

## FIELD AND TECHNIQUE NOTES

SPARROWS FEEDING ON CONGREGATING *PAPILIO*

During the last week of June, 1952, *Papilio glaucus canadensis* R. & J. (the Tiger Swallowtail) was the most conspicuous and apparently the commonest species of butterflies in the vicinity of Fairbanks, Alaska. The species was seen assembling in very large numbers at damp spots on bare ground, both on the banks of streams and on cleared land. All specimens taken during this period proved to be males; females, if present at all, apparently did not join the "mud puddle clubs".

On two occasions (at Ester, a few miles west of Fairbanks, and on the Steese Highway in the Chatanika Valley) sparrows were observed hopping about among these aggregations and pecking at individual swallowtails. Unless actually attacked, the insects appeared to pay no attention to the birds. The latter were not actually seen to eat the butterflies, though on several occasions swallowtails were caught and escaped. It is quite possible that the sparrows were disturbed by our presence, or perhaps they were satiated by the easy pickings; evidence of actual predation was easily seen in the large numbers of detached wings scattered around the assembling places. The predator was, in one case, a White Crowned Sparrow (*Zonotrichia leucophrys*), but it is quite likely that other species such as the Tree Sparrow (*Spizella arborea*) and Slate-colored Junco (*Junco hiemalis*), both of which were common in the neighborhood, have similar habits.

We think this observation worthy of record, since no similar case of predation has come to our attention in connection with the well-known assemblages of *Papilio marcellus*, *Colias*, *Phoebis*, *Eurema*, *Limenitis arthemis*, etc., in the United States. Nor have we seen any published record of this sort. Any further observations of a similar nature will be of great interest.

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## A NEW METHOD FOR STORING PAPERED LEPIDOPTERA

The problem of relaxing papered Lepidoptera has been one of concern to the author for some years. In those cases where material is collected in large quantities at a time, there has seemed no alternative but to paper and dry the majority of the specimens and to hope to relax them in the winter slack season. However, it has been my experience that there is a considerable loss due to staining or fading during relaxing and to breakage when the relaxed specimens are being mounted. The Lycaenidae and Pieridae have been particularly difficult to deal with in these respects.

It would now appear, however, that there is a method infinitely superior to papering dry for preserving those specimens which cannot be mounted at once but are ultimately to be a part of the collector's own series. This method is freezing. Those collectors who have access to a deep freeze or who can steal a bit of space in the freezing compartment of the family refrigerator will find that frozen specimens keep perfectly for months and need only be thawed out to be ready for mounting.

To prepare specimens for freezing it is only necessary to put them into papers or envelopes (marked with the place and date of capture, etc.), seal the envelopes into water-proof boxes or packets, and place them in the freezing unit. At sub-zero temperatures they will last indefinitely. It should be emphasized that the specimens must be kept in moisture-proof containers. This precaution not only prevents damage when the wife defrosts the refrigerator, but it also prevents the specimens from drying out. They will dry out even while frozen as anyone who has stored improperly wrapped meat in a freezer knows.

At first glance it would appear that the system might be useful only for those specimens intended for the collector's own cabinets, but experience has shown that frozen specimens in tight tin boxes may be shipped over the whole country by air-mail and arrive in mountable condition; thawed of course, but still pliable. A drop of dilute carbolic acid or other mold-preventative on a bit of cotton in the box will discourage the development of mold during the period in the mails. In view of the present rapid air service to the continent of Europe and to England it should also be possible to ship valued specimens abroad by this method.

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