

AN OCCURRENCE OF *SCUDDERIA FURCATA FURCATA* BRUNNER, ON THE COAST OF BRITISH COLUMBIA (Orthoptera: Tettigoniidae)

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On October 11, 1937, two specimens of the Fork-tailed Bush Katydid, (*Scudderia furcata* Brunner) were taken in the Fraser River delta. Both specimens were caught on the trestle of the Canadian National Railway, where the line crosses the north fork of the Fraser River to Lulu Island. Since the insect was not immediately recognized as uncommon to this region, no further specimens were sought, but the following day, after identification, another trip to the vicinity was made.

Some search was made before any were found, but a low purring chirp led the party to a birch tree (*Betula occidentalis* Hooker) where close examination showed one of the green Katydids. It was almost indistinguishable from the leaf on which it was resting, and this, coupled with the fact that the chirping always seemed to be farther away than it actually was, accounts for the difficulty in finding the insect. After discovering the location of the singers, judicious sweeping of the lower branches yielded some twenty specimens of both sexes.

The distribution in this area appears to be very limited, since all of the insects were taken in a narrow belt extending about twenty-five yards on both sides of the railway, and within half a mile of the river. Whether or not they occur on the north bank of the river was not determined, since the railway bridge is usually kept open, and the north bank at this point is rather difficult to reach.

The distribution of this Katydid is of considerable interest because this finding of it practically on the sea-shore, extends the range right across the continent. Mr. Morgan Hebard records specimens from the following States: New Hampshire;

Massachusetts; Rhode Island; New York; New Jersey; Pennsylvania; Maryland; District of Columbia; Virginia; North Carolina; South Carolina; Georgia; Florida; Michigan; Wisconsin; Ohio; Indiana; Missouri; Kentucky; Tennessee; Alabama; Louisiana; South Dakota; Nebraska; Kansas; Arkansas; Oklahoma; Texas; Idaho; Washington; Oregon; and California; in all thirty-two states, and in Canada from Ontario; Quebec, and British Columbia. Mr. Ronald Buckell of Kamloops informs me that he has collected it in British Columbia from: Kaslo, Vernon, Salmon Arm, Enderby, Oliver, Creston, Penticton, Osoyoos and Lillooet.

This makes its distribution practically as widespread as any one of the ubiquitous *Acridiinae* although its altitudinal distribution may not be so great. But whereas such specimens as *Camnula pellicida* (Scudder) and *Melanoplus mexicanus* (Saussure) are freely flying and swarming forms, this insect is secretive, very local in distribution and frequently nocturnal. This extraordinarily wide range means therefore that the species is either of very great antiquity or indulges in hitherto undetected flights of some distance, probably at night, or is distributed by man in some way, perhaps in the egg stage. In this instance, since the range of occurrence was restricted to the above-mentioned area bordering the railway, it is quite conceivable that the original parent or parents, arrived as adults via some open form of railway car.

The question of its food in the locality where I found it seemed worthy of investigation, so the stomach contents were examined microscopically. The finely comminuted plant material contained an unusual number of stomata per unit

area, and many peculiar club-shaped bodies occurred everywhere. The type and distribution of the stomata indicated a marsh or aquatic plant, and the absence of stomata on one of the leaf surfaces indicated a floating water plant. The leaves of the Yellow Pond Lily (*Nymphaea polysepala* Engelm.) were examined and were found to correspond in having the same stomatal distribution,

and in having club-shaped papillae on the lower surface, identical with those found in the stomach of the insects. Thus it is logical to assume that this plant constituted the food of the Katydid at the time of capture. The birch trees were apparently merely resting places, and the insects must fly down to feed on the aquatic plants, probably at night.

**INSECTS ACTIVE THROUGHOUT THE WINTER AT VANCOUVER, B.C.
PART II: LISTS OF THE ORTHOPTERA, DERMAPTERA,
HOMOPTERA, HEMIPTERA, DIPTERA, AND HYMENOPTERA.**

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This report constitutes a partial list of insects collected during the period November 8, 1939 to March 28, 1940 at Vancouver, B.C. It supplements the list published in Part I of this series (Foster, 1942), and completes that portion of the study which will serve as a basis for the ecological relationships now being prepared for publication.

In Part I, lists of the Coleoptera and Neuroptera were given and brief mention was made of the Thysanura and Collembola. To these four orders, eight more are added at this time, bringing the number of orders collected during the winter survey to 12. The Lepidoptera and Corrodentia are not given specific consideration.

**ORTHOPTERA
LOCUSTIDAE**

Acrydium brunneri Bolivar

**DERMAPTERA
FORFICULIDAE**

Forficula auricularia Linn.

**HOMOPTERA
CERCOPIIDAE**

Philaenus leucophthalmus Linn.

CICADELLIDAE

Balclutha manitou (G. & B.)
Typhlocyba commissuralis Stal.
Typhlocybini sp.
Dikraneura sp. Very common.

Helochara communis Fitch.

Idiocerus downesi B. & P. Very common.

PSYLLIDAE

Specimens of frequent occurrence. No specific determinations made.

APHIDIDAE

Myzus ligustri? Mosley. Taken in immense numbers in March.

HEMIPTERA

MIRIDAE

Lygus pratensis var. *oblincatus* Say

ANTHOCORIDAE

Anthocoris antevolens White

NABIDAE

Nabis roseipennis Reut.

Nabis alternatus Parsh.

LYGAEIDAE

Ischnorrhynchus franciscanus Stal. Very common.

Lygacus kalmii subsp. *kalmii* Parsh.

PENTATOMIDAE

Elasmostethus cruciatus Say Very common.

Podisus modestus Dall.

Banasa sordida Uhl.

Apateticus crocatus Uhl.

DIPTERA

AGROMYZIDAE

Phytomyza spp.

ANISOPODIDAE

Anisopus fenestralis Scopoli.

BIBIONIDAE

Bibio tristis Will.

BORBORIDAE

Borborus equinus Fallen

Leptocera sp.

Sphaerocera pusilla Fallen

Scatophora carolinensis Desv.