

## FOSSIL INSECTS FROM THE TRIASSIC AT HOBART, TASMANIA

By

E. F. REIK\*

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(With two figures.)

## SUMMARY

A new locality for Australian Triassic insects has been discovered at Hobart, Tasmania. A plant-bearing horizon has yielded three insect fossils belonging to the Blattodea and Homoptera. Both the cockroach and the bug can be compared with similar fossils in the Mt. Crosby Triassic.

A plant-bearing horizon in the Triassic rocks at Hobart, Tasmania, has yielded three quite well preserved insect fossils. Dr. J. A. Townrow, University of Tasmania, collected the specimens from the Hobart Brick Co. quarry at the junction of Forster and Giblin Streets, New Town. In the northern end of the quarry two coal seams are exposed. The lower one, overlain by feldspathic sandstone, is underlain by grey mudstone. About three feet below this lower seam on the eastern wall of the quarry, fossil ferns occur and with these the insect wings are associated in the grey mudstone. The rocks are part of the New Town Coal Measures. I am much indebted to Mr. M. R. Banks of the University of Tasmania for the opportunity of examining this fossil material and for the stratigraphical details concerning them. In one specimen the counterpart was also recovered. Two of the specimens are cockroach wings and the third is the basal portion of the forewing of a bug.

Cockroaches are unknown from the Australian Permian but are very common in the Triassic. The group to which the bug belongs was very common in the Australian Permian and persisted into the Triassic. The two fossil species taken in conjunction would confirm the approximate age determination of the strata based on the abundant plant material.

## BLATTODEA.

## POROBLATTINIDAE.

*Triassoblatta* Tillyard.

This genus was placed by Tillyard (1919) in the Mesoblattinidae in preference to the Poroblattinidae after consideration of all characters of the forewing. The genus shows the transition in characters from the mainly Permian Poroblattinidae to the mainly Mesozoic Mesoblattinidae. Dodds (1949) transferred the genus to the Poroblattinidae. The genus resembles the Poroblattinidae in the structure of Sc and of the clavus but it has the long narrow wing of the Mesoblattinidae with the asso-

ciated straightening of the stem of R. As the presence or absence of branching of Sc is a more clearly defined character than the curvature of R the genus is retained in the Poroblattinidae.

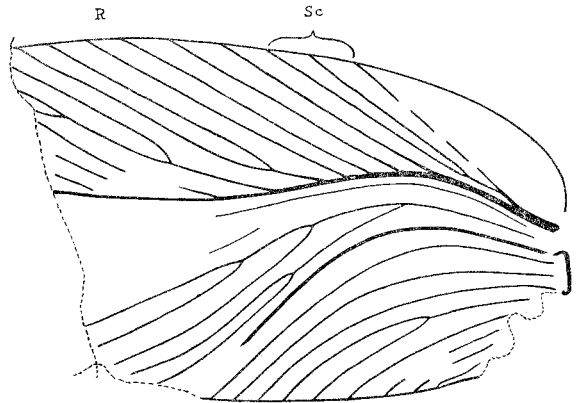


FIG. 1.—*Triassoblatta tasmanica* sp. nov. Forewing X6.

*Triassoblatta tasmanica* sp. nov.

Holotype, forewing fragment 55138 and counterpart 55136, University of Tasmania, Department of Geology Collection.

Type locality and horizon: Hobart Brick Co. Quarry, Forster and Giblin Streets, New Town, Tasmania, in the New Town Coal Measures.

Basal two-thirds of forewing preserved, length 12mm. but distal 2mm. crushed and venation obscure; clavus preserved; slight rupturing along suture of clavus and basal portion of stem of R; costal space short and triangular; Sc three-branched, the basal branch not strong; R with the anteriorly directed branches mostly simple; M not clearly preserved; CuA weak, sigmoidally curved dichotomously branched, with few branches; CuP strongly curved but joining the caudal margin at an oblique angle; anal veins mostly simple, joining the caudal margin, except that the first may join CuP just before the margin.

As there is considerable individual variation in the wings of cockroaches it is difficult to compare this fossil with the described wings placed in the genus. However, this Tasmanian specimen is more similar to *Triassoblatta ovata* Dodds than to any other species from the Triassic beds at Mt. Crosby, Queensland.

\* Division of Entomology, C.S.I.R.O., Canberra, A.C.T.

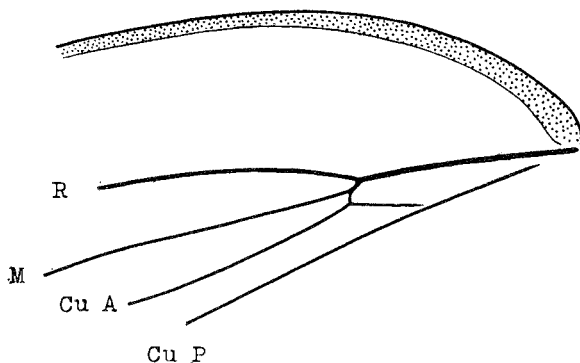


Fig. 2.—Scytinopteridae, gen. et sp. indet. Base of forewing X6.

### HOMOPTERA.

#### SCYTINOPTERIDAE. gen. et sp. indet.

Specimen 55140, University of Tasmania, Department of Geology Collection.

This specimen (length of fragment 12 mm.) consists of the basal third or more of the forewing of a rather large homopteron. Only the costal field and the basal stems of R, M, CuA and CuP are preserved. The enlarged costal space, curvature

of R, origin of M and shape of CuA indicate affinity with the Scytinopteridae or with the Prosbolidae. These two families are separated on structures which occur in the apical half of the wing. However, the Prosbolidae are not definitely recorded from Australian strata although one or two fossils have provisionally been placed in the family. The Scytinopteridae are the dominant family of Australian Permian Homoptera and are also well represented in the Triassic. It is therefore more reasonable to consider this fossil as a scytinopterid.

A comparison with Australian Scytinopteridae shows a close similarity between the present wing fragment and the corresponding portion of the forewing of *Orthoscytina*, a genus common in the Upper Permian of Belmont, New South Wales. It could, however, be as readily compared with several of the Triassic Scytinopteridae from Mt. Crosby, Queensland, where the origin of Rs is more distal though in most of these forms the base of R is arched.

As the diagnostic features of the wing in species of this family are all apical the specimen must remain unnamed though it is distinguished from other known species by its large size.

### References.

- DODDS, B., 1949.—Mid-Triassic Blattoidea from the Mount Crosby Insect Bed. *Univ. Queensl. Dept. Geology* 3 (10): 1-11.  
EVANS, J. W., 1956.—Palaeozoic and Mesozoic Hemiptera (Insecta). *Aust. Jour. Zool.* 4: 165-258.