## MASS COLLECTING OF LABIA MINOR L., THE SMALL EARWIG

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Besides other orders, British Columbia is particularly blessed with representatives of Dermaptera. The following species are found here:-

Forficula auricularia L., the common earwig.

Anisolabis maritima Géné, the seaside earwig.

Anisolabis annulipes Lucas, the ring-legged earwig, also known as Euboriella annulipes Lucas, and

Labia minor Linn., the small earwig.

Of these species, **Labia minor** is Palaearctic, but whether it entered America in historic or geologic times is not definitely known, although it is generally supposed that it was introduced accidentally by man. The other three species are cosmopolitan, which have been introduced into Canada by commerce and which have become established on the British Columbia coast.

In numbers, Forficula auricularia far surpasses all the others and is probably present in all of the southern coastal areas of British Columbia. Anisolabis maritima is present in large numbers on an island three miles out of Departure Bay, Nanaimo, and on the mainland of Vancouver Island, near the Biological Station. It is found in coarse gravel at high tide mark, living in a narrow belt some two feet wide where the water generally deposits a strip of seaweed and flotsam. Anisolabis annulipes, so far, is present only at Victoria, in the gardens of the Empress Hotel.

Labia minor has been collected singly or in small numbers at Salmon Arm, Vernon, Chilliwack, Agassiz, Courtenay and Vancouver. This is a small species and has the following measurements: body 4-5 mm., tegmina 1.5 mm., forceps of male 2 mm., and female 1.2 mm.

In looking up the available records for North America, I find very few and only one or two specimens in each case. This may be explained by their nocturnal habits and rapid flight which is like that of rove beetles. In the United States the majority have been caught in flight, some have been found under bark, and others have been caught around lights to which they were attracted. The species has been taken in the New England states every month from May to November, from stables, manure heaps and fungi. In distribution, it occurs westward from the New England states to the prairie states including Virginia, North Carolina, Ohio, Indiana, Minnesota, South Dakota and Florida. In eastern Canada, it occurs in Nova Scotia, New Bruns-

wick. Quebec, Ontario and Manitoba. In the west, it is found in California, Oregon and British Columbia.

It is of interest, therefore, to record mass collecting of this species.

One evening in the month of June, I was looking for worms suitable for sectioning and, as those feeding in dung hills would have no sand within them, I went to the nearest farm, located just south of Kerrisdale and west of Marine Drive Golf Course. The dung hill consisted of cow manure and straw and was about 10 feet by 10 feet and about 50 feet long. On the end exposed to the sun and hidden just under the surface of the heap and in manure, partly dried and quite warm from the heat of the sun and natural decomposition, I found a few of the small earwigs. As their movements were very rapid, they were rather difficult to catch with forceps. By removing a part of this layer and placing it in a bag, I thought probably there would be some within the material, and by examining each small piece carefully on a sheet of white paper, I would be able to get them more easily. Such proved to be the case, but they were in far greater numbers than I had at first anticipated. Each small piece was broken up completely and as the earwigs came to view they were picked up with forceps and placed in alcohol. In a cubic foot of material I obtained between two and three hundred specimens, most of them adults but also a few of the immature stages.

Although Forficula auricularia has appeared along the northern portion of the Pacific coast in far greater numbers than probably anywhere else in any of the regions into which it has become introduced, greatly surpassing in numbers any infestations that have ever been reported from its native land, this is due to a very favorable gross climate. Therefore, these large numbers cannot be correlated with those of Labia minor, which is governed by micro-climate.