beetles, while not random, is certain­ly variable enough so that a single sample anywhere around the tree would give only a rough idea of the actual population there.

Kinghorn and Dyer (1960) reported considerable numbers of T. lineatum overwintering in tree bark. Beetles were found not only in thick, heavily fissured bark, but also in niches bored into the relatively thin, smooth bark of smaller trees. This, together with earlier findings concerning location of overwintering beetles, suggests that it is the physical nature of a location in offering small, protected crevices within a certain general setting which influences a beetle to select its specific hibernating quarters. If this is so, then one would not expect differences in litter composition or appearance, even at the surface, to have much influence apart from the fact that most litter offers, at almost any point, relatively dark, moist, easily entered hiding places in abundance. The results of the present study are in agreement with this view and also indicate that it is factors other than those associated with obvious variations in litter itself which are of primary importance in determining location of overwintering beetles.

References

ADDITIONS TO THE CHECK LIST OF MACROLEPIDOPTERA OF BRITISH COLUMBIA

David A. Arnott

While investigating the cutworm species present in southern British Columbia the author used light traps at two localities to supplement data from field surveys. A trap was operated at Kamloops for 5 seasons from 1955 to 1959 and at Summerland for one season, 1956. Among the macrolepidoptera captured were thirty-two species not recorded for the Province by Llewellyn-Jones (1951), including Laphygma exigua Hbn., the beet armyworm, not previously known to occur in Canada. A single new record was obtained from Summerland, that of a geometrid, Cheteoscelis bistriaria Pack. Thirty species were recorded only at Kamloops. Adults of L. exigua were recorded at Kamloops in 1956 and 1958 and an adult recorded from southern Vancouver Island in 1958. The larvae of this species were also found during 1958 infesting crops of table beets and tomato at Ladner and tomato at Pavilion.
The arrangement and numbering of species, locality and flight period, conforms with Llewellyn-Jones' list, which mainly follows that of McDunnough (1938) in his "Check List of Lepidoptera of Canada and the United States, Part I".

Family ARCTIIDAE

Subfamily ARCTINAE

Apantesis Wlk.
1033 virgo L.
1. Kamloops.
2. July, August.

Family NOCTUIDAE

Subfamily NOCTINAE

Euxoa Hbn.
1236 dargo Stkr. rimatana Sm.
1. Kamloops.
2. July, August, September.
1247 olivalis Grt. medunnothi Cook.
1. Kamloops.
2. June, July, August, September.
near 1250 maines Sm.
1. Kamloops.
2. August.
near 1371 servita Sm.
1. Kamloops.
2. July.

Agrotis Ochs.
1425 venerabilis Wlk. Dusky cutworm.
1. Kamloops.
2. August, September.

Anathes Hbn.
1518 subtrigata Sm.
1. Kamloops.
2. August.

Anomogyna Staud.
1558 imperita Hbn.
a disciuncta Wlk. arufa Sm.
1. Kamloops.
2. August.

Subfamily HADENINAE

Trichoclea Grt.
1652 fuscelata Sm.
1. Kamloops.
2. May.

Ceramica Gn.
1. Kamloops.
2. July.

Subfamily CUCULLINAE

Lathosea Grt.
2021 pulla Grt. pullata Grt.
1. Kamloops.
2. April.

Cucullia Schrank.
2038 intermedia Speyer.
a cinderella Sm.
1. Kamloops.
2. May, July, August, September.

Oncocnemis Led.
2090 augustus Harv.
1. Kamloops.
2. September.
2127 riparia Morr.
a aqualis Grt.
1. Kamloops.
2. July.

Homohadena Grt.
2150 stabilis Sm.
1. Kamloops.
2. July, August.

Brachylophia Hamp.
2209 discaigrina Wlk.
1. Kamloops.
2. April, September.

Hillia Grt.
2211 iris Zett. crasis H.-S. semisigna Wlk.
craveni Moesch. senesens Grt.
1. Kamloops.
2. September.

Fishia Grt.
2279 discors Grt. vinela Sm.
1. Kamloops.
2. October.

Anathes Franc.
2319 aggressa Sm.
1. Kamloops.
2. August.

Subfamily AMPHIPYRINAE

Archanara Wlk.
2440 subflava Grt.
1. Kamloops.
2. July, August.

Hypocoena Hamp.
2451 basistriga McD.
1. Kamloops.
2. August.

Amphipoea
2459 americana Speyer.
a pacifica Sm.
1. Kamloops.
2. July, August.

Achytonix McD.
2487 pacifica Sm.
1. Kamloops.
2. August.

Platyperigea Sm.
2534 camina Sm.
1. Kamloops.
2. August.

Caradrina
2560 morpheus Hufn.
1. Kamloops.
2. June, July.

Laphygma Gn.
2683 exigua Hbn. flavamuculata Harv. Beet armyworm.
1. Vancouver Is., Ladner, Pavilion, Kamloops.
2. July, August, September, October. A migrant from the south.

Subfamily HELIOTHINAE

Schinia Hbn.
2982 walsinghami Hy. Edw.
1. Kamloops.
2. August.
Subfamily PLUSIINAE

Chrysaspidia

3273 putnami Grt.
1. Kamloops.
2. August.

Subfamily CATOCALINAE

3346 unijuga Wlk. laccella Worth.
1. Kamloops.
2. September.
3352 faustina Stkr.
1. Kamloops.
2. September, October.

Family GEOMETRIDAE
Subfamily GEOMETRINAE

Choteoscelis Prout.
4079 bistriaria Pack. udinaria Stkr.
1. Summerland.
2. June.

Subfamily ENNOMINAE

Pero H.-S.
5072 honestarius Wlk. stygiarius Wlk. dyari C. & S.
1. Kamloops.
2. May.

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References


AN INCIDENT OF DESTRUCTION OF HONEYBEE COLONIES IN THE INTERIOR OF B.C. BY AN ANT, PROBABLY FORMICA INTEGRA NYLANDER

In a letter received on June 3, 1959, from Mr. J. C. Keswick of Osoyoos, B.C., he advises that a few of his honeybee colonies were moved from Osoyoos up into the Anarchist Mountain area as a safeguard against destruction by Sevin. Four days after moving, Mr. Keswick checked his colonies at which time a great deal of ant activity was noticed. Upon checking the first colony in line it was found to be empty; the only trace of bees being a little capped brood and about a quarter of an inch of wings on the bottom board of the hive. The second hive examined was found to be in the same condition and the third one was just being invaded.

According to Mr. Keswick it was an amazing thing to observe the ants attacking honeybees. Generally at least three ants would attack a bee, snip her in two at the join of the abdomen and thorax, snip off the wings and head, and carry the dissected bee to their nest.

It would appear that as soon as the honeybee colony had been destroyed the ants then polished off any stores of honey, pollen or brood. The hive next in line had not been touched, neither were the remainder of the colonies.

Mr. Keswick carefully checked the area and at about forty feet from the colony a large nest of ants was discovered. This was destroyed after dark and specimens of the ants were sent to the author who in turn had them mailed to G. L. Ayre of Research Branch, Summerland, where they were identified as probably being Formica integra Nylander. This species is common in the Okanagan and because of its predacious habits is generally considered to be beneficial. It is very indiscriminate in its choice of food and will take anything handy.

—J. Corner, Provincial Apiarist, Vernon, B.C.