the same. Head as before. Body tinged with pale yellow or olive, dorsal edged with black which is abruptly thickened on each segment, progressively more so towards A.9. Underside whitish thickly etched and flecked with black, tubercles white with black centres, bearing a single minute hair.

6th Instar. April 11. Length 20 to 25 mm. Head as before. Body, T.1. shining brown with three white bars, general colour olive, heavily dusted with darker olive, dorsal and subdorsals black-edged, the black edges of the dorsal coalescing at juncture of segments to form a black spot. April 14. Head pale brown, strongly reticulated with fuscous. Body olive, heavily flecked with fuscous, a thin pale dorsal with black blotches on A.1. to 8; spiracular broad, white, sprinkled with greenish fuscous, spiracles white, black-ringed, underside beige, densely flecked with fuscous. T.1. pale brown with two white bars. They were full fed by April 19. Length 40 mm. Dorsal line had vanished, the dark blotches alone remaining. The larvae were very geotropic, evidently seeking a place for transformation. Two of the seven reared to maturity burrowed into the soil for pupation. By May 1 all had spun stout earthen cocoons ready for pupation.

Pupa. Size 15 by 6 mm. Smooth, shiny, entirely without punctuation; cremaster, four straight spines arranged in a transverse row, with one or two smaller ones at the base, set on the smooth rounded tip of the last segment.

Imago. Four adults emerged about July 28, 1957, the remainder having died in the pupa. The early appearance was probably due to the artificial conditions under which they were reared. The normal period of flight is in August and September.

The 27 specimens in my collection (January, 1958) consist of two colour forms, olive and red, in the proportion, approximately of 16 per cent olive to 84 per cent red, the red predominating in the sexes at about 5 to 1 in the males and 9 to 1 in the females.

A LIST OF CONE AND SEED INSECTS OF INTERIOR BRITISH COLUMBIA[1]

D. A. ROSS[2]

The cone and seed insects listed by host in this article were reared from material collected in the interior of British Columbia during the period 1950 to 1955 inclusive. Most of the cone collections were taken by Forest Biology rangers, and the insects were reared by various members of the Forest Insect Survey at Vernon.

Only specimens identified at least to genus are listed here.

1. Contribution No. 471, Forest Biology Division, Science Service, Department of Agriculture, Ottawa, Canada.
2. Forest Biology Laboratory, Vernon, B.C.

Host	Insect	Locality
Western white pine, *Pinus monticola*	*Dioryctria abietella* D. & S. *Conophthorus monticolae* Hopk. *Eucosma bobana* Kft.	Trinity Valley, Kaslo, Slocan City, Salmo, Gray Creek, Creston, Balfour.

Host	Insect	Locality
Ponderosa pine, *Pinus ponderosa*	**Dioryctria auranticella* (Grote)	Southern Interior.
	D. sp. nr. *auranticella*	Southern Interior, less common than *D. auranticella.*
	D. abietella D. & S.	Southern Interior.
	D. cambiicola (Dyar)	This twig feeder may occur occasionally in cones in the Okanagan Valley.
	**Laspeyresia miscitata* Hein.	Southern Interior.
	L. piperana (Kearf.)	Grand Forks.
	Corticaria sp.	Yellow Lake, Grand Forks, Creston.
Lodgepole pine, *Pinus contorta*	*Dioryctria abietella* D. & S.	Tagish, Y.T.; Bennett.
	Eucosma sp. prob. *bobana* Kft.	Fort Fraser.
Western larch, *Larix occidentalis*	*Polychrosis piceana* Free.	Syringa Creek.
	Henricus fuscodorsana Kft.	Sanca Creek.
	Cartodere filum Aubé	Anarchist Mountain.
Black spruce, *Picea mariana*	*Tortrix alberta* McD.	Central Interior, B.C.
	Ernobius nigrans Fall.	Germansen Landing, Valemount.
	Cartodere filum Aubé	Vanderhoof.
Engelmann and White spruce, *Picea engelmanni* and *P. glauca*	**Laspeyresia youngana* Kft.	Kluane Lake and Whitehorse, Y.T.; Interior B.C.
	**Dioryctria abietella* D. & S.	Interior B.C.
	Eupithecia albicapitata Pack.	Aleza Lake; McNaughton Lake; Woodpecker, Whitehorse, Y.T.
	Polychrosis piceana Free.	Jaffray.
	Earomyia sp.	Aleza Lake.
	Cartodere filum Aubé	Champagne, Y.T.; Fort Nelson.
Western hemlock, *Tsuga heterophylla*	*Earomyia* sp.	Aaron Hill.
Douglas fir, *Pseudotsuga menziesii*	**Dioryctria abietella* D. & S.	Southern Interior.
	D. reniculella Grt. (complex)	This foliage feeder may occur in cones occasionally in any part of the Interior.
	**Barbara colfaxiana* Kft.	Southern Interior.
	Polychrosis piceana Free.	Yellow Lake.
	Holcocera immaculella McD.	Yellow Lake, Pavilion.
	Henricus fuscodorsana Kft.	Creston.
	Corticaria sp.	Yellow Lake, Grand Forks.
	Megastigmus spermotrophus Wachtl	Salmon Valley, Lillooet, Westside.
	Earomyia sp.	Inonoaklin.
	Sciara pauciseta Felt (probably secondary)	Hedley.
Alpine fir, *Abies lasiocarpa*	*Dioryctria abietella* D. & S.	Hixon, Francois Lake.
	Laspeyresia sp.	Shelley.
	Megastigmus lasiocarpae Cros.	Natal, Hixon, Vanderhoof.
	Earomyia sp.	Prince George.

* These species are considered to be of considerable economic importance in the interior of British Columbia.