

GLOBICEPS SALICICOLA REUTER* (HEM., MIRIDAE)
NEW TO BRITAIN

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SINCE the removal of *Globiceps dispar* (Boh.) to *Mecomma* Fieb. (Southwood and Woodroffe, 1957) the genus *Globiceps* Lep. and Serv. has been represented in Britain by two closely allied species, *cruciatus* Reut. and *flavomaculatus* F. Both are uncommon insects, inhabiting marshy areas with willows (*Salix* spp.) though, at least in the case of *cruciatus*, the composition of the ground flora is also important (see Woodroffe, 1958). In both species the females are normally brachypterous and the males always macropterous.

On June 16, 1956 I obtained many nymphs and a few adults of a species of *Globiceps* by sweeping heath (*Calluna vulgaris* (L.) Hull and *Erica cinerea* L.) among scattered pines (*Pinus sylvestris* L.) on a sandy hillside near the summit of Blackdown, Sussex, near Haslemere, Surrey, at an altitude of about 900 ft. Nymphs were found also on the ground among the plants. Neither *flavomaculatus* nor *cruciatus* was likely to occur in such a situation so a second visit was made on June 26, 1956. The population was then largely adult and many more specimens were taken. The fact that most females were macropterous confirmed my idea that the species was neither of the two known to date as British. Some of the nymphs were reared in captivity but they were strongly carnivorous, especially in the last instar, and much cannibalism occurred in spite of the provision of an abundance of aphids. I have also taken the species more recently by sweeping *Erica* and *Calluna* among birch scrub (*Betula* sp.) at Witley Common, near Godalming, Surrey, on July 8, 1958.

Comparison of the material from Blackdown with British *cruciatus* and *flavomaculatus* confirmed the impression gained in the field that they represented a distinct species, but they failed to run down satisfactorily in Wagner's key (Wagner, 1952). However, Dr. T. R. E. Southwood drew my attention to the fact that Dr.

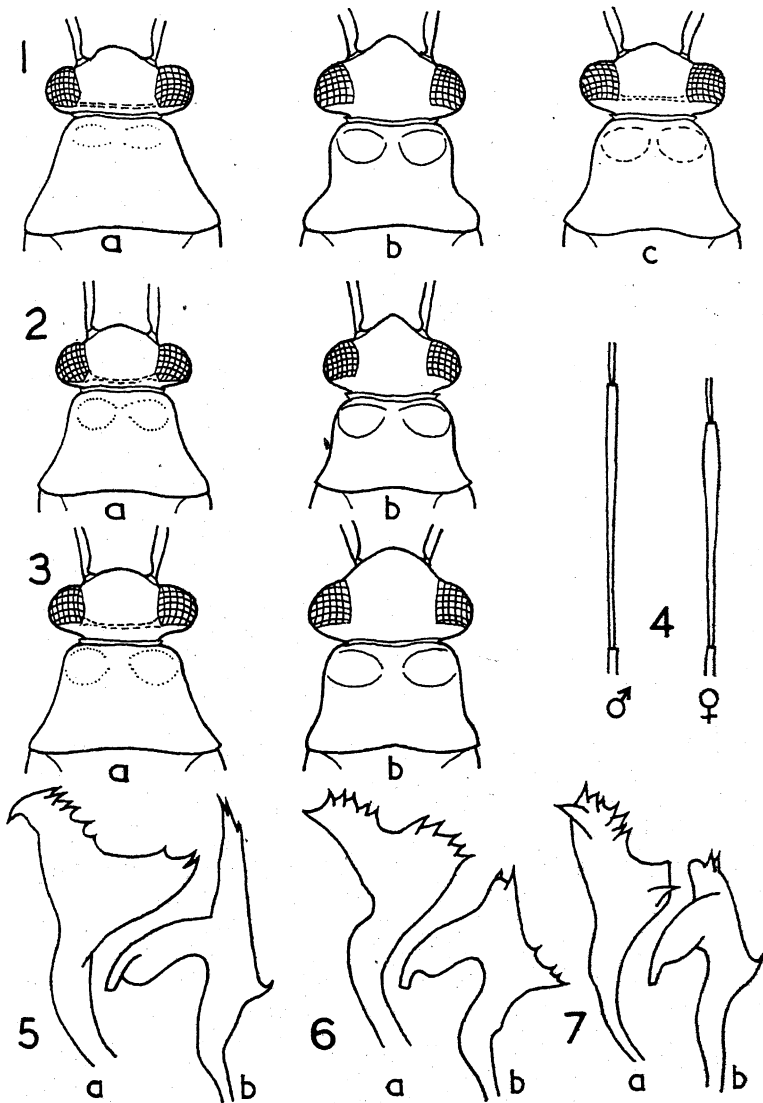
* Wagner (*in litt.*) disagrees with some of Cobben's findings and proposes to pursue further the problem of the European *Globiceps*. He also considers it possible that the species dealt with here may prove to be distinct from, though closely allied to, *salicicola*, but whether at specific or subspecific level is not yet certain. Consequently it may prove necessary to change the name of the British insect when his investigations are complete and published.

R. H. Cobben was studying certain species of the genus in Holland and he obtained for my use a copy of Dr. Cobben's unpublished work. Cobben's findings revealed that the considerable variation in external morphology and male genitalia which occurred in continental *G. cruciatus* had resulted in a form of that species being misidentified as the Scandinavian *G. salicicola* Reuter. The parameres of males from Blackdown agree well with Cobben's figures of the parameres of the true *salicicola*. Finally, comparison with some examples of the Scandinavian *salicicola*, kindly lent by Dr. F. Ossiannilsson of Uppsala, Sweden, confirmed that the British insect is indeed that species.

Key to the British species of Globiceps Lep. and Serv.

- 1 2nd antennal segment gradually and slightly thickened towards apex (Fig. 4); always macropterous (males) 2
- 2nd antennal segment clavate, i.e. more abruptly and conspicuously thickened towards apex (Fig. 4); usually brachypterous (females) 4
- 2 2nd antennal segment shorter, so that ratio of 2nd segment to width of pronotal base is less than 1.45 : 1.0
cruciatus Reuter
- 2nd antennal segment longer, so that ratio of end segment to width of pronotal base is greater than 1.45 : 1.0 3
- 3 Pronotum narrower at base, so that ratio of width of base to width of head across eyes is less than 1.35 : 1.0
flavomaculatus (F.)
- Pronotum broader at base, so that ratio of width of base to width of head across eyes is greater than 1.35 : 1.0
salicicola Reuter
- 4 2nd antennal segment longer, so that ratio of 2nd segment to width of pronotal base is greater than 1.75 : 1.0. (Head between eyes often strongly convex) *flavomaculatus* (F.)
- 2nd antennal segment shorter, so that ratio of 2nd segment to width of pronotal base is less than 1.75 : 1.0 5
- 5 Head relatively wider, so that ratio of length of 2nd antennal segment to width of head across eyes is less than 1.70 : 1.0. (Head between eyes often somewhat convex) *cruciatus* Reuter
- Head relatively narrower, so that ratio of length of 2nd antennal segment to width of head across eyes is greater than 1.70 : 1.0. (Head between eyes flat or nearly so; often macropterous)
salicicola Reuter

The three species keyed above are placed by Wagner (*op. cit.*) in the subgenus *Kelidocoris* Klti. They are extremely close species and it is difficult to find any general points of difference to support



FIGS. 1-7.—(1-3) Head and pronotum; (a) males; (b) brachypterous females; (c) macropterous female. (4) Antennae. (5-7) Parameres; (a) right paramere; (b) left paramere. (1, 4 and 5) *G. salicicola*; (2 and 6) *G. cruciatus*; (3 and 7) *G. flavomaculatus*.

the key characters except the genitalia which, in spite of the variation demonstrated by Cobben, form a sound basis for specific determination. Both sexes of *salicicola* resemble *flavomaculatus* in having relatively longer legs and antennae than *cruciatus* but the female resembles that of *cruciatus* in the absence of the strongly globose head which is usual in the female *flavomaculatus*. Precise definition of these species is rendered particularly difficult by the fact that the most conspicuous characters appear to be more or less associated with brachyptery. Not only does brachyptery in these species reduce the width of the pronotal base (a usual effect) but it increases the prominence of the pronotal callosities. The development of a globose head, with ecarinate vertex, also seems to be associated with hemelytral abbreviation. This is best illustrated by *salicicola*, in which the macropterous female (Fig. 1c) is intermediate in these respects between the male (Fig. 1a) and the brachypterous female (Fig. 1b). The condition is most extreme in the brachypterous female of *flavomaculatus*, in which the head is often strongly globose the vertex ecarinate, the pronotal callosities prominent and sharply defined and the pronotal base strongly narrowed (Fig. 3b). I have one male *flavomaculatus* from Germany (kindly donated by Dr. Wagner) in which the head is moderately globose so it seems that, in general, the tendency towards brachyptery and its associated morphological changes is strongest in *flavomaculatus* and weakest in *salicicola*, with *cruciatus* in an intermediate position. It is noteworthy that an increasing tendency towards brachyptery in these three species is concurrent with increasing dampness of habitat and it is interesting to consider how many swamp-inhabiting Mirids (especially the females) are brachypterous—a condition which is not particularly common in the family as a whole.

I am very grateful to a number of colleagues for their help in this investigation. In particular, I wish to acknowledge my debt to Dr. R. H. Cobben for giving me access to his unpublished results and to Dr. T. R. E. Southwood for corresponding with him on my behalf. I also received valuable material from Dr. E. Wagner and, on loan, from Mr. M. Ackland, Drs. A. M. Masseur, F. Ossiannilsson, G. G. E. Scudder and the Hope Department of Entomology, Oxford.

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VANESSA ATALANTA IN NOVEMBER.—On November 7 a specimen of *Vanessa atalanta* was seen flying in our garden here. It was a mild but cloudy day. I had previously had the pleasure of seeing one or two feeding on the Michaelmas daisies on September 27.—JAMES W. WOOLHOUSE; "Hill House", 2, Frances Street, Chesham, Bucks.

PLUSIA NI IN SOMERSET.—With reference to correspondence in the August and October numbers of the *Entomologist*, and in particular to the letter of Mr. R. E. Ellison, it may be of interest to record that *Plusia ni* turned up here in Minehead on May 10 and again on August 10. I, also, wondered whether the second might have been bred locally, but as another migrant, *Rhodometra saccharia*, appeared within 24 hours I am inclined to think that there was further migration. I believe that this moth had not been recorded from Somerset prior to 1958.—H. M. CHAPPELL; White Lodge, Minehead, Somerset.

UNUSUAL ABUNDANCE OF PERIDROMA PORPHYREA SCHIFFERMUELLER [SAUCIA (HUEBNER)].—I think there must have been a heavy immigration of *Peridroma porphyrea* early in the year, for I have never seen the autumn brood so common. Here in Wiltshire four or five turn up every night at light, and some half dozen pupae I picked up when digging potatoes have proved to be this species. I have referred elsewhere to the numbers of this insect at sugar at Titchfield—the numbers over the whole district must be enormous. Usually I see only one or two each autumn round here.—R. A. JACKSON; Codford St. Mary, Wilts.

THERA OBELISCATA: APPARENT INCREASE IN MELANISTIC FORMS AT WOKING.—This species has been unusually abundant this autumn. Its last appearance in such numbers was in October 1951. This year I have noticed how a much larger proportion of the examples seem to be of the intense black form compared with those I was getting at light seven years before. Black-banded forms too are well to the fore. I gather that only a few miles to the south melanistic forms are practically absent, which would appear to indicate a steady spread outwards from the Metropolis of the black varieties.—C. G. M. DE WORMS; Three Oaks, Woking. *October 1958.*

OBITUARY

WILLIAM RAIT-SMITH

William Rait-Smith was born on August 19, 1875, in Hong-Kong, son of Warres Rait-Smith who founded the *Hong-Kong Daily Press & Directory*. Under the care of a guardian he was educated at Appleby School and Doctor Watson's College, Edinburgh, training later and eventually