AN EXPERIMENT WITH LARVAE OF LAMBDINA FISCELLARIA SOMNIARIA HULST

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As long ago as 1905 it was recognized that there was a close connection between the oak looper, then known as *Therina somniaria* Hulst, and the hemlock looper, *Therina fiscellaria* Guenee.

In the Bulletin of the British Columbia Entomological Society, 1906, No. 3, September, page 3, in an article entitled "*Therina somniaria* at Victoria," Dr. J. Fletcher is quoted as saying that, during an outbreak the previous year, larvae of *somniaria* were observed feeding on western hemlock, spruce and Douglas fir. Also the Rev. G. W. Taylor is reported as considering *somniaria* Hulst, to be a variety of *fiscellaria* Guenee.

More recently a paper has been published by H. W. Capps entitled "Some American Geometrid moths of the subfamily Ennominae heretofore associated with or closely related to *Ellopia* Treitschke" (Proc. United States Museum, 93 (3159):115-150, Washington, 1943) in which the writer regards *somniaria* Hlst., as a regional race of *fiscellaria* Guenee and places them in a new genus *Lambdina* Capps. He states that examination of the genitalia confirms his arrangement. The oak looper therefore becomes *Lambdina fiscellaria somniaria* Hlst., and the western hemlock looper *Lambdina fiscellaria lugubrosa* Hlst.

In support of this view, I submit the following notes on an experiment carried out last season with larvae of *somniaria*, obtained during a severe but local outbreak in the Saanich District of Victoria on Garry oak, *Quercus garryana* Douglas.

Eleven hundred larvae were obtained in varying stages of growth. Of these two hundred were placed in a container and fed with western hemlock, *Tsuga heterophylla Sargent*. The larvae readily accepted this and fed to maturity. Sixty-three imagines were obtained during September and October, a percentage of 31.5. Of the remaining 900, which were allowed to continue feeding on Garry oak, 473 imagines were obtained, a percentage of 52.5.

Both groups of insects showed the same range of colour variation, but there was an appreciable difference in the size of the imagines. Those which had been given hemlock were smaller and more close the normal size of *fiscellaria lugubrosa* Hlst.

Average measurements were as follows:

1. Fed on oak 1.75 inches.
2. Fed on hemlock 1.50 inches.

The converse experiment was not so successful due chiefly to the lack of healthy specimens. Some 70 larvae of the hemlock looper, *L. fiscellaria lugubrosa* Hlst., were received from Mr. G. R. Wyatt, early in August from the Sarita River area on Vancouver Island. They were heavily parasitized and also were suffering from a virus infection, consequently mortality was great. Only one imago was obtained, a rather small sized male. The larvae survived long enongh however to satisfy me that they would readily accept oak as a food plant. About 20 larvae were supplied with oak, which they promptly ate.

In conclusion, it would seem reasonable and, I deem, desirable, to accept H. W. Capps' re-arrangement of this group, about which, in the past, there has been some disagreement and speculation.