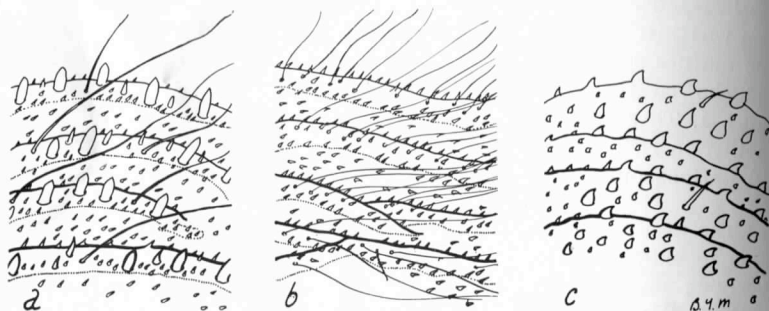


The structure of all fifteen nests agreed essentially with that figured and all were lined with white silk. Of the twelve lids observed (some were lost in the slicing operations), all were of the wafer type, thin and easily bent, the edges sitting on top of the rim and overlapping it a little; all had debris attached to the upper surface. None of the specimens clung to the lid when opened, all were in the lower swollen part of the tube. Some specimens were upside down in their burrows, that is with the posterior truncation of the abdomen upwards, whereas other specimens had the anterior end facing up the tube, with their fangs opened ready to strike.

All nests had a plug of ant remains in the bottom of their tubes. Among the tubes excavated in the Wongan Hills was one which contained no spider but the pupal case of an Hymenopterous parasite. This has not yet emerged.



Text figure 2.—Abdominal ridges showing spination. a, *Idiosoma sigillatum*; b, *I. hirsutum* sp. nov.; c, *I. nigrum* sp. nov.

#### DISCUSSION

Females of the three known species of *Idiosoma* can be simply identified from the following table:—

- |   |                             |
|---|-----------------------------|
| Eyes arranged in three rows of 2, 2, 4; abdomen spinose, sclerotised and corrugated .....   | <i>Idiosoma</i>             |
| 1a Abdomen dorsally black (for the type of spination see text fig. 2c) .....  | <i>I. nigrum</i> sp. nov.   |
| 1b Abdomen dorsally with brown ridges and yellow grooves .....  | 2                           |
| 2a Dorsum of abdomen uniformly covered with small pointed spines; large spines and occasional bristles along tops of ridges .....                 | <i>I. sigillatum</i>        |
| 2b Dorsum of abdomen uniformly covered with small pointed spines; no large spines and bristles but numerous long hairs along tops of ridges ..... | <i>I. hirsutum</i> sp. nov. |

Of the thirteen specimens of *I. sigillatum* and *I. hirsutum* examined there were no intergrading forms in regard to species characteristics. Although they both occur scattered over the same broad locality, the Perth Coastal Plain, it is possible that they have some habitat preference, permitting their co-existence in the same broad region. Both the coastal plain forms are very distinct, even in gross appearance, from the eastern species and it is suggested that the Darling Range has provided the geographical barrier necessary for speciation. It is now the species boundary as no specimens have been collected in the hills from which area the author has many times collected Mygalomorphs.

Holotypes have been placed in the W.A. Museum, paratypes forwarded to the Australian Museum, Sydney.

The author is indebted to the Curator of the W.A. Museum, Mr. L. Glauert, for the opportunity of examining the specimens in the Museum collection.

#### LITERATURE CITED IN TEXT.

- Cambridge, O. P., 1870, Monogr. of genus *Idiops*. P.Z.S. 1870.  
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#### NOTES ON TWO WELL-KNOWN AUSTRALIAN ANT SPECIES

By WILLIAM L. BROWN, Jr., Museum of Comparative Zoology, Harvard University.

The two ant species discussed below belong to the subfamily Ponerinae. Both are common in the vicinity of Perth, and *Euponera rufonigra* is here demonstrated to range far east into Victoria.

#### *Rhytidoponera douglasi* nomen novum

pro *Rhytidoponera punctata* var. *levior* Crawley, 1925, *Ann. Mag. Nat. Hist.*, (9) 16: 581, worker.

nec *Rhytidoponera mayri* r. *glabrius* var. *laevior* Stitz, 1911, *Sitzb. Ges. Naturf. Freunde, Berlin*, pp. 353-353, figs. 1, 2, worker.

In his *Rhytidoponera* revision of 1936 (*Mem. Nat. Mus.*, Melbourne, no. 9, pp. 14-89, pls. 3-6), Clark treats Crawley's variety *levior* as a good species and neglects the earlier name set forth by Stitz. *R. douglasi* is a characteristic form, and Mr. Athol Douglas, entomologist at the Western Australian Museum, for whom the new name is given, informs me that it occurs not only on Rottnest



Island, the type locality, but also on the adjacent mainland. Stitz' name *laevior* applied to three specimens, of which the one from Hunter River, New South Wales may be designated lectotype. This specimen may well belong to the original series from which Fred. Smith described *R. aciculata*, an assumption supported rather well by the agreement of certain details of Stitz' description and Clark's subsequent redescription of *R. aciculata*. Types should be examined before formal synonymy is suggested, however, since none of the descriptions mentioned are satisfactory.

*Euponera (Brachyponera) rufonigra* Clark

*Euponera (Brachyponera) rufonigra* Clark, 1934, Mem. Nat. Mus., Melbourne, no. 8, pp. 30-31, pl. II, figs. 12, 13, worker, female.

*Euponera (Trachymesopus) clarki* Wheeler, 1934, Jour. R. Soc. W. Australia, 20: 140-141, worker, female. NEW SYNO. NYMY.

These two names were applied in part to what seems to be the same nest series, collected by Clark at Armadale, Western Australia. Examination of the types shows clearly that they are synonymous, though this synonymy might not be guessed from the original descriptions, both of which are in error in numerous minor ways. Wheeler's description was stated to have been published on the "5th October, 1934," while the National Museum Memoir No. 8 bears the cover inscription "Issued September, 1934." I have not been able to confirm the latter date, so the seniority of synonymy must remain in some doubt. It is to be regretted that mailing dates of this publication are not more precisely recorded.

This species is easily recognized and common in South-western Australia, despite the two original descriptions. Outside Western Australia, Clark has reported it from the Sir Joseph Banks Islands, South Australia. I have taken it at the following localities, among others: Merivale Downs, east of Esperance, Western Australia, sandplain heath and borders of yate (*Eucalyptus cornuta*), swamps, under logs and *Xanthorrhoea* stumps. Ravine des Casoars, Kangaroo Island, *Xanthorrhoea* stumps in sand, mallee heath; Kuitpo Forest, Lofty Ranges, under logs in *Eucalyptus leucoxylon*-dominated woodland; Wilpena Pound, entrance gorge, heavy red gum (*Eucalyptus camaldulensis*) woodland, under stones, the three foregoing localities in South Australia. In Victoria, I have collected this ant at Mirranatwa Gap, Grampians Ranges, under rock slabs in dense scrub of Grampians snow gum (*Eucalyptus alpina*) and at Djerriwarrh Creek, near Melton, in bull mallee scrub (*Eucalyptus behriana*) under stones. The ecological notes will serve to underline the breadth of the range and habitat tolerance shown by this species.

The generic and subgeneric placement is strictly provisional, as revision of the genus *Euponera* will see considerable changes in the assignment of species and groups from all over the world.

## THE FOOD OF TROUT IN WESTERN AUSTRALIA

B. C. F. H. JENKINS, M.A., Government Entomologist.

The successful acclimatisation of trout in the various river systems of South-western Australia depends largely upon the presence of a suitable food supply. No detailed study has been made of the food of trout in our streams but the stomach contents of a number of specimens have been analysed and the information revealed is considered to be of sufficient interest to form the subject of a brief discussion.

Owing to the small number of trout examined and the variety of localities from which they have been obtained, it is considered desirable to itemise the stomach contents of each specimen.

1. Pemberton (Treen Brook), 1941. Rainbow Trout, female, weight 5½ lb.

Very small fish bones, 2; crustacean appendages (*Cheraps* sp.); trout egg?, 1; several leaves and algal strands; unidentifiable macerated material.

2. Pemberton (Treen Brook), 1941. Rainbow Trout, weight 5 lb.

Crustacean appendages (*Cheraps* sp.); macerated crustacean flesh.

3. Pemberton (Big Brook), 1941. Brown Trout, weight 3 lb. 12 oz.

Crustacean appendages (*Cheraps* sp.) and macerated material.

4. Pemberton (Big Brook), 1948. sp.?

Syrphidae, 1; Diptera, 1; Dytiscidae, 1; Curculionidae, 1; Scarabaeidae, 1; small Crustacea (*Cheraps* sp.), 2.

5. Lower Donnelly River, June 11, 1943. Rainbow Trout, weight 9 oz. (netted).

Formicidae (winged), 225; small spider, 1; Chironomid pupal skins, 2; Corixidae, 3; Psammocharidae, 1.

6. Yanchep, July 11, 1946. Rainbow Trout, male, length 35.5 cm.

Crustacea (*Cheraps* sp.) (macerated remains), 2; Carabidae, 1 (1 in. long); Dytiscidae, 1 (1 in. long); small twig, 1 acacia leaf and pieces of charcoal ½ in. long.

7. Serpentine River, November 1949. Rainbow Trout?

Crustacean remains (*Cheraps* sp.); Formicidae (winged), 36; Diptera, 48\*; Coleoptera, 6; unidentifiable insect remains.

8. Serpentine River, November 1949. Rainbow Trout?

Crustacean remains (*Cheraps* sp.), 1; Formicidae (winged), 7; Diptera, 7\*; Coleoptera, 2.

9. Bridgetown (Blackwood River), November 1950. Rainbow Trout.

Orthoptera (nymph), 1; Dermaptera, 1; Dytiscidae, 40; Gyrinidae, 3; Tenebrionidae, 4; Scarabaeidae, 2; Cerambycidae, 1;

\* Terrestrial?