

## NOTES ON SNIPE FLIES OF THE GENUS *SYMPHOROMYIA* IN ALASKA

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For the past four years the authors and their associates have been observing snipe flies in Pacific coastal Alaska. The most common species, *Symphoromyia atripes* Bigot, is a widely distributed pest in the Territory, and another, *S. kincaidi* Aldrich, likewise a bloodsucker, has been found in the Juneau area. Unfortunately, practically nothing is known of their biologies, apart from the annoying biting habit of the females. It is therefore appropriate to record our data on their Alaskan distribution, abundance, and relation to man for the use of other entomologists.

In his monograph of *Symphoromyia*, Aldrich (1915) designated *S. atripes* the "bad biter *par excellence*." Several of the 61 females he studied were from Douglas, Alaska. He also cited a single peculiar female snipe fly, in bad condition, from Sheep Creek, Alaska, which he found did not differ greatly from one of his new species, *S. kincaidi* Aldrich, but which he considered "may be a different species." Travis (1949) reported seeing the genus in the more mountainous areas, particularly in the vicinity of Valdez, Alaska.

The junior author has interested himself especially in the practical aspects of the snipe fly problem at Juneau where, during the past three summers, he has made the following observations: The flies occur in moderate numbers in the canyons of mountain torrents, especially Gold and Salmon Creeks at Juneau. They appear on the wing whenever the sun shines from July through mid-September. During the latter part of August they become so abundant as to constitute a serious pest

problem, not only on the streams but in the city as well. On fair days hordes may appear, settling clumsily to bite men and animals that pause momentarily. For example, on September 9, 1949, as many as two dozen were counted on the author's dog and an estimated 100 landed on his companion who was baiting a rodent trap. Snipe flies in some years make Evergreen Bowl, city recreation area on Gold Creek, practically useless for an extended time during periods of fine weather in late August or early September. At the same time they invade homes, stores, and hotels, biting unwary babies, guests, and dogs. At the end of several weeks dead snipe flies litter the window ledges of store display fronts like veritable beach windrows. The bite is rather painful. Some workmen laying a pipeline along Gold Creek in 1949, preferred working on rainy days when the snipe fly nuisance was negligible. The flies disappear about the second week in September.

Distribution of *S. atripes*. The collections are from two very different zoogeographical regions: (1) the Kenai Peninsula and Upper Cook Inlet in coastal central Alaska, and (2) southeastern Alaska. Specimens from Valdez have also been identified as *atripes* by specialists of the U. S. National Museum, but we have not seen these. Southeastern Alaskan females differ slightly but consistently from those of the Kenai and Upper Cook Inlet, the stigma being darker and wing infuscation markedly heavier than in the latter. Excepting Homer, Seward, and Juneau, the localities seem to be characterized by small and local *atripes* populations. Material examined came from the following localities: Homer, Seward, Fort Richardson, Hope, Juneau, Deer Mt. (Ketchikan), Ward Lake, Talkeetna Mts. (Palmer), Eklutna Lake, Potter Creek, Eagle River,

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Salmon Creek (Juneau), Greenhouse Creek, and Butte Creek.

*Symphoromyia kincaidi* Aldrich. The larger size and bright yellow halteres of *kincaidi* females distinguish them from *atripes*. In *atripes* females the halteres are dark brown or black. Under the binocular microscope the abdominal hair of *kincaidi* is mostly yellow or golden; it is black in *atripes*. We have seen only four specimens of *kincaidi*, but it does not appear that the double dark median thoracic stripe of *kincaidi* differs consistently from the many variations of single, double, or 3 stripes with or without indefinite lateral areas of *atripes*. The *Symphoromyia* from

Sheep Creek, Alaska, which Aldrich was reluctant to assign to *kincaidi* because his specimen had yellow pile all over, was not encountered. It could be separated easily from our *kincaidi* females which have the jet black hair on front and thorax normal to the species. Material examined came from Juneau on June 1, June 9 and August 28.

#### References

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## LABORATORY SCREENING OF SOME MOSQUITO LARVICIDES<sup>1</sup>

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### I. INTRODUCTION

The control of mosquitoes in California with DDT has been very successful since World War II. However, the suspected appearance of resistance to DDT and other insecticides (Bohart, 1950; Deonier, 1950; Smith, 1949) in the last few years presents the necessity for testing newer materials in order to have on hand a replacement should certain resistance makes the ones currently in use no longer effective.

During the summer and fall of 1950 the Bureau of Vector Control, State De-

partment of Public Health, conducted a laboratory screening program at the University of California at Davis. Its main purpose was the testing of various insecticides, both old and new, to determine their value as mosquito larvicides.

Because of its availability the species chosen for these tests was *Culiseta incidens*. The toxicants used were aldrin, lindane, pyrenone, Lethane, DDD, parathion, and other promising insecticides as they were made available.

### II. MATERIALS AND METHODS

The laboratory technique, with some modifications, was adopted from the procedure described by Bohart (1948). Egg rafts of *Culiseta incidens* were collected at Green Valley, Solano County, in a location never subjected to control by insecticides. The rafts were taken from a series of three shallow pools situated within an area of

<sup>1</sup> Conducted under the guidance of Dr. Richard M. Bohart, Assistant Professor of Entomology, University of California at Davis, Davis, California, and in cooperation with the Bureau of Vector Control, California State Department of Public Health.

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