

## On the distribution of the scale insect *Steatococcus samaraius* Morr.

by

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This insect was described by MORRISON (1927) from Samarai, a locality on the east-point of New Guinea. BEARDSLEY (1955) has reported it from the Palau Islands (Micronesia), where it was found on banana-leaves, young coconutpalms, ornamental plants, and a number of weeds and wild trees. Prof. BUCHNER informed me that he had examined specimens from Manila (Philippine Islands). In 1957 I received by courtesy of Dr. D. J. WILLIAMS (London) a sample of *Steatococcus samaraius* from San Christobal (Br. Solomon Islands) where it had been collected from a climbing aroid plant in 1955. As far as I know, the insect is at present only known from these four localities.

In 1964 I sent to Prof. Dr. P. BUCHNER some material of what I thought to be *Icerya seychellarum* (Westwood), collected in 1956 from a coffee-tree at Djember (East Java). Prof. BUCHNER, who examined the mycetome of these insects, reported that it was different from the *Icerya*-type, and that he intended to examine other material of *I. seychellarum* which he had obtained from Mauritius

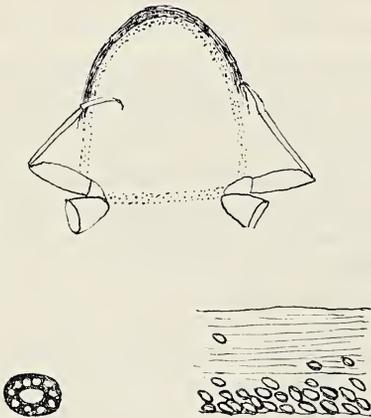


Fig. 1. *Steatococcus samaraius* Morr. Ventral side of abdomen ( $\times 20$ , diagrammatic). Band of wax-pores around marsupium dotted. Sclerotic strip on the outside of this band black. Separate figs. Part of marsupium-band with sclerotic strip ( $\times 200$ ), and separate wax-pore of marsupium-band ( $\times 650$ ):

(Indian Ocean). On re-examining my material from Djember, of which fortunately 2 mature females were still available, I saw that these insects had a marsupium which at most occupied half the width of the abdomen. After preparing one of the specimens it appeared that an ovisac-band along the margin of the abdomen, as present in adult females of *I. seychellarum*, was absent (Cf. MORRISON 1928, fig. 109 A). *I. seychellarum* is one of the most common Monophlebinae in Java, and can be easily distinguished from other *Icerya*-species in that island by the possession of large so-called open centre pores (diameter about  $20 \mu$ ); see MORRISON (1928, fig. 109 H) and VAYSSIÈRE (1926, fig. 90 A). Apparently the misidentification of the insects from Djember was due to the presence of these large wax-pores, but *Steatococcus samaraius*, which has not yet been reported from Indonesia, also possesses such pores. Microscopical preparations of the insects from

Djember show that they belong to the same species as the *Steatococcus samaraius* from the Solomon Islands.

After discovering the misidentification of the insects from Djember I have examined all my slides with *Icerya seychellarum*. It appeared that my specimens from West Java, from the south-coast of West New Guinea (REYNE 1961, p. 124), and from Manila (Philippines) were really *I. seychellarum*. Insects from *Citrus*, collected on the northcoast of New Guinea near Hollandia (the present Kota Baru) proved, however, to be *Steatococcus samaraius*; SIMON THOMAS (1962), who collected these insects, has reported them as *I. seychellarum* due to my misidentification. The latter species had already been collected from *Citrus* near Merauke on the south-coast of New Guinea, and is common on *Citrus* in Java and Sumatra (CLAUSEN 1933). Finally I learned from unpublished notes of Dr. L. G. E. KALSHOVEN that in 1937 at Manado (North Celebes) an insect had been collected from an unknown plant, and also from the coconutpalm, which Dr. J. G. BETREM had identified as *Steatococcus* sp. I suppose that this insect was also *Steatococcus samaraius*. If this conjecture is right, *S. samaraius* is at present known from East Java (Djember), North Celebes (Manado), New Guinea (Samarai and Kota Baru), the Solomon Islands (San Christobal), and the Palau Islands. The species *Steatococcus assamensis*, described by RAO (1951) from Assam (India), is certainly different from *S. samaraius*, as it lacks the large open centre pores mentioned above.

*Icerya seychellarum* is a very variable species which is distributed in the tropics and subtropics from East Africa to East Asia and Micronesia. As it is common on *Citrus* and other cultivated plants, it can easily be distributed by men with its hosts. After consulting different descriptions, and examining my slides, I came to the conclusion that the only conspicuous character by which *Icerya seychellarum* and *Steatococcus samaraius* can be easily separated is the presence of an ovisac or marsupium in mature females which in microscopical preparations can be recognized by their band of waxpores. In *S. samaraius* the marsupium is surrounded by a narrow band of wax-pores which runs at a considerable distance from the margin of the abdomen; in *I. seychellarum* the band of wax-pores, which produce the ovisac, is broader, and lies quite near the margin of the abdomen. The pores around the marsupium in *S. samaraius* usually have an ellipsis in their centre, surrounded by 6—12 (mostly 8—10) distinct loculi; a few pores with a triangle in their centre, surrounded by 6—9 loculi, are also present. In the posterior half the marsupium-band is bordered on the outside by a narrow sclerotized strip which gradually fades and does not reach the hind coxae. The pore-band of the marsupium is also present between the posterior coxae, but it does not extend to the body-margin, as in *I. seychellarum* (fig. 1).

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Clarke, J. F. Gates — Catalogue of the type specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick. Vol. 5. Timyridae, Hyponomeutidae, Ethmiidae, Metachandidae, Cosmopterygidae, Walshidae, Blastodacnidae, Scythridae, 581 pages, 283 plates. Edited by the Trustees of the British Museum (Natural History), London, 1965. Price £ 15.—.—

An extensive review of this series of monographs has appeared in vol. 23 : 226 (1963) of this journal.

The present volume contains great amount of information on the tropical representatives of several families of Microlepidoptera which are extremely little known; they have actually been for many years the field of study of a single specialist, Ed. MEYRICK. The family Timyridae, separated by CLARKE from the Gelechiidae in 1955, occupies more than the first half of the volume. Very numerous species, most of which confined to the Tropics, are slender insects of moderate or small size with narrow wings and long legs and antennae. Superficially they differ from the Gelechiidae by the peculiar resting attitude: with the wings folded flat over the back and the posterior end of the whole body lifted, sitting high upon all six legs. The family has been separated on the ground of very characteristic male genitalia, entirely different from these structures in the Gelechiidae; usually they possess a peculiar beaked, porrect uncus, as e.g. in the large genus *Lecithocera* Zeller. Upon them follow the following families: Hyponomeutidae, Ethmiidae, Metachandidae, Cosmopterygidae, Walshidae, Blastodacnidae and Scythridae. Only three of these names sound familiar to the European lepidopterist: Hyponomeutidae, Cosmopterygidae and Scythridae; a few will have used the name Ethmiidae, a group, merged in the Hyponomeutidae before (*Ethmia* Hb. = *Psecadia* Hb.), while the other names are not familiar at all. Metachandidae are a moderate group of exclusively tropical species of Gelechiid affinity. Walshidae and Blastodacnidae have recently been defined and separated from the heterogenous "family" Cosmopterygidae. These are mostly small species with mining life habits; they have aberrant, almost anomalous, male genitalia.

The present volume is executed in the same rich way as the previous ones, each plate depicts photographs of a pair of wings, and the genitalia of each species. Where a type-species of a genus of MEYRICK is concerned, also a photograph of the head and a sketch of the wing venation are given.

This volume opens a way to the study of the tropical species of the above-mentioned families and will be an indispensable guide for those students. It forms a precious addition to our library on Lepidoptera. — A. D.

Register „De levende Natuur”. Als een passende herdenking van de dag, dat Dr. Jac. P. THIJSSSE 100 jaar geleden geboren werd, verscheen een uitvoerig register op de eerste 45 jaargangen van „De levende Natuur”. Het is een boekwerk van 328 pagina's geworden, keurig verzorgd, en dat voor de zeer goedkope prijs van f. 5,90 te krijgen is, te storten op postrekening 13028 ten name van het Bureau van de K. N. N. V. te Hoogwoud-N.H.

Natuurlijk was deze lage prijs alleen mogelijk doordat tal van subsidies voor het drukken ervan verleend zijn. Voor een ieder, die de oudere jaargangen van het tijdschrift wel eens moet raadplegen, is het register onontbeerlijk. — LPK.