

cruciatus needs a moist atmosphere for successful rearing, this apparent preference for the dry chamber is unexplained.

2. Light intensity choice

Choice chambers of the same design were used, with one chamber completely surrounded by black paper. Under normal interior daylight conditions the preference, if any, was for the light chamber. When the illumination in the light chamber was doubled, using a lamp, there was a significant movement into the dark chamber. This may have been due to the heating effect of the lamp.

GREGARIOUS BEHAVIOUR

Individuals of *G. cruciatus* form small groups at all stages in their development, from first day nymphs to adults, and the various instars group freely together. Observations were made using a chamber divided into four regions and recording the distribution of individuals in the four regions (which did not offer any environmental differences). Groups were largest during the morning and evening (observations were not made at night), being least when the insects were most active (11 a.m. to 4 p.m.). As an example, 44 insects were introduced into the chamber. By the time that they had settled for the evening (8 p.m.) 40 of them were to be found in four groups, containing respectively 24, 8, 5 and 3 individuals.

When other species of psocid are introduced with them, *G. cruciatus* does not group with the intruders.

References

- New, T. R. (1969). The early stages and life histories of some British foliage-frequenting Psocoptera, with notes on the over-wintering stages of British arboreal Psocoptera. *Trans. R. ent. Soc. Lond.*, **121**: 59-77.
- New, T. R. (1974). *Handbooks for the identification of British insects*, Vol. 1, Part 7, *Psocoptera* (Royal Entomological Society, London).

THE LARGE TORTOISESHELL (*NYMPHALIS POLYCHLOROS* L.) IN WEST SUSSEX, 1964-72. — Considering how rare this butterfly has been in Britain during the past twenty years, the following records of my seeing it in West Sussex may be of interest. All were noted on footpaths resting with wings open. Although I made no attempt to capture them since I do not keep a collection, I was able to confirm identification in each case by a close-up view.

1964: 11.50 a.m., 19th July (one, the first I ever saw).

1968: 11.17 and 11.45 a.m., 16th April (two).

1969: 10.52 a.m., 6th April (one).

1971: 1.05 p.m., 20th April (one).

1972: 12.55 p.m., 28th April (one).

All the above were noted in the same area, but I have not seen the butterfly since. — ALISON ROSS, c/o The Editor, *The Entomologist's Record and Journal of Variation*, 14.iii.1975.



Ross, A. 1975. "The large tortoiseshell (*Nymphalis polychloros* L.) in West Sussex." *The entomologist's record and journal of variation* 87, 136–136.

View This Item Online: <https://www.biodiversitylibrary.org/item/94917>

Permalink: <https://www.biodiversitylibrary.org/partpdf/196904>

Holding Institution

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Sponsored by

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Amateur Entomologists' Society

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.