

WOOD- AND BARK-FEEDING COLEOPTERA OF FELLED WESTERN LARCH IN BRITISH COLUMBIA

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ABSTRACT

A list of wood- and bark-feeding Coleoptera reared from western larch, *Larix occidentalis* Nuttall, in 1928-29 and 1965-66, and the range of emergence dates are presented. The only species reared in significant numbers were the wood borers, *Tetropium velutinum* LeConte, *Serropalpus substriatus* Haldeman, *Melanophila drummondi* (Kirby) and the bark beetle, *Dendroctonus pseudotsugae* Hopkins.

In 1928-29 J. R. L. Howell (unpublished data)² reared insects that had infested a felled western larch, *Larix occidentalis* Nuttall, at Trinity Valley, B.C., to determine the species complex of the stump, bole and limbs. The tree, of unrecorded size, was felled in May 1927 and the trunk, limbs, and stump were caged separately on 8 May 1928. Emergence of adult insects recorded daily during the emergence periods until the fall of 1929 are considered here.

Investigations were initiated to determine the species of wood-infesting Coleoptera of economic importance to western larch in British Columbia. Nine samples of infested western larch logs from 1964 logging

operations were caged at Vernon in April and May 1965. Seven additional samples from trees felled in the spring of 1965, were caged in the spring of 1966. Each sample consisted of three 2-foot-long bole sections 8 to 12 inches in diameter. Emergents were collected daily during the 1965-66 emergence period.

Infested logs were collected at Arrow Park, Grand Forks, Mt. Morrissey, Wilson Creek, Howser Ridge, Lumberton, Little Slocan, Sugar Lake, and Cherryville.

The emergence dates (Table 1) probably are earlier than would be expected under stand conditions, since Vernon is at a lower elevation than the collection sites of the logs. Also, emergence ranges probably include the emergence of spring and late summer broods, at least in the case of *Tetropium velutinum*. A neg-

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TABLE 1. Emergence at Vernon, B.C., from 16 samples¹ of western larch logs from various localities in southern British Columbia.

Species	No. samples infested	Range in No. emergents per sample	Emergence range	
			1965	1966
CERAMBYCIDAE				
<i>Anoplodera canadensis</i> Oliv.	1	0 - 1	Jul 21	
<i>Tetropium velutinum</i> Lec.	14	2 - 100	May 20- Aug 6	May 2- Aug 30
MELANDRYIDAE				
<i>Serropalpus substriatus</i> Hald.	8	1 - 55	?	Jun 29- Sep 3 May 2
<i>Xylita livida</i> Sahlb.	1	0 - 1		
BUPRESTIDAE				
<i>Melanophila drummondi</i> (Kby.)	13	3 - 44	May 17- Aug 12	May 26- Jul 29
SCOLYTIDAE				
<i>Dendroctonus pseudotsugae</i> Hopk.	4	3 - 50	Apr 30- May 11	Jun 11
SIRICIDAE (Undet. spp.)	3	1 - 7	Jun 19	Jul 13- Aug 20

¹ Each sample a total six lineal feet.

ligible number of insects emerged in 1966 from the nine samples caged in the spring of 1965.

Howell (Table 2) reared 13 wood- or bark-feeding species from the stump, 11 from the bole and 8 from the limbs. *T. velutinum*, *Serropalpus substriatus*, *Melanophila drummondi*, and *Dendroctonus pseudotsugae* emerged in significant numbers from the bole. Only the bark beetle *D. pseudotsugae* emerged in quantity from the stump, and *T. velutinum* and *Pissodes schwarzi* Hopkins from the limbs. Most species emerged the first year. The major emergence of *T. velutinum* and *M. drummondi* occurred the first year followed by a

small emergence the second summer. All specimens of *S. substriatus* and three species of Cerambycidae emerged the second summer.

The only species present in significant numbers in the samples of western larch (Tables 1 and 2) were the wood borers *T. velutinum*, *S. substriatus*, *M. drummondi*, and the bark beetle *D. pseudotsugae*. The first two species lower the quality of the lumber by boring into the wood; the others may cause deterioration of the wood by introducing fungal organisms. The absence of *Monochamus* is consistent with the lack of records of this genus in western larch in the literature.

TABLE 2. Emergence of wood- and bark-feeding insects in 1928, and 1929 (brackets) from a western larch tree felled in May 1927 and stump, bole and limbs caged separately in May 1928, Trinity Valley, B.C.

Species	No. emergents ex.			Emergence range	
	Stump	Bole	Limbs	1928	1929
CERAMBYCIDAE					
Anoplopera	1	0	0	Jul 20	
<i>crassipes</i> Lec.					
Phymatodes	0	0(4)	0		May 28-
<i>densipennis</i> Csy.					Jun 9
Phymatodes	1	0	0	Jun 4	
<i>dimidiatus</i> (Kby.)					
Pogonocherus	0	1	1	Aug 21-	
<i>pictus</i> Fall				29	
Rhagium	0(1)	0	1	May 11	Jun 26
<i>lineatum</i> Oliv.					
Spondylis	1	0	0	May 20	
<i>upiformis</i> Mann.					
Tetropium	3	565(71)	149(8)	May 16.	May 25
<i>velutinum</i> Lec.				Aug 27	Sep 13
Xylotrechus	0	0(1)	0		Jul 30
<i>undulatus</i> (Say)					
MELANDRYIDAE					
Scotochroa	0(1)	2	2(1)	Aug 18-	Jul 5
<i>basalis</i> Lec.				29	
Serropalpus	0	0(61)	0(2)		Jun 4-
<i>substriatus</i> Hald.					Aug 4
BUPRESTIDAE					
Melanophila	2	97(4)	0	May 24-	Jun 6-
<i>drummondi</i> (Kby.)				Aug 31	Jul 30
CURCULIONIDAE					
Pissodes	2	26	21	May 8-	
<i>schwarzi</i> Hopk.				Aug 21	
SCOLYTIDAE					
Dendroctonus pseu-	127	482	1	May 8-	
<i>dotsugae</i> Hopk.				Jul 20	
Dryocoetes septen-	2	0	0	Jun 13	
<i>trionis</i> (Mann.)					
Hylastes	1	1	1	May 24-	
<i>longicollis</i> Sw.				Jun 23	
Hylastes	3	0	0	Jun 4-	
<i>nigrinus</i> (Mann.)				10	
Hylastes	3	1	0	Jun 18-	
<i>ruber</i> Sw.				25	