slightly irregular at the summit itself. The legs are also longer and the hind tibiæ different. The suture (as on *robustus*) between the two basal segments of abdomen is rather indistinct across the middle, although deep on the sides, so that at first the abdomen appears to be composed of but four segments.

CLILOPOCHA, n. g.

Head not very large; eyes large, widely separated, scarcely visibly faceted, with medio-frontal canthus conspicuous; clypeus strongly produced, margins strongly upturned, front feebly curved, sides almost parallel; labrum very short; palpi with terminal joint elongate and cylindrical; antennæ ten-jointed, the three apical ones forming an elongate club. *Prothorax* transverse. *Elytra* subgeminata-striate. *Tibiæ* short, front pair strongly tridentate, the others each with an acute oblique median ridge; tarsi elongate, with sparse long hairs and stiff setæ; claws long and simple.

Belongs to the *Sericoides*, but I cannot make the species described below fit into any of the many genera of that subtribe proposed or commented upon by the late Rev. T. Blackburn. In his table⁽¹⁰⁾ its position seems open to question. When the head is removed so that the under-surface may be clearly seen the suture between the labrum and clypeus is fairly distinct, and both are seen to have a row of setiferous

(9) To the naked eye it appears to be quite as long as wide.

(10) Trans. Roy. Soc., S.A., 1898, pp. 32-4.

punctures, *Dysphanochila* in the table was noted as having "Labrum entirely confused with vertical front face of clypeus." On close examination, however, a fine dividing line may be seen in the exact middle, and at the sides the suture is quite distinct. Regarding it as allied to that genus (JJ of the table) it would be distinguished by its tridentate front tibiæ and ten-jointed antennæ. If regarded as belonging to J it should be referred to M, and in that case would be associated with *Colpochila*,⁽¹¹⁾ whose antennæ are eight- or nine-jointed and clypeus very different. If regarded as belonging to MM it would be associated with *Frenchella*, whose antennæ and elytra are very different. It may provisionally be placed near *Dysphanochila*. The mentum is rounded at the apex, but is so densely clothed that all parts of the mouth are more or less concealed. The abdominal stigmata are also concealed by the clothing.

CLILOPOCHA WHITEÆ, n. sp.

Reddish-castaneous, antennæ paler; head (except portion of clypeus) and tibial teeth more or less blackish. Prothorax and elytra fringed with rather long stramineous hairs, becoming longer and denser on under-surface and on parts of legs; elytra with moderately long semi-upright hairs scattered about.

Head with dense and rather large but shallow punctures, becoming sparser towards base and smaller on clypeus; clypeus more than twice as wide as its median length. Antennæ with first joint about as long as ocular canthus, and about as long as the three following combined, fourth to sixth short, seventh still shorter, but somewhat produced internally, club with lamellæ about one-fourth longer than seven basal joints combined. *Prothorax* about once and one-half as wide as long, sides rounded, front angles acute, the hind ones obtusely rounded, with numerous large round but very shallow punctures, almost absent along middle. *Elytra* very little wider than prothorax, with irregular punctures of small to medium size, and in places in feeble geminate-striæ. *Femora* stout; front tibiæ with all the teeth large, but the front one longer and the middle one stouter than the others. Length, 8-9½ mm.

Hab.—MacDonnell Ranges and Hamilton Bore to Oodnadatta. Type, I. 3438, in South Australian Museum.

Seen directly from in front the fringing prothoracic hairs appear to be divided along the middle by the extreme

(11) Subsequently regarded as a synonym of *Haplonycha*.

margin of the prothorax. There is a feeble elevated medio-basal carina on the scutellum; but it is concealed, unless the prothorax is slightly in advance of its usual position. The striation is rather feeble, and its geminate arrangement is nowhere pronounced. Five specimens were obtained, all apparently males.

RHIZOBIUS NOCTUABUNDUS, n. sp.

Of a pale and rather dingy reddish-castaneous; elytra with more or less conspicuous markings, and with or without a metallic gloss. Closely covered with short, depressed, uniform greyish pubescence.

Head with fairly distinct punctures; eyes large and partially concealed. *Prothorax* about thrice as wide as long, front angles rounded, the hind ones almost rectangular, punctures as on head. *Elytra* oblong-ovate, outlines sub-continuous with those of prothorax, punctures not very large but rather sharply defined. *Under-surface* with fairly distinct punctures, more sharply defined on hind coxæ than elsewhere. Length, $2\frac{1}{4}$ - $2\frac{1}{2}$ mm.

Hab.—Hamilton Bore to Oodnadatta. Also occurs at Oodnadatta and Farina (Blackburn's collection), Murray River (H. S. Cope), and at Cunnamulla, in Queensland (H. Hardcastle). Type, I. 3439, in South Australian Museum.

An oval species, in size and general appearance fairly close to *insipidus*, but colour and clothing different. In Blackburn's table of the genus⁽¹²⁾ it is difficult to be placed on account of the variability of its elytral markings. If placed in C (of BB) it might be associated with *cæcus*⁽¹³⁾; if placed in CC with *ornatipennis* or *insipidus*, all of which have more or less conspicuous setæ amongst the depressed clothing. From *laticulus* its larger size and uniformly pale under-surface will readily distinguish it. On the palest specimens the only dark parts of the elytra are the suture, and a more or less conspicuous infusate cloud on each side of the base. On the darkest ones the dark parts (these are piceous, with a more or less conspicuous greenish gloss) are so extended that only the shoulders and a curved space from each to the apex (inclined towards but not touching the suture) are of a dingy-red. On some specimens the dark parts appear as three large blotches—one about middle of base (usually including the scutellum) and one on each side. It is attracted to lights in abundance.

(12) Trans. Roy. Soc., S.A., 1892, pp. 257-9.

(13) Although *cæcus* was tabled as having "Prothorax scarcely distinctly punctulate," on some co-types the punctures are fairly distinct; quite as much as on the present species.